

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

**ALABAMA POWER COMPANY
PLANT BARRY
GYPSUM STORAGE POND**

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Prepared for

Alabama Power Company
Birmingham, Alabama

By

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ABBREVIATIONS

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

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015), this 2017 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2017 groundwater monitoring activities at the Plant Barry Gypsum Pond and satisfies the requirements of §257.90(e). Semi-annual monitoring and reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements §257.90 through §257.94.

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.

The two major aquifers in northern Mobile County are the Miocene-Pliocene Aquifer and the Watercourse Aquifer.

The thickness of the Miocene-Pliocene Aquifer, which consists of the Miocene Series undifferentiated and the Pliocene-age Citronelle Formation, is about 3,400 feet in coastal areas to the south, but it is

thinner in northern Mobile County. This aquifer consists of beds of sand, gravel and clay, where groundwater flows through sand and gravel beds that are irregular in thickness and of limited lateral extent. Clay intervals between the sand units are not laterally extensive enough to prevent downward movement of ground water, but they do provide semi-confinement in some areas. Correlation of one sand unit to another is difficult, due to the discontinuous nature of these deposits. In Northern Mobile County, the principal water-bearing sands in the aquifer are at the base of the Miocene- Pliocene sequence (Gillett et al., 2000).

The Watercourse Aquifer is comprised of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. Buried sand and gravel channels, which yield large amounts of water, are surrounded by silty and clayey sediments that do not yield significant amounts of water but allow infiltration of water to recharge the sand and gravel beds (Gillett et al., 2000).

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. The Gypsum Pond is located above the 100 year storm stage. 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.

3.4 Flow Interpretation

Site groundwater has a flow pattern that is a subdued replica of the natural topography and has gravity as the dominant force driving its flow. Groundwater flows from higher topographic elevations south of the Gypsum Pond to lower topographic elevations to the north. East of the Gypsum Pond, groundwater flow bends towards the northeast. Groundwater flow is through porous sands of the Watercourse Aquifer

(rates can be estimated using Darcy's flow-equations). A potentiometric surface map for the site is presented in a later section.

4.0 GROUNDWATER MONITORING SYSTEM

Pursuant to §257.91, Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The PE-certified groundwater monitoring system for the Gypsum Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation measurements. Monitoring wells are screened in sands of the Watercourse Aquifer. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers”, ASTM Subcommittee D18.21, as a guide.

4.1 Monitoring Wells

The groundwater monitoring network is comprised of 10 monitoring wells and 2 piezometers. The piezometers are utilized to provide data to enhance groundwater potentiometric surface interpretations and constrain flow direction. As required by §257.90(e)(1), monitoring well locations referenced to the Ash Pond are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Gypsum Pond.

4.1.1 Upgradient Wells

Monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 serve as upgradient locations for 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.

4.1.2 Downgradient Wells

Monitoring well locations MW-5 through MW-10 are utilized as downgradient locations for the Gypsum Pond. Downgradient locations are located lateral to 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	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Purpose
BY-GSA-MW-1	10/7/2015	362040.419	1808280.793	17.49	20.66	-16.741	-26.74	Upgradient
BY-GSA-MW-2	10/7/2015	361970.572	1807662.482	17.00	19.95	-20.58	-30.58	Upgradient
BY-GSA-MW-3	10/7/2015	361628.894	1807368.366	20.15	23.24	-18.375	-28.38	Upgradient
BY-GSA-MW-4	10/13/2015	361930.406	1806925.713	26.16	29.12	-27.898	-37.90	Upgradient
BY-GSA-MW-5	10/8/2015	362556.147	1807430.006	31.21	34.31	-27.913	-37.91	Downgradient
BY-GSA-MW-6	10/8/2015	363069.127	1807359.035	18.60	21.68	-9.277	-19.28	Downgradient
BY-GSA-MW-7	10/8/2015	363103.505	1807778.082	17.46	20.59	-18.071	-28.07	Downgradient
BY-GSA-MW-8	10/8/2015	362919.54	1808314.524	31.51	34.36	-27.326	-37.33	Downgradient
BY-GSA-MW-9	10/8/2015	362798.723	1808598.555	10.44	13.32	-25.697	-35.70	Downgradient
BY-GSA-MW-10	10/8/2015	362443.556	1808600.09	14.65	17.61	-20.04	-30.04	Downgradient
BY-GSA-PZ-11	10/8/2015	363464.097	1807619.818	23.56	25.92	-24.357	-34.36	Piezometer
BY-GSA-PZ-12	10/8/2015	363285.151	1808280.669	14.14	17.43	-19.338	-29.34	Piezometer

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).

5.0 GROUNDWATER MONITORING HISTORY

As required by §257.90(e), the following describes monitoring-related activities performed during the preceding year. Since this is the first Annual Groundwater Monitoring and Corrective Action Report, it also describes related activities performed prior to 2017.

5.1 Available Monitoring Data

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

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

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

5.2 Historical Groundwater Flow

Historical potentiometric data from the site show that groundwater flow generally is a subdued representation of topography. Groundwater flows from south to north across the site. East of the Gypsum Pond, groundwater flow bends towards the northeast and the Plant Barry barge canal.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 3 to 4 feet are typical at the site. These fluctuations are consistent in monitoring wells across the site indicating a uniform response to rainfall events. Groundwater elevation data indicates that water levels tend to be higher in the early spring and lower during the fall and winter seasons. **Table 3, Historical Groundwater**

Elevations Summary below provides a summary of the ranges of water level data observed at the site.

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

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

Table 3. Historical Groundwater Elevations Summary				
Well ID	Average GW Elevation (ft MSL)	Highest GW Elevation (ft MSL)	Lowest GW Elevation (ft MSL)	GW Elevation Variation (ft)
BY-GSA-MW-1	6.18	7.92	4.59	3.33
BY-GSA-MW-2	6.03	7.77	4.50	3.27
BY-GSA-MW-3	6.76	8.45	5.19	3.26
BY-GSA-MW-4	6.44	8.13	4.93	3.20
BY-GSA-MW-5	5.60	7.41	4.09	3.32
BY-GSA-MW-6	5.04	6.96	3.47	3.49
BY-GSA-MW-7	5.05	6.98	3.48	3.50
BY-GSA-MW-8	5.35	7.21	3.79	3.42
BY-GSA-MW-9	5.19	7.02	3.65	3.37
BY-GSA-MW-10	5.59	7.40	4.05	3.35
BY-GSA-PZ-11	4.71	6.71	3.00	3.71
BY-GSA-PZ-12	5.14	7.09	3.52	3.57

*Groundwater elevations are referenced to NAVD88

6.0 GROUNDWATER SAMPLING AND ANALYSIS

6.1 Sampling Event Summary

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

6.2 Groundwater Sample Collection

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

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

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

6.3 Sample Preservation and Handling

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

6.4 Chain of Custody

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

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

6.5 Laboratory Analysis

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

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

6.6 Quality Assurance/Quality Control

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

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

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

7.0 GROUNDWATER DATA EVALUATION

7.1 Groundwater Elevation Data Evaluation

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

During the initial detection monitoring event, static groundwater elevations obtained prior to purging and sampling ranged from 6.16 to 3.81 feet MSL. Groundwater levels for the most recent sampling event are included in **Table 4, Water Level Summary (September 2017)**.

The most recent potentiometric surface map presented in **Figure 4, Potentiometric Surface Map (September 2017)**, shows that groundwater flows from south to north across the site. East of the Gypsum Pond, groundwater flow bends towards the northeast.

Well ID	TOC Elev (ft MSL)	Depth to GW (ft TOC)	GW Elevation
BY-GSA-MW-1	20.66	15.21	5.45
BY-GSA-MW-2	19.95	14.65	5.30
BY-GSA-MW-3	23.24	17.08	6.16
BY-GSA-MW-4	29.12	23.38	5.74
BY-GSA-MW-5	34.31	25.72	8.59
BY-GSA-MW-6	21.68	17.81	3.87
BY-GSA-MW-7	20.60	16.79	3.81
BY-GSA-MW-8	34.36	30.14	4.22
BY-GSA-MW-9	13.32	9.15	4.17
BY-GSA-MW-10	17.61	12.92	4.69
BY-GSA-PZ-11	25.92	--	--
BY-GSA-PZ-12	17.44	13.61	3.83

*Reading was not acquired at PZ-11 during the most recent sampling event

8.0 BACKGROUND GROUNDWATER QUALITY DATA

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

8.1 Statistical Methodology and Tests

Statistical tests used to evaluate the groundwater monitoring data consist of interwell and intrawell prediction limit methods, combined with resampling strategies for each method. Intrawell prediction limits, combined with the 1-of-2 verification resample plan, were used for chloride and sulfate to determine whether there has been a statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with the 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 initial 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 initial SSIs.

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

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

No true seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data might be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

The results of the trend analyses show a few statistically significant increasing and decreasing trends. All trends noted were relatively low in magnitude compared to average concentrations, with the exception of the decreasing trend noted for boron in downgradient well BY-GSA-MW-6. No adjustments were required for this data set due to the earlier discussion of concentrations reported at this well. Additionally, no data in any other wells required adjustments.

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

- Annual false positive rate of 10%
- 1-of-2 verification resample plan option – Intrawell Prediction Limits
- 1-of-2 verification resample plan option – Interwell Prediction Limits
- Semi-annual sampling
- Constituents = 7 (Appendix III)
- Downgradient wells = 6

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

normality and performing any adjustments as discussed below (USEPA, 2009), data were analyzed using either parametric or non-parametric prediction limits.

The following adjustments were made:

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

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

8.2 Statistical Exceedances

Analytical data from the initial detection monitoring event in September 2017 at the Ash Pond was statistically analyzed in accordance with the PE-certified statistical methods described above. The statistical analysis and comparison to prediction limits are included as Appendix B.

Based on the statistical analysis included in Appendix B, SSIs of the prediction limit were identified. Summary tables identifying the SSIs are included in Appendix B.

8.3 Verification Sampling

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

8.4 Appendix IV Background Data

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

9.0 MONITORING PROGRAM STATUS

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

10.0 CONCLUSIONS AND FUTURE ACTIONS

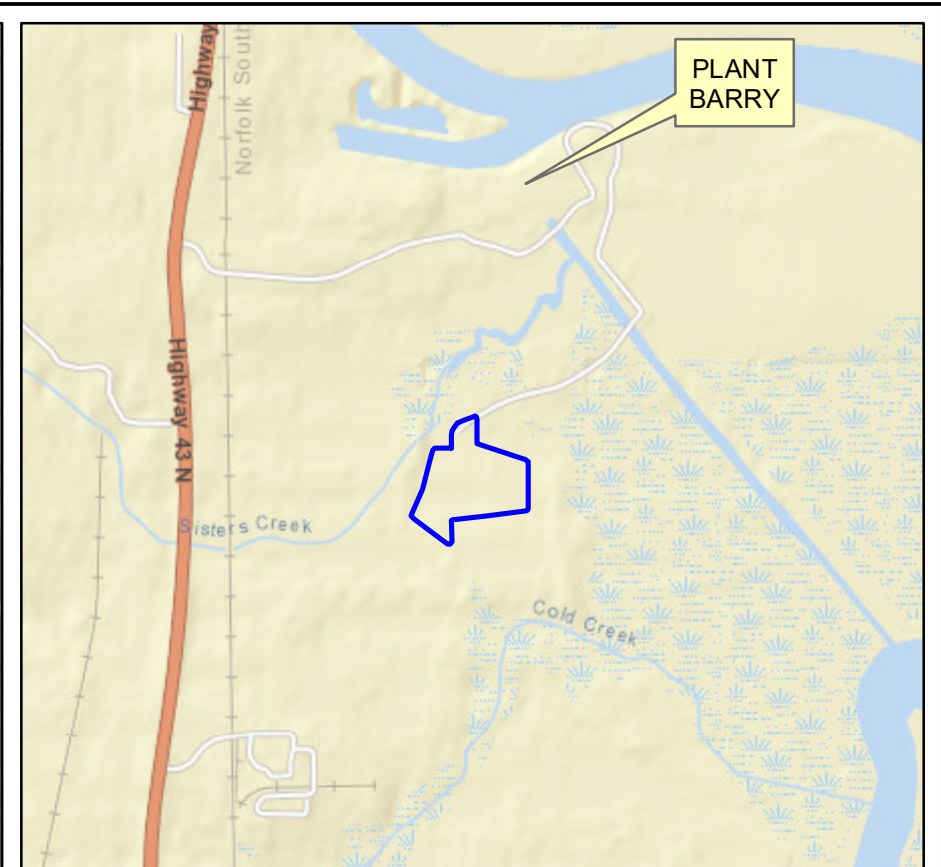
In accordance with §257.94(b), eight (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendices III and IV. Background sampling was performed over the period of February 2016 to June 2017. Groundwater sampling for the first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

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


11.0 REFERENCES

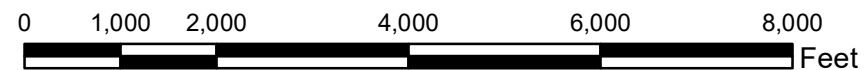
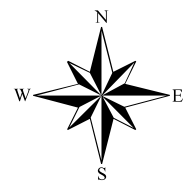
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- United States Geological Survey (USGS), 1982a (Photorevised 1985), Creola Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1982b, Mount Vernon Alabama Quadrangle, 7.5 Minute Series Topographic Map
- United States Geological Survey (USGS), 1983, Stiggins Lake Alabama Quadrangle, 7.5 Minute Series Topographic Map

Figures



Legend

 Gypsum Storage Area Boundary



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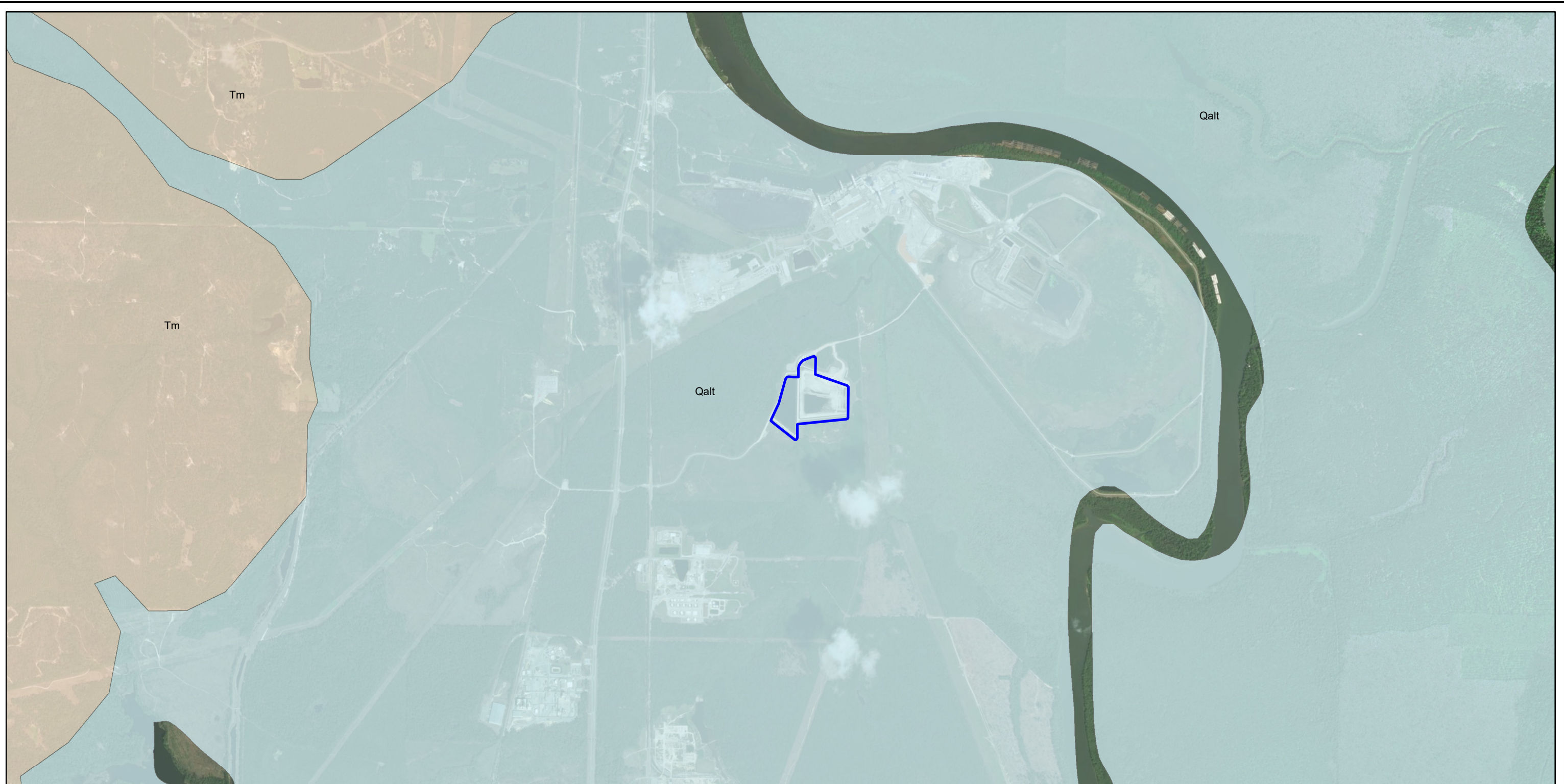
**Southern Company Generation
Earth Science and Environmental Engineering**

FOR


**PLANT BARRY
GYPSUM STORAGE AREA
FIGURE 1
SITE LOCATION MAP**

Alabama Power Company


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1:24k		ES4052-S1	1		




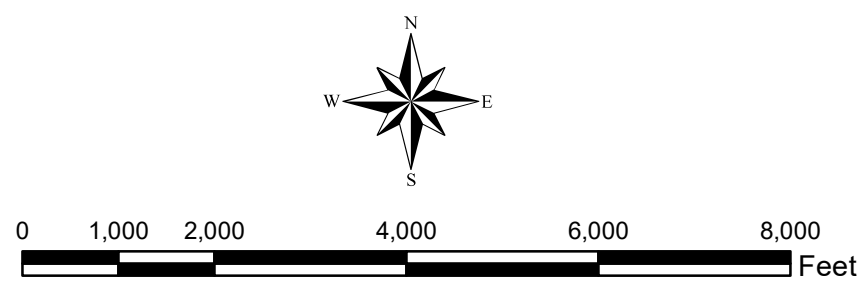
Legend

 Gypsum Storage Area Boundary

Geologic Units

 Alluvial, coastal, and low terrace deposits

 Miocene Series undifferentiated



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**PLANT BARRY
GYPSUM STORAGE AREA
FIGURE 2
SITE GEOLOGIC MAP**



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

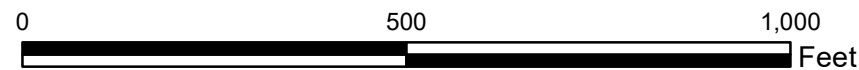
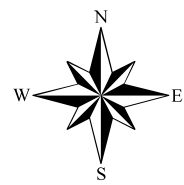
FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		ES4052-S2	1		



Legend

-  Monitoring Well
-  Gypsum Storage Area Boundary



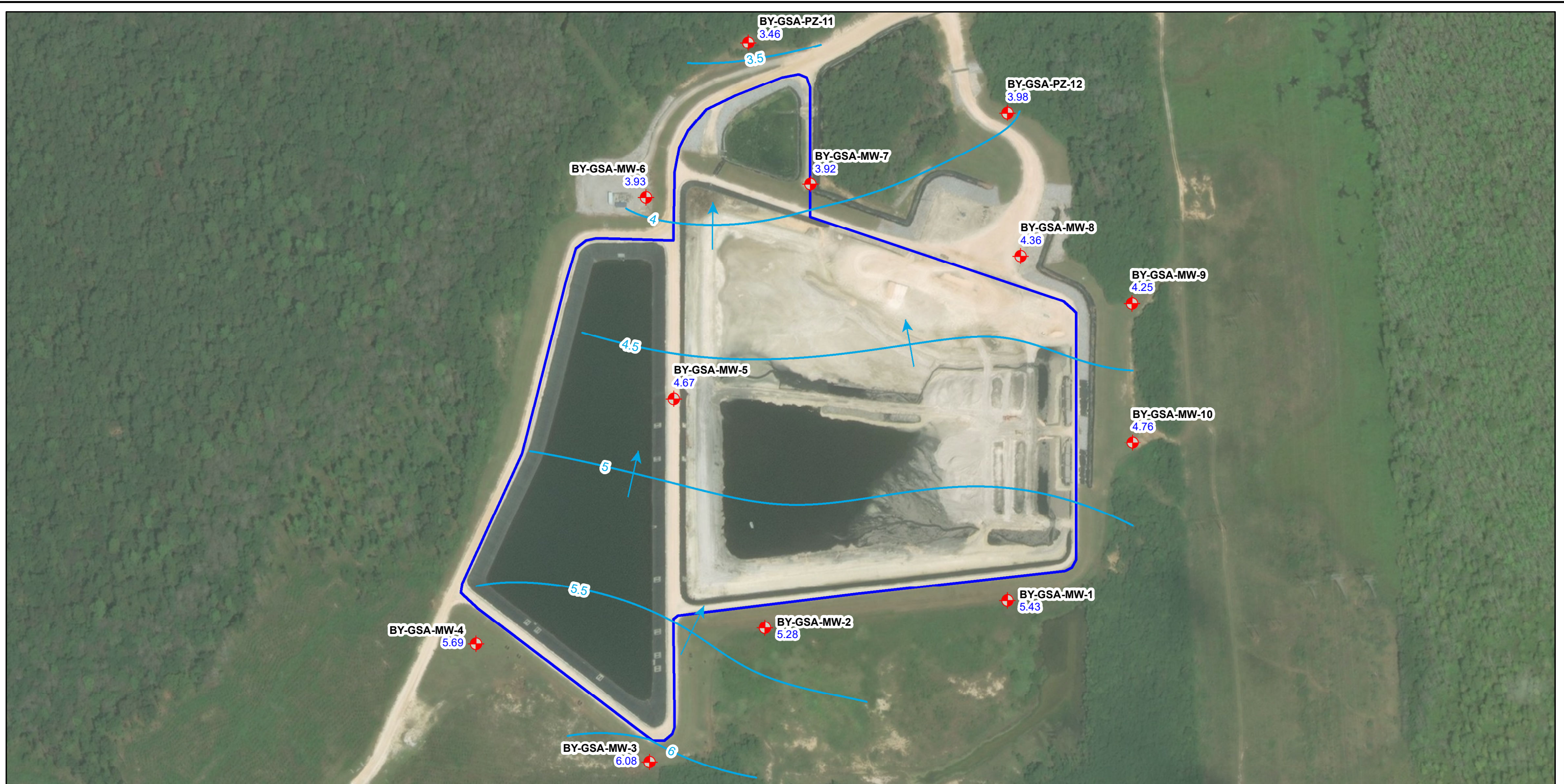
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**PLANT BARRY
GYPSUM STORAGE AREA
FIGURE 3
MONITORING WELL LOCATION MAP**





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

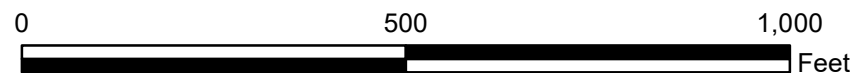
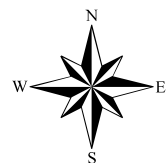
FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		ES4052-S3	1		



Legend

-  Monitoring Well
 -  Potentiometric Surface Contour (ft NAVD88)
 -  Approximate Groundwater Flow Direction
 -  Gypsum Storage Area Boundary
- | | |
|--------------------|-----------------------|
| BY-GSA-MW-1 | Well ID |
| 5.43 | Groundwater Elevation |



NOTE: NAVD88 indicates North American Vertical Datum of 1988.

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

FOR

Alabama Power Company

**PLANT BARRY
GYPSUM STORAGE AREA
FIGURE 4
POTENTIOMETRIC SURFACE MAP
NOVEMBER 15, 2017**

SCALE	PROJ. I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:3k		ES4052-S4	1		

Appendix A

Groundwater Analytical Data

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_15

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:

Supervision:



Anions

Barry Gypsum

WMWBARG_15

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

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW04631	564674	564677	564680	WMWBARG_15
AW04632	564674	564677	564680	WMWBARG_15
AW04633	564674	564677	564680	WMWBARG_15
AW04634	564674	564677	564680	WMWBARG_15
AW04635	564674	564677	564680	WMWBARG_15
AW04636	564674	564677	564680	WMWBARG_15
AW04637	564674	564677	564680	WMWBARG_15
AW04638	564674	564677	564680	WMWBARG_15
AW04639	564674	564677	564680	WMWBARG_15
AW04640	564671	564672	564673	WMWBARG_15
AW04641	564671	564672	564673	WMWBARG_15
AW04642	564671	564672	564673	WMWBARG_15
AW04644	564671	564672	564673	WMWBARG_15

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.



Matrix Specific Quality Control Procedures:

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

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Barry Gypsum

WMWBARG_15

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>
AW04631	20160308/20160310B2	WMWBARG_15
AW04632	20160308/20160310B2	WMWBARG_15
AW04633	20160308/20160310B2	WMWBARG_15
AW04634	20160308/20160310B2	WMWBARG_15
AW04635	20160308/20160310B2	WMWBARG_15
AW04636	20160308/20160310B2	WMWBARG_15
AW04637	20160308/20160310B2	WMWBARG_15
AW04638	20160308/20160310B2	WMWBARG_15
AW04639	20160308/20160310B2	WMWBARG_15
AW04640	20160308A/20160315	WMWBARG_15
AW04641	20160308A/20160315	WMWBARG_15
AW04642	20160308A/20160315	WMWBARG_15
AW04644	20160308A/20160315	WMWBARG_15

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 half the limit of quantitation for all requested analytes except for the following: The sample batches 20160308 and 20160308A were reanalyzed for Boron due to ICB for Boron was greater than half the limit of quantitation. The reanalysis in batches 20160310B2 and 20160315 had passing ICB limits of less than half the limits of quantitation. Boron was reported from these batches.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analytes except for the following: The sample batches 20160308 and 20160308A were reanalyzed for Boron due to CCB for Boron was greater than half the limit of quantitation. The reanalysis in batches 20160310B2 and 20160315 had passing CCB limits of less than half the limits of quantitation. Boron was reported from these batches.



- 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 without dilution.
 8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_15

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>
AW04631	559010	WMWBARG_15
AW04632	559010	WMWBARG_15
AW04633	559010	WMWBARG_15
AW04634	559010	WMWBARG_15
AW04635	559010	WMWBARG_15
AW04636	559010	WMWBARG_15
AW04637	559010	WMWBARG_15
AW04638	559010	WMWBARG_15
AW04639	559010	WMWBARG_15
AW04640	559010	WMWBARG_15
AW04641	559011	WMWBARG_15
AW04642	559011	WMWBARG_15
AW04644	559011	WMWBARG_15

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.
7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes. The highest point of the calibration curve (1.25ppm) was removed for Be to improve linearity.
- 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.
8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 9. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_15

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>
AW04631	559334	WMWBARG_15
AW04632	559334	WMWBARG_15
AW04633	559334	WMWBARG_15
AW04634	559334	WMWBARG_15
AW04635	559334	WMWBARG_15
AW04636	559334	WMWBARG_15
AW04637	559334	WMWBARG_15
AW04638	559334	WMWBARG_15
AW04639	559334	WMWBARG_15
AW04640	559334	WMWBARG_15
AW04641	559335	WMWBARG_15
AW04642	559335	WMWBARG_15
AW04644	559335	WMWBARG_15

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_15

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>
AW04631	559195	WMWBARG_15
AW04632	559195	WMWBARG_15
AW04633	559195	WMWBARG_15
AW04634	559195	WMWBARG_15
AW04635	559195	WMWBARG_15
AW04636	559195	WMWBARG_15
AW04637	559195	WMWBARG_15
AW04638	559195	WMWBARG_15
AW04639	559195	WMWBARG_15
AW04640	559195	WMWBARG_15
AW04641	559195	WMWBARG_15
AW04642	559195	WMWBARG_15
AW04644	559195	WMWBARG_15

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly reported as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW04631 and AW04640 are now reported as Not Detected.

General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%. Only one duplicate was analyzed at the end of the 14 samples.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW04632 and AW4635 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW04631

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiochemical									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000606	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0973	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	J 0.0257	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.42	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	3.50	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	7.04	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW04631

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW04631

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60				0.00 5

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 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	J 0.21	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.01	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	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

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGEGB
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW04632

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW04633

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.117	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	J 0.0212	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.28	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	J 0.00350	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	26.7	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	3.59	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.03	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	8.59	mg/L

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



Corrected Copy

To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW04633

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW04633

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW04634

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.121	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	J 0.0297	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.15	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	25.3	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	4.10	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.05	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	7.71	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW04634

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW04634

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW04635

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60				0.00 5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW04636

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.109	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	0.163	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	2.42	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	J 0.00572	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	38.0	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	3.86	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	12.5	mg/L

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW04636

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW04636

Sample	Analysis	Units	MB	Sample			LFB		Rec			Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit		Prec
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW04637

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0862	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.77	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	40.0	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	3.68	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	7.44	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW04637

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW04637

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0864	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.77	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	33.3	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	3.69	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	7.44	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-3 DUP

Laboratory ID Number: AW04638

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0		0.00	9.67	9 to 11	100	80 to 120	0	20
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04		0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25				30.0	50.0	40 to 60			0.00	5
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3		0.00	18.5	18 to 22	96.5	80 to 120	0	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW04639

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.237	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/10/2016	EPA 200.7		1.015	0.02	0.1	0.638	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	18.3	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	J 0.00209	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0266	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	128	mg/L
* Chloride, Total	SES	2/24/2016	EPA 300.0		1	0.04	0.25	6.06	mg/L
* Fluoride, Total	SES	2/24/2016	EPA 300.0		1	0.01	0.3	J 0.06	mg/L
* Sulfate, Total	SES	2/24/2016	EPA 300.0		1	0.3	1	36.5	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW04639

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04639 Calcium, Total	mg/L	0.000562	0.22	5.000	23.3	22.7	5.02	4.25 to 5.75	100	70 to 130	2.61	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04639 Lithium, Total	mg/L	-0.0000371	0.022	0.200	0.224	0.226	0.206	0.17 to 0.23	112	70 to 130	0.889	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04639 Boron, Total	mg/L	-0.0000939	0.044	1.000	1.69	1.72	1.02	0.85 to 1.15	105	70 to 130	5.44	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW04639

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04635	Fluoride, Total	mg/L	0.00	0.3	2.0	2.04	0.00	2.02	1.8 to 2.2	102	80 to 120	0	20
AW04635	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	18.5	18 to 22	96.5	80 to 120	0	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5
AW04635	Chloride, Total	mg/L	0.00	0.25	10.0	10.0	0.00	9.67	9 to 11	100	80 to 120	0	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW04640

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiochemical									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0546	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/15/2016	EPA 200.7		1.015	0.02	0.1	J 0.0314	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.40	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	2/26/2016	EPA 300.0		1	0.04	0.25	4.08	mg/L
* Fluoride, Total	SES	2/26/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/26/2016	EPA 300.0		1	0.3	1	3.82	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW04640

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04640 Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00399	0.00393	0.00399	0.0034 to 0.0046	99.8	70 to 130	1.52	20	
AW04640 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0953	0.0967	0.0933	0.085 to 0.115	95.3	70 to 130	1.46	20	
AW04640 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0944	0.0969	0.0957	0.085 to 0.115	94.4	70 to 130	2.69	20	
AW04640 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.163	0.165	0.101	0.085 to 0.115	108	70 to 130	1.26	20	
AW04640 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0966	0.0980	0.0933	0.085 to 0.115	96.6	70 to 130	1.34	20	
AW04640 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.55	20	
AW04644 Boron, Total	mg/L	0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100	70 to 130	5.77	20	
AW04640 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.108	0.110	0.101	0.085 to 0.115	108	70 to 130	2.02	20	
AW04640 Cadmium, Total	mg/L	0.00000404	0.00044	0.10	0.0926	0.0962	0.0921	0.085 to 0.115	92.6	70 to 130	3.83	20	
AW04640 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0967	0.100	0.0949	0.085 to 0.115	96.7	70 to 130	3.81	20	
AW04644 Calcium, Total	mg/L	0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102	70 to 130	14.7	20	
AW04644 Lithium, Total	mg/L	0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104	70 to 130	3.41	20	
AW04640 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0984	0.1000	0.0965	0.085 to 0.115	98.4	70 to 130	1.58	20	
AW04640 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.106	0.109	0.104	0.085 to 0.115	106	70 to 130	2.63	20	
AW04640 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0963	0.0991	0.0961	0.085 to 0.115	96.3	70 to 130	2.96	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW04640

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04640	Chloride, Total	mg/L	0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2	80 to 120	0.245	20
AW04640	Sulfate, Total	mg/L	0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4	80 to 120	0.00	20
AW04640	Fluoride, Total	mg/L	0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102	80 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5

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Expiration: June 30, 2018

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 The result for TDS is now Not Detected. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW04641

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.111	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/15/2016	EPA 200.7		1.015	0.02	0.1	J 0.0252	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	1.11	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	30.7	mg/L
* Chloride, Total	SES	2/26/2016	EPA 300.0		1	0.04	0.25	3.99	mg/L
* Fluoride, Total	SES	2/26/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/26/2016	EPA 300.0		1	0.3	1	7.20	mg/L

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW04641

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04644 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108	70 to 130	4.90	20	
AW04644 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7	70 to 130	3.62	20	
AW04644 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103	70 to 130	3.05	20	
AW04644 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2	70 to 130	4.01	20	
AW04644 Calcium, Total	mg/L	0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102	70 to 130	14.7	20	
AW04644 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5	70 to 130	3.07	20	
AW04644 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7	70 to 130	3.14	20	
AW04644 Lithium, Total	mg/L	0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104	70 to 130	3.41	20	
AW04644 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	1.10	20	
AW04644 Boron, Total	mg/L	0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100	70 to 130	5.77	20	
AW04644 Mercury, Total by CVAA	mg/L	0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103	70 to 130	3.96	20	
AW04644 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9	70 to 130	2.87	20	
AW04644 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0	70 to 130	2.87	20	
AW04644 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107	70 to 130	3.07	20	
AW04644 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4	70 to 130	2.65	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW04641

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04640	Sulfate, Total	mg/L	0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4	80 to 120	0.00	20
AW04640	Chloride, Total	mg/L	0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2	80 to 120	0.245	20
AW04640	Fluoride, Total	mg/L	0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102	80 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	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, 2018

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW04642

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.134	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/15/2016	EPA 200.7		1.015	0.02	0.1	J 0.0294	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	0.795	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	J 0.00247	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	37.3	mg/L
* Chloride, Total	SES	2/26/2016	EPA 300.0		1	0.04	0.25	3.57	mg/L
* Fluoride, Total	SES	2/26/2016	EPA 300.0		1	0.01	0.3	J 0.05	mg/L
* Sulfate, Total	SES	2/26/2016	EPA 300.0		1	0.3	1	9.29	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L.
 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW04642

Sample Analysis	Units	MB	MB				LFB		Rec			Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW04644 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108	70 to 130	4.90	20
AW04644 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103	70 to 130	3.05	20
AW04644 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2	70 to 130	4.01	20
AW04644 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7	70 to 130	3.62	20
AW04644 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107	70 to 130	3.07	20
AW04644 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4	70 to 130	2.65	20
AW04644 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	1.10	20
AW04644 Boron, Total	mg/L	0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100	70 to 130	5.77	20
AW04644 Mercury, Total by CVAA	mg/L	0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103	70 to 130	3.96	20
AW04644 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9	70 to 130	2.87	20
AW04644 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0	70 to 130	2.87	20
AW04644 Calcium, Total	mg/L	0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102	70 to 130	14.7	20
AW04644 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5	70 to 130	3.07	20
AW04644 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7	70 to 130	3.14	20
AW04644 Lithium, Total	mg/L	0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104	70 to 130	3.41	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW04642

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04640	Chloride, Total	mg/L	0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2	80 to 120	0.245	20
AW04640	Sulfate, Total	mg/L	0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4	80 to 120	0.00	20
AW04640	Fluoride, Total	mg/L	0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102	80 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW04644

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	9/23/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	0.0352	mg/L
* Beryllium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/15/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.1	0.5	0.618	mg/L
* Cadmium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/2/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	2/29/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	2/29/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/1/2016	SM 2540C		1		25	30.0	mg/L
* Chloride, Total	SES	2/26/2016	EPA 300.0		1	0.04	0.25	4.47	mg/L
* Fluoride, Total	SES	2/26/2016	EPA 300.0		1	0.01	0.3	J 0.02	mg/L
* Sulfate, Total	SES	2/26/2016	EPA 300.0		1	0.3	1	3.33	mg/L

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 The RL has now been corrected to 25 mg/L. SGC 1/19/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW04644

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW04644 Barium, Total	mg/L	0.00000390	0.0044	0.10	0.143	0.151	0.101	0.085 to 0.115	108	70 to 130	4.90	20	
AW04644 Selenium, Total	mg/L	0.0000321	0.0044	0.10	0.103	0.106	0.103	0.085 to 0.115	103	70 to 130	3.05	20	
AW04644 Arsenic, Total	mg/L	0.00000588	0.0022	0.10	0.0972	0.101	0.0965	0.085 to 0.115	97.2	70 to 130	4.01	20	
AW04644 Chromium, Total	mg/L	0.00000987	0.0044	0.10	0.0947	0.0982	0.0933	0.085 to 0.115	94.7	70 to 130	3.62	20	
AW04644 Calcium, Total	mg/L	0.000477	0.22	5.000	5.70	4.92	5.00	4.25 to 5.75	102	70 to 130	14.7	20	
AW04644 Cobalt, Total	mg/L	0.00000121	0.0044	0.10	0.0935	0.0965	0.0957	0.085 to 0.115	93.5	70 to 130	3.07	20	
AW04644 Lead, Total	mg/L	0.00000490	0.0022	0.10	0.0967	0.0998	0.0961	0.085 to 0.115	96.7	70 to 130	3.14	20	
AW04644 Lithium, Total	mg/L	0.0000825	0.022	0.200	0.209	0.202	0.205	0.17 to 0.23	104	70 to 130	3.41	20	
AW04644 Beryllium, Total	mg/L	0.00000727	0.00132	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	1.10	20	
AW04644 Boron, Total	mg/L	0.0143	0.044	1.000	1.00	1.05	0.983	0.85 to 1.15	100	70 to 130	5.77	20	
AW04644 Mercury, Total by CVAA	mg/L	0.00005	0.0005	0.004	0.00412	0.00396	0.0039	0.0034 to 0.0046	103	70 to 130	3.96	20	
AW04644 Molybdenum, Total	mg/L	0.00000556	0.0044	0.10	0.0969	0.0997	0.0933	0.085 to 0.115	96.9	70 to 130	2.87	20	
AW04644 Thallium, Total	mg/L	0.00000447	0.00044	0.10	0.0980	0.101	0.0949	0.085 to 0.115	98.0	70 to 130	2.87	20	
AW04644 Antimony, Total	mg/L	0.000120	0.00132	0.10	0.107	0.111	0.101	0.085 to 0.115	107	70 to 130	3.07	20	
AW04644 Cadmium, Total	mg/L	0.000000404	0.00044	0.10	0.0934	0.0959	0.0921	0.085 to 0.115	93.4	70 to 130	2.65	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 23-Feb-16
 Customer ID:
 Delivery Date: 24-Feb-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW04644

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW04640	Chloride, Total	mg/L	0.00	0.25	10.0	14.0	4.09	10.0	9 to 11	99.2	80 to 120	0.245	20
AW04640	Sulfate, Total	mg/L	0.00	1.0	20.0	23.3	3.82	19.4	18 to 22	97.4	80 to 120	0.00	20
AW04640	Fluoride, Total	mg/L	0.00	0.3	2.0	2.07	0.018	2.12	1.8 to 2.2	102	80 to 120	10.5	20
AW04644	Solids, Dissolved	mg/L	-1	25			30.0	50.0	40 to 60			0.00	5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/26/2017
 Version: 2.0

Definitions



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

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



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 02/24/2016 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Bo Cotton	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Barry Gypsum
Analysis Requested	Metals, Anions, TDS (2) 500mL Bottles; Radiological (2) 2L Bottles		
Comments	Metals and Radiologicals were pre-preserved		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler	Lab Preserve	Lab Id
MW-4	02/23/2016	08:45	4	Groundwater		4950-25061-10-1		AW04631
EB-1	02/23/2016	09:05	4	Equipment Blank		4950-25061-10-1		AW04632
MW-1	02/23/2016	10:05	4	Groundwater		4950-25061-10-1		AW04633
MW-9	02/23/2016	11:10	4	Groundwater		4950-25061-10-1		AW04634
FB-1	02/23/2016	12:05	4	Field Blank		4950-25062-10-2		AW04635
MW-5	02/23/2016	12:17	4	Groundwater		4950-25062-10-2		AW04636

Relinquished By	Received By	Date/Time
		02/24/2016 12:20

SmarTroll ID	4696-23441-1-1	Cooler Temp	1.3 / 0.9 degrees Celsius
Turbidity ID	4677-23343-4-2	Thermometer ID	1506-3968-4-4
		pH Strip ID	4437-22295-10-1



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 02/24/2016 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Jason Arledge	Requested By	Greg Dyer
Collector	Clarence Specht	Location	Barry Gypsum
Analysis Requested	Metals, Anions, TDS (2) 500mL Bottles; Radiological (2) 2L Bottles		
Comments	Metals and Radiological samples were pre-preserved; AW04643 deleted-Radiological QC only. SGC		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler	Lab Preserve	Lab Id
MW-2	02/23/2016	08:56	4	Groundwater		4950-25066-10-6		AW04641
MW-10	02/23/2016	10:50	4	Groundwater		4950-25066-10-6		AW04642
MW-8	02/23/2016	12:46	4	Groundwater		4950-25066-10-6		AW04644

Relinquished By	Received By	Date/Time
		02/24/2016 12:05

SmarTroll ID	4696-23443-3-2	Cooler Temp	0.2 degrees Celsius
Turbidity ID	3901-20009-2-1	Thermometer ID	1506-3968-4-4
		pH Strip ID	4437-22295-10-1



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 02/24/2016 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Bo Cotton	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Barry Gypsum

Analysis Requested	Metals, Anions, TDS (2) 500mL Bottles; Radiological (2) 2L Bottles
Comments	Metals and Radiological samples were pre-preserved

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler	Lab Preserve	Lab Id
MW-3	02/23/2016	08:53	4	Groundwater		4950-25063-10-3		AW04637
MW-3 Dup	02/23/2016	08:53	4	Sample Duplicate		4950-25063-10-3		AW04638
MW-6	02/23/2016	10:13	4	Groundwater		4950-25063-10-3		AW04639
MW-7	02/23/2016	11:11	4	Groundwater		4950-25063-10-3		AW04640

Relinquished By	Received By	Date/Time
		02/24/2016 12:05

SmarTroll ID	4696-23444-3-3	Cooler Temp	1.0 degrees Celsius
Turbidity ID	4677-23342-4-1	Thermometer ID	1506-3968-4-4
		pH Strip ID	4437-22295-10-1

Report To Sarah Copeland
 APC GSC Building 8

Sample #	Location	Sample Description	Customer Sample ID	Date Collected	Test Method
102221001	APC Lab	MW-4 Groundwater	AW04631, Water	2/23/2016 8:45:00 AM	Ga Tech
102221002	APC Lab	EB-1 Equipment	AW04632, Water	2/23/2016 9:05:00 AM	Ga Tech
102221003	APC Lab	MW-1 Groundwater	AW04633, Water	2/23/2016 10:05:00 AM	Ga Tech
102221004	APC Lab	MW-9 Groundwater	AW04634, Water	2/23/2016 11:10:00 AM	Ga Tech
102221005	APC Lab	FB-1Field Blank	AW04635, Water	2/23/2016 12:05:00 PM	Ga Tech
102221006	APC Lab	MW-5 Groundwater	AW04636, Water	2/23/2016 12:17:00 PM	Ga Tech
102221007	APC Lab	MW-3 Groundwater	AW04637, Water	2/23/2016 8:53:00 AM	Ga Tech
102221008	APC Lab	MW-3 Dup	AW04638, Water	2/23/2016 8:53:00 AM	Ga Tech
102221009	APC Lab	MW-6 Groundwater	AW04639, Water	2/23/2016 10:13:00 AM	Ga Tech
102221010	APC Lab	MW-7 Groundwater	AW04640, Water	2/23/2016 11:11:00 AM	Ga Tech
102221011	APC Lab	MW-2 Groundwater	AW04641, Water	2/23/2016 8:56:00 AM	Ga Tech
102221012	APC Lab	MW-10 Groundwater	AW04642, Water	2/23/2016 10:50:00 AM	Ga Tech
102221014	APC Lab	MW-8 Groundwater	AW04644, Water	2/23/2016 12:46:00 PM	Ga Tech

Certification

Data approved by Gary Smith
 Georgia Power Company

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221001
 Collection Date 2/23/2016 8:45:00 AM
 Sampling Media Water
 Station AW04631
 Sample ID MW-4 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.54E-01
Ra-228	Ga Tech	pCi/L	2.11E+00	+/- 1.71E+00	
Total Isotopic Radium	Ga Tech	pCi/L	2.11E+00		

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221002
 Collection Date 2/23/2016 9:05:00 AM
 Sampling Media Water
 Station AW04632
 Sample ID EB-1 Equipment Blank APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			2.53E-01
Ra-228	Ga Tech	pCi/L			3.90E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221003
 Collection Date 2/23/2016 10:05:00 AM
 Sampling Media Water
 Station AW04633
 Sample ID MW-1 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.12E+00	+/- 6.62E-01	
Ra-228	Ga Tech	pCi/L	1.77E+00	+/- 1.61E+00	
Total Isotopic Radium	Ga Tech	pCi/L	2.90E+00		

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221004
 Collection Date 2/23/2016 11:10:00 AM
 Sampling Media Water
 Station AW04634
 Sample ID MW-9 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.38E-01
Ra-228	Ga Tech	pCi/L			7.31E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 102221005
Collection Date 2/23/2016 12:05:00 PM
Sampling Media Water
Station AW04635
Sample ID FB-1Field Blank APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.62E-01
Ra-228	Ga Tech	pCi/L			5.90E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221006
 Collection Date 2/23/2016 12:17:00 PM
 Sampling Media Water
 Station AW04636
 Sample ID MW-5 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.98E-01
Ra-228	Ga Tech	pCi/L			5.66E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221007
 Collection Date 2/23/2016 8:53:00 AM
 Sampling Media Water
 Station AW04637
 Sample ID MW-3 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.67E-01
Ra-228	Ga Tech	pCi/L			6.16E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221008
 Collection Date 2/23/2016 8:53:00 AM
 Sampling Media Water
 Station AW04638
 Sample ID MW-3 Dup Groundwater APC
 Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.51E-01
Ra-228	Ga Tech	pCi/L			6.57E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221009
 Collection Date 2/23/2016 10:13:00 AM
 Sampling Media Water
 Station AW04639
 Sample ID MW-6 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.23E+00	+/- 7.03E-01	
Ra-228	Ga Tech	pCi/L			8.24E-01
Total Isotopic Radium	Ga Tech	pCi/L	1.23E+00		

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221010
 Collection Date 2/23/2016 11:11:00 AM
 Sampling Media Water
 Station AW04640
 Sample ID MW-7 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.43E-01
Ra-228	Ga Tech	pCi/L			8.09E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221011
 Collection Date 2/23/2016 8:56:00 AM
 Sampling Media Water
 Station AW04641
 Sample ID MW-2 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.53E-01
Ra-228	Ga Tech	pCi/L			6.54E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221012
 Collection Date 2/23/2016 10:50:00 AM
 Sampling Media Water
 Station AW04642
 Sample ID MW-10 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.82E-01
Ra-228	Ga Tech	pCi/L			7.59E-01

Georgia Power Company
 2480 Maner Road
 Atlanta, Ga. 30339
 (404) 799-2100 fax (404) 799-2141

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102221014
 Collection Date 2/23/2016 12:46:00 PM
 Sampling Media Water
 Station AW04644
 Sample ID MW-8 Groundwater APC Lab

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.03E-01
Ra-228	Ga Tech	pCi/L			7.18E-01

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 102221
 Reviewed By: [Signature] 3-10-16
 12 Page 1 of 2

Company: 1 Alabama Power Co
 Report To: Sarah Copeland
 Address: 2 scopela@southco.com

Phone/Fax: 3 205-1604-6121
 Contact: 4 Sarah Copeland
 Project Location: 5 Bary Gypsum
 Account Number: 6 _____
 Special Instructions: 7 _____

Sample Shipment Date: 8 _____
 Sampled By: 9 C.S./I.R./N.P.
 Signature _____
 Sample Received Date: 10 _____
 Sample Received By: 11 _____
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

12 Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Ent. Lab. prior to shipment)

PRESERVATIVE 21		ANALYSIS REQUESTED 2	
N			

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16		Sample Description 17	Matrix	No. of Containers	Sample Type 18			LAB USE ONLY 25 Comments
		Date	Time				18	19	20	
102221001	AWD41031	2/23/16	0845	MW-4 Groundwater	GW	2				Ra-226
2	AWD41032	2/23/16	0905	FB-1 Equipment Blank	GW	2				Ra-228
3	AWD41033	2/23/16	1005	MW-1 Groundwater	GW	2				
4	AWD41034	2/23/16	1110	MW-9 Groundwater	GW	2				
5	AWD41035	2/23/16	1205	FB-1 FLD Blank	GW	2				
6	AWD41036	2/23/16	1217	MW-5 Groundwater	GW	2				
7	AWD41037	2/23/16	0853	MW-3 Groundwater	GW	2				
8	AWD41038	2/23/16	0853	MW-3 DUP Groundwater	GW	2				
9	AWD41039	2/23/16	1013	MW-6 Groundwater	GW	2				
10	AWD41040	2/23/16	1111	MW-7 Groundwater	GW	2				

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: [Signature] Date/Time 3/7/16 1330
 Received by: [Signature] Date/Time 3/7/16 1330
 Relinquished by: [Signature] Date/Time 3/7/16 1330
 Received by: [Signature] Date/Time 3/7/16 1330

30-00 (COP-16-3P), no ice, cooler in good condition, no seal
 PHL2, Hand.

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

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

**LAB
 USE
 ONLY**

Work Order No. 10222 NY 310/16

Reviewed By: [Signature] 3-6-16

Page 2 of 2

Standard Turnaround Time

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

Sample Shipment Date: 9

Sampled By: 9

Print Name

Signature

Sample Received Date: 10

Sample Received By: 11

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

Company: Alabama Power Co
 Report To: Saran Copeland
 Address: sgcopela@southern.com

Phone/Fax: 3 205-464-6121
 Contact: Saran Copeland
 Project Location: Barry CYPSEM
 Account Number: 6
 Special Instructions: 7

PRESERVATIVE 21

Sample Type Key: 23
 0-Grab
 1-Composite
 2-Blank
 3-Unknown

Matrix Key: 24
 0-Dr
 10-Surface Water
 20-Gravel Water
 3-Silt
 4-Subglacial Water
 5-Subglacial Water
 6-Subglacial Water
 7-Subglacial Water
 8-Subglacial Water

Preservative Key: 25
 H-Hydrochloric Acid
 K-Ketone
 L-Lactic Acid
 N-Nitric Acid
 P-Picric Acid
 S-Sulfuric Acid
 T-Tartaric Acid
 W-Water
 X-None Specified
 Y-None Specified

ANALYSIS REQUESTED 22

18 Sample Type	19 Matrix	20 No. of Containers
	GW	2
	GW	2
	GW	2
	GW	2

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 15		Sample Description 17
		Date	Time	
1022201	AWD41641	2/23/16	0850	MW-2 Groundwater
12	AWD41642	2/23/16	1050	MW-10 Groundwater
13	AWD41643	2/23/16	1050	#1 RD Radiological DUL
14	AWD41644	2/23/16	1240	MW-9 Groundwater

RA-2210
RA-2218

**LAB USE ONLY 25
 Comments**

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: <u>28</u> <u>[Signature]</u>	Date/Time: <u>3/1/16 1330</u>	<u>20.00 (SPEK-RSP), noise, enter in good condition, raised PH/2 Hand.</u>
Received by: <u>29</u> <u>[Signature]</u>	Date/Time: <u>09 Aug 3/1/16</u>	
Relinquished by: <u>[Signature]</u>	Date/Time: <u>3/1/16 @ 1115</u>	
Received by: <u>[Signature]</u>	Date/Time: <u>3/1/16 @ 1115</u>	

Sample Receipt Checklist



Client: APC Lab
 Workorder No.: 102221
 Carrier: COURIER

of Samples: 14
 Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True ^{MA 11/25/16} False	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	20
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	Mark through present on COC customer forgot to initial and date it.
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Sample AW04643 sample description different from COC to sample container label, sample was logged in based on the information provided on sample container label.
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102220, 102221

QC Batch: 16865

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102220004 – 102220013, 102220015-102220022, 102221001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.80E-01	1.0	
Radium-228	pCi/l	<3.45E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.791	5.248	110	70-130	
Radium-228	pCi/l	4.875	5.269	108	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	8.5	20	
Radium-228	pCi/l	15.4	20	

Sample Duplicate:

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

QUALITY CONTROL DATA

Workorder: 102221, 102359, 102366

QC Batch: 16890

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102221002-012, 102221014, 102359003-005, 102366001-004

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.597E-01	1.0	
Radium-228	pCi/l	<6.626E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.745	4.861	102	70-130	
Radium-228	pCi/l	4.850	5.462	113	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	6.4	20	
Radium-228	pCi/l	7.7	20	

Sample Duplicate:

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_20

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:

Supervision:



Anions

Barry Gypsum

WMWBARG_20

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

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW10312	564755	564756	564757	WMWBARG_20
AW10313	564755	564756	564757	WMWBARG_20
AW10314	564755	564756	564757	WMWBARG_20
AW10315	564755	564756	564757	WMWBARG_20
AW10316	564755	564756	564757	WMWBARG_20
AW10317	564755	564756	564757	WMWBARG_20
AW10318	564759	564761	564763	WMWBARG_20
AW10319	564759	564761	564763	WMWBARG_20
AW10320	564759	564761	564763	WMWBARG_20
AW10321	564759	564761	564763	WMWBARG_20
AW10322	564759	564761	564763	WMWBARG_20
AW10323	564759	564761	564763	WMWBARG_20
AW10324	564759	564761	564763	WMWBARG_20

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.



Matrix Specific Quality Control Procedures:

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

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. All samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Barry Gypsum

WMWBARG_20

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>
AW10312	20160517D	WMWBARG_20
AW10313	20160517D	WMWBARG_20
AW10314	20160517D	WMWBARG_20
AW10315	20160517D	WMWBARG_20
AW10316	20160517D	WMWBARG_20
AW10317	20160517D	WMWBARG_20
AW10318	20160517D	WMWBARG_20
AW10319	20160517D	WMWBARG_20
AW10320	20160517D	WMWBARG_20
AW10321	20160517D	WMWBARG_20
AW10322	20160517E	WMWBARG_20
AW10323	20160517E	WMWBARG_20
AW10324	20160517E	WMWBARG_20

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 half 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 half 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 without a dilution.
 8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_20

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>
AW10312	563793	WMWBARG_20
AW10313	563793	WMWBARG_20
AW10314	563793	WMWBARG_20
AW10315	563793	WMWBARG_20
AW10316	563793	WMWBARG_20
AW10317	563793	WMWBARG_20
AW10318	563793	WMWBARG_20
AW10319	563793	WMWBARG_20
AW10320	563793	WMWBARG_20
AW10321	563793	WMWBARG_20
AW10322	563794	WMWBARG_20
AW10323	563794	WMWBARG_20
AW10324	563794	WMWBARG_20

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.
7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L. Sample AW10319 is now reported as Not Detected.

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.
8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 9. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_20

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>
AW10312	564478	WMWBARG_20
AW10313	564478	WMWBARG_20
AW10314	564478	WMWBARG_20
AW10315	564478	WMWBARG_20
AW10316	564478	WMWBARG_20
AW10317	564478	WMWBARG_20
AW10318	564478	WMWBARG_20
AW10319	564478	WMWBARG_20
AW10320	564478	WMWBARG_20
AW10321	564478	WMWBARG_20
AW10322	564480	WMWBARG_20
AW10323	564480	WMWBARG_20
AW10324	564480	WMWBARG_20

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_20

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>
AW10312	563583	WMWBARG_20
AW10313	563583	WMWBARG_20
AW10314	563583	WMWBARG_20
AW10315	563583	WMWBARG_20
AW10316	563583	WMWBARG_20
AW10317	563583	WMWBARG_20
AW10318	563583	WMWBARG_20
AW10319	563583	WMWBARG_20
AW10320	563583	WMWBARG_20
AW10321	563583	WMWBARG_20
AW10322	563583	WMWBARG_20
AW10323	563583	WMWBARG_20
AW10324	563583	WMWBARG_20

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW10316, AW10321, AW10322 and AW10324 are now reported as Not Detected.

General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%. However, the duplicate was analyzed after 20 samples.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW10312 and AW10313 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW10312

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	J 0.00062	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW10312

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW10312

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/27/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE B
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGEGB
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW10313

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW10314

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.135	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	0.361	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	4.65	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00278	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0141	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	62.0	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	4.46	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.040	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	28.6	mg/L

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW10314

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW10314

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec			Prec Limit
							Duplicate	LFB		Rec	Limit	Prec	
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW10315

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0251	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	0.505	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00201	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	27.3	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	4.74	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.019	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	3.78	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW10315

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW10315

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW10316

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0990	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.19	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00380	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	2.89	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.023	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	8.27	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW10316

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW10316

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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 The result for TDS is now Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW10317

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0926	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	J 0.0269	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.04	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	28.0	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	3.11	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.039	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	7.85	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17



Corrected Copy

To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW10317

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AW10321	Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321	Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321	Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321	Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321	Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321	Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	
AW10321	Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321	Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321	Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321	Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321	Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321	Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321	Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321	Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW10317

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10312	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10312	Fluoride, Total	mg/L	0.00	0.3	2.0	2.15	0.00	2.10	1.8 to 2.2	108	80 to 120	0	20
AW10312	Sulfate, Total	mg/L	0.00	1.0	20.0	19.3	0.00	19.1	18 to 22	96.5	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW10318

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.114	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	J 0.0257	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	0.761	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00241	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	34.0	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	3.12	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.050	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	9.92	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW10318

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW10318

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW10319

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.263	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000681	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	0.908	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	23.2	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00338	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00324	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0529	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	166	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	6.13	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.138	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	80.2	mg/L

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW10319

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW10321	Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20
AW10321	Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20
AW10321	Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20
AW10321	Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20
AW10321	Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20
AW10321	Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20
AW10321	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20
AW10321	Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20
AW10321	Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20
AW10321	Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20
AW10321	Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20
AW10321	Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20
AW10321	Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20
AW10321	Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20
AW10321	Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW10319

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been corrected to Not Detected. SGC 3/17/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.265	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000702	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	0.905	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	22.3	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00349	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	J 0.00330	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0529	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	171	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	6.09	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.129	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	79.5	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10321 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20	
AW10321 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20	
AW10321 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20	
AW10321 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20	
AW10321 Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20	
AW10321 Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20	
AW10321 Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20	
AW10321 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20	
AW10321 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20	
AW10321 Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20	
AW10321 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20	
AW10321 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20	
AW10321 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20	
AW10321 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20	
AW10321 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-6 Dup

Laboratory ID Number: AW10320

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW10321

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0421	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.20	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/3/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	4.14	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.018	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	3.48	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW10321

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AW10321	Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.0965	0.0963	0.0926	0.085 to 0.115	96.5	70 to 130	0.178	20
AW10321	Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0932	0.0943	0.0937	0.085 to 0.115	93.2	70 to 130	1.14	20
AW10321	Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.0962	0.0960	0.0977	0.085 to 0.115	96.2	70 to 130	0.249	20
AW10321	Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0908	0.0923	0.0898	0.085 to 0.115	90.8	70 to 130	1.71	20
AW10321	Boron, Total	mg/L	0.00156	0.044	1.00	0.948	0.984	0.967	0.85 to 1.15	94.8	70 to 130	3.73	20
AW10321	Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0990	0.0993	0.0965	0.085 to 0.115	99.0	70 to 130	0.260	20
AW10321	Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0942	0.0944	0.0921	0.085 to 0.115	94.2	70 to 130	0.157	20
AW10321	Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0988	0.108	0.104	0.085 to 0.115	98.8	70 to 130	9.24	20
AW10321	Calcium, Total	mg/L	0.00199	0.22	5.00	5.92	5.94	4.78	4.25 to 5.75	94.4	70 to 130	0.337	20
AW10321	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00389	0.00388	0.00395	0.0034 to 0.0046	97.2	70 to 130	0.257	20
AW10321	Barium, Total	mg/L	0.00000493	0.0044	0.10	0.133	0.135	0.0881	0.085 to 0.115	90.9	70 to 130	1.63	20
AW10321	Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.108	0.102	0.103	0.085 to 0.115	108	70 to 130	4.93	20
AW10321	Lithium, Total	mg/L	0.000297	0.022	0.20	0.195	0.194	0.192	0.17 to 0.23	97.5	70 to 130	0.514	20
AW10321	Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0926	0.0929	0.0921	0.085 to 0.115	92.6	70 to 130	0.338	20
AW10321	Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0945	0.0950	0.0939	0.085 to 0.115	94.5	70 to 130	0.502	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW10321

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW10322

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0802	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.31	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	3.63	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.015	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	6.74	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS is now Not Detected. SGC 1/26/17 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW10322

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10331 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3	70 to 130	1.49	20	
AW10331 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9	70 to 130	0.713	20	
AW10331 Calcium, Total	mg/L	-0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0	70 to 130	0.00	20	
AW10331 Mercury, Total by CVAA	mg/L	0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0	70 to 130	0.253	20	
AW10331 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4	70 to 130	0.933	20	
AW10331 Boron, Total	mg/L	0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3	70 to 130	1.90	20	
AW10331 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9	70 to 130	0.670	20	
AW10331 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6	70 to 130	1.42	20	
AW10331 Cadmium, Total	mg/L	0.00000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7	70 to 130	1.30	20	
AW10331 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9	70 to 130	1.44	20	
AW10331 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6	70 to 130	0.585	20	
AW10331 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8	70 to 130	0.577	20	
AW10331 Lithium, Total	mg/L	0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104	70 to 130	1.95	20	
AW10331 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9	70 to 130	0.605	20	
AW10331 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0	70 to 130	0.330	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L.
 The result for TDS is now Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW10322

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW10323

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0718	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.68	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	32.0	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	3.72	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.016	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	7.66	mg/L

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW10323

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10331 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9	70 to 130	0.713	20	
AW10331 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3	70 to 130	1.49	20	
AW10331 Calcium, Total	mg/L	-0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0	70 to 130	0.00	20	
AW10331 Mercury, Total by CVAA	mg/L	0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0	70 to 130	0.253	20	
AW10331 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4	70 to 130	0.933	20	
AW10331 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9	70 to 130	0.605	20	
AW10331 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0	70 to 130	0.330	20	
AW10331 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8	70 to 130	0.577	20	
AW10331 Lithium, Total	mg/L	0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104	70 to 130	1.95	20	
AW10331 Boron, Total	mg/L	0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3	70 to 130	1.90	20	
AW10331 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9	70 to 130	0.670	20	
AW10331 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6	70 to 130	1.42	20	
AW10331 Cadmium, Total	mg/L	0.00000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7	70 to 130	1.30	20	
AW10331 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9	70 to 130	1.44	20	
AW10331 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6	70 to 130	0.585	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW10323

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample		LFB	Rec			Prec
							Duplicate	LFB		Limit	Rec	Limit	
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW10324

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	0.0875	mg/L
* Beryllium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/17/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.1	0.5	1.09	mg/L
* Cadmium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/17/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/2/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/2/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	4/25/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	4/23/2016	EPA 300.0		1	0.04	0.25	4.08	mg/L
* Fluoride, Total	SES	4/23/2016	EPA 300.0		1	0.01	0.3	J 0.021	mg/L
* Sulfate, Total	SES	4/23/2016	EPA 300.0		1	0.3	1	7.22	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW10324

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW10331 Lead, Total	mg/L	-0.0000249	0.0022	0.10	0.0949	0.0956	0.0937	0.085 to 0.115	94.9	70 to 130	0.713	20	
AW10331 Cobalt, Total	mg/L	-0.0000263	0.0044	0.10	0.0954	0.0968	0.0921	0.085 to 0.115	93.3	70 to 130	1.49	20	
AW10331 Arsenic, Total	mg/L	0.0000118	0.0022	0.10	0.118	0.120	0.0977	0.085 to 0.115	96.6	70 to 130	1.42	20	
AW10331 Cadmium, Total	mg/L	0.000000717	0.00044	0.10	0.0987	0.100	0.0965	0.085 to 0.115	98.7	70 to 130	1.30	20	
AW10331 Barium, Total	mg/L	0.00000493	0.0044	0.10	0.161	0.162	0.0881	0.085 to 0.115	91.8	70 to 130	0.577	20	
AW10331 Lithium, Total	mg/L	0.000225	0.022	0.20	0.207	0.203	0.194	0.17 to 0.23	104	70 to 130	1.95	20	
AW10331 Antimony, Total	mg/L	0.000176	0.00132	0.10	0.0929	0.0943	0.0898	0.085 to 0.115	92.9	70 to 130	1.44	20	
AW10331 Chromium, Total	mg/L	0.0000485	0.0044	0.10	0.100	0.101	0.0926	0.085 to 0.115	96.6	70 to 130	0.585	20	
AW10331 Beryllium, Total	mg/L	0.0000204	0.00132	0.10	0.0989	0.0983	0.103	0.085 to 0.115	98.9	70 to 130	0.605	20	
AW10331 Molybdenum, Total	mg/L	0.0000131	0.0044	0.10	0.0960	0.0963	0.0921	0.085 to 0.115	96.0	70 to 130	0.330	20	
AW10331 Calcium, Total	mg/L	-0.00111	0.22	5.00	24.6	24.6	4.85	4.25 to 5.75	90.0	70 to 130	0.00	20	
AW10331 Mercury, Total by CVAA	mg/L	0.00007	0.0005	0.004	0.00396	0.00395	0.00405	0.0034 to 0.0046	99.0	70 to 130	0.253	20	
AW10331 Selenium, Total	mg/L	0.0000491	0.0044	0.10	0.0984	0.0993	0.104	0.085 to 0.115	98.4	70 to 130	0.933	20	
AW10331 Boron, Total	mg/L	0.00421	0.044	1.00	1.06	1.04	0.984	0.85 to 1.15	99.3	70 to 130	1.90	20	
AW10331 Thallium, Total	mg/L	-0.0000321	0.00044	0.10	0.0959	0.0965	0.0939	0.085 to 0.115	95.9	70 to 130	0.670	20	

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Alabama Power General Test Laboratory
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 19-Apr-16
 Customer ID:
 Delivery Date: 21-Apr-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW10324

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW10328	Sulfate, Total	mg/L	0.00	1.0	20.0	19.8	0.00	19.2	18 to 22	99.0	80 to 120	0	20
AW10328	Chloride, Total	mg/L	0.00	0.25	10.0	10.4	0.00	10.1	9 to 11	104	80 to 120	0	20
AW10328	Fluoride, Total	mg/L	0.00	0.3	2.0	2.22	0.00	2.11	1.8 to 2.2	111	80 to 120	0	20
AW10329	Solids, Dissolved	mg/L	2.0	25			249	41.0	40 to 60			1.97	5

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CC:

Reported: 7/27/2017
 Version: 2.0



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

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



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

 Field Complete

 Lab Complete

 Lab ETA 04/21/2016 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Barry Gypsum
Analysis Requested	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle		
Comments	3 different packs of pH strips used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
FB-1	04/18/2016	15:10	2	Field Blank		4950-25061-10-1	1.4	AW10312
EB-1	04/19/2016	09:15	2	Equipment Blank		4950-25061-10-1	1.4	AW10313

Relinquished By	Received By	Date/Time
		04/21/2016 08:06

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Thermometer ID
		1506-3968-4-4
		pH Strip ID
		see comments



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA **04/20/2016 16:58**

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Clarence Specht	Location	Barry Gypsum

Analysis Requested	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle
Comments	3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
MW-5	04/18/2016	17:43	2	Groundwater		4950-25070-10-1	1.4	AW10314
MW-8	04/18/2016	16:40	2	Groundwater		4950-25070-10-1	1.4	AW10315
MW-1	04/19/2016	09:24	2	Groundwater		4950-25070-10-1	1.4	AW10316
MW-9	04/19/2016	11:33	2	Groundwater		4950-25066-10-6	1.0	AW10317
MW-10	04/19/2016	13:00	2	Groundwater		4950-25066-10-6	1.0	AW10318

Relinquished By	Received By	Date/Time
		04/21/2016 08:22

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4950-25070-10-10	
Thermometer ID	1506-3968-4-4	
pH Strip ID	see comments	



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 04/21/2016 08:00

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Barry Gypsum

Analysis Requested	Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle
Comments	3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
MW-6	04/18/2016	15:55	2	Groundwater		4950-25068-10-8	2.4	AW10319
MW-6Dup	04/18/2016	15:55	2	Sample Duplicate		4950-25068-10-8	2.4	AW10320
MW-7	04/18/2016	17:10	2	Groundwater		4950-25068-10-8	2.4	AW10321
MW-4	04/19/2016	10:05	2	Groundwater		4950-25068-10-8	2.4	AW10322
MW-3	04/19/2016	11:30	2	Groundwater		4950-25061-10-1	1.4	AW10323
MW-2	04/19/2016	12:50	2	Groundwater		4950-25061-10-1	1.4	AW10324

Relinquished By	Received By	Date/Time
		04/21/2016 08:04

SmarTroll ID	4696-23444-3-3	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Thermometer ID	1506-3968-4-4
		pH Strip ID	see comments



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 04/20/2016 16:58

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Clarence Specht"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Bottle 1: Metals and Hg (1) 500 mL bottle, Bottle 2: TDS and Anions (1) 500 mL bottle"/>		
Comments	<input type="text" value="3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6"/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
MW-5	04/18/2016	15:43	2	Groundwater		4950-25070-10-1	1.4	AW10314
MW-8	04/18/2016	16:40	2	Groundwater		4950-25070-10-1	1.4	AW10315
MW-1	04/19/2016	09:24	2	Groundwater		4950-25070-10-1	1.4	AW10316
MW-9	04/19/2016	11:33	2	Groundwater		4950-25066-10-6	1.0	AW10317
MW-10	04/19/2016	13:00	2	Groundwater		4950-25066-10-6	1.0	AW10318

Relinquished By	Received By	Date/Time
		04/21/2016 08:22

SmarTroll ID	<input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4950-25070-10-10"/>	Thermometer ID	<input type="text" value="1506-3968-4-4"/>
		pH Strip ID	<input type="text" value="see comments"/>

Report To Sarah Copeland
APC GSC Building 8

Sample #	Location	Sample Description	Customer Sample ID	Date Collected	Test Method
103083001	Barry Gypsum	FB-1 Field Blank	AW10346, Water	4/18/2016 3:11:00 PM	Ga Tech
103083002	Barry Gypsum	EB-1 Equipment	AW10347, Water	4/19/2016 9:16:00 AM	Ga Tech
103083003	Barry Gypsum	MW-5	AW10348, Water	4/18/2016 3:40:00 PM	Ga Tech
103083004	Barry Gypsum	MW-8	AW10349, Water	4/18/2016 4:38:00 PM	Ga Tech
103083005	Barry Gypsum	MW-1	AW10350, Water	4/19/2016 9:22:00 AM	Ga Tech
103083006	Barry Gypsum	MW-9	AW10351, Water	4/19/2016 11:31:00 AM	Ga Tech
103083007	Barry Gypsum	MW-10	AW10352, Water	4/19/2016 1:43:00 PM	Ga Tech
103083009	Barry Gypsum	MW-6	AW10354, Water	4/18/2016 3:56:00 PM	Ga Tech
103083010	Barry Gypsum	MW-6 Dup	AW10355, Water	4/18/2016 3:56:00 PM	Ga Tech
103083011	Barry Gypsum	MW-7	AW10356, Water	4/18/2016 5:11:00 PM	Ga Tech
103083012	Barry Gypsum	MW-4	AW10357, Water	4/19/2016 10:06:00 AM	Ga Tech
103083013	Barry Gypsum	MW-3	AW10358, Water	4/19/2016 11:31:00 AM	Ga Tech
103083014	Barry Gypsum	MW-2	AW10359, Water	4/19/2016 12:51:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 103083001
 Collection Date 4/18/2016 3:11:00 PM
 Sampling Media Water
 Station AW10346
 Sample ID FB-1 Field Blank Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.67E-01
Ra-228	Ga Tech	pCi/L			7.30E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083002
Collection Date 4/19/2016 9:16:00 AM
Sampling Media Water
Station AW10347
Sample ID EB-1 Equipment Blank Barry
Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.53E-01
Ra-228	Ga Tech	pCi/L			7.25E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083003
Collection Date 4/18/2016 3:40:00 PM
Sampling Media Water
Station AW10348
Sample ID MW-5 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.66E-01
Ra-228	Ga Tech	pCi/L			7.89E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083004
Collection Date 4/18/2016 4:38:00 PM
Sampling Media Water
Station AW10349
Sample ID MW-8 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.43E-01
Ra-228	Ga Tech	pCi/L			6.65E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083005
Collection Date 4/19/2016 9:22:00 AM
Sampling Media Water
Station AW10350
Sample ID MW-1 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.22E-01
Ra-228	Ga Tech	pCi/L			5.82E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083006
Collection Date 4/19/2016 11:31:00 AM
Sampling Media Water
Station AW10351
Sample ID MW-9 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.40E+00	+/- 7.49E-01	
Ra-228	Ga Tech	pCi/L	2.42E+00	+/- 1.79E+00	

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083007
Collection Date 4/19/2016 1:43:00 PM
Sampling Media Water
Station AW10352
Sample ID MW-10 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.64E-01
Ra-228	Ga Tech	pCi/L			7.00E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083009
Collection Date 4/18/2016 3:56:00 PM
Sampling Media Water
Station AW10354
Sample ID MW-6 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.41E-01
Ra-228	Ga Tech	pCi/L	1.92E+00	+/- 1.41E+00	

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083010
Collection Date 4/18/2016 3:56:00 PM
Sampling Media Water
Station AW10355
Sample ID MW-6 Dup Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.18E-01
Ra-228	Ga Tech	pCi/L			7.33E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083011
Collection Date 4/18/2016 5:11:00 PM
Sampling Media Water
Station AW10356
Sample ID MW-7 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.32E-01
Ra-228	Ga Tech	pCi/L			6.60E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083012
Collection Date 4/19/2016 10:06:00 AM
Sampling Media Water
Station AW10357
Sample ID MW-4 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.96E-01
Ra-228	Ga Tech	pCi/L			6.03E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083013
Collection Date 4/19/2016 11:31:00 AM
Sampling Media Water
Station AW10358
Sample ID MW-3 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.35E-01
Ra-228	Ga Tech	pCi/L			6.41E-01

Report To Sarah Copeland
APC GSC Building 8

Location APC Lab
Sample Number 103083014
Collection Date 4/19/2016 12:51:00 PM
Sampling Media Water
Station AW10359
Sample ID MW-2 Barry Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.28E-01
Ra-228	Ga Tech	pCi/L			8.11E-01

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

**ANALYSIS REQUEST AND
 CHAIN OF CUSTODY RECORD**

Company: Alabama Power Company
 Report To: sgope1a@southemco.com
 Address: 2

Sample Shipment Date: 4/25/16
 Sampled By: N.P. J.P.R./C.S.
 Print/Name

Phone/Fax: 205-6104-10121
 Contact: Sarah Copeland
 Project Location: Bary Gypsum
 Account Number: 5
 Special Instructions: 7

Signature
 Sample Received Date: 4/25/16 @ 10:30
 Sample Received By: [Signature]
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

LAB USE ONLY
 Work Order No. 103083
 Reviewed By: [Signature]
 12 Page 1 of 2

Standard Turnaround Time
 # of Business Days (Rush)
 (Must be cleared through Env. Lst. prior to shipment)

LAB USE ONLY LAB ID	Sample Number	Collection		Sample Description	Sample Type	Matrix	No. of Containers	ANALYSIS REQUESTED		LAB USE ONLY 25 Comments
		Date	Time					21	22	
103083	AW10340	4/18	1511	FB-1 Field Blank			2	X	X	RA-2210
	AW10341	4/19	0910	EB-1 Equipment Blank			2	X	X	RA-228
	AW10348	4/18	1540	MW-5			2	X	X	
	AW10349	4/18	1638	MW-9			2	X	X	
	AW10350	4/19	0912	MW-1			2	X	X	
	AW10351	4/19	1181	MW-9			2	X	X	
	AW10352	4/19	1343	MW-10			2	X	X	
	AW10353	4/19	0922	RD-1 Radiological DWP			2	X	X	
	AW10354	4/18	1556	MW-6			2	X	X	
	AW10355	4/18	1556	MW-6 DWP			2	X	X	

FOR CHAIN OF CUSTODY USE ONLY 27
 Requisitioned by: [Signature] Date/Time: 4/20/16 0900
 Received by: [Signature] Date/Time: 4/25/16 10:30
 Relinquished by: [Signature] Date/Time: 4/25/16 10:30
 Received by: [Signature] Date/Time: 4/25/16 10:30
 22-01 (SEE 16-49), notice, consider ingood condition needed
 PH12, Cancer
 (See Back for Instructions)

Georgia Power Environmental Laboratory
 2480 Maner Road, Bin 38110
 Atlanta, Georgia 30339
 Phone: (404) 799-2100
 Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No. 103083

Reviewed By [Signature] 4-28-16

12 Page 2 of 2

13 Standard Turnaround Time

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

Sample Shipment Date: 8 4/25/16
 Sampled By: 9 N.P. / J.R. / C.S.
 Print Name

Signature
 Sample Received Date: 10 4/26/16 @ 10:30
 Sample Received By: 11 [Signature]
 Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise

Phone/Fax: 3 ZDS-10104-10121
 Contact 4 Sarah Copeland
 Project Location: 5 Barry Gypsum
 Account Number: 6 _____
 Special Instructions: 7 _____

Sample No.	Sample Type	Matrix	No. of Containers	Sample Type	Sample Description	Collection Date	Collection Time	Sample Number	LAB ID
N	RESERVATIVE 21								
	ANALYSIS REQUESTED 22								
			2		MW-7	4/18	1711	AW10356	AW10356-11
			2		MW-4	4/19	1000	AW10357	
			2		MW-3	4/19	1131	AW10358	
			2		MW-2	4/19	1251	AW10359	

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 [Signature] Date/Time: 4/26/16 0900
 Received by: 29 [Signature] Date/Time: 4/26/16 0900
 Relinquished by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____

22.0°C (69°F) - 18-4-16, no icy center in good condition, no soap PM2.5 Control

LAB USE ONLY: Sample Receipt Information 30

Sample Receipt Checklist



Client: APC Lab # of Samples: 14
 Workorder No.: 103083 Tracking No:
 Carrier: COURIER

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True False	<i>Not 8-4-16</i>
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	22
COC is present	True	
COC is filled out in ink and is legible	False	Missing matrix field and sample type.
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	False	Only collector initials were provided on COC and sample container labels, samples were logged in based on contact information provided on COC.
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	All samples are logged in based on the information provided on COC per customer request.
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:



Jassim, Ayssar

From: Davis, Dwight A.
Sent: Thursday, April 28, 2016 8:16 AM
To: Jassim, Ayssar; Sutton, Nick A.; Locke, Jolynn K.
Cc: Philpotts, Don K.; Dickerson, Robert S.
Subject: FW: Radium samples

FYI

From: Copeland, Sarah Garst
Sent: Wednesday, April 27, 2016 2:56 PM
To: Davis, Dwight A.
Subject: Radium samples

Hey Dwight,

I just spoke with Anne regarding confusion with the Radium samples we send you. We would like for you to use the sample ID (AWXXXXX) as your ID. It should be listed on all COCs. I can see where that would be confusing, but we use the AW as the ID and the bottom label as the sample description. Also, the discrepancy with the times is due to an issue we had with our electronic COCs. We had to adjust sample times on the Radium samples for two sets because it was overwriting the original samples. Don't worry about the difference, I put the time we have on our COC on the COCs I sent you all so everything would match. Just use the times listed on the COCs.

Please let me know if you have any further questions.

Thank you!

Sarah Copeland
Environmental Affairs Specialist
APC GSC Building 8
Ext: 205-664-6121/ Int: 8-255-6121
Mobile: 205-910-3511
sgcopela@southernco.com

QUALITY CONTROL DATA

Workorder: 102958, 102975, 103083

QC Batch: 17001

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102958001, 102975001-007, 103083001-007, 103083009-012

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<2.037E-01	1.0	
Radium-228	pCi/l	<2.738E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.790	5.083	106	70-130	
Radium-228	pCi/l	4.891	5.804	119	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	13.4	20	
Radium-228	pCi/l	14.4	20	

Sample Duplicate:

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	

QUALITY CONTROL DATA

Workorder: 103083, 103084

QC Batch: 17014

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 103083013-014, 103084001-018

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.147E-01	1.0	
Radium-228	pCi/l	<6.809E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.785	5.093	106	70-130	
Radium-228	pCi/l	4.961	5.473	110	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	0.94	20	
Radium-228	pCi/l	7.9	20	

Sample Duplicate:

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	ND	ND	NA	20	
Radium-228	pCi/l	ND	ND	NA	20	



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 04/21/2016 08:00

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Barry Gypsum

Analysis Requested	Radiological: RA-226, RA-228 (2) 2 L bottles
Comments	Added one minute to collection times for all samples on 4/21/2016 1052 so that bottle labels differ from COC by that amount. Was done to allow for entry of sample information into LIMS and EDAS databases alongside samples from same location and well collected for metals, TDS, and anions analysis. JR. pH strips: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
MW-6R	04/18/2016	15:56	2	Groundwater		4950-25068-10-8	2.4	AW10354
MW-6RDup	04/18/2016	15:56	2	Sample Duplicate		4950-25068-10-8	2.4	AW10355
MW-7R	04/18/2016	17:11	2	Groundwater		4950-25068-10-8	2.4	AW10356
MW-4R	04/19/2016	10:06	2	Groundwater		4950-25068-10-8	2.4	AW10357
MW-3R	04/19/2016	11:31	2	Groundwater		4950-25061-10-1	1.4	AW10358
MW-2R	04/19/2016	12:51	2	Groundwater		4950-25061-10-1	1.4	AW10359

Relinquished By	Received By	Date/Time
		04/21/2016 08:04

SmarTroll ID	4696-23444-3-3	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	4677-23342-4-1	Thermometer ID	1506-3968-4-4
		pH Strip ID	see comments



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 04/20/2016 16:58

Requested Complete Date	Routine
Site Representative	Angie Jimmerson
Collector	Clarence Specht

Results To	Dustin Brooks
Requested By	Greg Dyer
Location	Barry Gypsum

Analysis Requested	Radiological: RA-226, RA-228 (2) 2 L bottles
Comments	Time was set 2 minutes prior to time on sample label due to software issue. 3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6 AW10353 deleted-Radiological QC only. SGC

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
MW-5R	04/18/2016	15:40	2	Groundwater		4950-25070-10-1	1.4	AW10348
MW-8R	04/18/2016	16:38	2	Groundwater		4950-25070-10-1	1.4	AW10349
MW-1R	04/19/2016	09:22	2	Groundwater		4950-25070-10-1	1.4	AW10350
MW-9R	04/19/2016	11:31	2	Groundwater		4950-25066-10-6	1.0	AW10351
MW-10R	04/19/2016	13:43	2	Groundwater		4950-25066-10-6	1.0	AW10352

Relinquished By	Received By	Date/Time
		04/21/2016 08:22

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4950-25070-10-10	
Thermometer ID	1506-3968-4-4	pH Strip ID
	see comments	



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 04/21/2016 12:30

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Nick Pitts"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Radiological: RA-226, RA-228 (2) 2 L bottles"/>		
Comments	<input type="text" value="Changed sample time by adding 1 minute on 4-21-16."/>		
	<input type="text" value="3 different packs of pH strips were used: 4831-24377-20-4; 4826-24363-2-1; 4831-24379-20-6"/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Cooler ID	Cooler Temp	Lab Id
FB-1 R	04/18/2016	15:11	2	Field Blank		4950-25061-10-1	1.4	AW10346
EB-1 R	04/19/2016	09:16	2	Equipment Blank		4950-25061-10-1	1.4	AW10347

Relinquished By	Received By	Date/Time
<i>ASB</i>	<i>SBK</i>	<input type="text" value="04/21/2016 08:07"/>

SmarTroll ID	<input type="text" value="4696-23441-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23343-4-2"/>	Thermometer ID
		<input type="text" value="1506-3968-4-4"/>
		pH Strip ID
		<input type="text" value="see comments"/>

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_27

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:

Supervision:



Anions

Barry Gypsum

WMWBARG_27

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

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW14671	567148	567151	567154	WMWBARG_27
AW14672	567148	567151	567154	WMWBARG_27
AW14673	567148	567151	567154	WMWBARG_27
AW14674	567148	567151	567154	WMWBARG_27
AW14675	567148	567151	567154	WMWBARG_27
AW14676	567185	567186	567187	WMWBARG_27
AW14677	567185	567186	567187	WMWBARG_27
AW14678	567185	567186	567187	WMWBARG_27
AW14679	567185	567186	567187	WMWBARG_27
AW14680	567185	567186	567187	WMWBARG_27
AW14681	567185	567186	567187	WMWBARG_27
AW14682	567185	567186	567187	WMWBARG_27
AW14683	567185	567186	567187	WMWBARG_27

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exceptions:
 1. The blank for anion sulfate in batch 567154 presented a concentration above the MDL of 0.3 mg/L, at 0.483 mg/L. Batch samples AW14671 and AW14672 presented sulfate concentrations above the MDL value but below 10x the blank result, and are qualified as quantitatively estimated with indication of potential high bias on the reported results.
 2. The blank for anion sulfate in batch 567187 presented a concentration above the MDL of 0.3 mg/L, at 0.483 mg/L. Batch samples AW14677, AW14678 and AW14683 presented sulfate concentrations above the MDL value but below 10x the blank result, and are qualified as quantitatively estimated with indication of potential high bias on the reported results.



- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. All batch samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Barry Gypsum

WMWBARG_27

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>
AW14671	20160628C	WMWBARG_27
AW14672	20160628C	WMWBARG_27
AW14673	20160628C	WMWBARG_27
AW14674	20160628C	WMWBARG_27
AW14675	20160628C	WMWBARG_27
AW14676	20160628C	WMWBARG_27
AW14677	20160628C	WMWBARG_27
AW14678	20160628C	WMWBARG_27
AW14679	20160628C	WMWBARG_27
AW14680	20160628D_20160629	WMWBARG_27
AW14681	20160628D_20160629	WMWBARG_27
AW14682	20160628D_20160629	WMWBARG_27
AW14683	20160628D_20160629	WMWBARG_27

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 without a dilution.
 8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_27

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>
AW14671	567581	WMWBARG_27
AW14672	567581	WMWBARG_27
AW14673	567581	WMWBARG_27
AW14674	567581	WMWBARG_27
AW14675	567581	WMWBARG_27
AW14676	567581	WMWBARG_27
AW14677	567581	WMWBARG_27
AW14678	567581	WMWBARG_27
AW14679	567581	WMWBARG_27
AW14680	567582	WMWBARG_27
AW14681	567582	WMWBARG_27
AW14682	567582	WMWBARG_27
AW14683	567582	WMWBARG_27

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.
7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L. Sample AW14671 is now reported as Not Detected.

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.
8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 9. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_27

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>
AW14671	568232	WMWBARG_27
AW14672	568233	WMWBARG_27
AW14673	568233	WMWBARG_27
AW14674	568233	WMWBARG_27
AW14675	568233	WMWBARG_27
AW14676	568233	WMWBARG_27
AW14677	568233	WMWBARG_27
AW14678	568233	WMWBARG_27
AW14679	568233	WMWBARG_27
AW14680	568233	WMWBARG_27
AW14681	568233	WMWBARG_27
AW14682	567765	WMWBARG_27
AW14683	567765	WMWBARG_27

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_27

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>
AW14671	567321	WMWBARG_27
AW14672	567321	WMWBARG_27
AW14673	567321	WMWBARG_27
AW14674	567321	WMWBARG_27
AW14675	567321	WMWBARG_27
AW14676	567321	WMWBARG_27
AW14677	567321	WMWBARG_27
AW14678	567321	WMWBARG_27
AW14679	567321	WMWBARG_27
AW14680	567321	WMWBARG_27
AW14681	567322	WMWBARG_27
AW14682	567322	WMWBARG_27
AW14683	567322	WMWBARG_27

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW14678 and AW14683 are now reported as Not Detected.

General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW14678 and AW14683 which were <2.5mg.

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW14671

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000633	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.206	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	0.733	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	19.7	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00361	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00310	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0382	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	131	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	5.52	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.148	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	J 0.498	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been correctly changed to Not Detected. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW14671

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14671 Mercury, Total by CVAA	mg/L	0.00009	0.0005	0.004	0.00403	0.00401	0.00392	0.0034 to 0.0046	101	70 to 130	0.498	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been correctly changed to Not Detected. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW14671

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L	5.0	25				143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L	0.483	1.0	20.00	29.3		8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L	0.000	0.25	10.00	13.3		3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L	0.000	0.3	2.00	2.22		0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. The result for Cd has been correctly changed to Not Detected. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW14672

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0457	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.48	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	32.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	4.09	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.051	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	3.76	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW14672

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Chromium, Total	mg/L	0.0000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.0000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.0000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.0000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.0000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.0000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW14672

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L	5.0	25				143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L	0.483	1.0	20.00	29.3		8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L	0.000	0.25	10.00	13.3		3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L	0.000	0.3	2.00	2.22		0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW14673

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0862	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.35	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	28.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.60	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.050	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	7.04	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW14673

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Chromium, Total	mg/L	0.0000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.0000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.0000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.0000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.0000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.0000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW14673

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L	0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L	0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW14674

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.107	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000612	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.19	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00427	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	32.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.12	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.062	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	8.66	mg/L

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Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW14674

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW14674

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		
AW14675	Sulfate, Total	mg/L	0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14675	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L	0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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CC:

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 744 County Road 87, GSC#8
 Calera, AL 35040
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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.106	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000805	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.19	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00420	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	33.3	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.15	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.063	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	8.74	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 06-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AW14675

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14675	Sulfate, Total	mg/L	0.483	1.0	20.00	29.3	8.76	20.1	18 to 22	103	80 to 120	0.229	20
AW14675	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.16	9.88	9 to 11	102	80 to 120	0.317	20
AW14675	Fluoride, Total	mg/L	0.000	0.3	2.00	2.22	0.064	2.02	1.8 to 2.2	108	80 to 120	1.57	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW14676

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0892	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	0.169	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	3.10	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00698	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	51.3	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.74	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.066	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	18.7	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW14676

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Chromium, Total	mg/L	0.0000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.0000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.0000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.0000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.0000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.0000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	

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Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW14676

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW14677

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0299	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	0.587	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	J 0.00031	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	32.0	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	4.52	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.053	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	4.44	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW14677

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Chromium, Total	mg/L	0.0000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Lead, Total	mg/L	0.0000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.0000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW14677

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW14678

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	J 0.487	mg/L

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW14678

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW14679 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20
AW14679 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20
AW14679 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW14678

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec Limit	Prec		
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW14679

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0754	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.68	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	38.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.66	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.052	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	8.16	mg/L

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Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW14679

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14679 Lithium, Total	mg/L	0.000437	0.022	0.20	0.196	0.189	0.198	0.17 to 0.23	98.0	70 to 130	3.64	20	
AW14679 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0977	0.0932	0.0985	0.085 to 0.115	97.7	70 to 130	4.73	20	
AW14679 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0983	0.0936	0.0978	0.085 to 0.115	98.3	70 to 130	4.86	20	
AW14679 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0970	0.0934	0.0989	0.085 to 0.115	97.0	70 to 130	3.79	20	
AW14679 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0989	0.0938	0.101	0.085 to 0.115	98.9	70 to 130	5.24	20	
AW14679 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0984	0.0934	0.0968	0.085 to 0.115	98.4	70 to 130	5.25	20	
AW14679 Calcium, Total	mg/L	0.00273	0.22	5.00	6.58	6.43	4.99	4.25 to 5.75	98.0	70 to 130	2.31	20	
AW14679 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0997	0.0948	0.0999	0.085 to 0.115	99.7	70 to 130	5.04	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14679 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.108	0.105	0.105	0.085 to 0.115	108	70 to 130	2.85	20	
AW14679 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.101	0.0961	0.101	0.085 to 0.115	101	70 to 130	5.29	20	
AW14679 Boron, Total	mg/L	0.000449	0.044	1.00	1.00	0.999	0.959	0.85 to 1.15	100	70 to 130	0.100	20	
AW14679 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0975	0.0929	0.0980	0.085 to 0.115	97.5	70 to 130	4.88	20	
AW14679 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0908	0.0872	0.0907	0.085 to 0.115	90.8	70 to 130	3.99	20	
AW14679 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.169	0.162	0.0957	0.085 to 0.115	93.6	70 to 130	4.10	20	

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 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW14679

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW14680

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0979	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000930	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	J 0.0202	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.16	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	35.3	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	4.28	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.060	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	7.92	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW14680

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14683 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20	
AW14683 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20	
AW14683 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14683 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20	
AW14683 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20	
AW14683 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20	
AW15623 Calcium, Total	mg/L	0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20	
AW15623 Lithium, Total	mg/L	0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20	
AW14683 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20	
AW14683 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20	
AW15623 Boron, Total	mg/L	0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	20	
AW14683 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20	
AW14683 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20	
AW14683 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20	

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Expiration: June 30, 2018

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW14680

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW14671	Solids, Dissolved	mg/L	5.0	25			143	56	40 to 60			4.38	5
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW14681

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.0998	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	J 0.0271	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	1.22	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	34.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.72	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.085	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	7.76	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW14681

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14683 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20	
AW14683 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20	
AW14683 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20	
AW14681 Mercury, Total by CVAA	mg/L	0.00011	0.0005	0.004	0.00391	0.00394	0.00396	0.0034 to 0.0046	97.8	70 to 130	0.764	20	
AW14683 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20	
AW14683 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20	
AW14683 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20	
AW14683 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20	
AW15623 Boron, Total	mg/L	0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	20	
AW14683 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20	
AW15623 Calcium, Total	mg/L	0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20	
AW15623 Lithium, Total	mg/L	0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20	
AW14683 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20	
AW14683 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20	
AW14683 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20	

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW14681

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		Prec
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14654	Solids, Dissolved	mg/L	5.0	25			465	56	40 to 60			0.432	5
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW14682

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	0.118	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	J 0.0257	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	0.799	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	J 0.00247	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	38.7	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	3.14	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.098	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	10.0	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW14682

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14683 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20	
AW14683 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20	
AW14683 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20	
AW15623 Calcium, Total	mg/L	0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20	
AW15623 Lithium, Total	mg/L	0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20	
AW14683 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20	
AW15009 Mercury, Total by CVAA	mg/L	0.00005	0.0005	0.004	0.00393	0.00399	0.00395	0.0034 to 0.0046	98.2	70 to 130	1.52	20	
AW14683 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20	
AW14683 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20	
AW14683 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20	
AW14683 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20	
AW14683 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20	
AW14683 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20	
AW14683 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20	
AW15623 Boron, Total	mg/L	0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW14682

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14654	Solids, Dissolved	mg/L	5.0	25			465	56	40 to 60			0.432	5
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Reported: 7/27/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/1/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/28/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	6/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/28/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	6/16/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	6/16/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	6/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	6/10/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	6/10/2016	EPA 300.0		1	0.01	0.3	J 0.044	mg/L
* Sulfate, Total	SES	6/10/2016	EPA 300.0		1	0.3	1	J 0.511	mg/L

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE B
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW14683 Beryllium, Total	mg/L	0.00	0.00132	0.10	0.100	0.103	0.105	0.085 to 0.115	100	70 to 130	2.84	20	
AW14683 Selenium, Total	mg/L	0.0000757	0.0044	0.10	0.0975	0.0988	0.0999	0.085 to 0.115	97.5	70 to 130	1.28	20	
AW15623 Calcium, Total	mg/L	0.00206	0.22	5.00	333	343	4.69	4.25 to 5.75	120	70 to 130	2.96	20	
AW15623 Lithium, Total	mg/L	0.000377	0.022	0.20	0.409	0.416	0.195	0.17 to 0.23	119	70 to 130	1.70	20	
AW14683 Cobalt, Total	mg/L	0.00000189	0.0044	0.10	0.0949	0.0969	0.101	0.085 to 0.115	94.9	70 to 130	2.10	20	
AW14683 Antimony, Total	mg/L	0.000266	0.00132	0.10	0.0883	0.0897	0.0907	0.085 to 0.115	88.3	70 to 130	1.59	20	
AW15009 Mercury, Total by CVAA	mg/L	0.00005	0.0005	0.004	0.00393	0.00399	0.00395	0.0034 to 0.0046	98.2	70 to 130	1.52	20	
AW14683 Chromium, Total	mg/L	0.00000605	0.0044	0.10	0.0957	0.0971	0.0978	0.085 to 0.115	95.7	70 to 130	1.48	20	
AW14683 Lead, Total	mg/L	0.00000300	0.0022	0.10	0.0957	0.0963	0.0985	0.085 to 0.115	95.7	70 to 130	0.640	20	
AW14683 Thallium, Total	mg/L	0.00000861	0.00044	0.10	0.0961	0.0953	0.0980	0.085 to 0.115	96.1	70 to 130	0.773	20	
AW14683 Barium, Total	mg/L	0.00000574	0.0044	0.10	0.0937	0.0935	0.0957	0.085 to 0.115	93.7	70 to 130	0.164	20	
AW14683 Molybdenum, Total	mg/L	0.0000281	0.0044	0.10	0.0941	0.0942	0.0968	0.085 to 0.115	94.1	70 to 130	0.127	20	
AW15623 Boron, Total	mg/L	0.00244	0.044	1.00	1.18	1.11	1.05	0.85 to 1.15	110	70 to 130	6.11	20	
AW14683 Arsenic, Total	mg/L	0.0000124	0.0022	0.10	0.0953	0.0965	0.0989	0.085 to 0.115	95.3	70 to 130	1.29	20	
AW14683 Cadmium, Total	mg/L	0.00000371	0.00044	0.10	0.0951	0.0991	0.101	0.085 to 0.115	95.1	70 to 130	4.08	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 07-Jun-16
 Customer ID:
 Delivery Date: 09-Jun-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW14683

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		
AW14654	Solids, Dissolved	mg/L	5.0	25			465	56	40 to 60			0.432	5
AW14683	Chloride, Total	mg/L	0.00	0.25	10.00	9.76	0.00	9.87	9 to 11	97.6	80 to 120	0	20
AW14683	Fluoride, Total	mg/L	0.00	0.3	2.00	2.23	0.043	2.03	1.8 to 2.2	109	80 to 120	2.30	20
AW14683	Sulfate, Total	mg/L	0.483	1.0	20.00	20.5	0.498	20.0	18 to 22	99.9	80 to 120	2.58	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

CC:

Definitions



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

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



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 06/09/2016 12:15

Requested Complete Date	Routine	Results To	Dustin Brooks
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Jason Rouss	Location	Barry Gypsum

Analysis Requested	Bottle 3: Metals and Hg (1) 500 mL bottle, Bottle 4: TDS and Anions (1) 500 mL bottle, Bottles 1&2: Radiological (2) 2 L bottles
Comments	Bottle 1: Radiological Bottle 2: Metals & Hg Bottle 3: Anions & TDS

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6	06/06/2016	14:35	3	Groundwater		AW14671
MW-7	06/06/2016	15:38	4	Groundwater		AW14672
MW-4	06/06/2016	16:50	3	Groundwater		AW14673
MW-1	06/06/2016	18:00	3	Groundwater		AW14674
MW-1 Dup	06/06/2016	18:00	3	Sample Duplicate		AW14675
MW-5	06/07/2016	09:50	3	Groundwater		AW14676
MW-8	06/07/2016	10:50	3	Groundwater		AW14677
FB-1	06/07/2016	11:01	3	Field Blank		AW14678

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southerncco.com, c=US Date: 2016.06.10 09:38:42 -05'00'</small>	06/09/2016 12:14

SmarTroll ID	4696-23444-3-3	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	LaMotte 112-3410	Cooler Temp	0.0 degrees Celsius
		Thermometer ID	4303-21829-1-1
		pH Strip ID	4831-24376-20-3

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: 400-123616-1

TestAmerica Sample Delivery Group: Barry Gypsum (3)

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:

7/29/2016 5:39:23 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

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Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

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Method Summary

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123616-1	AW14671 MW-6	Water	06/06/16 14:35	06/28/16 15:41
400-123616-2	AW14672 MW-7	Water	06/06/16 15:38	06/28/16 15:41
400-123616-3	AW14673 MW-4	Water	06/06/16 16:50	06/28/16 15:41
400-123616-4	AW14674 MW-1	Water	06/06/16 18:00	06/28/16 15:41
400-123616-5	AW14675 MW-1 DUP	Water	06/06/16 18:00	06/28/16 15:41
400-123616-6	AW14676 MW-5	Water	06/07/16 09:50	06/28/16 15:41
400-123616-7	AW14677 MW-8	Water	06/07/16 10:50	06/28/16 15:41
400-123616-8	AW14678 FB-1	Water	06/07/16 11:01	06/28/16 15:41
400-123616-9	AW14679 MW-3	Water	06/07/16 09:45	06/28/16 15:41
400-123616-10	AW14680 MW-2	Water	06/07/16 10:40	06/28/16 15:41
400-123616-11	AW14681 MW-9	Water	06/07/16 12:00	06/28/16 15:41
400-123616-12	AW14682 MW-10	Water	06/07/16 12:55	06/28/16 15:41
400-123616-13	AW14683 EB-1	Water	06/07/16 13:45	06/28/16 15:41

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14671 MW-6

Lab Sample ID: 400-123616-1

Date Collected: 06/06/16 14:35

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.834		0.147	0.165	1.00	0.116	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.636		0.315	0.320	1.00	0.468	pCi/L	07/05/16 20:47	07/22/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1
Y Carrier	86.4		40 - 110					07/05/16 20:47	07/22/16 14:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.347	0.360	5.00	0.468	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14672 MW-7

Lab Sample ID: 400-123616-2

Date Collected: 06/06/16 15:38

Matrix: Water

Date Received: 06/28/16 15:41

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		0.0863	0.0888	1.00	0.0989	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.200	0.201	1.00	0.325	pCi/L	07/05/16 20:47	07/22/16 14:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1
Y Carrier	95.3		40 - 110					07/05/16 20:47	07/22/16 14:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.427		0.218	0.219	5.00	0.325	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14673 MW-4

Lab Sample ID: 400-123616-3

Date Collected: 06/06/16 16:50

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.277		0.0930	0.0963	1.00	0.100	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.480		0.288	0.291	1.00	0.435	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	80.4		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.757		0.302	0.306	5.00	0.435	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14674 MW-1

Lab Sample ID: 400-123616-4

Date Collected: 06/06/16 18:00

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.482		0.103	0.112	1.00	0.0662	pCi/L	07/05/16 20:25	07/27/16 07:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					07/05/16 20:25	07/27/16 07:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.359	U	0.237	0.239	1.00	0.364	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	84.5		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.841		0.258	0.264	5.00	0.364	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14675 MW-1 DUP
Date Collected: 06/06/16 18:00
Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-5
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356		0.0968	0.102	1.00	0.0997	pCi/L	07/05/16 20:25	07/27/16 07:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					07/05/16 20:25	07/27/16 07:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399		0.238	0.240	1.00	0.359	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	86.0		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.755		0.257	0.261	5.00	0.359	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14676 MW-5

Lab Sample ID: 400-123616-6

Date Collected: 06/07/16 09:50

Matrix: Water

Date Received: 06/28/16 15:41

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		0.0964	0.101	1.00	0.105	pCi/L	07/05/16 20:25	07/27/16 07:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/05/16 20:25	07/27/16 07:57	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.711		0.280	0.287	1.00	0.384	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	84.9		40 - 110					07/05/16 20:47	07/22/16 14:07	1

Method: Ra226_Ra228 - Combined Radium-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		0.296	0.304	5.00	0.384	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14677 MW-8

Lab Sample ID: 400-123616-7

Date Collected: 06/07/16 10:50

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.319		0.0938	0.0981	1.00	0.0971	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.371	U	0.248	0.251	1.00	0.383	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	87.5		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.690		0.266	0.269	5.00	0.383	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14678 FB-1

Lab Sample ID: 400-123616-8

Date Collected: 06/07/16 11:01

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0893	U	0.0704	0.0709	1.00	0.108	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.262	0.262	1.00	0.432	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	87.9		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.306	U	0.271	0.272	5.00	0.432	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14679 MW-3

Lab Sample ID: 400-123616-9

Date Collected: 06/07/16 09:45

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179		0.0757	0.0774	1.00	0.0895	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.163	U	0.253	0.253	1.00	0.425	pCi/L	07/05/16 20:47	07/22/16 14:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1
Y Carrier	82.6		40 - 110					07/05/16 20:47	07/22/16 14:07	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.342	U	0.264	0.265	5.00	0.425	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14680 MW-2

Lab Sample ID: 400-123616-10

Date Collected: 06/07/16 10:40

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.307		0.0913	0.0954	1.00	0.0914	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.344	U	0.250	0.252	1.00	0.391	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	85.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.652		0.266	0.270	5.00	0.391	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14681 MW-9

Lab Sample ID: 400-123616-11

Date Collected: 06/07/16 12:00

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.568		0.120	0.130	1.00	0.101	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373		0.234	0.237	1.00	0.356	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	88.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.941		0.263	0.270	5.00	0.356	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14682 MW-10

Lab Sample ID: 400-123616-12

Date Collected: 06/07/16 12:55

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.484		0.107	0.115	1.00	0.0858	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.542		0.279	0.284	1.00	0.417	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	89.0		40 - 110					07/05/16 20:47	07/22/16 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.299	0.306	5.00	0.417	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14683 EB-1

Lab Sample ID: 400-123616-13

Date Collected: 06/07/16 13:45

Matrix: Water

Date Received: 06/28/16 15:41

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0180	U	0.0402	0.0402	1.00	0.0733	pCi/L	07/05/16 20:25	07/27/16 07:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/05/16 20:25	07/27/16 07:56	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388	U	0.263	0.266	1.00	0.408	pCi/L	07/05/16 20:47	07/22/16 14:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/05/16 20:47	07/22/16 14:08	1
Y Carrier	84.9		40 - 110					07/05/16 20:47	07/22/16 14:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.406	U	0.266	0.269	5.00	0.408	pCi/L		07/28/16 20:03	1

Definitions/Glossary

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Client Sample ID: AW14671 MW-6

Date Collected: 06/06/16 14:35

Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:06	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14672 MW-7

Date Collected: 06/06/16 15:38

Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:06	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14673 MW-4

Date Collected: 06/06/16 16:50

Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14674 MW-1

Date Collected: 06/06/16 18:00

Date Received: 06/28/16 15:41

Lab Sample ID: 400-123616-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262335	07/27/16 07:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Client Sample ID: AW14675 MW-1 DUP

Lab Sample ID: 400-123616-5

Date Collected: 06/06/16 18:00

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14676 MW-5

Lab Sample ID: 400-123616-6

Date Collected: 06/07/16 09:50

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:57	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14677 MW-8

Lab Sample ID: 400-123616-7

Date Collected: 06/07/16 10:50

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14678 FB-1

Lab Sample ID: 400-123616-8

Date Collected: 06/07/16 11:01

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Client Sample ID: AW14679 MW-3

Lab Sample ID: 400-123616-9

Date Collected: 06/07/16 09:45

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:07	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14680 MW-2

Lab Sample ID: 400-123616-10

Date Collected: 06/07/16 10:40

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14681 MW-9

Lab Sample ID: 400-123616-11

Date Collected: 06/07/16 12:00

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW14682 MW-10

Lab Sample ID: 400-123616-12

Date Collected: 06/07/16 12:55

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Client Sample ID: AW14683 EB-1

Lab Sample ID: 400-123616-13

Date Collected: 06/07/16 13:45

Matrix: Water

Date Received: 06/28/16 15:41

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259247	07/05/16 20:25	MCJ	TAL SL
Total/NA	Analysis	9315		1	262336	07/27/16 07:56	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259249	07/05/16 20:47	MCJ	TAL SL
Total/NA	Analysis	9320		1	261711	07/22/16 14:08	JLW	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	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: 400-123616-1
 SDG: Barry Gypsum (3)

Rad

Prep Batch: 259247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123616-1	AW14671 MW-6	Total/NA	Water	PrecSep-21	
400-123616-2	AW14672 MW-7	Total/NA	Water	PrecSep-21	
400-123616-3	AW14673 MW-4	Total/NA	Water	PrecSep-21	
400-123616-4	AW14674 MW-1	Total/NA	Water	PrecSep-21	
400-123616-5	AW14675 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-123616-6	AW14676 MW-5	Total/NA	Water	PrecSep-21	
400-123616-7	AW14677 MW-8	Total/NA	Water	PrecSep-21	
400-123616-8	AW14678 FB-1	Total/NA	Water	PrecSep-21	
400-123616-9	AW14679 MW-3	Total/NA	Water	PrecSep-21	
400-123616-10	AW14680 MW-2	Total/NA	Water	PrecSep-21	
400-123616-11	AW14681 MW-9	Total/NA	Water	PrecSep-21	
400-123616-12	AW14682 MW-10	Total/NA	Water	PrecSep-21	
400-123616-13	AW14683 EB-1	Total/NA	Water	PrecSep-21	
MB 160-259247/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259247/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123616-2 DU	AW14672 MW-7	Total/NA	Water	PrecSep-21	

Prep Batch: 259249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123616-1	AW14671 MW-6	Total/NA	Water	PrecSep_0	
400-123616-2	AW14672 MW-7	Total/NA	Water	PrecSep_0	
400-123616-3	AW14673 MW-4	Total/NA	Water	PrecSep_0	
400-123616-4	AW14674 MW-1	Total/NA	Water	PrecSep_0	
400-123616-5	AW14675 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-123616-6	AW14676 MW-5	Total/NA	Water	PrecSep_0	
400-123616-7	AW14677 MW-8	Total/NA	Water	PrecSep_0	
400-123616-8	AW14678 FB-1	Total/NA	Water	PrecSep_0	
400-123616-9	AW14679 MW-3	Total/NA	Water	PrecSep_0	
400-123616-10	AW14680 MW-2	Total/NA	Water	PrecSep_0	
400-123616-11	AW14681 MW-9	Total/NA	Water	PrecSep_0	
400-123616-12	AW14682 MW-10	Total/NA	Water	PrecSep_0	
400-123616-13	AW14683 EB-1	Total/NA	Water	PrecSep_0	
MB 160-259249/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259249/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123616-2 DU	AW14672 MW-7	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-259247/1-A
Matrix: Water
Analysis Batch: 262335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259247

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.01406	U	0.0628	0.0628	1.00	0.115	pCi/L	07/05/16 20:24	07/27/16 07:58	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	96.6		40 - 110		07/05/16 20:24	07/27/16 07:58	1			

Lab Sample ID: LCS 160-259247/2-A
Matrix: Water
Analysis Batch: 262335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259247

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	14.08		1.38	1.00	0.125	pCi/L	126	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	93.4		40 - 110						

Lab Sample ID: 400-123616-2 DU
Matrix: Water
Analysis Batch: 262335

Client Sample ID: AW14672 MW-7
Prep Type: Total/NA
Prep Batch: 259247

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.236		0.1492		0.0842	1.00	0.118	pCi/L	0.50	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.4		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-259249/1-A
Matrix: Water
Analysis Batch: 261711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259249

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	-0.02547	U	0.188	0.188	1.00	0.346	pCi/L	07/05/16 20:47	07/22/16 14:06	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	96.6		40 - 110		07/05/16 20:47	07/22/16 14:06	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	87.9		40 - 110		07/05/16 20:47	07/22/16 14:06	1			

QC Sample Results

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

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

Lab Sample ID: LCS 160-259249/2-A
Matrix: Water
Analysis Batch: 261711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259249

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	20.21		2.10	1.00	0.354	pCi/L	136	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	93.4		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-123616-2 DU
Matrix: Water
Analysis Batch: 261711

Client Sample ID: AW14672 MW-7
Prep Type: Total/NA
Prep Batch: 259249

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.191	U	0.09004	U	0.199	1.00	0.343	pCi/L	0.25	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.4		40 - 110
Y Carrier	89.0		40 - 110

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: Jason Rouss		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-56525-24537.1		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2		Job #: 400-123616	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		City: Calera		State, Zip: AL, 35040		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 Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Z - other (specify)	
PO #: 205-664-6121(Tel)		WO #: sgcopela@southernco.com		Project #: 40007143		SSOW#: Barry Gypsum (3)		Analysis Requested	
Due Date Requested:		TAT Requested (days): Routine		Date Requested:		Date Requested:		Total Number of Containers	
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Seawater, On-water/soil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9316_Ra226_9320_Ra226_Ra226Ra228_GFP	9316_Ra226_9320_Ra226_Ra226Ra228_GFP	Special Instructions/Note:
AW14671	6/6/16	1435	G	Water	X	X	X	X	MW-6
AW14672	6/6/16	1538	G	Water	Y	X	X	X	MW-7
AW14673	6/6/16	1650	G	Water	X	X	X	X	MW-4
AW14674	6/6/16	1800	G	Water	X	X	X	X	MW-1
AW14675	6/6/16	1800	G	Water	X	X	X	X	MW-1 Dup (Sample Duplicate)
AW14676	6/7/16	0950	G	Water	X	X	X	X	MW-5
AW14677	6/7/16	1050	G	Water	X	X	X	X	MW-8
AW14678	6/7/16	1101	G	Water	X	X	X	X	FB-1 (Field 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: Sarah Copeland Relinquished by: <i>Sarah Copeland</i> Date: 6/27/16; 1350 Relinquished by: <i>Sarah Copeland</i> Date: 6/28/16 1541 Relinquished by: <i>Sarah Copeland</i> Date: 6/28/16 1541									
Custody Seal No.: Δ Yes Δ No									



Chain of Custody Record

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

Client Information		Sampler: Nick Pitts		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #:	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine					
City: Calera		PO #:					
State, Zip: AL, 35040		WO #:					
Phone: 205-664-6121(Tel)		Project #: 40007143		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:	
Email: sgcopela@southernco.com		Project Name: CCR		Site: Barry Gypsum (3)		Total Number of Containers	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, AsAP)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Special Instructions/Note:
AW14679	6/7/16	0945	G	Water	X	X	MW-3
AW14680	6/7/16	1040	G	Water	X	X	MW-2
AW14681	6/7/16	1200	G	Water	Y	X	MW-9
AW14682	6/7/16	1255	G	Water	X	X	MW-10
AW14683	6/7/16	1345	G	Water	X	X	EB-1 (Equipment Blank)

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

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: Sarah Copeland Date/Time: 6/27/16; 1350 Company: APC

Relinquished by: *Sarah Copeland* Date/Time: 6/28/16 1541 Company: APC

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Yes No

Custody Seal No.: _____

Received by: _____ Date/Time: _____ Company: _____

Received by: *Barry Gypsum* Date/Time: 6/28/16 15:41 Company: APC

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: _____

Special Instructions/QC Requirements: _____

Return To Client Disposal By Lab Archive For _____ Months

Method of Shipment: _____



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-123616-1
SDG Number: Barry Gypsum (3)

Login Number: 123616

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	



Certification Summary

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

TestAmerica Job ID: 400-123616-1
 SDG: Barry Gypsum (3)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-16 *
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-123616-1
SDG: Barry Gypsum (3)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Pensacola

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_39

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:

Supervision:



Anions

Barry Gypsum

WMWBARG_39

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

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW22371	574534	574536	574538	WMWBARG_39
AW22372	574534	574536	574538	WMWBARG_39
AW22373	574534	574536	574538	WMWBARG_39
AW22374	574534	574536	574538	WMWBARG_39
AW22375	574534	574536	574538	WMWBARG_39
AW22376	574534	574536	574538	WMWBARG_39
AW22377	574534	574536	574538	WMWBARG_39
AW22378	574534	574536	574538	WMWBARG_39
AW22379	574534	574536	574538	WMWBARG_39
AW22380	574535	574537	574539	WMWBARG_39
AW22381	574535	574537	574539	WMWBARG_39
AW22382	574535	574537	574539	WMWBARG_39
AW22383	574535	574537	574539	WMWBARG_39

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.



Matrix Specific Quality Control Procedures:

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

- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. All batch samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.

The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Barry Gypsum

WMWBARG_39

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>
AW22371	20160921C	WMWBARG_39
AW22372	20160921C	WMWBARG_39
AW22373	20160921C	WMWBARG_39
AW22374	20160921C	WMWBARG_39
AW22375	20160921C	WMWBARG_39
AW22376	20160921C	WMWBARG_39
AW22377	20160921C	WMWBARG_39
AW22378	20160921C	WMWBARG_39
AW22379	20160921C	WMWBARG_39
AW22380	20160921D	WMWBARG_39
AW22381	20160921D	WMWBARG_39
AW22382	20160921D	WMWBARG_39
AW22383	20160921D	WMWBARG_39

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 without a dilution.
 8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_39

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>
AW22371	575508	WMWBARG_39
AW22372	575508	WMWBARG_39
AW22373	575508	WMWBARG_39
AW22374	575508	WMWBARG_39
AW22375	575508	WMWBARG_39
AW22376	575508	WMWBARG_39
AW22377	575508	WMWBARG_39
AW22378	575508	WMWBARG_39
AW22379	575509	WMWBARG_39
AW22380	575509	WMWBARG_39
AW22381	575509	WMWBARG_39
AW22382	575509	WMWBARG_39
AW22383	575509	WMWBARG_39

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.
7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

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.
8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 9. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_39

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>
AW22371	575061	WMWBARG_39
AW22372	575061	WMWBARG_39
AW22373	575061	WMWBARG_39
AW22374	575061	WMWBARG_39
AW22375	575061	WMWBARG_39
AW22376	575061	WMWBARG_39
AW22377	575872	WMWBARG_39
AW22378	575872	WMWBARG_39
AW22379	575872	WMWBARG_39
AW22380	575872	WMWBARG_39
AW22381	575872	WMWBARG_39
AW22382	575872	WMWBARG_39
AW22383	575872	WMWBARG_39

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_39

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>
AW22371	574712	WMWBARG_39
AW22372	574712	WMWBARG_39
AW22373	574712	WMWBARG_39
AW22374	574712	WMWBARG_39
AW22375	574712	WMWBARG_39
AW22376	574712	WMWBARG_39
AW22377	574712	WMWBARG_39
AW22378	574712	WMWBARG_39
AW22379	574712	WMWBARG_39
AW22380	574713	WMWBARG_39
AW22381	574713	WMWBARG_39
AW22382	574713	WMWBARG_39
AW22383	574713	WMWBARG_39

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW22377 and AW22380 are now reported as Not Detected.

General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW22375 and AW22378 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW22371

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.126	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	J 0.0317	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	0.788	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	J 0.00251	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	34.0	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	2.93	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.089	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	11.1	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW22371

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW22371

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

CC:

Reported: 8/1/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW22372

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.106	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	J 0.0272	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.18	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	26.7	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	4.80	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.078	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	8.22	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW22372

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20	
AW22378 Cadmium, Total	mg/L	0.00000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20	
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20	
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20	
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20	
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20	
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20	
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20	
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20	
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20	
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW22372

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Limit	Limit		
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60		0.662	5	
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Expiration: June 30, 2018

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW22373

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.106	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.11	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	J 0.00348	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	33.3	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	3.91	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.053	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	9.74	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW22373

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20	
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20	
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20	
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20	
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20	
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20	
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20	
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20	
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20	
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20	
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW22373

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Limit	Limit		
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60		0.662	5	
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW22374

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.108	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.08	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	27.3	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	4.26	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.050	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	8.17	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW22374

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20	
AW22378 Cadmium, Total	mg/L	0.00000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20	
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20	
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20	
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20	
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20	
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20	
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20	
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20	
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20	
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW22374

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 8/1/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE B
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE B
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20	
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20	
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20	
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20	
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20	
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20	
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20	
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20	
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20	
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20	
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGEGB
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW22375

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW22376

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0830	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	J 0.0858	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	2.19	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/9/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	J 0.00420	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	38.0	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	3.50	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.046	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	13.8	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW22376

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20	
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20	
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20	
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20	
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20	
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20	
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20	
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20	
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20	
AW22376 Mercury, Total by CVAA	mg/L	0.0000980	0.0005	0.004	0.00391	0.00391	0.00388	0.0034 to 0.0046	97.8	70 to 130	0.251	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20	
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW22376

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60			0.662	5
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

CC:

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW22377

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0287	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	J 0.495	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	J 0.00205	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	4.71	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.038	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	4.29	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW22377

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23		107	70 to 130		7.73	20
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115		99.9	70 to 130		2.07	20
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115		103	70 to 130		0.643	20
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115		101	70 to 130		2.83	20
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		2.49	20
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15		93.4	70 to 130		1.70	20
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115		97.2	70 to 130		2.06	20
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75		90.8	70 to 130		0.528	20
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115		105	70 to 130		0.106	20
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115		99.4	70 to 130		0.772	20
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115		96.6	70 to 130		2.11	20
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115		97.6	70 to 130		2.65	20
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115		102	70 to 130		0.965	20
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115		94.8	70 to 130		1.56	20
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046		97.8	70 to 130		0.159	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW22377

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60			0.662	5
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW22378

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW22378

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20
AW22378 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0948	0.0963	0.0993	0.085 to 0.115	94.8	70 to 130	1.56	20
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20
AW22378 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.0972	0.0992	0.0988	0.085 to 0.115	97.2	70 to 130	2.06	20
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20
AW22378 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0966	0.0986	0.1000	0.085 to 0.115	96.6	70 to 130	2.11	20
AW22378 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0976	0.100	0.102	0.085 to 0.115	97.6	70 to 130	2.65	20
AW22378 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.103	0.0994	0.085 to 0.115	102	70 to 130	0.965	20
AW22378 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.105	0.105	0.107	0.085 to 0.115	105	70 to 130	0.106	20
AW22378 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0994	0.0987	0.103	0.085 to 0.115	99.4	70 to 130	0.772	20
AW22378 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0999	0.102	0.103	0.085 to 0.115	99.9	70 to 130	2.07	20
AW22378 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.103	0.104	0.102	0.085 to 0.115	103	70 to 130	0.643	20
AW22378 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.83	20
AW22378 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	2.49	20
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW22378

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Limit	Limit		
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60		0.662	5	
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

CC:

Reported: 8/1/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW22379

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0469	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.13	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	25.3	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	4.60	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.039	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	3.62	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW22379

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22379 Calcium, Total	mg/L	-0.0403	0.22	5.00	5.67	5.70	4.84	4.25 to 5.75	90.8	70 to 130	0.528	20	
AW22383 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20	
AW22383 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20	
AW22383 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20	
AW22383 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20	
AW22383 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20	
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20	
AW22383 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20	
AW22383 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20	
AW22383 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20	
AW22379 Boron, Total	mg/L	0.00425	0.044	1.00	0.934	0.950	0.969	0.85 to 1.15	93.4	70 to 130	1.70	20	
AW22383 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20	
AW22379 Lithium, Total	mg/L	0.000387	0.022	0.20	0.215	0.199	0.216	0.17 to 0.23	107	70 to 130	7.73	20	
AW22383 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20	
AW22383 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW22379

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Limit	Limit		
AW22370	Solids, Dissolved	mg/L	-1.0	25			450	47	40 to 60		0.662	5	
AW22379	Sulfate, Total	mg/L	0.003	1.0	20.00	23.5	3.56	19.6	18 to 22	99.4	80 to 120	1.67	20
AW22379	Chloride, Total	mg/L	0.000	0.25	10.00	14.6	4.59	9.87	9 to 11	100	80 to 120	0.218	20
AW22379	Fluoride, Total	mg/L	0.000	0.3	2.00	2.05	0.037	2.01	1.8 to 2.2	101	80 to 120	5.26	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0456	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.16	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	4.59	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.037	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	3.36	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22383 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20	
AW22383 Calcium, Total	mg/L	-0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20	
AW22383 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20	
AW22383 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20	
AW22383 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20	
AW22383 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20	
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20	
AW22383 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20	
AW22383 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20	
AW22383 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20	
AW22383 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20	
AW22383 Boron, Total	mg/L	0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20	
AW22383 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20	
AW22383 Lithium, Total	mg/L	0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20	
AW22383 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: AW22380

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Limit	Limit	Limit	
AW22383	Chloride, Total	mg/L	0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L	-1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L	0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L	0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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Expiration: June 30, 2018

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW22381

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.165	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	0.448	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	10.9	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	J 0.00227	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0140	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	86.7	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	5.35	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.072	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	27.8	mg/L

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW22381

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22383 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20	
AW22383 Calcium, Total	mg/L	-0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20	
AW22383 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20	
AW22383 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20	
AW22383 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20	
AW22383 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20	
AW22383 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20	
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20	
AW22383 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20	
AW22383 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20	
AW22383 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20	
AW22383 Lithium, Total	mg/L	0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20	
AW22383 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20	
AW22383 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20	
AW22383 Boron, Total	mg/L	0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW22381

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L	0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L	-1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L	0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L	0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW22382

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0841	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.31	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	25.3	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	3.54	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.036	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	7.57	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW22382

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22383 Calcium, Total	mg/L	-0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20	
AW22383 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20	
AW22383 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20	
AW22383 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20	
AW22383 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20	
AW22383 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20	
AW22383 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20	
AW22383 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20	
AW22383 Boron, Total	mg/L	0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20	
AW22383 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20	
AW22383 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20	
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20	
AW22383 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20	
AW22383 Lithium, Total	mg/L	0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20	
AW22383 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW22382

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L	0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L	-1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L	0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L	0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW22383

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/5/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	0.0768	mg/L
* Beryllium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/21/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2016	EPA 200.7		1	0.1	0.5	1.62	mg/L
* Cadmium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/16/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/21/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	JHK	9/14/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	9/14/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/7/2016	SM 2540C		1		25	31.3	mg/L
* Chloride, Total	SES	9/2/2016	EPA 300.0		1	0.04	0.25	3.70	mg/L
* Fluoride, Total	SES	9/2/2016	EPA 300.0		1	0.01	0.3	J 0.038	mg/L
* Sulfate, Total	SES	9/2/2016	EPA 300.0		1	0.3	1	8.43	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW22383

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22383 Antimony, Total	mg/L	0.0000585	0.00132	0.10	0.0915	0.0918	0.0993	0.085 to 0.115	91.5	70 to 130	0.345	20	
AW22383 Calcium, Total	mg/L	-0.0408	0.22	5.00	6.36	6.33	4.85	4.25 to 5.75	94.7	70 to 130	0.473	20	
AW22383 Beryllium, Total	mg/L	0.00000700	0.00132	0.10	0.104	0.104	0.107	0.085 to 0.115	104	70 to 130	0.448	20	
AW22383 Boron, Total	mg/L	0.00407	0.044	1.00	0.956	0.945	0.970	0.85 to 1.15	95.6	70 to 130	1.16	20	
AW22383 Barium, Total	mg/L	-0.00000123	0.0044	0.10	0.169	0.172	0.0988	0.085 to 0.115	92.2	70 to 130	1.78	20	
AW22383 Cadmium, Total	mg/L	0.000000619	0.00044	0.10	0.1000	0.101	0.104	0.085 to 0.115	100	70 to 130	0.646	20	
AW22383 Lead, Total	mg/L	0.00000940	0.0022	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.0100	20	
AW22383 Molybdenum, Total	mg/L	0.0000118	0.0044	0.10	0.0939	0.0956	0.102	0.085 to 0.115	93.9	70 to 130	1.79	20	
AW22383 Selenium, Total	mg/L	0.0000552	0.0044	0.10	0.0962	0.0968	0.103	0.085 to 0.115	96.2	70 to 130	0.670	20	
AW22383 Arsenic, Total	mg/L	0.0000152	0.0022	0.10	0.0975	0.0996	0.103	0.085 to 0.115	97.5	70 to 130	2.14	20	
AW22383 Cobalt, Total	mg/L	-0.00000217	0.0044	0.10	0.0956	0.0956	0.1000	0.085 to 0.115	95.6	70 to 130	0.0458	20	
AW22766 Mercury, Total by CVAA	mg/L	0.000106	0.0005	0.004	0.00391	0.00391	0.00393	0.0034 to 0.0046	97.8	70 to 130	0.159	20	
AW22383 Chromium, Total	mg/L	0.0000102	0.0044	0.10	0.101	0.102	0.103	0.085 to 0.115	101	70 to 130	1.38	20	
AW22383 Lithium, Total	mg/L	0.000427	0.022	0.20	0.209	0.179	0.216	0.17 to 0.23	104	70 to 130	15.5	20	
AW22383 Thallium, Total	mg/L	0.0000226	0.00044	0.10	0.102	0.101	0.0994	0.085 to 0.115	102	70 to 130	0.103	20	

This Certificate states the physical and/or chemical characteristics 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

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Aug-16
 Customer ID:
 Delivery Date: 01-Sep-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW22383

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22383	Chloride, Total	mg/L	0.000	0.25	10.00	13.7	3.71	9.85	9 to 11	100	80 to 120	0.270	20
AW22380	Solids, Dissolved	mg/L	-1.0	25			26.0	47	40 to 60			0	5
AW22383	Fluoride, Total	mg/L	0.000	0.3	2.00	2.09	0.039	2.03	1.8 to 2.2	103	80 to 120	2.60	20
AW22383	Sulfate, Total	mg/L	0.003	1.0	20.00	28.1	8.47	19.7	18 to 22	98.4	80 to 120	0.473	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Definitions



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

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



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA

Requested Complete Date	Routine
Site Representative	Angie Jimmerson
Collector	Nick Pitts

Results To	Dustin Brooks, John Pugh, Greg Dyer
Requested By	Greg Dyer
Location	Barry Gypsum

Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle
Comments	

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-10	08/30/2016	10:25	3	Groundwater		AW22371
MW-9	08/30/2016	11:20	3	Groundwater		AW22372
MW-1	08/30/2016	12:43	3	Groundwater		AW22373
MW-2	08/30/2016	13:40	3	Groundwater		AW22374
EB-1	08/30/2016	15:55	3	Equipment Blank		AW22375

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: 2016.09.01 17:16:26 -05'00'</small>	09/01/2016 17:16

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	
Cooler Temp	2.2 degrees C	
Thermometer ID	5408-27568-2-2	
pH Strip ID	4831-24392-20-19	



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA 09/01/2016 12:30

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle"/>		
Comments	<input type="text"/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	08/30/2016	10:23	4	Groundwater		AW22376
MW-8	08/30/2016	11:28	3	Groundwater		AW22377
FB-1	08/30/2016	11:35	3	Groundwater		AW22378

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: 2016.09.01 17:17:39 -0500</small>	<input type="text" value="09/01/2016 17:17"/>

SmarTroll ID	<input type="text" value="4696-23441-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23342-4-1"/>	Cooler Temp
		<input type="text" value="2.2 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="4831-24392-20-19"/>



Chain of Custody

Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete
 Lab Complete

Lab ETA

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, John Pugh, Greg Dyer"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Barry Gypsum"/>

Analysis Requested

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	08/30/2016	10:18	3	Groundwater		AW22379
MW-7DUP	08/30/2016	10:18	3	Sample Duplicate		AW22380
MW-6	08/30/2016	11:25	3	Groundwater		AW22381
MW-4	08/30/2016	12:35	3	Groundwater		AW22382
MW-3	08/30/2016	13:40	3	Groundwater		AW22383

Relinquished By	Received By	Date/Time
<i>Anthony Goggins</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2016.09.01 17:19:19 -05'00'</small>	09/01/2016 17:19

SmarTroll ID	<input type="text" value="5151-26193-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="5160-26211-1-1"/>	Cooler Temp <input type="text" value="2.2 degrees C"/>
		Thermometer ID <input type="text" value="5408-27568-2-2"/>
		pH Strip ID <input type="text" value="4831-24392-20-19"/>

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: 400-126931-1

TestAmerica Sample Delivery Group: Barry Gypsum (4)

Client Project/Site: CCR Plant Barry

For:

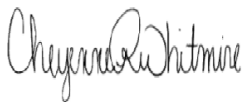
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

10/10/2016 6:03:44 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: 400-126931-1
SDG: Barry Gypsum (4)

Job ID: 400-126931-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-126931-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-270098: The following samples were prepared at a reduced aliquot due to limited volume: AW22371 MW-10 (400-126931-1), AW22372 MW-9 (400-126931-2), AW22373 MW-10 (400-126931-3), AW22374 MW-2 (400-126931-4), AW22375 EB-1 (400-126931-5), AW22376 MW-5 (400-126931-6), AW22376 MW-5 (400-126931-6[DU]), AW22377 MW-8 (400-126931-7), AW22378 FB-1 (400-126931-8), AW22379 MW-7 (400-126931-9), AW22380 MW-7 DUP (400-126931-10), AW22381 MW-6 (400-126931-11), AW22382 MW-4 (400-126931-12) and AW22383 MW-3 (400-126931-13).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-270097: The following samples were prepared at a reduced aliquot due to limited volume: AW22371 MW-10 (400-126931-1), AW22372 MW-9 (400-126931-2), AW22373 MW-10 (400-126931-3), AW22374 MW-2 (400-126931-4), AW22375 EB-1 (400-126931-5), AW22376 MW-5 (400-126931-6), AW22376 MW-5 (400-126931-6[DU]), AW22377 MW-8 (400-126931-7), AW22378 FB-1 (400-126931-8), AW22379 MW-7 (400-126931-9), AW22380 MW-7 DUP (400-126931-10), AW22381 MW-6 (400-126931-11), AW22382 MW-4 (400-126931-12) and AW22383 MW-3 (400-126931-13).



Method Summary

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126931-1	AW22371 MW-10	Water	08/30/16 10:25	09/09/16 15:30
400-126931-2	AW22372 MW-9	Water	08/30/16 11:20	09/09/16 15:30
400-126931-3	AW22373 MW-10	Water	08/30/16 12:43	09/09/16 15:30
400-126931-4	AW22374 MW-2	Water	08/30/16 13:40	09/09/16 15:30
400-126931-5	AW22375 EB-1	Water	08/30/16 15:55	09/09/16 15:30
400-126931-6	AW22376 MW-5	Water	08/30/16 10:23	09/09/16 15:30
400-126931-7	AW22377 MW-8	Water	08/30/16 11:28	09/09/16 15:30
400-126931-8	AW22378 FB-1	Water	08/30/16 11:35	09/09/16 15:30
400-126931-9	AW22379 MW-7	Water	08/30/16 10:18	09/09/16 15:30
400-126931-10	AW22380 MW-7 DUP	Water	08/30/16 10:18	09/09/16 15:30
400-126931-11	AW22381 MW-6	Water	08/30/16 11:25	09/09/16 15:30
400-126931-12	AW22382 MW-4	Water	08/30/16 12:35	09/09/16 15:30
400-126931-13	AW22383 MW-3	Water	08/30/16 13:40	09/09/16 15:30

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22371 MW-10

Lab Sample ID: 400-126931-1

Date Collected: 08/30/16 10:25

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.667		0.159	0.170	1.00	0.161	pCi/L	09/15/16 18:10	10/07/16 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/15/16 18:10	10/07/16 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.355	0.357	1.00	0.572	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.9		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	81.5		40 - 110					09/15/16 18:42	10/01/16 18:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.05		0.389	0.395	5.00	0.572	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22372 MW-9

Lab Sample ID: 400-126931-2

Date Collected: 08/30/16 11:20

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.640		0.154	0.165	1.00	0.152	pCi/L	09/15/16 18:10	10/07/16 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					09/15/16 18:10	10/07/16 10:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.384	0.385	1.00	0.630	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.4		40 - 110					09/15/16 18:42	10/01/16 18:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.980		0.413	0.419	5.00	0.630	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22373 MW-10

Lab Sample ID: 400-126931-3

Date Collected: 08/30/16 12:43

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.730		0.150	0.164	1.00	0.120	pCi/L	09/15/16 18:10	10/07/16 12:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:10	10/07/16 12:52	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.499	0.508	1.00	0.750	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.7		40 - 110					09/15/16 18:42	10/01/16 18:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.74		0.521	0.533	5.00	0.750	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22374 MW-2

Lab Sample ID: 400-126931-4

Date Collected: 08/30/16 13:40

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.459		0.139	0.145	1.00	0.159	pCi/L	09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/15/16 18:10	10/07/16 10:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0471	U	0.341	0.341	1.00	0.619	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	79.3		40 - 110					09/15/16 18:42	10/01/16 18:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.411	U	0.368	0.370	5.00	0.619	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22375 EB-1

Lab Sample ID: 400-126931-5

Date Collected: 08/30/16 15:55

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0271	U	0.0541	0.0542	1.00	0.0974	pCi/L	09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/15/16 18:10	10/07/16 10:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.217	U	0.357	0.358	1.00	0.604	pCi/L	09/15/16 18:42	10/01/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/15/16 18:42	10/01/16 18:57	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:57	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.244	U	0.361	0.362	5.00	0.604	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22376 MW-5

Lab Sample ID: 400-126931-6

Date Collected: 08/30/16 10:23

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.363		0.112	0.117	1.00	0.110	pCi/L	09/15/16 18:10	10/07/16 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:10	10/07/16 10:53	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.332	U	0.384	0.385	1.00	0.632	pCi/L	09/15/16 18:42	10/01/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.2		40 - 110					09/15/16 18:42	10/01/16 18:58	1
Y Carrier	72.9		40 - 110					09/15/16 18:42	10/01/16 18:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.696		0.400	0.402	5.00	0.632	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22377 MW-8

Lab Sample ID: 400-126931-7

Date Collected: 08/30/16 11:28

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.290		0.117	0.120	1.00	0.148	pCi/L	09/15/16 18:10	10/07/16 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/15/16 18:10	10/07/16 10:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.396	U	0.378	0.380	1.00	0.610	pCi/L	09/15/16 18:42	10/01/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.6		40 - 110					09/15/16 18:42	10/01/16 18:58	1
Y Carrier	81.5		40 - 110					09/15/16 18:42	10/01/16 18:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.687		0.395	0.398	5.00	0.610	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22378 FB-1

Lab Sample ID: 400-126931-8

Date Collected: 08/30/16 11:35

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0788	U	0.0849	0.0852	1.00	0.138	pCi/L	09/15/16 18:10	10/07/16 10:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/15/16 18:10	10/07/16 10:54	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0717	U	0.327	0.327	1.00	0.598	pCi/L	09/15/16 18:42	10/01/16 18:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/15/16 18:42	10/01/16 18:58	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00715	U	0.337	0.338	5.00	0.598	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22379 MW-7

Lab Sample ID: 400-126931-9

Date Collected: 08/30/16 10:18

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169		0.103	0.104	1.00	0.147	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.700	U	0.474	0.478	1.00	0.736	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.2		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.4		40 - 110					09/15/16 18:42	10/01/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.869		0.485	0.489	5.00	0.736	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22380 MW-7 DUP

Lab Sample ID: 400-126931-10

Date Collected: 08/30/16 10:18

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0982	0.0994	1.00	0.140	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.377	U	0.387	0.388	1.00	0.630	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.0		40 - 110					09/15/16 18:42	10/01/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.543	U	0.399	0.401	5.00	0.630	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22381 MW-6

Lab Sample ID: 400-126931-11

Date Collected: 08/30/16 11:25

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.768		0.165	0.179	1.00	0.154	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.14		0.475	0.486	1.00	0.680	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	80.7		40 - 110					09/15/16 18:42	10/01/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.91		0.503	0.518	5.00	0.680	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22382 MW-4

Lab Sample ID: 400-126931-12

Date Collected: 08/30/16 12:35

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.528		0.129	0.137	1.00	0.110	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.464	U	0.387	0.390	1.00	0.618	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	80.0		40 - 110					09/15/16 18:42	10/01/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.992		0.408	0.413	5.00	0.618	pCi/L		10/10/16 04:03	1

Client Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22383 MW-3

Lab Sample ID: 400-126931-13

Date Collected: 08/30/16 13:40

Matrix: Water

Date Received: 09/09/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.323		0.118	0.122	1.00	0.139	pCi/L	09/15/16 18:10	10/07/16 10:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					09/15/16 18:10	10/07/16 10:55	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.396	0.398	1.00	0.647	pCi/L	09/15/16 18:42	10/01/16 18:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					09/15/16 18:42	10/01/16 18:53	1
Y Carrier	77.8		40 - 110					09/15/16 18:42	10/01/16 18:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.702		0.414	0.416	5.00	0.647	pCi/L		10/10/16 04:03	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22371 MW-10

Lab Sample ID: 400-126931-1

Date Collected: 08/30/16 10:25

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22372 MW-9

Lab Sample ID: 400-126931-2

Date Collected: 08/30/16 11:20

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22373 MW-10

Lab Sample ID: 400-126931-3

Date Collected: 08/30/16 12:43

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 12:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22374 MW-2

Lab Sample ID: 400-126931-4

Date Collected: 08/30/16 13:40

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22375 EB-1

Lab Sample ID: 400-126931-5

Date Collected: 08/30/16 15:55

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:57	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22376 MW-5

Lab Sample ID: 400-126931-6

Date Collected: 08/30/16 10:23

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273592	10/07/16 10:53	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22377 MW-8

Lab Sample ID: 400-126931-7

Date Collected: 08/30/16 11:28

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22378 FB-1

Lab Sample ID: 400-126931-8

Date Collected: 08/30/16 11:35

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:54	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272614	10/01/16 18:58	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Client Sample ID: AW22379 MW-7

Lab Sample ID: 400-126931-9

Date Collected: 08/30/16 10:18

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22380 MW-7 DUP

Lab Sample ID: 400-126931-10

Date Collected: 08/30/16 10:18

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22381 MW-6

Lab Sample ID: 400-126931-11

Date Collected: 08/30/16 11:25

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Client Sample ID: AW22382 MW-4

Lab Sample ID: 400-126931-12

Date Collected: 08/30/16 12:35

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Client Sample ID: AW22383 MW-3

Lab Sample ID: 400-126931-13

Date Collected: 08/30/16 13:40

Matrix: Water

Date Received: 09/09/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			270097	09/15/16 18:10	MCJ	TAL SL
Total/NA	Analysis	9315		1	273593	10/07/16 10:55	RTM	TAL SL
Total/NA	Prep	PrecSep_0			270098	09/15/16 18:42	MCJ	TAL SL
Total/NA	Analysis	9320		1	272615	10/01/16 18:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	273696	10/10/16 04:03	ALS	TAL SL

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Rad

Prep Batch: 270097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126931-1	AW22371 MW-10	Total/NA	Water	PrecSep-21	
400-126931-2	AW22372 MW-9	Total/NA	Water	PrecSep-21	
400-126931-3	AW22373 MW-10	Total/NA	Water	PrecSep-21	
400-126931-4	AW22374 MW-2	Total/NA	Water	PrecSep-21	
400-126931-5	AW22375 EB-1	Total/NA	Water	PrecSep-21	
400-126931-6	AW22376 MW-5	Total/NA	Water	PrecSep-21	
400-126931-7	AW22377 MW-8	Total/NA	Water	PrecSep-21	
400-126931-8	AW22378 FB-1	Total/NA	Water	PrecSep-21	
400-126931-9	AW22379 MW-7	Total/NA	Water	PrecSep-21	
400-126931-10	AW22380 MW-7 DUP	Total/NA	Water	PrecSep-21	
400-126931-11	AW22381 MW-6	Total/NA	Water	PrecSep-21	
400-126931-12	AW22382 MW-4	Total/NA	Water	PrecSep-21	
400-126931-13	AW22383 MW-3	Total/NA	Water	PrecSep-21	
MB 160-270097/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-270097/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-126931-6 DU	AW22376 MW-5	Total/NA	Water	PrecSep-21	

Prep Batch: 270098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126931-1	AW22371 MW-10	Total/NA	Water	PrecSep_0	
400-126931-2	AW22372 MW-9	Total/NA	Water	PrecSep_0	
400-126931-3	AW22373 MW-10	Total/NA	Water	PrecSep_0	
400-126931-4	AW22374 MW-2	Total/NA	Water	PrecSep_0	
400-126931-5	AW22375 EB-1	Total/NA	Water	PrecSep_0	
400-126931-6	AW22376 MW-5	Total/NA	Water	PrecSep_0	
400-126931-7	AW22377 MW-8	Total/NA	Water	PrecSep_0	
400-126931-8	AW22378 FB-1	Total/NA	Water	PrecSep_0	
400-126931-9	AW22379 MW-7	Total/NA	Water	PrecSep_0	
400-126931-10	AW22380 MW-7 DUP	Total/NA	Water	PrecSep_0	
400-126931-11	AW22381 MW-6	Total/NA	Water	PrecSep_0	
400-126931-12	AW22382 MW-4	Total/NA	Water	PrecSep_0	
400-126931-13	AW22383 MW-3	Total/NA	Water	PrecSep_0	
MB 160-270098/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-270098/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-126931-6 DU	AW22376 MW-5	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-270097/1-A
Matrix: Water
Analysis Batch: 273592

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 270097

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05066	U	0.0665	0.0667	1.00	0.111	pCi/L	09/15/16 18:10	10/07/16 10:51	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/15/16 18:10	10/07/16 10:51	1

Lab Sample ID: LCS 160-270097/2-A
Matrix: Water
Analysis Batch: 273670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 270097

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.8	18.61		1.82	1.00	0.154	pCi/L	126	68 - 137
Carrier	%Yield	LCS Qualifier	Limits						
Ba Carrier	86.0		40 - 110						

Lab Sample ID: 400-126931-6 DU
Matrix: Water
Analysis Batch: 273592

Client Sample ID: AW22376 MW-5
Prep Type: Total/NA
Prep Batch: 270097

Analyte	Sample Result	Sample Qual	FD Result	FD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.363		0.3455		0.116	1.00	0.117	pCi/L	0.08	1
Carrier	%Yield	FD Qualifier	Limits							
Ba Carrier	90.3		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-270098/1-A
Matrix: Water
Analysis Batch: 272614

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 270098

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.06678	U	0.314	0.314	1.00	0.556	pCi/L	09/15/16 18:42	10/01/16 18:55	1
Carrier	%Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/15/16 18:42	10/01/16 18:55	1
Y Carrier	79.3		40 - 110					09/15/16 18:42	10/01/16 18:55	1

QC Sample Results

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

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

Lab Sample ID: LCS 160-270098/2-A
Matrix: Water
Analysis Batch: 272614

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 270098

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.3	21.05		2.31	1.00	0.692	pCi/L	109	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.0		40 - 110
Y Carrier	81.1		40 - 110

Lab Sample ID: 400-126931-6 DU
Matrix: Water
Analysis Batch: 272614

Client Sample ID: AW22376 MW-5
Prep Type: Total/NA
Prep Batch: 270098

Analyte	Sample Result	Sample Qual	FD Result	FD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.332	U	0.1480	U	0.368	1.00	0.635	pCi/L	0.24	1

Carrier	FD %Yield	FD Qualifier	Limits
Ba Carrier	90.3		40 - 110
Y Carrier	74.0		40 - 110


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

Lab Sample ID: 400-126931-6 DU
Matrix: Water
Analysis Batch: 273696

Client Sample ID: AW22376 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	FD Result	FD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.696		0.4935	U	0.386	5.00	0.635	pCi/L	0.26	

Chain of Custody Record

Client Information Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State/Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Gypsum (4)		Lab P/M: Whitire, Cheyenne R E-Mail: cheyenne.whitire@testamericainc.com Carrier Tracking No(s): 400-56525-24537.1 Page 1 of 2 Job #: 126931	
Due Date Requested: TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSO#: Date: 09/08/2016; 10:50		Analysis Requested  400-126931 COC	
Sample Identification Sample ID: AW22371 Sample ID: AW22372 Sample ID: AW22373 Sample ID: AW22374 Sample ID: AW22375 Sample ID: AW22376 Sample ID: AW22377 Sample ID: AW22378		Sample Date: 8/30/16 Sample Time: 1025 Sample Type (C=Comp, G=grab): G Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air): Water Preservation Code: MW-10 MW-9 MW-10 MW-2 EB-1 (Equipment Blank) MW-5 MW-8 FB-1 (Field 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		Special Instructions/Note: Total Number of Containers: 1 MW-10 MW-9 MW-10 MW-2 EB-1 (Equipment Blank) MW-5 MW-8 FB-1 (Field Blank)	
Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by: Sarah Copeland Relinquished by: Sarah Copeland Relinquished by:		Method of Shipment: Date/Time: 09/08/2016; 10:50 Date/Time: Date/Time: Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Received by: Sarah Copeland Received by: Received by: Date/Time: 09/09/16 15:30 Date/Time: 10:50 Date/Time:	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-126931-1
SDG Number: Barry Gypsum (4)

Login Number: 126931

List Number: 1

Creator: Whitmire, Cheyenne R

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	27.3°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

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

TestAmerica Job ID: 400-126931-1
 SDG: Barry Gypsum (4)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126931-1
SDG: Barry Gypsum (4)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_1052

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) 644-6121

The following data has been reviewed and approved by:

Quality Control:

Supervision:



Anions

Barry Gypsum

WMWBARG_1052

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

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW26441	579666	579669	579672	WMWBARG_1052
AW26442	579666	579669	579672	WMWBARG_1052
AW26443	579666	579669	579672	WMWBARG_1052
AW26444	579666	579669	579672	WMWBARG_1052
AW26445	579666	579669	579672	WMWBARG_1052
AW26446	579666	579669	579672	WMWBARG_1052
AW26447	579666	579669	579672	WMWBARG_1052
AW26448	579666	579669	579672	WMWBARG_1052
AW26449	579666	579669	579672	WMWBARG_1052
AW26450	579666	579669	579672	WMWBARG_1052
AW26451	579667	579670	579673	WMWBARG_1052
AW26452	579667	579670	579673	WMWBARG_1052
AW26453	579667	579670	579673	WMWBARG_1052

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met. It is noted that the Instrument Performance Check standard analyzed after the initial calibration of 10/21/2016 was utilized as the opening LFB for the analysis sequence in batches 579666, 579669 and 579672.
- All laboratory reagent blanks were less than the method detection limits for the requested anions.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.



Matrix Specific Quality Control Procedures:

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

- A laboratory fortified matrix sample was analyzed with each batch. All acceptance criteria for accuracy were met.
 - A sample duplicate and/or laboratory fortified matrix duplicate were analyzed with each batch. All acceptance criteria for precision were met. It is noted that separate and distinct criteria for duplicate precision calculations, based on sample and duplicate anion concentrations, are used to assess precision compliance. These are as follow: if the sample and duplicate are both greater than 5x anion Reporting Limit (RL) concentration, the precision is calculated and reported as relative percent difference (RPD), with an acceptance range of 0 - 20%; if either the sample or duplicate are less than 5x anion RL, the precision is calculated and reported as the absolute value of the difference between the two concentrations, with an acceptance range of less than or equal to the anion RL value.
7. All batch samples were analyzed without a dilution.
 8. The raw data results are shown with dilution factors included, when dilutions are manually performed by the analyst.
The raw data results are shown without dilution factor corrections, when dilutions are run automatically by the instrument.



Metals ICP

Barry Gypsum

WMWBARG_1052

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>
AW26441	20161031C	WMWBARG_1052
AW26442	20161031C	WMWBARG_1052
AW26443	20161031C	WMWBARG_1052
AW26444	20170414G_20170518A	WMWBARG_1052
AW26445	20170414G_20170518A	WMWBARG_1052
AW26446	20161116D	WMWBARG_1052
AW26447	20161116D	WMWBARG_1052
AW26448	20161116D	WMWBARG_1052
AW26449	20161116D	WMWBARG_1052
AW26450	20161116D	WMWBARG_1052
AW26451	20161116D	WMWBARG_1052
AW26452	20161116D	WMWBARG_1052
AW26453	20161116D	WMWBARG_1052

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, with the following exceptions: samples AW26444 and AW26445 Lithium reanalysis in batch 20170518A.
6. All in house quality control procedures were followed, as described below.
7. Samples AW26444 and AW26445 from 20161031C and 20161116D were rescheduled and re-analyzed due to potential bottle swap/sample mislabeling. Calcium and Boron were prepared and analyzed in batch 20170414G. Lithium was prepared and analyzed in batch 20170518A. The original batch QC tied to AW26444 was moved to AW26443. Samples AW26441-26443 will not have any spike QC information.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.



- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
8. All samples were analyzed without a dilution, with the exception of batches 20170414G and 20170518A, which were run at a 2x dilution to compensate for any potential matrix effects.
 9. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_1052

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>
AW26441	580547	WMWBARG_1052
AW26442	580547	WMWBARG_1052
AW26443	580547	WMWBARG_1052
AW26444	581113	WMWBARG_1052
AW26445	581113	WMWBARG_1052
AW26446	581113	WMWBARG_1052
AW26447	581113	WMWBARG_1052
AW26448	581113	WMWBARG_1052
AW26449	581113	WMWBARG_1052
AW26450	581113	WMWBARG_1052
AW26451	581113	WMWBARG_1052
AW26452	581113	WMWBARG_1052
AW26453	581113	WMWBARG_1052

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.
7. Cadmium MDL increased from 0.0001mg/L to 0.0002mg/L.

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.
8. All samples were analyzed at a dilution of 1 to 5 to compensate for any matrix effects.
 9. The raw data results are shown with dilution factors included.



Mercury

Barry Gypsum

WMWBARG_1052

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>
AW26441	579849	WMWBARG_1052
AW26442	580284	WMWBARG_1052
AW26443	580284	WMWBARG_1052
AW26444	580284	WMWBARG_1052
AW26445	580284	WMWBARG_1052
AW26446	580284	WMWBARG_1052
AW26447	580284	WMWBARG_1052
AW26448	580284	WMWBARG_1052
AW26449	580284	WMWBARG_1052
AW26450	580284	WMWBARG_1052
AW26451	580284	WMWBARG_1052
AW26452	580285	WMWBARG_1052
AW26453	580285	WMWBARG_1052

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.
- MB, LCS, samples AW26442-451, AW26451ms, AW26451msd, CCV, and CCB (all from batch 580284) were run twice because the instrument reductant reagent was not flowing correctly sometime during that time. Issue was corrected, above samples were run again, and the 2nd run results were reported in LabWorks.

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_1052

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>
AW26441	579852	WMWBARG_1052
AW26442	579852	WMWBARG_1052
AW26443	579852	WMWBARG_1052
AW26444	579852	WMWBARG_1052
AW26445	579852	WMWBARG_1052
AW26446	579852	WMWBARG_1052
AW26447	579852	WMWBARG_1052
AW26448	579852	WMWBARG_1052
AW26449	579852	WMWBARG_1052
AW26450	579852	WMWBARG_1052
AW26451	579853	WMWBARG_1052
AW26452	579853	WMWBARG_1052
AW26453	579853	WMWBARG_1052

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The reporting limit for TDS was incorrectly listed as 2.5mg/L. This has been corrected based on filter volume and project limits. Samples AW26444, AW26445 and AW26447 are now reported as Not Detected.

General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW26443 and AW26453 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW26441

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	0.0859	mg/L
* Beryllium, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/31/2016	EPA 200.7		1	0.02	0.1	J 0.0778	mg/L
* Calcium, Total	HRG	10/31/2016	EPA 200.7		1	0.1	0.5	1.97	mg/L
* Cadmium, Total	TAS	11/3/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/26/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/31/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	J 0.00386	mg/L
* Thallium, Total	TAS	11/3/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	28.7	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	3.50	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.034	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	12.2	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW26441

Sample Analysis	Units	MB	MB				LFB		Rec		Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec
AW26443 Thallium, Total	mg/L	0.00000905	0.00044	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094420
AW26443 Lead, Total	mg/L	0.00000860	0.0022	0.10	0.111	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352 20
AW25924 Mercury, Total by CVAA	mg/L	0.0000550	0.0005	0.004	0.00383	0.00384	0.00369	0.0034 to 0.0046	95.8	70 to 130	0.133 20
AW26443 Calcium, Total	mg/L	-0.0300	0.22				4.72	4.25 to 5.75		70 to 130	20
AW26443 Arsenic, Total	mg/L	0.0000251	0.0022	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353 20
AW26443 Cadmium, Total	mg/L	0.00000715	0.00044	0.10	0.106	0.104	0.103	0.085 to 0.115	106	70 to 130	2.04 20
AW26443 Molybdenum, Total	mg/L	0.0000346	0.0044	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.623 20
AW26443 Antimony, Total	mg/L	0.0000396	0.00132	0.10	0.0999	0.0993	0.0998	0.085 to 0.115	99.9	70 to 130	0.614 20
AW26443 Boron, Total	mg/L	0.00901	0.044				0.968	0.85 to 1.15		70 to 130	20
AW26443 Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.104	0.102	0.105	0.085 to 0.115	104	70 to 130	1.34 20
AW26443 Barium, Total	mg/L	0.0000114	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428 20
AW26443 Beryllium, Total	mg/L	0.0000862	0.00132	0.10	0.103	0.101	0.103	0.085 to 0.115	103	70 to 130	1.68 20
AW26443 Chromium, Total	mg/L	0.0000153	0.0044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473 20
AW26443 Cobalt, Total	mg/L	0.00000523	0.0044	0.10	0.105	0.104	0.105	0.085 to 0.115	105	70 to 130	1.12 20
AW26443 Lithium, Total	mg/L	0.000132	0.022				0.214	0.17 to 0.23		70 to 130	20

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-5

Laboratory ID Number: AW26441

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	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, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW26442

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	0.0309	mg/L
* Beryllium, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/31/2016	EPA 200.7		1	0.02	0.1	J 0.0207	mg/L
* Calcium, Total	HRG	10/31/2016	EPA 200.7		1	0.1	0.5	0.503	mg/L
* Cadmium, Total	TAS	11/3/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	J 0.00218	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/31/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/3/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	28.0	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	4.73	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.028	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	4.27	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW26442

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26443	Calcium, Total	mg/L	-0.0300	0.22			4.72	4.25 to 5.75		70 to 130		20	
AW26443	Thallium, Total	mg/L	0.00000905	0.00044	0.10	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094420		
AW26443	Lead, Total	mg/L	0.00000860	0.0022	0.10	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352	20	
AW26443	Antimony, Total	mg/L	0.0000396	0.00132	0.10	0.0999	0.0998	0.085 to 0.115	99.9	70 to 130	0.614	20	
AW26443	Boron, Total	mg/L	0.00901	0.044			0.968	0.85 to 1.15		70 to 130		20	
AW26443	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.104	0.105	0.085 to 0.115	104	70 to 130	1.34	20	
AW26443	Arsenic, Total	mg/L	0.0000251	0.0022	0.10	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353	20	
AW26443	Cadmium, Total	mg/L	0.00000715	0.00044	0.10	0.106	0.103	0.085 to 0.115	106	70 to 130	2.04	20	
AW26443	Molybdenum, Total	mg/L	0.0000346	0.0044	0.10	0.104	0.105	0.085 to 0.115	104	70 to 130	0.623	20	
AW26451	Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26443	Barium, Total	mg/L	0.0000114	0.0044	0.10	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428	20	
AW26443	Beryllium, Total	mg/L	0.0000862	0.00132	0.10	0.103	0.103	0.085 to 0.115	103	70 to 130	1.68	20	
AW26443	Chromium, Total	mg/L	0.0000153	0.0044	0.10	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473	20	
AW26443	Cobalt, Total	mg/L	0.00000523	0.0044	0.10	0.105	0.105	0.085 to 0.115	105	70 to 130	1.12	20	
AW26443	Lithium, Total	mg/L	0.000132	0.022			0.214	0.17 to 0.23		70 to 130		20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-8

Laboratory ID Number: AW26442

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS	11/3/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	10/31/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	10/31/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	11/3/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	10/31/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/3/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/3/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/3/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	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

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGE B
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

Sample	Analysis	Units	MB				LFB			Rec		Prec	
			MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW26443	Calcium, Total	mg/L	-0.0300	0.22				4.72	4.25 to 5.75		70 to 130		20
AW26443	Thallium, Total	mg/L	0.00000905	0.00044	0.10	0.110	0.110	0.107	0.085 to 0.115	110	70 to 130	0.0094420	
AW26443	Lead, Total	mg/L	0.00000860	0.0022	0.10	0.111	0.111	0.108	0.085 to 0.115	111	70 to 130	0.352	20
AW26443	Arsenic, Total	mg/L	0.0000251	0.0022	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.353	20
AW26443	Cadmium, Total	mg/L	0.00000715	0.00044	0.10	0.106	0.104	0.103	0.085 to 0.115	106	70 to 130	2.04	20
AW26443	Molybdenum, Total	mg/L	0.0000346	0.0044	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.623	20
AW26451	Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20
AW26443	Antimony, Total	mg/L	0.0000396	0.00132	0.10	0.0999	0.0993	0.0998	0.085 to 0.115	99.9	70 to 130	0.614	20
AW26443	Boron, Total	mg/L	0.00901	0.044				0.968	0.85 to 1.15		70 to 130		20
AW26443	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.104	0.102	0.105	0.085 to 0.115	104	70 to 130	1.34	20
AW26443	Barium, Total	mg/L	0.0000114	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.428	20
AW26443	Beryllium, Total	mg/L	0.0000862	0.00132	0.10	0.103	0.101	0.103	0.085 to 0.115	103	70 to 130	1.68	20
AW26443	Chromium, Total	mg/L	0.0000153	0.0044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.473	20
AW26443	Cobalt, Total	mg/L	0.00000523	0.0044	0.10	0.105	0.104	0.105	0.085 to 0.115	105	70 to 130	1.12	20
AW26443	Lithium, Total	mg/L	0.000132	0.022				0.214	0.17 to 0.23		70 to 130		20

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGEGB
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AW26443

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW26444

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0715	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/14/2017	EPA 200.7		2	0.02	0.1	J 0.0220	mg/L
* Calcium, Total	HRG	4/14/2017	EPA 200.7		2	0.1	0.5	1.22	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	3.68	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.025	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	6.62	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17
 Recovery for Calcium is out of range.
 Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW26444

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Cadmium, Total	mg/L	0.0000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.0000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.0000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.0000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.0000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26445 Boron, Total	mg/L	0.00118	0.044	1.00	0.997	0.993	0.976	0.85 to 1.15	99.7	70 to 130	0.402	20	
AW26445 Lithium, Total	mg/L	-0.0000280	0.022	0.20	0.203	0.192	0.202	0.17 to 0.23	102	70 to 130	5.69	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26445 Calcium, Total	mg/L	0.000447	0.22	5.00	6.15	6.21	4.95	4.25 to 5.75	98.7	70 to 130	0.952	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17
 Recovery for Calcium is out of range.
 Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4

Laboratory ID Number: AW26444

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17
 Recovery for Calcium is out of range.
 Spike amount is less than 30% sample amount, therefore will not be qualified. SGC 12/13/16

CC:

Reported: 8/1/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AW26445

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0709	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/14/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/14/2017	EPA 200.7		2	0.1	0.5	1.22	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	3.68	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.026	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	6.48	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected to 25 mg/L. The result for TDS has been correctly changed to Not Detected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AW26445

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046		96.1	70 to 130	0.239	20
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115		93.8	70 to 130	0.0289	20
AW26445 Calcium, Total	mg/L	0.000447	0.22	5.00	6.15	6.21	4.95	4.25 to 5.75		98.7	70 to 130	0.952	20
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115		100	70 to 130	0.407	20
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115		93.9	70 to 130	0.243	20
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115		89.7	70 to 130	1.05	20
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115		101	70 to 130	1.21	20
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115		115	70 to 130	3.30	20
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115		100	70 to 130	0.740	20
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115		99.3	70 to 130	0.263	20
AW26445 Boron, Total	mg/L	0.00118	0.044	1.00	0.997	0.993	0.976	0.85 to 1.15		99.7	70 to 130	0.402	20
AW26445 Lithium, Total	mg/L	-0.0000280	0.022	0.20	0.203	0.192	0.202	0.17 to 0.23		102	70 to 130	5.69	20
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115		93.2	70 to 130	1.19	20
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115		96.8	70 to 130	0.107	20
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115		95.8	70 to 130	0.0339	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AW26445

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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CC:

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 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW26446

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0727	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	1.53	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	26.7	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	3.77	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.030	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	8.47	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW26446

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-3

Laboratory ID Number: AW26446

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		Prec
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW26447

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.103	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	1.03	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	4.26	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.040	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	7.99	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW26447

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	

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Alabama Power General Test Laboratory
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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-2

Laboratory ID Number: AW26447

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW26448

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.102	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	1.04	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	J 0.00338	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	27.3	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	3.90	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.042	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	10.2	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: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected.
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW26448

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-1

Laboratory ID Number: AW26448

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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 Calera, AL 35040
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 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW26449

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.148	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	0.249	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	8.74	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0105	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	67.3	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	4.55	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.049	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	22.5	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW26449

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-6

Laboratory ID Number: AW26449

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	40 to 60			0.00	5

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 Calera, AL 35040
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 FAX (205) 257-1654

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW26450

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.0611	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	1.45	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	28.0	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	8.32	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.025	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	2.58	mg/L

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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW26450

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-7

Laboratory ID Number: AW26450

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW26450	Sulfate, Total	mg/L	-0.057	1.0	20.00	21.7	2.66	19.6	18 to 22	95.6	80 to 120	3.05	20
AW26450	Chloride, Total	mg/L	0.000	0.25	10.00	17.9	8.30	9.92	9 to 11	95.8	80 to 120	0.241	20
AW26450	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.027	1.99	1.8 to 2.2	96.8	80 to 120	7.69	20
AW26450	Solids, Dissolved	mg/L	1.00	25			28.0	45.0	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, 2018

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CC:

Reported: 8/1/2017
 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW26451

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.106	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	1.12	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	32.0	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	4.71	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.071	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	9.29	mg/L

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW26451

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26451 Mercury, Total by CVAA	mg/L	0.0000747	0.0005	0.004	0.00384	0.00385	0.00383	0.0034 to 0.0046	96.1	70 to 130	0.239	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	

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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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-9

Laboratory ID Number: AW26451

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26460	Fluoride, Total	mg/L	0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26460	Sulfate, Total	mg/L	-0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26460	Chloride, Total	mg/L	0.000	0.25	10.00	9.92	0.000	9.86	9 to 11	99.2	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L	1.00	25			240	45.0	40 to 60				0.418 5

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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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW26452

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	0.127	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	0.788	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	J 0.00272	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	31.3	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	2.96	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.092	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	11.7	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW26452

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26461 Mercury, Total by CVAA	mg/L	0.0000744	0.0005	0.004	0.00370	0.00375	0.00368	0.0034 to 0.0046	92.5	70 to 130	1.33	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum - MW-10

Laboratory ID Number: AW26452

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW26460	Sulfate, Total	mg/L	-0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L	1.00	25			240	45.0	40 to 60			0.418	5
AW26460	Fluoride, Total	mg/L	0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26460	Chloride, Total	mg/L	0.000	0.25	10.00	9.92	0.000	9.86	9 to 11	99.2	80 to 120	0	20

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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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW26453

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/13/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	TAS	11/9/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	11/16/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	11/16/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	11/9/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	10/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	11/16/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	TAS	11/9/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	11/9/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	TAS	11/9/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	10/26/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	10/21/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	10/21/2016	EPA 300.0		1	0.01	0.3	J 0.017	mg/L
* Sulfate, Total	SES	10/21/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW26453

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW26453 Lithium, Total	mg/L	-0.0000292	0.022	0.20	0.195	0.200	0.202	0.17 to 0.23	97.7	70 to 130	2.53	20	
AW26461 Mercury, Total by CVAA	mg/L	0.0000744	0.0005	0.004	0.00370	0.00375	0.00368	0.0034 to 0.0046	92.5	70 to 130	1.33	20	
AW26453 Barium, Total	mg/L	0.00000872	0.0044	0.10	0.0938	0.0937	0.0915	0.085 to 0.115	93.8	70 to 130	0.0289	20	
AW26453 Boron, Total	mg/L	-0.0157	0.044	1.00	0.901	0.931	0.930	0.85 to 1.15	90.1	70 to 130	3.28	20	
AW26453 Cadmium, Total	mg/L	0.00000498	0.00044	0.10	0.0932	0.0943	0.0920	0.085 to 0.115	93.2	70 to 130	1.19	20	
AW26453 Lead, Total	mg/L	0.00000892	0.0022	0.10	0.0968	0.0969	0.101	0.085 to 0.115	96.8	70 to 130	0.107	20	
AW26453 Thallium, Total	mg/L	0.00000904	0.00044	0.10	0.0958	0.0958	0.0985	0.085 to 0.115	95.8	70 to 130	0.0339	20	
AW26453 Arsenic, Total	mg/L	0.0000154	0.0022	0.10	0.1000	0.0995	0.106	0.085 to 0.115	100	70 to 130	0.407	20	
AW26453 Calcium, Total	mg/L	-0.108	0.22	5.00	4.65	4.72	4.70	4.25 to 5.75	93.0	70 to 130	1.49	20	
AW26453 Selenium, Total	mg/L	0.0000374	0.0044	0.10	0.0939	0.0936	0.104	0.085 to 0.115	93.9	70 to 130	0.243	20	
AW26453 Antimony, Total	mg/L	0.000116	0.00132	0.10	0.0897	0.0887	0.0897	0.085 to 0.115	89.7	70 to 130	1.05	20	
AW26453 Chromium, Total	mg/L	0.00000800	0.0044	0.10	0.101	0.100	0.105	0.085 to 0.115	101	70 to 130	1.21	20	
AW26453 Beryllium, Total	mg/L	0.0000229	0.00132	0.10	0.115	0.111	0.112	0.085 to 0.115	115	70 to 130	3.30	20	
AW26453 Cobalt, Total	mg/L	0.00000334	0.0044	0.10	0.1000	0.0992	0.104	0.085 to 0.115	100	70 to 130	0.740	20	
AW26453 Molybdenum, Total	mg/L	0.0000356	0.0044	0.10	0.0993	0.0996	0.0980	0.085 to 0.115	99.3	70 to 130	0.263	20	

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 18-Oct-16
 Customer ID:
 Delivery Date: 20-Oct-16

Description: Barry Gypsum Field Blank

Laboratory ID Number: AW26453

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW26460	Sulfate, Total	mg/L	-0.051	1.0	20.00	20.1	0.000	20.3	18 to 22	100	80 to 120	0	20
AW26460	Chloride, Total	mg/L	0.000	0.25	10.00	9.92	0.000	9.86	9 to 11	99.2	80 to 120	0	20
AW26460	Fluoride, Total	mg/L	0.000	0.3	2.00	2.03	0.000	2.08	1.8 to 2.2	102	80 to 120	0	20
AW26455	Solids, Dissolved	mg/L	1.00	25			240	45.0	40 to 60				0.418 5

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

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Definitions



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

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



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 10/20/2016 12:00

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum
Analysis Requested	Bottle 1: Radium 226 & 228 (1) 1L bottle, Bottle 2: Metals and Hg (1) 500 mL bottle, Bottle 3: TDS and Anions (1) 500 mL bottle		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	10/18/2016	09:51	3	Groundwater		AW26444
MW-4DUP	10/18/2016	09:51	3	Sample Duplicate		AW26445
MW-3	10/18/2016	10:48	3	Groundwater		AW26446
MW-2	10/18/2016	11:48	3	Groundwater		AW26447
MW-1	10/18/2016	12:57	3	Groundwater		AW26448

Relinquished By	Received By	Date/Time
		10/18/2016 15:15
	Sarah Copeland <small>Digitally signed by Sarah Copeland Date: 2016.10.20 15:49:08 -05'00'</small>	10/20/2016 15:49

SmarTroll ID	5151-26193-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp
		0.9 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28274-20-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-129138-1

TestAmerica Sample Delivery Group: Barry Gypsum (5)

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:

11/30/2016 5:51:16 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Job ID: 400-129138-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-129138-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-277045: The following samples were run at a reduced aliquot due to limited sample available: AW23441 MW-5 (400-129138-1), AW23442 MW-8 (400-129138-2), AW23443 EB-1 (400-129138-3), AW23444 MW-4 (400-129138-4), AW23445 MW-4 DUP (400-129138-5), AW23446 MW-3 (400-129138-6), AW23447 MW-2 (400-129138-7), AW23448 MW-1 (400-129138-8), AW26450 MW-7 (400-129138-10), AW26451 MW-9 (400-129138-11), AW26452 MW-10 (400-129138-12) and AW26453 FB-1 (400-129138-13).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-277036: The following samples were run at a reduced aliquot due to limited sample available: AW23441 MW-5 (400-129138-1), AW23442 MW-8 (400-129138-2), AW23443 EB-1 (400-129138-3), AW23444 MW-4 (400-129138-4), AW23445 MW-4 DUP (400-129138-5), AW23446 MW-3 (400-129138-6), AW23447 MW-2 (400-129138-7), AW23448 MW-1 (400-129138-8), AW26450 MW-7 (400-129138-10), AW26451 MW-9 (400-129138-11), AW26452 MW-10 (400-129138-12) and AW26453 FB-1 (400-129138-13).



Method Summary

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-129138-1	AW23441 MW-5	Water	10/18/16 10:15	10/25/16 15:30
400-129138-2	AW23442 MW-8	Water	10/18/16 11:22	10/25/16 15:30
400-129138-3	AW23443 EB-1	Water	10/18/16 11:40	10/25/16 15:30
400-129138-4	AW23444 MW-4	Water	10/18/16 09:51	10/25/16 15:30
400-129138-5	AW23445 MW-4 DUP	Water	10/18/16 09:51	10/25/16 15:30
400-129138-6	AW23446 MW-3	Water	10/18/16 10:48	10/25/16 15:30
400-129138-7	AW23447 MW-2	Water	10/18/16 11:48	10/25/16 15:30
400-129138-8	AW23448 MW-1	Water	10/18/16 12:57	10/25/16 15:30
400-129138-9	AW26449 MW-6	Water	10/18/16 09:46	10/25/16 15:30
400-129138-10	AW26450 MW-7	Water	10/18/16 11:35	10/25/16 15:30
400-129138-11	AW26451 MW-9	Water	10/18/16 12:35	10/25/16 15:30
400-129138-12	AW26452 MW-10	Water	10/18/16 13:27	10/25/16 15:30
400-129138-13	AW26453 FB-1	Water	10/18/16 13:40	10/25/16 15:30

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW23441 MW-5

Lab Sample ID: 400-129138-1

Date Collected: 10/18/16 10:15

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.500	U	0.391	0.394	1.00	0.574	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/01/16 14:40	11/28/16 19:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.467		0.302	0.305	1.00	0.463	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	95.3		40 - 110					11/01/16 15:15	11/28/16 14:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.966		0.494	0.498	5.00	0.574	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23442 MW-8

Lab Sample ID: 400-129138-2

Date Collected: 10/18/16 11:22

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.259	U	0.338	0.338	1.00	0.563	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/01/16 14:40	11/28/16 19:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.361	U	0.301	0.303	1.00	0.478	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.3		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	94.2		40 - 110					11/01/16 15:15	11/28/16 14:39	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW23442 MW-8

Lab Sample ID: 400-129138-2

Date Collected: 10/18/16 11:22

Matrix: Water

Date Received: 10/25/16 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.620		0.453	0.454	5.00	0.563	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23443 EB-1

Lab Sample ID: 400-129138-3

Date Collected: 10/18/16 11:40

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0366	U	0.254	0.254	1.00	0.509	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					11/01/16 14:40	11/28/16 19:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0228	U	0.273	0.274	1.00	0.489	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	95.0		40 - 110					11/01/16 15:15	11/28/16 14:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0594	U	0.373	0.373	5.00	0.509	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23444 MW-4

Lab Sample ID: 400-129138-4

Date Collected: 10/18/16 09:51

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.444	U	0.368	0.370	1.00	0.546	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW23444 MW-4

Lab Sample ID: 400-129138-4

Date Collected: 10/18/16 09:51

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.462	U	0.332	0.334	1.00	0.518	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	93.5		40 - 110					11/01/16 15:15	11/28/16 14:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.905		0.495	0.499	5.00	0.546	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23445 MW-4 DUP

Lab Sample ID: 400-129138-5

Date Collected: 10/18/16 09:51

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195	U	0.324	0.324	1.00	0.564	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.952		0.366	0.376	1.00	0.505	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	93.8		40 - 110					11/01/16 15:15	11/28/16 14:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.488	0.496	5.00	0.564	pCi/L		11/30/16 11:17	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Client Sample ID: AW23446 MW-3

Lab Sample ID: 400-129138-6

Date Collected: 10/18/16 10:48

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0942	U	0.292	0.292	1.00	0.549	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.697		0.314	0.321	1.00	0.450	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	101		40 - 110					11/01/16 15:15	11/28/16 14:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.791		0.429	0.434	5.00	0.549	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23447 MW-2

Lab Sample ID: 400-129138-7

Date Collected: 10/18/16 11:48

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.340	U	0.332	0.333	1.00	0.515	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.661		0.407	0.411	1.00	0.631	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	95.3		40 - 110					11/01/16 15:15	11/28/16 14:40	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW23447 MW-2

Lab Sample ID: 400-129138-7

Date Collected: 10/18/16 11:48

Matrix: Water

Date Received: 10/25/16 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.00		0.525	0.529	5.00	0.631	pCi/L		11/30/16 11:17	1

Client Sample ID: AW23448 MW-1

Lab Sample ID: 400-129138-8

Date Collected: 10/18/16 12:57

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.720		0.422	0.427	1.00	0.552	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.754		0.366	0.373	1.00	0.540	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	94.2		40 - 110					11/01/16 15:15	11/28/16 14:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.47		0.558	0.566	5.00	0.552	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26449 MW-6

Lab Sample ID: 400-129138-9

Date Collected: 10/18/16 09:46

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.591		0.351	0.355	1.00	0.474	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW26449 MW-6

Lab Sample ID: 400-129138-9

Date Collected: 10/18/16 09:46

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.375	U	0.285	0.287	1.00	0.450	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.1		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	90.8		40 - 110					11/01/16 15:15	11/28/16 14:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.966		0.453	0.457	5.00	0.474	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26450 MW-7

Lab Sample ID: 400-129138-10

Date Collected: 10/18/16 11:35

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.565	U	0.415	0.418	1.00	0.604	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.362	U	0.311	0.312	1.00	0.496	pCi/L	11/01/16 15:15	11/28/16 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					11/01/16 15:15	11/28/16 14:40	1
Y Carrier	93.1		40 - 110					11/01/16 15:15	11/28/16 14:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.927		0.518	0.522	5.00	0.604	pCi/L		11/30/16 11:17	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Client Sample ID: AW26451 MW-9

Lab Sample ID: 400-129138-11

Date Collected: 10/18/16 12:35

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.452	U	0.352	0.354	1.00	0.507	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.611		0.346	0.350	1.00	0.524	pCi/L	11/01/16 15:15	11/28/16 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					11/01/16 15:15	11/28/16 14:41	1
Y Carrier	95.7		40 - 110					11/01/16 15:15	11/28/16 14:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.06		0.493	0.498	5.00	0.524	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26452 MW-10

Lab Sample ID: 400-129138-12

Date Collected: 10/18/16 13:27

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.820		0.437	0.443	1.00	0.549	pCi/L	11/01/16 14:40	11/28/16 19:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/01/16 14:40	11/28/16 19:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.543		0.324	0.328	1.00	0.489	pCi/L	11/01/16 15:15	11/28/16 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.2		40 - 110					11/01/16 15:15	11/28/16 14:41	1
Y Carrier	92.7		40 - 110					11/01/16 15:15	11/28/16 14:41	1

Client Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW26452 MW-10

Lab Sample ID: 400-129138-12

Date Collected: 10/18/16 13:27

Matrix: Water

Date Received: 10/25/16 15:30

Method: Ra226_Ra228 - Combined Radium-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		0.544	0.551	5.00	0.549	pCi/L		11/30/16 11:17	1

Client Sample ID: AW26453 FB-1

Lab Sample ID: 400-129138-13

Date Collected: 10/18/16 13:40

Matrix: Water

Date Received: 10/25/16 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.114	U	0.223	0.223	1.00	0.534	pCi/L	11/01/16 14:40	11/28/16 19:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 14:40	11/28/16 19:08	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.128	U	0.317	0.318	1.00	0.547	pCi/L	11/01/16 15:15	11/28/16 14:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					11/01/16 15:15	11/28/16 14:41	1
Y Carrier	91.6		40 - 110					11/01/16 15:15	11/28/16 14:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0138	U	0.388	0.388	5.00	0.547	pCi/L		11/30/16 11:17	1

Definitions/Glossary

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Client Sample ID: AW23441 MW-5

Lab Sample ID: 400-129138-1

Date Collected: 10/18/16 10:15

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23442 MW-8

Lab Sample ID: 400-129138-2

Date Collected: 10/18/16 11:22

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23443 EB-1

Lab Sample ID: 400-129138-3

Date Collected: 10/18/16 11:40

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:06	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23444 MW-4

Lab Sample ID: 400-129138-4

Date Collected: 10/18/16 09:51

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:39	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Client Sample ID: AW23445 MW-4 DUP

Lab Sample ID: 400-129138-5

Date Collected: 10/18/16 09:51

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23446 MW-3

Lab Sample ID: 400-129138-6

Date Collected: 10/18/16 10:48

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23447 MW-2

Lab Sample ID: 400-129138-7

Date Collected: 10/18/16 11:48

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW23448 MW-1

Lab Sample ID: 400-129138-8

Date Collected: 10/18/16 12:57

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Client Sample ID: AW26449 MW-6

Lab Sample ID: 400-129138-9

Date Collected: 10/18/16 09:46

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW26450 MW-7

Lab Sample ID: 400-129138-10

Date Collected: 10/18/16 11:35

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:40	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW26451 MW-9

Lab Sample ID: 400-129138-11

Date Collected: 10/18/16 12:35

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Client Sample ID: AW26452 MW-10

Lab Sample ID: 400-129138-12

Date Collected: 10/18/16 13:27

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:07	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Client Sample ID: AW26453 FB-1

Lab Sample ID: 400-129138-13

Date Collected: 10/18/16 13:40

Matrix: Water

Date Received: 10/25/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			277036	11/01/16 14:40	AS	TAL SL
Total/NA	Analysis	9315		1	280986	11/28/16 19:08	MLK	TAL SL
Total/NA	Prep	PrecSep_0			277045	11/01/16 15:15	AS	TAL SL
Total/NA	Analysis	9320		1	280986	11/28/16 14:41	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	281646	11/30/16 11:17	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: 400-129138-1
SDG: Barry Gypsum (5)

Rad

Prep Batch: 277036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129138-1	AW23441 MW-5	Total/NA	Water	PrecSep-21	
400-129138-2	AW23442 MW-8	Total/NA	Water	PrecSep-21	
400-129138-3	AW23443 EB-1	Total/NA	Water	PrecSep-21	
400-129138-4	AW23444 MW-4	Total/NA	Water	PrecSep-21	
400-129138-5	AW23445 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-129138-6	AW23446 MW-3	Total/NA	Water	PrecSep-21	
400-129138-7	AW23447 MW-2	Total/NA	Water	PrecSep-21	
400-129138-8	AW23448 MW-1	Total/NA	Water	PrecSep-21	
400-129138-9	AW26449 MW-6	Total/NA	Water	PrecSep-21	
400-129138-10	AW26450 MW-7	Total/NA	Water	PrecSep-21	
400-129138-11	AW26451 MW-9	Total/NA	Water	PrecSep-21	
400-129138-12	AW26452 MW-10	Total/NA	Water	PrecSep-21	
400-129138-13	AW26453 FB-1	Total/NA	Water	PrecSep-21	
MB 160-277036/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-277036/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-129138-9 DU	AW26449 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 277045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-129138-1	AW23441 MW-5	Total/NA	Water	PrecSep_0	
400-129138-2	AW23442 MW-8	Total/NA	Water	PrecSep_0	
400-129138-3	AW23443 EB-1	Total/NA	Water	PrecSep_0	
400-129138-4	AW23444 MW-4	Total/NA	Water	PrecSep_0	
400-129138-5	AW23445 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-129138-6	AW23446 MW-3	Total/NA	Water	PrecSep_0	
400-129138-7	AW23447 MW-2	Total/NA	Water	PrecSep_0	
400-129138-8	AW23448 MW-1	Total/NA	Water	PrecSep_0	
400-129138-9	AW26449 MW-6	Total/NA	Water	PrecSep_0	
400-129138-10	AW26450 MW-7	Total/NA	Water	PrecSep_0	
400-129138-11	AW26451 MW-9	Total/NA	Water	PrecSep_0	
400-129138-12	AW26452 MW-10	Total/NA	Water	PrecSep_0	
400-129138-13	AW26453 FB-1	Total/NA	Water	PrecSep_0	
MB 160-277045/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-277045/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-129138-9 DU	AW26449 MW-6	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-277036/1-A
Matrix: Water
Analysis Batch: 280986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 277036

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.07182	U	0.176	0.176	1.00	0.408	pCi/L	11/01/16 14:40	11/28/16 19:06	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					11/01/16 14:40	11/28/16 19:06	1

Lab Sample ID: LCS 160-277036/2-A
Matrix: Water
Analysis Batch: 280986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 277036

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	14.23		1.81	1.00	0.378	pCi/L	128	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	85.2		40 - 110						

Lab Sample ID: 400-129138-9 DU
Matrix: Water
Analysis Batch: 280986

Client Sample ID: AW26449 MW-6
Prep Type: Total/NA
Prep Batch: 277036

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.591		0.8216		0.374	1.00	0.430	pCi/L	0.32	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	83.8		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-277045/1-A
Matrix: Water
Analysis Batch: 280986

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 277045

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02773	U	0.234	0.234	1.00	0.415	pCi/L	11/01/16 15:15	11/28/16 14:39	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.5		40 - 110					11/01/16 15:15	11/28/16 14:39	1
Y Carrier	89.3		40 - 110					11/01/16 15:15	11/28/16 14:39	1

QC Sample Results

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

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

Lab Sample ID: LCS 160-277045/2-A
Matrix: Water
Analysis Batch: 280986

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 277045

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.2	13.63		1.49	1.00	0.380	pCi/L	96	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.2		40 - 110
Y Carrier	93.1		40 - 110

Lab Sample ID: 400-129138-9 DU
Matrix: Water
Analysis Batch: 280986

Client Sample ID: AW26449 MW-6
Prep Type: Total/NA
Prep Batch: 277045

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.375	U	0.5613		0.273	1.00	0.387	pCi/L	0.33	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	83.8		40 - 110
Y Carrier	92.3		40 - 110



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

Chain of Custody Record

400-129138 COC



Client Information Client Contact: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Gypsum (5)		Sampler: Jason Rouss/ Anthony Goggins Lab P#: Whitmire, Cheyenne R Phone: cheyenne.whitmire@testamericainc.com Company: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Analysis Requested Due Date Requested: (TAT requested (days): Routine)		Special Instructions/Note: 9316_Ra226, 9320_Ra228, Ra226Ra228_GFPc		Special Instructions/Note: MMW-5 MMW-8 EB-1 (Equipment Blank) MMW-4 MMW-4 Dup (Sample Duplicate) MMW-3 MMW-2 MMW-1	
Sample Identification Sample ID: AW26441 Sample ID: AW26442 Sample ID: AW26443 Sample ID: AW26444 Sample ID: AW26445 Sample ID: AW26446 Sample ID: AW26447 Sample ID: AW26448		Sample Date 10/18/16 10/18/16 10/18/16 10/18/16 10/18/16 10/18/16 10/18/16		Sample Time 1015 1122 1140 0951 0951 1048 1148 1257		Sample Type (C=Comp, G=grab) G G G G G G G		Matrix (W=water, S=solid, O=wastewater, B=BI-Tissue, A=Air) Water Water Water Water Water Water Water Water	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: Relinquished by: Sarah Copeland Relinquished by: Relinquished by:		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:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Date: 10/25/16 0950 Date/Time: 10/25/16 1530 Date/Time:		Method of Shipment:		Company: APC Company:	



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

Chain of Custody Record



Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone: Pen Rothschald		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #: 400-129138	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Date Requested:		Preservation Codes:	
City: Calera		State, Zip: AL, 35040		PO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Phone: 205-664-6121 (Tel)		WO #:		Project #:		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)	
Email: sgcopela@southernco.com		Project #:		CCR		Special Instructions/Note:	
Site: Barry Gypsum (5)		SSOW#:		Sample Identification		Total Number of Containers	
Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)	Field Filtered Sample (Yes/No)	Performance (MS/SD) (Yes/No)	Special Instructions/Note
AW26449	10/18/16	0946	G	Water	X	X	MMW-6
AW26450	10/18/16	1135	G	Water	X	X	MMW-7
AW26451	10/18/16	1235	G	Water	X	X	MMW-9
AW26452	10/18/16	1327	G	Water	X	X	MMW-10
AW26453	10/18/16	1340	G	Water	X	X	FB-1 (Field 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)							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Special Instructions/QC Requirements: Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 10/25/16; 0950 Company: APC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: _____ Custody Seal No.: _____ Δ Yes Δ No							



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-129138-1
SDG Number: Barry Gypsum (5)

Login Number: 129138

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	



Certification Summary

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

TestAmerica Job ID: 400-129138-1
 SDG: Barry Gypsum (5)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16 *
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-129138-1
SDG: Barry Gypsum (5)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_1074

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:

Supervision:

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



Anions

Barry Gypsum

WMWBARG_1074

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. There are no anion results reported for this project due to instrumentation issues and hold time exceedance. All samples were re-sampled and outsourced to Test America, Pensacola for analysis. All results will be reported in project WMWBARG_1084.



Metals ICP

Barry Gypsum

WMWBARG_1074

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>
AX02642	20170303	WMWBARG_1074
AX02643	20170303	WMWBARG_1074
AX02644	20170303	WMWBARG_1074
AX02645	20170303	WMWBARG_1074
AX02646	20170303	WMWBARG_1074
AX02647	20170303	WMWBARG_1074
AX02648	20170303	WMWBARG_1074
AX02649	20170303	WMWBARG_1074
AX02650	20170303	WMWBARG_1074
AX02651	20170329C	WMWBARG_1074
AX02652	20170329C	WMWBARG_1074
AX02653	20170329C	WMWBARG_1074
AX02654	20170329C	WMWBARG_1074

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met. ICV concentration for Li set to 0.2ppm in batch 20170329C.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes. CCV concentration for Li set to 0.2ppm in batch 20170329C.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.



- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard read backs associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed straight with the following exceptions: Batch 20170303 was analyzed at a 2x dilution to compensate for potential matrix effects.
 8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_1074

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>
AX02642	587219	WMWBARG_1074
AX02643	587219	WMWBARG_1074
AX02644	587219	WMWBARG_1074
AX02645	587219	WMWBARG_1074
AX02646	587253	WMWBARG_1074
AX02647	587253	WMWBARG_1074
AX02648	587253	WMWBARG_1074
AX02649	587253	WMWBARG_1074
AX02650	587253	WMWBARG_1074
AX02651	587253	WMWBARG_1074
AX02652	587253	WMWBARG_1074
AX02653	587253	WMWBARG_1074
AX02654	587253	WMWBARG_1074

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_1074

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>
AX02642	586865	WMWBARG_1074
AX02643	586865	WMWBARG_1074
AX02644	586865	WMWBARG_1074
AX02645	586865	WMWBARG_1074
AX02646	586865	WMWBARG_1074
AX02647	586865	WMWBARG_1074
AX02648	586865	WMWBARG_1074
AX02649	586865	WMWBARG_1074
AX02650	586865	WMWBARG_1074
AX02651	586865	WMWBARG_1074
AX02652	586866	WMWBARG_1074
AX02653	586866	WMWBARG_1074
AX02654	586866	WMWBARG_1074

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_1074

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>
AX02642	586588	WMWBARG_1074
AX02643	586588	WMWBARG_1074
AX02644	586588	WMWBARG_1074
AX02645	586588	WMWBARG_1074
AX02646	586588	WMWBARG_1074
AX02647	586588	WMWBARG_1074
AX02648	586588	WMWBARG_1074
AX02649	586588	WMWBARG_1074
AX02650	586588	WMWBARG_1074
AX02651	586588	WMWBARG_1074
AX02652	586589	WMWBARG_1074
AX02653	586589	WMWBARG_1074
AX02654	586589	WMWBARG_1074

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 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was not less than 5% for batch 586588. Both the sample and duplicate results were less than 3 times the value of the reporting limit.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of samples AX02647 and AX02648 which did not meet the 2.5 mg requirement.

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000866	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0779	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	J 0.0770	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	1.73	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	J 0.00247	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	34.0	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02645	Cobalt, Total	mg/L	0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0	70 to 130	5.08	20
AX02645	Barium, Total	mg/L	0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0	70 to 130	5.26	20
AX02645	Selenium, Total	mg/L	0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8	70 to 130	5.81	20
AX02645	Beryllium, Total	mg/L	0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101	70 to 130	3.12	20
AX02645	Molybdenum, Total	mg/L	0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6	70 to 130	5.56	20
AX02645	Antimony, Total	mg/L	0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9	70 to 130	6.33	20
AX02645	Cadmium, Total	mg/L	0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5	70 to 130	6.63	20
AX02645	Chromium, Total	mg/L	0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6	70 to 130	5.47	20
AX02645	Lead, Total	mg/L	0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102	70 to 130	4.82	20
AX02645	Arsenic, Total	mg/L	0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6	70 to 130	5.70	20
AX02645	Thallium, Total	mg/L	0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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

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Comments:

Alabama Power General Test Laboratory
 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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX02642

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
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 Calera, AL 35040
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000885	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0282	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.020	0.10	U Not Detected	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	0.554	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	26.0	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02645	Barium, Total	mg/L	0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0	70 to 130	5.26	20
AX02645	Cobalt, Total	mg/L	0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0	70 to 130	5.08	20
AX02645	Selenium, Total	mg/L	0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8	70 to 130	5.81	20
AX02645	Beryllium, Total	mg/L	0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101	70 to 130	3.12	20
AX02645	Molybdenum, Total	mg/L	0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6	70 to 130	5.56	20
AX02645	Antimony, Total	mg/L	0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9	70 to 130	6.33	20
AX02645	Cadmium, Total	mg/L	0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5	70 to 130	6.63	20
AX02645	Chromium, Total	mg/L	0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6	70 to 130	5.47	20
AX02645	Lead, Total	mg/L	0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102	70 to 130	4.82	20
AX02645	Arsenic, Total	mg/L	0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6	70 to 130	5.70	20
AX02645	Thallium, Total	mg/L	0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX02643

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	5

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Expiration: June 30, 2018

Comments:

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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000859	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.111	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	J 0.0269	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	1.23	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	32.7	mg/L

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02645	Barium, Total	mg/L	0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0	70 to 130	5.26	20
AX02645	Cobalt, Total	mg/L	0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0	70 to 130	5.08	20
AX02645	Selenium, Total	mg/L	0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8	70 to 130	5.81	20
AX02645	Beryllium, Total	mg/L	0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101	70 to 130	3.12	20
AX02645	Molybdenum, Total	mg/L	0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6	70 to 130	5.56	20
AX02645	Antimony, Total	mg/L	0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9	70 to 130	6.33	20
AX02645	Cadmium, Total	mg/L	0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5	70 to 130	6.63	20
AX02645	Chromium, Total	mg/L	0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6	70 to 130	5.47	20
AX02645	Lead, Total	mg/L	0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102	70 to 130	4.82	20
AX02645	Arsenic, Total	mg/L	0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6	70 to 130	5.70	20
AX02645	Thallium, Total	mg/L	0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	20

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

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

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

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX02644

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000838	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.100	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	J 0.0243	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	0.755	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02645	Barium, Total	mg/L	0.00000136	0.0044	0.100	0.195	0.185	0.0934	0.085 to 0.115	95.0	70 to 130	5.26	20
AX02645	Selenium, Total	mg/L	0.0000484	0.0044	0.100	0.0938	0.0885	0.0986	0.085 to 0.115	93.8	70 to 130	5.81	20
AX02645	Cobalt, Total	mg/L	0.0000139	0.0044	0.100	0.0990	0.0941	0.0979	0.085 to 0.115	99.0	70 to 130	5.08	20
AX02645	Beryllium, Total	mg/L	0.0000323	0.00132	0.100	0.101	0.0979	0.108	0.085 to 0.115	101	70 to 130	3.12	20
AX02645	Molybdenum, Total	mg/L	0.0000159	0.0044	0.100	0.0906	0.0857	0.0906	0.085 to 0.115	90.6	70 to 130	5.56	20
AX02645	Antimony, Total	mg/L	0.000151	0.00132	0.100	0.0897	0.0842	0.0916	0.085 to 0.115	88.9	70 to 130	6.33	20
AX02645	Cadmium, Total	mg/L	0.0000176	0.00044	0.100	0.0935	0.0875	0.0982	0.085 to 0.115	93.5	70 to 130	6.63	20
AX02645	Chromium, Total	mg/L	0.000113	0.0044	0.100	0.0976	0.0924	0.0982	0.085 to 0.115	97.6	70 to 130	5.47	20
AX02645	Lead, Total	mg/L	0.0000163	0.0022	0.100	0.102	0.0972	0.104	0.085 to 0.115	102	70 to 130	4.82	20
AX02645	Arsenic, Total	mg/L	0.0000239	0.0022	0.100	0.0956	0.0903	0.0993	0.085 to 0.115	95.6	70 to 130	5.70	20
AX02645	Thallium, Total	mg/L	0.0000317	0.00044	0.100	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX02645

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.00119	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0801	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	U Not Detected	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	1.95	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	45.3	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
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115		106	70 to 130		2.87	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115		99.0	70 to 130		2.76	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115		104	70 to 130		3.92	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115		92.9	70 to 130		2.84	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115		88.3	70 to 130		2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115		95.9	70 to 130		2.86	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115		104	70 to 130		1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115		90.5	70 to 130		1.78	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115		90.9	70 to 130		2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115		98.3	70 to 130		1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115		94.1	70 to 130		3.57	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15		97.3	70 to 130		0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75		96.0	70 to 130		1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23		96.8	70 to 130		0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046		97.1	70 to 130		0.329	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX02646

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	5

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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
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX02647

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.00106	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	U Not Detected	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	U Not Detected	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	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
 John Pugh

Customer Account: WMWBARGFB
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX02647

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115		106	70 to 130		2.87	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115		99.0	70 to 130		2.76	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115		104	70 to 130		3.92	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115		92.9	70 to 130		2.84	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115		88.3	70 to 130		2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115		95.9	70 to 130		2.86	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115		104	70 to 130		1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115		90.5	70 to 130		1.78	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115		90.9	70 to 130		2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115		98.3	70 to 130		1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115		94.1	70 to 130		3.57	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15		97.3	70 to 130		0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75		96.0	70 to 130		1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23		96.8	70 to 130		0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046		97.1	70 to 130		0.329	20

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

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

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

Customer Account: WMWBARGFB
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX02647

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.00103	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	U Not Detected	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	U Not Detected	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	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
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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
 John Pugh

Customer Account: WMWBARGE
 Sample Date: 30-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX02648

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000926	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.123	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	0.121	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	7.89	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0104	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	60.7	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20	
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20	
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20	
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20	
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20	
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20	
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20	
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20	
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20	
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20	
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	20	
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20	
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20	
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20	
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX02649

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000928	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0825	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/3/2017	EPA 200.7		2	0.02	0.10	U Not Detected	mg/L
* Calcium, Total	HRG	3/3/2017	EPA 200.7		2	0.1	0.50	1.36	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/3/2017	EPA 200.7		2	0.01	0.050	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	26.0	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	20
AX02650	Boron, Total	mg/L	0.000626	0.044	1.00	0.973	0.982	0.962	0.85 to 1.15	97.3	70 to 130	0.895	20
AX02650	Calcium, Total	mg/L	-0.00379	0.22	5.00	6.17	6.25	4.83	4.25 to 5.75	96.0	70 to 130	1.38	20
AX02650	Lithium, Total	mg/L	-0.0000600	0.022	0.20	0.194	0.192	0.187	0.17 to 0.23	96.8	70 to 130	0.843	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046	97.1	70 to 130	0.329	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX02650

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000911	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0698	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	1.65	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	30.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115		106	70 to 130	2.87	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115		104	70 to 130	3.92	20
AX02651	Mercury, Total by CVAA	mg/L	0.000154	0.0005	0.004	0.00388	0.00390	0.00386	0.0034 to 0.0046		97.1	70 to 130	0.329	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115		99.0	70 to 130	2.76	20
AX02663	Boron, Total	mg/L	-0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15		98.0	70 to 130	0.117	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115		104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115		90.5	70 to 130	1.78	20
AX02663	Lithium, Total	mg/L	-0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23		108	70 to 130	0.247	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115		90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115		98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115		94.1	70 to 130	3.57	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115		88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115		95.9	70 to 130	2.86	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115		92.9	70 to 130	2.84	20
AX02663	Calcium, Total	mg/L	-0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75		99.2	70 to 130	0.138	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX02651

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02651	Solids, Dissolved	mg/L	-4.0	25			26.7	52.0	40 to 60	5.88	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Precision for TDS was out of spec. The sample and duplicate were both less than 3 times the value of the reporting limit.

CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000898	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.109	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	1.23	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	32.7	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20
AX02663	Boron, Total	mg/L	-0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0	70 to 130	0.117	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20
AX02664	Mercury, Total by CVAA	mg/L	0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5	70 to 130	2.64	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20
AX02663	Lithium, Total	mg/L	-0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108	70 to 130	0.247	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20
AX02663	Calcium, Total	mg/L	-0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2	70 to 130	0.138	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX02652

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02664	Solids, Dissolved	mg/L	-4.0	25			272	52.0	40 to 60		0.369 5

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Laboratory certification ID: E571114

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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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000925	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0944	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	1.19	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	J 0.00308	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	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
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20
AX02663	Boron, Total	mg/L	-0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0	70 to 130	0.117	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20
AX02663	Lithium, Total	mg/L	-0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108	70 to 130	0.247	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20
AX02663	Calcium, Total	mg/L	-0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2	70 to 130	0.138	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20
AX02664	Mercury, Total by CVAA	mg/L	0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5	70 to 130	2.64	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	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:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX02653

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02664	Solids, Dissolved	mg/L	-4.0	25			272	52.0	40 to 60		0.369
											5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/17/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	J 0.000995	mg/L
* Arsenic, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	0.0986	mg/L
* Beryllium, Total	JHK	2/15/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	3/29/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/29/2017	EPA 200.7		1	0.1	0.5	1.18	mg/L
* Cadmium, Total	JHK	2/15/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	J 0.00329	mg/L
* Chromium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/9/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/29/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/15/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/15/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/6/2017	SM 2540C		1		25	32.7	mg/L

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX02658	Thallium, Total	mg/L	0.0000468	0.00044	0.100	0.106	0.103	0.101	0.085 to 0.115	106	70 to 130	2.87	20
AX02658	Beryllium, Total	mg/L	0.0000418	0.00132	0.100	0.104	0.100	0.108	0.085 to 0.115	104	70 to 130	3.92	20
AX02658	Chromium, Total	mg/L	0.0000258	0.0044	0.100	0.0990	0.0963	0.0978	0.085 to 0.115	99.0	70 to 130	2.76	20
AX02663	Boron, Total	mg/L	-0.000684	0.044	1.00	0.980	0.981	0.963	0.85 to 1.15	98.0	70 to 130	0.117	20
AX02658	Antimony, Total	mg/L	0.000144	0.00132	0.100	0.0892	0.0872	0.0926	0.085 to 0.115	88.3	70 to 130	2.27	20
AX02658	Arsenic, Total	mg/L	0.0000218	0.0022	0.100	0.0959	0.0932	0.0989	0.085 to 0.115	95.9	70 to 130	2.86	20
AX02664	Mercury, Total by CVAA	mg/L	0.000157	0.0005	0.004	0.00382	0.00372	0.00390	0.0034 to 0.0046	95.5	70 to 130	2.64	20
AX02658	Cadmium, Total	mg/L	0.00000945	0.00044	0.100	0.0929	0.0903	0.0960	0.085 to 0.115	92.9	70 to 130	2.84	20
AX02663	Calcium, Total	mg/L	-0.00712	0.22	5.00	7.90	7.89	4.95	4.25 to 5.75	99.2	70 to 130	0.138	20
AX02658	Barium, Total	mg/L	0.00000530	0.0044	0.100	0.114	0.111	0.0937	0.085 to 0.115	90.9	70 to 130	2.67	20
AX02658	Cobalt, Total	mg/L	0.00000652	0.0044	0.100	0.111	0.109	0.0963	0.085 to 0.115	98.3	70 to 130	1.82	20
AX02658	Selenium, Total	mg/L	0.0000549	0.0044	0.100	0.0941	0.0908	0.0984	0.085 to 0.115	94.1	70 to 130	3.57	20
AX02658	Lead, Total	mg/L	0.0000118	0.0022	0.100	0.104	0.102	0.104	0.085 to 0.115	104	70 to 130	1.94	20
AX02658	Molybdenum, Total	mg/L	0.0000185	0.0044	0.100	0.0905	0.0889	0.0914	0.085 to 0.115	90.5	70 to 130	1.78	20
AX02663	Lithium, Total	mg/L	-0.00000824	0.022	0.20	0.216	0.216	0.202	0.17 to 0.23	108	70 to 130	0.247	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWBARG
 Sample Date: 31-Jan-17
 Customer ID:
 Delivery Date: 01-Feb-17

Description: Barry Gypsum - MW-1 Dup

Laboratory ID Number: AX02654

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX02664	Solids, Dissolved	mg/L	-4.0	25			272	52.0	40 to 60		0.369 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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Laboratory certification ID: E571114

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Comments:

CC:

Definitions



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

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



Chain of Custody
Groundwater
 APC General Testing Laboratory
 General Service Complex Building 8

Field Complete

Lab Complete

Lab ETA 02/01/2017 11:30

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Angie Jimmerson	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Gypsum

Analysis Requested	Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions
Comments	No anion results for the samples listed below due to hold time exceedance. All samples will be re-sampled. SGC

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-9	01/30/2017	13:03	5	Groundwater		AX02644
MW-10	01/30/2017	14:05	5	Groundwater		AX02645
MW-7	01/30/2017	15:15	5	Groundwater		AX02646
FB-1	01/30/2017	15:35	5	Field Blank		AX02647
EB-1	01/30/2017	15:45	5	Equipment Blank		AX02648
MW-6	01/31/2017	09:00	5	Groundwater		AX02649
MW-4	01/31/2017	10:15	5	Groundwater		AX02650
MW-3	01/31/2017	11:15	5	Groundwater		AX02651
MW-2	01/31/2017	12:25	5	Groundwater		AX02652
MW-1	01/31/2017	13:25	5	Groundwater		AX02653
MW-1 DUP	01/31/2017	13:25	5	Sample Duplicate		AX02654

Relinquished By	Received By	Date/Time
		01/31/2017 17:04
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2017.02.01 13:15:07 -0600'</small>	02/01/2017 13:15

SmarTroll ID	4696-23441-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		0.2 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5521-28270-20-14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-133557-1

TestAmerica Sample Delivery Group: Barry Gypsum (6)

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:

3/17/2017 2:51:50 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Job ID: 400-133557-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-133557-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-293136: Insufficient volume was available to run the following samples at the full 1L aliquot. They were prepared at 750mL due to limited volume. AX02642 MW-5 (400-133557-1), AX02642 MW-5 (400-133557-1[DU]), AX02643 MW-8 (400-133557-2), AX02644 MW-9 (400-133557-3), AX02645 MW-10 (400-133557-4), AX02646 MW-7 (400-133557-5), AX02647 FB-1 (400-133557-6), AX02648 EB-1 (400-133557-7), AX02649 MW-6 (400-133557-8), AX02650 MW-4 (400-133557-9), AX02651 MW-3 (400-133557-10), AX02652 MW-2 (400-133557-11), AX02653 MW-1 (400-133557-12) and AX02654 MW-1 DUP (400-133557-13)

Method(s) PrecSep-21: Radium-226 Prep Batch 160-293081: Insufficient volume was available to run the following samples at the full 1L aliquot. They were prepared at 750mL due to limited volume available. AX02642 MW-5 (400-133557-1), AX02642 MW-5 (400-133557-1[DU]), AX02643 MW-8 (400-133557-2), AX02644 MW-9 (400-133557-3), AX02645 MW-10 (400-133557-4), AX02646 MW-7 (400-133557-5), AX02647 FB-1 (400-133557-6), AX02648 EB-1 (400-133557-7), AX02649 MW-6 (400-133557-8), AX02650 MW-4 (400-133557-9), AX02651 MW-3 (400-133557-10), AX02652 MW-2 (400-133557-11), AX02653 MW-1 (400-133557-12) and AX02654 MW-1 DUP (400-133557-13)

Method Summary

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-133557-1	AX02642 MW-5	Water	01/31/17 09:33	02/06/17 14:00
400-133557-2	AX02643 MW-8	Water	01/31/17 11:00	02/06/17 14:00
400-133557-3	AX02644 MW-9	Water	01/30/17 13:03	02/06/17 14:00
400-133557-4	AX02645 MW-10	Water	01/30/17 14:05	02/06/17 14:00
400-133557-5	AX02646 MW-7	Water	01/30/17 15:15	02/06/17 14:00
400-133557-6	AX02647 FB-1	Water	01/30/17 15:35	02/06/17 14:00
400-133557-7	AX02648 EB-1	Water	01/30/17 15:45	02/06/17 14:00
400-133557-8	AX02649 MW-6	Water	01/31/17 09:00	02/06/17 14:00
400-133557-9	AX02650 MW-4	Water	01/31/17 10:15	02/06/17 14:00
400-133557-10	AX02651 MW-3	Water	01/31/17 11:15	02/06/17 14:00
400-133557-11	AX02652 MW-2	Water	01/31/17 12:25	02/06/17 14:00
400-133557-12	AX02653 MW-1	Water	01/31/17 13:25	02/06/17 14:00
400-133557-13	AX02654 MW-1 DUP	Water	01/31/17 13:25	02/06/17 14:00

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02642 MW-5

Lab Sample ID: 400-133557-1

Date Collected: 01/31/17 09:33

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.262		0.133	0.135	1.00	0.156	pCi/L	02/17/17 10:39	03/13/17 06:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/17/17 10:39	03/13/17 06:19	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.461	U	0.384	0.386	1.00	0.615	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	80.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.724		0.406	0.409	5.00	0.615	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02643 MW-8

Lab Sample ID: 400-133557-2

Date Collected: 01/31/17 11:00

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.338		0.160	0.163	1.00	0.186	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0719	U	0.306	0.306	1.00	0.555	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.266	U	0.345	0.347	5.00	0.555	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02644 MW-9

Lab Sample ID: 400-133557-3

Date Collected: 01/30/17 13:03

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.828		0.228	0.240	1.00	0.194	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.327	U	0.293	0.295	1.00	0.470	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.7		40 - 110					02/17/17 18:22	03/08/17 11:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.15		0.371	0.380	5.00	0.470	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02645 MW-10

Lab Sample ID: 400-133557-4

Date Collected: 01/30/17 14:05

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.588		0.189	0.196	1.00	0.169	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.258	U	0.294	0.295	1.00	0.483	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	86.0		40 - 110					02/17/17 18:22	03/08/17 11:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.847		0.349	0.354	5.00	0.483	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02646 MW-7

Lab Sample ID: 400-133557-5

Date Collected: 01/30/17 15:15

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356		0.163	0.166	1.00	0.189	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.293	U	0.323	0.324	1.00	0.529	pCi/L	02/17/17 18:22	03/08/17 11:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					02/17/17 18:22	03/08/17 11:21	1
Y Carrier	84.1		40 - 110					02/17/17 18:22	03/08/17 11:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.362	0.364	5.00	0.529	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02647 FB-1

Lab Sample ID: 400-133557-6

Date Collected: 01/30/17 15:35

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0411	U	0.121	0.121	1.00	0.224	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0649	U	0.264	0.264	1.00	0.463	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	87.9		40 - 110					02/17/17 18:22	03/08/17 11:22	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	0.106	U	0.290	0.290	5.00	0.463	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02648 EB-1

Lab Sample ID: 400-133557-7

Date Collected: 01/30/17 15:45

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0397	U	0.0719	0.0720	1.00	0.182	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.242	U	0.260	0.261	1.00	0.505	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	88.6		40 - 110					02/17/17 18:22	03/08/17 11:22	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	-0.282	U	0.270	0.271	5.00	0.505	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02649 MW-6

Lab Sample ID: 400-133557-8

Date Collected: 01/31/17 09:00

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.546		0.191	0.197	1.00	0.185	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.460	U	0.322	0.325	1.00	0.504	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	83.7		40 - 110					02/17/17 18:22	03/08/17 11:22	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	1.01		0.375	0.380	5.00	0.504	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02650 MW-4

Lab Sample ID: 400-133557-9

Date Collected: 01/31/17 10:15

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.415		0.162	0.166	1.00	0.159	pCi/L	02/17/17 10:39	03/13/17 06:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/17/17 10:39	03/13/17 06:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.669		0.300	0.306	1.00	0.430	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	83.7		40 - 110					02/17/17 18:22	03/08/17 11:22	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	1.08		0.341	0.348	5.00	0.430	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02651 MW-3

Lab Sample ID: 400-133557-10

Date Collected: 01/31/17 11:15

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.127	0.127	1.00	0.207	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 10:39	03/13/17 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0490	U	0.264	0.265	1.00	0.484	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	84.5		40 - 110					02/17/17 18:22	03/08/17 11:22	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	0.0613	U	0.293	0.294	5.00	0.484	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02652 MW-2

Lab Sample ID: 400-133557-11

Date Collected: 01/31/17 12:25

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.366		0.160	0.164	1.00	0.182	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/17/17 10:39	03/13/17 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0324	U	0.251	0.251	1.00	0.447	pCi/L	02/17/17 18:22	03/08/17 11:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					02/17/17 18:22	03/08/17 11:22	1
Y Carrier	81.1		40 - 110					02/17/17 18:22	03/08/17 11:22	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	0.398	U	0.297	0.299	5.00	0.447	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02653 MW-1

Lab Sample ID: 400-133557-12

Date Collected: 01/31/17 13:25

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.530		0.180	0.187	1.00	0.165	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 10:39	03/13/17 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422	U	0.301	0.303	1.00	0.470	pCi/L	02/17/17 18:22	03/08/17 11:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					02/17/17 18:22	03/08/17 11:25	1
Y Carrier	86.7		40 - 110					02/17/17 18:22	03/08/17 11:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.952		0.351	0.356	5.00	0.470	pCi/L		03/14/17 12:39	1

Client Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02654 MW-1 DUP

Lab Sample ID: 400-133557-13

Date Collected: 01/31/17 13:25

Matrix: Water

Date Received: 02/06/17 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.317		0.146	0.149	1.00	0.163	pCi/L	02/17/17 10:39	03/13/17 06:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/17/17 10:39	03/13/17 06:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.595		0.314	0.319	1.00	0.466	pCi/L	02/17/17 18:22	03/08/17 11:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					02/17/17 18:22	03/08/17 11:25	1
Y Carrier	82.2		40 - 110					02/17/17 18:22	03/08/17 11:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.912		0.346	0.352	5.00	0.466	pCi/L		03/14/17 12:39	1

Definitions/Glossary

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02642 MW-5

Lab Sample ID: 400-133557-1

Date Collected: 01/31/17 09:33

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297321	03/13/17 06:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02643 MW-8

Lab Sample ID: 400-133557-2

Date Collected: 01/31/17 11:00

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02644 MW-9

Lab Sample ID: 400-133557-3

Date Collected: 01/30/17 13:03

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02645 MW-10

Lab Sample ID: 400-133557-4

Date Collected: 01/30/17 14:05

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX02646 MW-7

Lab Sample ID: 400-133557-5

Date Collected: 01/30/17 15:15

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02647 FB-1

Lab Sample ID: 400-133557-6

Date Collected: 01/30/17 15:35

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02648 EB-1

Lab Sample ID: 400-133557-7

Date Collected: 01/30/17 15:45

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02649 MW-6

Lab Sample ID: 400-133557-8

Date Collected: 01/31/17 09:00

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Client Sample ID: AX02650 MW-4

Lab Sample ID: 400-133557-9

Date Collected: 01/31/17 10:15

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:27	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02651 MW-3

Lab Sample ID: 400-133557-10

Date Collected: 01/31/17 11:15

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02652 MW-2

Lab Sample ID: 400-133557-11

Date Collected: 01/31/17 12:25

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296604	03/08/17 11:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Client Sample ID: AX02653 MW-1

Lab Sample ID: 400-133557-12

Date Collected: 01/31/17 13:25

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296549	03/08/17 11:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Client Sample ID: AX02654 MW-1 DUP

Lab Sample ID: 400-133557-13

Date Collected: 01/31/17 13:25

Matrix: Water

Date Received: 02/06/17 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293081	02/17/17 10:39	PJM	TAL SL
Total/NA	Analysis	9315		1	297322	03/13/17 06:28	RTM	TAL SL
Total/NA	Prep	PrecSep_0			293136	02/17/17 18:22	PJM	TAL SL
Total/NA	Analysis	9320		1	296549	03/08/17 11:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297652	03/14/17 12:39	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: 400-133557-1
SDG: Barry Gypsum (6)

Rad

Prep Batch: 293081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133557-1	AX02642 MW-5	Total/NA	Water	PrecSep-21	
400-133557-2	AX02643 MW-8	Total/NA	Water	PrecSep-21	
400-133557-3	AX02644 MW-9	Total/NA	Water	PrecSep-21	
400-133557-4	AX02645 MW-10	Total/NA	Water	PrecSep-21	
400-133557-5	AX02646 MW-7	Total/NA	Water	PrecSep-21	
400-133557-6	AX02647 FB-1	Total/NA	Water	PrecSep-21	
400-133557-7	AX02648 EB-1	Total/NA	Water	PrecSep-21	
400-133557-8	AX02649 MW-6	Total/NA	Water	PrecSep-21	
400-133557-9	AX02650 MW-4	Total/NA	Water	PrecSep-21	
400-133557-10	AX02651 MW-3	Total/NA	Water	PrecSep-21	
400-133557-11	AX02652 MW-2	Total/NA	Water	PrecSep-21	
400-133557-12	AX02653 MW-1	Total/NA	Water	PrecSep-21	
400-133557-13	AX02654 MW-1 DUP	Total/NA	Water	PrecSep-21	
MB 160-293081/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-293081/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-133557-1 DU	AX02642 MW-5	Total/NA	Water	PrecSep-21	

Prep Batch: 293136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-133557-1	AX02642 MW-5	Total/NA	Water	PrecSep_0	
400-133557-2	AX02643 MW-8	Total/NA	Water	PrecSep_0	
400-133557-3	AX02644 MW-9	Total/NA	Water	PrecSep_0	
400-133557-4	AX02645 MW-10	Total/NA	Water	PrecSep_0	
400-133557-5	AX02646 MW-7	Total/NA	Water	PrecSep_0	
400-133557-6	AX02647 FB-1	Total/NA	Water	PrecSep_0	
400-133557-7	AX02648 EB-1	Total/NA	Water	PrecSep_0	
400-133557-8	AX02649 MW-6	Total/NA	Water	PrecSep_0	
400-133557-9	AX02650 MW-4	Total/NA	Water	PrecSep_0	
400-133557-10	AX02651 MW-3	Total/NA	Water	PrecSep_0	
400-133557-11	AX02652 MW-2	Total/NA	Water	PrecSep_0	
400-133557-12	AX02653 MW-1	Total/NA	Water	PrecSep_0	
400-133557-13	AX02654 MW-1 DUP	Total/NA	Water	PrecSep_0	
MB 160-293136/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-293136/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
180-63446-A-3-B DU	Duplicate	Total/NA	Water	PrecSep_0	
400-133557-1 DU	AX02642 MW-5	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-293081/1-A
Matrix: Water
Analysis Batch: 297321

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293081

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.009266	U	0.0684	0.0684	1.00	0.142	pCi/L	02/17/17 10:39	03/13/17 06:17	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	93.8					02/17/17 10:39	03/13/17 06:17	1		

Lab Sample ID: LCS 160-293081/2-A
Matrix: Water
Analysis Batch: 297321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293081

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.2	12.43		1.35	1.00	0.152	pCi/L	82	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	95.0								

Lab Sample ID: 400-133557-1 DU
Matrix: Water
Analysis Batch: 297321

Client Sample ID: AX02642 MW-5
Prep Type: Total/NA
Prep Batch: 293081

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.262		0.3273		0.148	1.00	0.157	pCi/L	0.23	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	92.9									

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-293136/1-A
Matrix: Water
Analysis Batch: 296604

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293136

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.3006	U	0.234	0.235	1.00	0.370	pCi/L	02/17/17 18:22	03/08/17 11:20	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	93.8					02/17/17 18:22	03/08/17 11:20	1		
Y Carrier	%Yield	Qualifier	40 - 110							
	85.2					02/17/17 18:22	03/08/17 11:20	1		

QC Sample Results

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

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

Lab Sample ID: LCS 160-293136/2-A
Matrix: Water
Analysis Batch: 296604

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293136

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	14.42		1.54	1.00	0.346	pCi/L	105	56 - 140
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	95.0		40 - 110						
Y Carrier	87.9		40 - 110						

Lab Sample ID: 180-63446-A-3-B DU
Matrix: Water
Analysis Batch: 296604

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 293136

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	1.59		1.162		0.312	1.00	0.361	pCi/L	0.64	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	93.8		40 - 110							
Y Carrier	88.2		40 - 110							

Lab Sample ID: 400-133557-1 DU
Matrix: Water
Analysis Batch: 296604

Client Sample ID: AX02642 MW-5
Prep Type: Total/NA
Prep Batch: 293136

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.461	U	0.2438	U	0.339	1.00	0.565	pCi/L	0.30	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	92.9		40 - 110							
Y Carrier	80.4		40 - 110							

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

Lab Sample ID: 400-133557-1 DU
Matrix: Water
Analysis Batch: 297652

Client Sample ID: AX02642 MW-5
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	0.724		0.5712		0.370	5.00	0.565	pCi/L	0.20	

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information
 Client Contact: Sarah Copeland
 Company: Alabama Power General Test Laboratory
 Address: 744 County Rd 87 GSC #8
 City: Calera
 State, Zip: AL, 35040
 Phone: 205-664-6121 (Tel)
 Email: sgcopela@southernco.com
 Project #: 40007143
 CCR
 Site: Barry Gypsum (6)

Sampler: Jason Rouss/ Ben Rofschad
 Lab Piv: Whitire, Cheyenne R
 E-Mail: cheyenne.whitire@testamericainc.com

Carrier Tracking No(s): 400-56525-24537.1
 Page: Page 1 of 1
 Job #: 400-133557

Analysis Requested
 Due Date Requested:
 TAT Requested (days): Routine
 PO #:
 WO #:
 Project #:
 40007143
 SSO#:

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 - Na2O4S
 Q - Na2SO3
 R - Na2SO4
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - ph 4-5
 X - other (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (V=water, S=solid, O=water/soil, BT=trace, A=air)	Field Filtered Sample (Yes or No)	Performs MSD (Yes or No)	9315, Ra226, 9320, Ra228, Ra228Ra226, GFCP	Total Number of Containers	Special Instructions/Note:
AX02642	1/31/17	0933	G	Water	Y	X		1	MW-5
AX02643	1/31/17	1100	G	Water	X	X		1	MW-8
AX02644	1/30/17	1303	G	Water	X	X		1	MW-9
AX02645	1/30/17	1405	G	Water	X	X		1	MW-10
AX02646	1/30/17	1515	G	Water	X	X		1	MW-7
AX02647	1/30/17	1535	G	Water	X	X		1	FB-1 (Field Blank)
AX02648	1/30/17	1545	G	Water	X	X		1	EB-1 (Equipment Blank)
AX02649	1/31/17	0900	G	Water	X	X		1	MW-6
AX02650	1/31/17	1015	G	Water	X	X		1	MW-4
AX02651	1/31/17	1115	G	Water	X	X		1	MW-3
AX02652	1/31/17	1225	G	Water	X	X		1	MW-2
AX02653	1/31/17	1325	G	Water	X	X		1	MW-1
AX02654	1/31/17	1325	G	Water	X	X		1	MW-1 Dup (Sample Duplicate)

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: Sarah Copeland
 Relinquished by: Sarah Copeland
 Relinquished by:
 Relinquished by:
 Custody Seals Intact: Yes No
 Custody Seal No.:

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

Method of Shipment:
 Received by: *[Signature]*
 Date/Time: 2-6-17 1400
 Company: APC
 Received by:
 Date/Time:
 Company:
 Received by:
 Date/Time:
 Company:
 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: 400-133557-1
SDG Number: Barry Gypsum (6)

Login Number: 133557

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.	True	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

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

TestAmerica Job ID: 400-133557-1
 SDG: Barry Gypsum (6)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-133557-1
SDG: Barry Gypsum (6)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

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_1084

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:

Supervision:



Anions

Barry Gypsum

WMWBARG_1084

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America for these samples.

Job Narrative
400-135676-1
General Chemistry

Method(s) SM 4500 Cl- E: The method blank associated with analytical batch 348055 contained Chloride less than the reporting limit (RL). The sample results have been qualified and reported.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 348438 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The method blank associated with analytical batch 348054 contained Sulfate less than the reporting limit (RL). The sample results have been qualified and reported.

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: 20-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	8.3	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: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX06737

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Alabama Power General Test Laboratory
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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: 20-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	6.1	mg/L

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Expiration: June 30, 2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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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
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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX06738

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

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Laboratory certification ID: E571114

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
Sample Date: 20-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	3.7	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	7.4	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX06739

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

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
Sample Date: 20-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	7.4	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-3 Dup

Laboratory ID Number: AX06740

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

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Comments: Test America, Pensacola NELAP ID: E81010

CC:

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Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	7.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 20-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX06741

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

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Expiration: June 30, 2018

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
Sample Date: 21-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	5.6	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.3	mg/L

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Expiration: June 30, 2018

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
--------	----------	-------	----	-------	-------	----	-----	-----	-------	-----	-------	------	-------

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Expiration: June 30, 2018

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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX06742

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

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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
 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	15	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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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
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Laboratory certification ID: E571114

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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX06743

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

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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
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
Sample Date: 21-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX06744

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX06744

Sample	Analysis	Units	MB	MB	MS	MSD	LFB	LFB	Rec	Rec	Prec	Prec
			Limit	Spike				Limit	Limit	Limit	Limit	Limit

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

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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Alabama Power General Test Laboratory
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX06744

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

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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

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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	5.3	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	7.1	mg/L

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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX06745

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

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
Sample Date: 21-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	4.4	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	9.0	mg/L

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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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX06746

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

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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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  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGEGB
Sample Date: 21-Mar-17
Customer ID:
Delivery Date: 23-Mar-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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

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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

Sample	Analysis	Units	MB	MB	MS	MSD	LFB	LFB	Rec	Rec	Prec	Prec
			Limit	Spike				Limit	Limit	Limit	Limit	Limit

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGE
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX06747

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LFB	Limit	Rec	Limit	Prec	Limit
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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



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	4.9	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.6	mg/L

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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX06748

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

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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
General Characteristics									
* Chloride, Total, by Test America	SGC	4/21/2017	SM 4500 Cl_E		1	0.60	2.00	2.8	mg/L
* Fluoride, Total, by Test America	SGC	4/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	4/21/2017	SM 4500 SO4_E		1	1.40	5.00	8.6	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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

Sample	Analysis	Units	MB	Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
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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: 21-Mar-17
 Customer ID:
 Delivery Date: 23-Mar-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX06749

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

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Definitions



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

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



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 03/23/2017 13:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Bottle 1 (250 mL): Anions"/>		
Comments	<input type="text" value="No pH preservation required. SGC Complete anion set re-sampled due to hold time exceedance. All samples outsourced to Test America."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	03/20/2017	13:46	1	Groundwater		AX06737
MW-2	03/20/2017	14:45	1	Groundwater		AX06738
MW-3	03/20/2017	15:37	1	Groundwater		AX06739
MW-3 Dup	03/20/2017	15:37	1	Sample Duplicate		AX06740
MW-4	03/20/2017	16:34	1	Groundwater		AX06741
MW-7	03/21/2017	09:32	1	Groundwater		AX06742
MW-6	03/21/2017	10:20	1	Groundwater		AX06743
FB-1	03/21/2017	10:23	1	Field Blank		AX06744
MW-9	03/21/2017	11:15	1	Groundwater		AX06745
MW-10	03/21/2017	12:00	1	Groundwater		AX06746
EB-1	03/21/2017	12:08	1	Equipment Blank		AX06747
MW-8	03/21/2017	13:25	1	Groundwater		AX06748
MW-5	03/21/2017	14:35	1	Groundwater		AX06749

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.03.23 13:51:16 -0500</small>	03/23/2017 13:51

SmarTroll ID	<input type="text" value="4696-23443-3-2"/>	All metals and radiological bottles have pH < 2 <input type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23342-4-1"/>	Cooler Temp
		<input type="text" value="1.9 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="NA"/>

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: 400-135676-1

TestAmerica Sample Delivery Group: Barry Gypsum (6)

Client Project/Site: CCR Plant Barry

For:

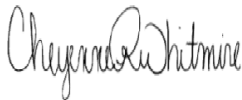
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

4/19/2017 6:10:56 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

Job ID: 400-135676-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-135676-1

General Chemistry

Method(s) SM 4500 Cl- E: The method blank associated with analytical batch 348055 contained Chloride less than the reporting limit (RL). The sample results have been qualified and reported.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 348438 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The method blank associated with analytical batch 348054 contained Sulfate less than the reporting limit (RL). The sample results have been qualified and reported.

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Detection Summary

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX06737 MW-1

Lab Sample ID: 400-135676-1

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	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06738 MW-2

Lab Sample ID: 400-135676-2

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	6.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06739 MW-3

Lab Sample ID: 400-135676-3

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
Sulfate	7.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06740 MW-3 DUP

Lab Sample ID: 400-135676-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06741 MW-4

Lab Sample ID: 400-135676-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06742 MW-7

Lab Sample ID: 400-135676-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06743 MW-6

Lab Sample ID: 400-135676-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.5	F1 F2	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15	F1 F2	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06744 FB-1

Lab Sample ID: 400-135676-8

No Detections.

Client Sample ID: AX06745 MW-9

Lab Sample ID: 400-135676-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	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

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: 400-135676-1
SDG: Barry Gypsum (6)

Client Sample ID: AX06746 MW-10

Lab Sample ID: 400-135676-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	9.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06747 EB-1

Lab Sample ID: 400-135676-11

No Detections.

Client Sample ID: AX06748 MW-8

Lab Sample ID: 400-135676-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX06749 MW-5

Lab Sample ID: 400-135676-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8	F1	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.6	F1	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: 400-135676-1
SDG: Barry Gypsum (6)

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

Protocol References:

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

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-135676-1	AX06737 MW-1	Water	03/20/17 13:46	03/27/17 08:34
400-135676-2	AX06738 MW-2	Water	03/20/17 14:45	03/27/17 08:34
400-135676-3	AX06739 MW-3	Water	03/20/17 15:37	03/27/17 08:34
400-135676-4	AX06740 MW-3 DUP	Water	03/20/17 15:37	03/27/17 08:34
400-135676-5	AX06741 MW-4	Water	03/20/17 16:34	03/27/17 08:34
400-135676-6	AX06742 MW-7	Water	03/21/17 09:32	03/27/17 08:34
400-135676-7	AX06743 MW-6	Water	03/21/17 10:20	03/27/17 08:34
400-135676-8	AX06744 FB-1	Water	03/21/17 10:23	03/27/17 08:34
400-135676-9	AX06745 MW-9	Water	03/21/17 11:15	03/27/17 08:34
400-135676-10	AX06746 MW-10	Water	03/21/17 12:00	03/27/17 08:34
400-135676-11	AX06747 EB-1	Water	03/21/17 12:08	03/27/17 08:34
400-135676-12	AX06748 MW-8	Water	03/21/17 13:25	03/27/17 08:34
400-135676-13	AX06749 MW-5	Water	03/21/17 14:35	03/27/17 08:34

Client Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX06737 MW-1

Lab Sample ID: 400-135676-1

Date Collected: 03/20/17 13:46

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:24	1
Sulfate	8.3		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06738 MW-2

Lab Sample ID: 400-135676-2

Date Collected: 03/20/17 14:45

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:28	1
Sulfate	6.1		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06739 MW-3

Lab Sample ID: 400-135676-3

Date Collected: 03/20/17 15:37

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:30	1
Sulfate	7.4		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06740 MW-3 DUP

Lab Sample ID: 400-135676-4

Date Collected: 03/20/17 15:37

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:33	1
Sulfate	7.4		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06741 MW-4

Lab Sample ID: 400-135676-5

Date Collected: 03/20/17 16:34

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:37	1
Sulfate	7.0		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX06742 MW-7

Date Collected: 03/21/17 09:32

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.6		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 10:43	1
Sulfate	3.3	J	5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06743 MW-6

Date Collected: 03/21/17 10:20

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5	F1 F2	2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 17:18	1
Sulfate	15	F1 F2	5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06744 FB-1

Date Collected: 03/21/17 10:23

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 10:46	1
Sulfate	<1.4		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06745 MW-9

Date Collected: 03/21/17 11:15

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-9

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	0.050	J	0.10	0.032	mg/L			04/01/17 10:49	1
Sulfate	7.1		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06746 MW-10

Date Collected: 03/21/17 12:00

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-10

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		2.0	0.60	mg/L			04/15/17 10:08	1
Fluoride	0.060	J	0.10	0.032	mg/L			04/01/17 10:52	1
Sulfate	9.0		5.0	1.4	mg/L			04/15/17 10:01	1

Client Sample ID: AX06747 EB-1

Date Collected: 03/21/17 12:08

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-11

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/15/17 10:10	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Client Sample ID: AX06747 EB-1

Lab Sample ID: 400-135676-11

Date Collected: 03/21/17 12:08

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:23	1
Sulfate	<1.4		5.0	1.4	mg/L			04/15/17 10:15	1

Client Sample ID: AX06748 MW-8

Lab Sample ID: 400-135676-12

Date Collected: 03/21/17 13:25

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		2.0	0.60	mg/L			04/15/17 10:10	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:26	1
Sulfate	3.6	J	5.0	1.4	mg/L			04/15/17 10:15	1

Client Sample ID: AX06749 MW-5

Lab Sample ID: 400-135676-13

Date Collected: 03/21/17 14:35

Matrix: Water

Date Received: 03/27/17 08:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8	F1	2.0	0.60	mg/L			04/15/17 10:29	1
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 11:36	1
Sulfate	8.6	F1	5.0	1.4	mg/L			04/15/17 10:15	1

Definitions/Glossary

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

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.
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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

Client Sample ID: AX06737 MW-1

Date Collected: 03/20/17 13:46

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-1

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	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:24	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06738 MW-2

Date Collected: 03/20/17 14:45

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-2

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	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:28	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06739 MW-3

Date Collected: 03/20/17 15:37

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-3

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	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:30	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06740 MW-3 DUP

Date Collected: 03/20/17 15:37

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-4

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	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:33	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06741 MW-4

Date Collected: 03/20/17 16:34

Date Received: 03/27/17 08:34

Lab Sample ID: 400-135676-5

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	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:37	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

Client Sample ID: AX06742 MW-7

Lab Sample ID: 400-135676-6

Date Collected: 03/21/17 09:32

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:43	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06743 MW-6

Lab Sample ID: 400-135676-7

Date Collected: 03/21/17 10:20

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348007	03/31/17 17:18	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06744 FB-1

Lab Sample ID: 400-135676-8

Date Collected: 03/21/17 10:23

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:46	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06745 MW-9

Lab Sample ID: 400-135676-9

Date Collected: 03/21/17 11:15

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:49	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

Client Sample ID: AX06746 MW-10

Lab Sample ID: 400-135676-10

Date Collected: 03/21/17 12:00

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:08	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 10:52	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:01	BJB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

Client Sample ID: AX06747 EB-1

Lab Sample ID: 400-135676-11

Date Collected: 03/21/17 12:08

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:23	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

Client Sample ID: AX06748 MW-8

Lab Sample ID: 400-135676-12

Date Collected: 03/21/17 13:25

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:10	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:26	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

Client Sample ID: AX06749 MW-5

Lab Sample ID: 400-135676-13

Date Collected: 03/21/17 14:35

Matrix: Water

Date Received: 03/27/17 08:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	349904	04/15/17 10:29	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	348061	04/01/17 11:36	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	349906	04/15/17 10:15	BJB	TAL PEN

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

General Chemistry

Analysis Batch: 348007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 F C	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 F C	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 F C	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 F C	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 F C	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 F C	
MB 400-348007/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348007/27	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 400-348007/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 F C	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 F C	

Analysis Batch: 348061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 F C	
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 F C	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 F C	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 F C	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 F C	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 F C	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 F C	
MB 400-348061/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348061/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 F C	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 F C	

Analysis Batch: 348269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-348269/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-348269/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-135678-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-135678-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-135676-3 DU	AX06739 MW-3	Total/NA	Water	SM 4500 F C	

Analysis Batch: 349904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 Cl- E	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 Cl- E	
MB 400-349904/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-349904/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-135676-1
SDG: Barry Gypsum (6)

General Chemistry (Continued)

Analysis Batch: 349904 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-349904/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 349906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-135676-1	AX06737 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-2	AX06738 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-135676-3	AX06739 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-135676-4	AX06740 MW-3 DUP	Total/NA	Water	SM 4500 SO4 E	
400-135676-5	AX06741 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-135676-6	AX06742 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-135676-7	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-8	AX06744 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-9	AX06745 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-135676-10	AX06746 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-135676-11	AX06747 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-135676-12	AX06748 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-135676-13	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	
MB 400-349906/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-349906/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-349906/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-135676-7 MS	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-7 MSD	AX06743 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-135676-13 MS	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-135676-13 MSD	AX06749 MW-5	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-349904/6
Matrix: Water
Analysis Batch: 349904

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/15/17 09:29	1

Lab Sample ID: LCS 400-349904/7
Matrix: Water
Analysis Batch: 349904

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.8		mg/L		106	90 - 110

Lab Sample ID: MRL 400-349904/3
Matrix: Water
Analysis Batch: 349904

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	2.03		mg/L		102	50 - 150

Lab Sample ID: 400-135676-7 MS
Matrix: Water
Analysis Batch: 349904

Client Sample ID: AX06743 MW-6
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	14.6		mg/L		111	73 - 120

Lab Sample ID: 400-135676-7 MSD
Matrix: Water
Analysis Batch: 349904

Client Sample ID: AX06743 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	3.5	F1 F2	10.0	16.9	F1 F2	mg/L		134	73 - 120	14	8

Lab Sample ID: 400-135676-13 MS
Matrix: Water
Analysis Batch: 349904

Client Sample ID: AX06749 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.8	F1	10.0	15.4	F1	mg/L		126	73 - 120

Lab Sample ID: 400-135676-13 MSD
Matrix: Water
Analysis Batch: 349904

Client Sample ID: AX06749 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	2.8	F1	10.0	14.9	F1	mg/L		121	73 - 120	3	8

QC Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-348007/3
Matrix: Water
Analysis Batch: 348007

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			03/31/17 16:43	1

Lab Sample ID: LCS 400-348007/27
Matrix: Water
Analysis Batch: 348007

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.98		mg/L		100	90 - 110

Lab Sample ID: LCS 400-348007/4
Matrix: Water
Analysis Batch: 348007

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.05		mg/L		101	90 - 110

Lab Sample ID: 400-135676-7 MS
Matrix: Water
Analysis Batch: 348007

Client Sample ID: AX06743 MW-6
Prep Type: Total/NA

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

Lab Sample ID: 400-135676-7 MSD
Matrix: Water
Analysis Batch: 348007

Client Sample ID: AX06743 MW-6
Prep Type: Total/NA

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

Lab Sample ID: MB 400-348061/3
Matrix: Water
Analysis Batch: 348061

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/01/17 10:25	1

Lab Sample ID: LCS 400-348061/4
Matrix: Water
Analysis Batch: 348061

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.22		mg/L		106	90 - 110

Lab Sample ID: 400-135676-13 MS
Matrix: Water
Analysis Batch: 348061

Client Sample ID: AX06749 MW-5
Prep Type: Total/NA

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

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

Lab Sample ID: 400-135676-13 MSD
Matrix: Water
Analysis Batch: 348061

Client Sample ID: AX06749 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
Fluoride	<0.032		1.00	1.02		mg/L		102	75 - 125	2	4

Lab Sample ID: MB 400-348269/3
Matrix: Water
Analysis Batch: 348269

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			04/03/17 15:28	1

Lab Sample ID: LCS 400-348269/4
Matrix: Water
Analysis Batch: 348269

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.05		mg/L		101	90 - 110

Lab Sample ID: 400-135678-A-14 MS
Matrix: Water
Analysis Batch: 348269

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	0.32		1.00	1.24		mg/L		92	75 - 125

Lab Sample ID: 400-135678-A-14 MSD
Matrix: Water
Analysis Batch: 348269

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	0.32		1.00	1.26		mg/L		94	75 - 125	2	4

Lab Sample ID: 400-135676-3 DU
Matrix: Water
Analysis Batch: 348269

Client Sample ID: AX06739 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 400-349906/6
Matrix: Water
Analysis Batch: 349906

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/15/17 09:31	1

QC Sample Results

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

TestAmerica Job ID: 400-135676-1
 SDG: Barry Gypsum (6)

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

Lab Sample ID: LCS 400-349906/7
Matrix: Water
Analysis Batch: 349906

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 400-349906/3
Matrix: Water
Analysis Batch: 349906

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	4.52	J	mg/L		90	50 - 150

Lab Sample ID: 400-135676-7 MS
Matrix: Water
Analysis Batch: 349906

Client Sample ID: AX06743 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15	F1 F2	10.0	32.4	F1	mg/L		177	77 - 128

Lab Sample ID: 400-135676-7 MSD
Matrix: Water
Analysis Batch: 349906

Client Sample ID: AX06743 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	15	F1 F2	10.0	27.6	F1 F2	mg/L		129	77 - 128	16	5

Lab Sample ID: 400-135676-13 MS
Matrix: Water
Analysis Batch: 349906

Client Sample ID: AX06749 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	8.6	F1	10.0	22.2	F1	mg/L		135	77 - 128

Lab Sample ID: 400-135676-13 MSD
Matrix: Water
Analysis Batch: 349906

Client Sample ID: AX06749 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	8.6	F1	10.0	21.5	F1	mg/L		129	77 - 128	3	5

Chain of Custody Record

Client Information Client Contact: Sarah Copeland Lab Pilt: Whitmire, Cheyenne R Phone: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): Job #: 400-135676								
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: sgcopella@southernco.com Project Name: CCR Site: Barry Gypsum (6)		Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007143 SSOW#:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (w/water, S=solid, O=wastefoil, BT=Trace, A=Air)	SM 4500 F.C.	SM 4500 C.I.E.	SM 4500 SO4.E	Analysis Requested	Special Instructions/Note:	
AX06737	3/20/17	1346	G	Water	X	X	X	Preservation Codes: A - HCl M - Hexane B - NaOH N - None O - AsH ₂ O ₂ C - Zn Acetate D - Nitric Acid P - NaZnO ₂ E - NaHSO ₄ F - MeOH R - Na ₂ SO ₃ S - H ₂ SO ₄ G - Amchlor H - Ascorbic Acid T - TSP Dodecylhydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:	MMW-1	
AX06738	3/20/17	1445	G	Water	X	X	X		MMW-2	
AX06739	3/20/17	1537	G	Water	X	X	X		MMW-3	
AX06740	3/20/17	1537	G	Water	X	X	X		MMW-3 Dup (Sample Duplicate)	
AX06741	3/20/17	1634	G	Water	X	X	X		MMW-4	
AX06742	3/21/17	0932	G	Water	X	X	X		MMW-7	
AX06743	3/21/17	1020	G	Water	X	X	X		MMW-6	
AX06744	3/21/17	1023	G	Water	Y	X	X		FB-1 (Field Blank)	
AX06745	3/21/17	1115	G	Water	X	X	X		MMW-9	
AX06746	3/21/17	1200	G	Water	X	X	X		MMW-10	
AX06747	3/21/17	1208	G	Water	X	X	X		EB-1 (Equipment Blank)	
AX06748	3/21/17	1325	G	Water	X	X	X		MMW-8	
AX06749	3/21/17	1435	G	Water	Y	X	X		MMW-5	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Deliverable Requested: I, II, III, IV, Other (specify)										
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 03/24/2017, 1230 Company: APC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____										
Custody Seals Intact: _____ Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 19.1°C										



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-135676-1
SDG Number: Barry Gypsum (6)

Login Number: 135676
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	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.1°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: 400-135676-1
SDG: Barry Gypsum (6)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_1093

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:

Supervision:

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



Anions

Barry Gypsum

WMWBARG_1093

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America for these samples.

Job Narrative
400-137615-1
General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 353387 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.



Metals ICP

Barry Gypsum

WMWBARG_1093

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>
AX10348	20170519B	WMWBARG_1093
AX10349	20170519B	WMWBARG_1093
AX10350	20170519B	WMWBARG_1093
AX10351	20170519B	WMWBARG_1093
AX10352	20170519B	WMWBARG_1093
AX10353	20170519B	WMWBARG_1093
AX10354	20170519B	WMWBARG_1093
AX10355	20170519B	WMWBARG_1093
AX10356	20170519B	WMWBARG_1093
AX10357	20170519B	WMWBARG_1093
AX10358	20170518CK	WMWBARG_1093
AX10359	20170518CK	WMWBARG_1093
AX10360	20170518CK	WMWBARG_1093

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



Metals ICPMS

Barry Gypsum

WMWBARG_1093

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>
AX10348	593760	WMWBARG_1093
AX10349	593760	WMWBARG_1093
AX10350	593760	WMWBARG_1093
AX10351	593760	WMWBARG_1093
AX10352	593760	WMWBARG_1093
AX10353	593760	WMWBARG_1093
AX10354	593760	WMWBARG_1093
AX10355	593760	WMWBARG_1093
AX10356	593760	WMWBARG_1093
AX10357	593760	WMWBARG_1093
AX10358	593761	WMWBARG_1093
AX10359	593761	WMWBARG_1093
AX10360	593761	WMWBARG_1093

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_1093

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>
AX10348	594063	WMWBARG_1093
AX10349	594063	WMWBARG_1093
AX10350	594063	WMWBARG_1093
AX10351	594063	WMWBARG_1093
AX10352	594063	WMWBARG_1093
AX10353	594063	WMWBARG_1093
AX10354	594063	WMWBARG_1093
AX10355	594063	WMWBARG_1093
AX10356	594063	WMWBARG_1093
AX10357	594063	WMWBARG_1093
AX10358	594064	WMWBARG_1093
AX10359	594064	WMWBARG_1093
AX10360	594064	WMWBARG_1093

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_1093

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>
AX10348	593475	WMWBARG_1093
AX10349	593475	WMWBARG_1093
AX10350	593475	WMWBARG_1093
AX10351	593475	WMWBARG_1093
AX10352	593475	WMWBARG_1093
AX10353	593475	WMWBARG_1093
AX10354	593475	WMWBARG_1093
AX10355	593475	WMWBARG_1093
AX10356	593475	WMWBARG_1093
AX10357	593476	WMWBARG_1093
AX10358	593476	WMWBARG_1093
AX10359	593476	WMWBARG_1093
AX10360	593476	WMWBARG_1093

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 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%, with the exception of batch 593476. The sample and duplicate results were less than 3 times the value of the reporting limit.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX10349 and AX10360 which did not meet the 2.5 mg residue requirement.

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0388	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	0.908	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	26.7	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.8	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.5	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX10348

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX10349

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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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: WMWBARGFB
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX10349

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	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: WMWBARGFB
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX10349

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0980	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	J 0.000704	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	J 0.0695	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	5.81	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00778	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	50.0	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.8	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	11	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX10350

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0799	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	J 0.0602	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.74	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00284	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	37.3	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	8.0	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX10351

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L	7.00		25			33.3	56.0	40 to 60			3.09	5

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0777	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.24	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	5.6	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX10352

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX10356	Solids, Dissolved	mg/L	7.00	25				33.3	56.0	40 to 60			3.09	5

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0818	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.26	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.9	mg/L

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Laboratory certification ID: E571114

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-4 Dup

Laboratory ID Number: AX10353

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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CC:

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0723	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.58	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	30.7	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	6.3	mg/L

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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 744 County Road 87, GSC#8
 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX10354

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.125	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.28	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	30.7	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	5.0	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	5.0	mg/L

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	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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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX10355

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	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, 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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0868	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	J 0.000690	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	1.05	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00314	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	31.3	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	6.6	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75	91.0	70 to 130	8.95	20
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115	108	70 to 130	2.86	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15	97.8	70 to 130	2.26	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046	99.0	70 to 130	1.53	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115	98.1	70 to 130	1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115	97.3	70 to 130	1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115	94.0	70 to 130	1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115	91.4	70 to 130	2.93	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115	102	70 to 130	1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115	94.0	70 to 130	2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115	96.8	70 to 130	3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115	108	70 to 130	1.75	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115	94.3	70 to 130	1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115	107	70 to 130	1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23	97.4	70 to 130	5.22	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX10356

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10356	Solids, Dissolved	mg/L	7.00	25			33.3	56.0	40 to 60	3.09	5

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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  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.0309	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/19/2017	EPA 200.7		2	0.1	0.5	0.548	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00208	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/19/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	25.3	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	5.7	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.9	mg/L

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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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX10357	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.108	0.111	0.105	0.085 to 0.115		108	70 to 130		2.86	20
AX10357	Calcium, Total	mg/L	-0.00584	0.22	5.00	5.10	5.58	4.61	4.25 to 5.75		91.0	70 to 130		8.95	20
AX10357	Mercury, Total by CVAA	mg/L	0.0000171	0.0005	0.004	0.00396	0.00390	0.00389	0.0034 to 0.0046		99.0	70 to 130		1.53	20
AX10357	Boron, Total	mg/L	-0.000631	0.044	1.00	0.978	1.00	0.976	0.85 to 1.15		97.8	70 to 130		2.26	20
AX10357	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0981	0.0995	0.105	0.085 to 0.115		98.1	70 to 130		1.42	20
AX10357	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0973	0.0987	0.0972	0.085 to 0.115		97.3	70 to 130		1.43	20
AX10357	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0940	0.0956	0.0972	0.085 to 0.115		94.0	70 to 130		1.61	20
AX10357	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.122	0.126	0.0928	0.085 to 0.115		91.4	70 to 130		2.93	20
AX10357	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0943	0.0958	0.0976	0.085 to 0.115		94.3	70 to 130		1.61	20
AX10357	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.108	0.101	0.085 to 0.115		107	70 to 130		1.64	20
AX10357	Lithium, Total	mg/L	0.00000944	0.022	0.20	0.195	0.205	0.198	0.17 to 0.23		97.4	70 to 130		5.22	20
AX10357	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.104	0.105	0.102	0.085 to 0.115		102	70 to 130		1.22	20
AX10357	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0940	0.0962	0.0970	0.085 to 0.115		94.0	70 to 130		2.35	20
AX10357	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0968	0.101	0.104	0.085 to 0.115		96.8	70 to 130		3.81	20
AX10357	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.108	0.110	0.0995	0.085 to 0.115		108	70 to 130		1.75	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX10357

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10360	Solids, Dissolved	mg/L	7.00	25			-2.7	56.0	40 to 60	0.00	5

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Expiration: June 30, 2018

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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  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.111	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0270	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	1.20	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	30.7	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	6.6	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	5.7	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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX10360	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9	70 to 130	1.70	20
AX10360	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2	70 to 130	1.17	20
AX10360	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1	70 to 130	0.157	20
AX10360	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107	70 to 130	0.958	20
AX10360	Arsenic, Total	mg/L	0.000000969	0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4	70 to 130	0.435	20
AX10360	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6	70 to 130	2.39	20
AX10360	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4	70 to 130	1.63	20
AX10360	Mercury, Total by CVAA	mg/L	0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2	70 to 130	3.94	20
AX10360	Boron, Total	mg/L	0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6	70 to 130	0.623	20
AX10360	Lithium, Total	mg/L	-0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5	70 to 130	2.07	20
AX10360	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2	70 to 130	0.933	20
AX10360	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104	70 to 130	8.91	20
AX10360	Calcium, Total	mg/L	-0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2	70 to 130	0.208	20
AX10360	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.493	20
AX10360	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109	70 to 130	1.50	20

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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
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX10358

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L	7.00	25				-2.7	56.0	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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	0.114	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	J 0.0259	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	0.763	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00205	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	29.3	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.7	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	7.9	mg/L

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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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AX10360	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9	70 to 130	1.70	20
AX10360	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2	70 to 130	1.17	20
AX10360	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1	70 to 130	0.157	20
AX10360	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107	70 to 130	0.958	20
AX10360	Arsenic, Total	mg/L	0.000000969	0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4	70 to 130	0.435	20
AX10360	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6	70 to 130	2.39	20
AX10360	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4	70 to 130	1.63	20
AX10360	Mercury, Total by CVAA	mg/L	0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2	70 to 130	3.94	20
AX10360	Boron, Total	mg/L	0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6	70 to 130	0.623	20
AX10360	Lithium, Total	mg/L	-0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5	70 to 130	2.07	20
AX10360	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2	70 to 130	0.933	20
AX10360	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104	70 to 130	8.91	20
AX10360	Calcium, Total	mg/L	-0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2	70 to 130	0.208	20
AX10360	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.493	20
AX10360	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109	70 to 130	1.50	20

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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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX10359

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX10360	Solids, Dissolved	mg/L	7.00	25				-2.7	56.0	40 to 60			0.00	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

Customer Account: WMWBARGE
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/18/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/18/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	5/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/17/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/18/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	5/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	5/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	5/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	5/9/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	5/24/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	5/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	5/24/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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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

Customer Account: WMWBARGE
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX10360	Selenium, Total	mg/L	0.0000568	0.0044	0.10	0.0989	0.0972	0.104	0.085 to 0.115	98.9	70 to 130	1.70	20	
AX10360	Antimony, Total	mg/L	0.0000249	0.00132	0.10	0.0972	0.0961	0.0972	0.085 to 0.115	97.2	70 to 130	1.17	20	
AX10360	Cadmium, Total	mg/L	0.00000129	0.00044	0.10	0.0981	0.0982	0.0972	0.085 to 0.115	98.1	70 to 130	0.157	20	
AX10360	Lead, Total	mg/L	-0.00000631	0.0022	0.10	0.107	0.106	0.101	0.085 to 0.115	107	70 to 130	0.958	20	
AX10360	Cobalt, Total	mg/L	0.00000168	0.0044	0.10	0.0974	0.0959	0.0976	0.085 to 0.115	97.4	70 to 130	1.63	20	
AX10360	Mercury, Total by CVAA	mg/L	0.0000192	0.0005	0.004	0.00373	0.00388	0.00380	0.0034 to 0.0046	93.2	70 to 130	3.94	20	
AX10360	Arsenic, Total	mg/L	0.00000969	0.0022	0.10	0.0994	0.0990	0.105	0.085 to 0.115	99.4	70 to 130	0.435	20	
AX10360	Molybdenum, Total	mg/L	0.00000581	0.0044	0.10	0.0986	0.0962	0.0970	0.085 to 0.115	98.6	70 to 130	2.39	20	
AX10360	Barium, Total	mg/L	-0.00000361	0.0044	0.10	0.0952	0.0943	0.0928	0.085 to 0.115	95.2	70 to 130	0.933	20	
AX10360	Beryllium, Total	mg/L	0.0000329	0.00132	0.10	0.104	0.114	0.105	0.085 to 0.115	104	70 to 130	8.91	20	
AX10360	Calcium, Total	mg/L	-0.0179	0.22	5.00	4.81	4.80	4.74	4.25 to 5.75	96.2	70 to 130	0.208	20	
AX10360	Chromium, Total	mg/L	-0.000000199	0.0044	0.10	0.103	0.103	0.102	0.085 to 0.115	103	70 to 130	0.493	20	
AX10360	Thallium, Total	mg/L	0.00000515	0.00044	0.10	0.109	0.107	0.0995	0.085 to 0.115	109	70 to 130	1.50	20	
AX10360	Boron, Total	mg/L	0.000192	0.044	1.00	0.966	0.960	0.952	0.85 to 1.15	96.6	70 to 130	0.623	20	
AX10360	Lithium, Total	mg/L	-0.000120	0.022	0.200	0.195	0.191	0.192	0.17 to 0.23	97.5	70 to 130	2.07	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

Customer Account: WMWBARGE
 Sample Date: 02-May-17
 Customer ID:
 Delivery Date: 04-May-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX10360

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX10360	Solids, Dissolved	mg/L	7.00	25			-2.7	56.0	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, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Definitions



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

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



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 05/04/2017 10:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions"/>		
Comments	<input type="text" value="All anions outsourced to Test America, Pensacola."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	05/02/2017	06:35	4	Groundwater		AX10348
FB-1	05/02/2017	06:22	4	Field Blank		AX10349
MW-6	05/02/2017	07:24	4	Groundwater		AX10350
MW-5	05/02/2017	08:23	4	Groundwater		AX10351
MW-4	05/02/2017	09:44	4	Groundwater		AX10352
MW-4DUP	05/02/2017	09:44	4	Sample Duplicate		AX10353
MW-3	05/02/2017	11:00	4	Groundwater		AX10354
MW-2	05/02/2017	12:15	4	Groundwater		AX10355
MW-1	05/02/2017	13:17	4	Groundwater		AX10356
MW-8	05/02/2017	14:12	4	Groundwater		AX10357
MW-9	05/02/2017	15:11	4	Groundwater		AX10358
MW-10	05/02/2017	16:30	4	Groundwater		AX10359
EB-1	05/02/2017	16:45	4	Equipment Blank		AX10360

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.05.04 08:09:08 -05'00'</small>	05/04/2017 08:09

SmarTroll ID	<input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20009-2-1"/>	Cooler Temp
		<input type="text" value="0.3 degrees C"/>
		Thermometer ID
		<input type="text" value="5408-27568-2-2"/>
		pH Strip ID
		<input type="text" value="5521-28268-20-12"/>

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-137615-1

TestAmerica Sample Delivery Group: Barry Gypsum (7)

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:

5/23/2017 5:20:05 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Job ID: 400-137615-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-137615-1

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 353387 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: 400-137615-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10348 MW-7

Lab Sample ID: 400-137615-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.5	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10349 FB-1

Lab Sample ID: 400-137615-2

No Detections.

Client Sample ID: AX10350 MW-6

Lab Sample ID: 400-137615-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10351 MW-5

Lab Sample ID: 400-137615-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10352 MW-4

Lab Sample ID: 400-137615-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10353 MW-4 DUP

Lab Sample ID: 400-137615-6

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	4.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10354 MW-3

Lab Sample ID: 400-137615-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10355 MW-2

Lab Sample ID: 400-137615-8

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

Client Sample ID: AX10356 MW-1

Lab Sample ID: 400-137615-9

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
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10357 MW-8

Lab Sample ID: 400-137615-10

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
Sulfate	2.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10358 MW-9

Lab Sample ID: 400-137615-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10359 MW-10

Lab Sample ID: 400-137615-12

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	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	7.9		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX10360 EB-1

Lab Sample ID: 400-137615-13

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: 400-137615-1
SDG: Barry Gypsum (7)

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

Protocol References:

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

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137615-1	AX10348 MW-7	Water	05/02/17 06:35	05/08/17 09:12
400-137615-2	AX10349 FB-1	Water	05/02/17 06:22	05/08/17 09:12
400-137615-3	AX10350 MW-6	Water	05/02/17 07:24	05/08/17 09:12
400-137615-4	AX10351 MW-5	Water	05/02/17 08:23	05/08/17 09:12
400-137615-5	AX10352 MW-4	Water	05/02/17 09:44	05/08/17 09:12
400-137615-6	AX10353 MW-4 DUP	Water	05/02/17 09:44	05/08/17 09:12
400-137615-7	AX10354 MW-3	Water	05/02/17 11:00	05/08/17 09:12
400-137615-8	AX10355 MW-2	Water	05/02/17 12:15	05/08/17 09:12
400-137615-9	AX10356 MW-1	Water	05/02/17 13:17	05/08/17 09:12
400-137615-10	AX10357 MW-8	Water	05/02/17 14:12	05/08/17 09:12
400-137615-11	AX10358 MW-9	Water	05/02/17 15:11	05/08/17 09:12
400-137615-12	AX10359 MW-10	Water	05/02/17 16:30	05/08/17 09:12
400-137615-13	AX10360 EB-1	Water	05/02/17 16:45	05/08/17 09:12

Client Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10348 MW-7

Lab Sample ID: 400-137615-1

Date Collected: 05/02/17 06:35

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		2.0	0.60	mg/L			05/09/17 15:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:23	1
Sulfate	2.5	J	5.0	1.4	mg/L			05/10/17 15:35	1

Client Sample ID: AX10349 FB-1

Lab Sample ID: 400-137615-2

Date Collected: 05/02/17 06:22

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/11/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:25	1
Sulfate	<1.4		5.0	1.4	mg/L			05/10/17 08:14	1

Client Sample ID: AX10350 MW-6

Lab Sample ID: 400-137615-3

Date Collected: 05/02/17 07:24

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		2.0	0.60	mg/L			05/11/17 11:50	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:28	1
Sulfate	11		5.0	1.4	mg/L			05/10/17 08:14	1

Client Sample ID: AX10351 MW-5

Lab Sample ID: 400-137615-4

Date Collected: 05/02/17 08:23

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:31	1
Sulfate	8.0		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10352 MW-4

Lab Sample ID: 400-137615-5

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			05/09/17 15:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:17	1
Sulfate	5.6		5.0	1.4	mg/L			05/11/17 07:38	1

Client Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10353 MW-4 DUP

Lab Sample ID: 400-137615-6

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:33	1
Sulfate	4.9	J	5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10354 MW-3

Lab Sample ID: 400-137615-7

Date Collected: 05/02/17 11:00

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			05/11/17 11:50	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 09:36	1
Sulfate	6.3		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10355 MW-2

Lab Sample ID: 400-137615-8

Date Collected: 05/02/17 12:15

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.0		2.0	0.60	mg/L			05/09/17 15:22	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/18/17 09:40	1
Sulfate	5.0		5.0	1.4	mg/L			05/10/17 08:14	1

Client Sample ID: AX10356 MW-1

Lab Sample ID: 400-137615-9

Date Collected: 05/02/17 13:17

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/18/17 10:10	1
Sulfate	6.6		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10357 MW-8

Lab Sample ID: 400-137615-10

Date Collected: 05/02/17 14:12

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.7		2.0	0.60	mg/L			05/09/17 15:22	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 10:16	1
Sulfate	2.9	J	5.0	1.4	mg/L			05/10/17 15:35	1

Client Sample ID: AX10358 MW-9

Lab Sample ID: 400-137615-11

Date Collected: 05/02/17 15:11

Matrix: Water

Date Received: 05/08/17 09:12

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		2.0	0.60	mg/L			05/09/17 15:22	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10358 MW-9

Date Collected: 05/02/17 15:11

Date Received: 05/08/17 09:12

Lab Sample ID: 400-137615-11

Matrix: Water

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L			05/18/17 10:19	1
Sulfate	5.7		5.0	1.4	mg/L			05/10/17 08:16	1

Client Sample ID: AX10359 MW-10

Date Collected: 05/02/17 16:30

Date Received: 05/08/17 09:12

Lab Sample ID: 400-137615-12

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			05/09/17 15:07	1
Fluoride	0.070	J	0.10	0.032	mg/L			05/18/17 10:22	1
Sulfate	7.9		5.0	1.4	mg/L			05/10/17 08:41	1

Client Sample ID: AX10360 EB-1

Date Collected: 05/02/17 16:45

Date Received: 05/08/17 09:12

Lab Sample ID: 400-137615-13

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60	F1	2.0	0.60	mg/L			05/11/17 15:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/18/17 10:04	1
Sulfate	<1.4		5.0	1.4	mg/L			05/10/17 08:14	1

Definitions/Glossary

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

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.

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: 400-137615-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10348 MW-7

Lab Sample ID: 400-137615-1

Date Collected: 05/02/17 06:35

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353138	05/10/17 15:35	RRC	TAL PEN

Client Sample ID: AX10349 FB-1

Lab Sample ID: 400-137615-2

Date Collected: 05/02/17 06:22

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	353292	05/11/17 11:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:25	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	RRC	TAL PEN

Client Sample ID: AX10350 MW-6

Lab Sample ID: 400-137615-3

Date Collected: 05/02/17 07:24

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	353292	05/11/17 11:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:28	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	RRC	TAL PEN

Client Sample ID: AX10351 MW-5

Lab Sample ID: 400-137615-4

Date Collected: 05/02/17 08:23

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:31	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10352 MW-4

Lab Sample ID: 400-137615-5

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353139	05/11/17 07:38	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10353 MW-4 DUP

Lab Sample ID: 400-137615-6

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10354 MW-3

Lab Sample ID: 400-137615-7

Date Collected: 05/02/17 11:00

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	353292	05/11/17 11:50	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:36	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10355 MW-2

Lab Sample ID: 400-137615-8

Date Collected: 05/02/17 12:15

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 09:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	RRC	TAL PEN

Client Sample ID: AX10356 MW-1

Lab Sample ID: 400-137615-9

Date Collected: 05/02/17 13:17

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:10	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10357 MW-8

Lab Sample ID: 400-137615-10

Date Collected: 05/02/17 14:12

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:16	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353138	05/10/17 15:35	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-137615-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10358 MW-9

Lab Sample ID: 400-137615-11

Date Collected: 05/02/17 15:11

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:22	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:16	RRC	TAL PEN

Client Sample ID: AX10359 MW-10

Lab Sample ID: 400-137615-12

Date Collected: 05/02/17 16:30

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	352957	05/09/17 15:07	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:41	RRC	TAL PEN

Client Sample ID: AX10360 EB-1

Lab Sample ID: 400-137615-13

Date Collected: 05/02/17 16:45

Matrix: Water

Date Received: 05/08/17 09:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	353387	05/11/17 15:13	VLS	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	353995	05/18/17 10:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	353008	05/10/17 08:14	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: 400-137615-1
 SDG: Barry Gypsum (7)

General Chemistry

Analysis Batch: 352957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 Cl- E	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 Cl- E	
MB 400-352957/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-352957/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-352957/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 353008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-2	AX10349 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-353008/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353008/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353008/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 353138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 SO4 E	
MB 400-353138/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353138/18	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353138/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137613-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-137613-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 353139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 SO4 E	
MB 400-353139/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-353139/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-353139/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-137615-5 MSD	AX10352 MW-4	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: 400-137615-1
 SDG: Barry Gypsum (7)

Analysis Batch: 353292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-2	AX10349 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 Cl- E	
MB 400-353292/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-353292/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-353292/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-137613-A-10 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-137613-A-10 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 353387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-353387/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-353387/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-353387/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 353995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137615-1	AX10348 MW-7	Total/NA	Water	SM 4500 F C	
400-137615-2	AX10349 FB-1	Total/NA	Water	SM 4500 F C	
400-137615-3	AX10350 MW-6	Total/NA	Water	SM 4500 F C	
400-137615-4	AX10351 MW-5	Total/NA	Water	SM 4500 F C	
400-137615-5	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-6	AX10353 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-137615-7	AX10354 MW-3	Total/NA	Water	SM 4500 F C	
400-137615-8	AX10355 MW-2	Total/NA	Water	SM 4500 F C	
400-137615-9	AX10356 MW-1	Total/NA	Water	SM 4500 F C	
400-137615-10	AX10357 MW-8	Total/NA	Water	SM 4500 F C	
400-137615-11	AX10358 MW-9	Total/NA	Water	SM 4500 F C	
400-137615-12	AX10359 MW-10	Total/NA	Water	SM 4500 F C	
400-137615-13	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-353995/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-353995/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-137615-5 MS	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-5 MSD	AX10352 MW-4	Total/NA	Water	SM 4500 F C	
400-137615-13 MS	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
400-137615-13 MSD	AX10360 EB-1	Total/NA	Water	SM 4500 F C	
400-137615-9 DU	AX10356 MW-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: 400-137615-1
 SDG: Barry Gypsum (7)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-352957/6
Matrix: Water
Analysis Batch: 352957

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			05/09/17 14:49	1

Lab Sample ID: LCS 400-352957/7
Matrix: Water
Analysis Batch: 352957

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.3		mg/L		108	90 - 110

Lab Sample ID: MRL 400-352957/3
Matrix: Water
Analysis Batch: 352957

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	2.47		mg/L		123	50 - 150

Lab Sample ID: 400-137615-5 MS
Matrix: Water
Analysis Batch: 352957

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.9		10.0	15.4		mg/L		115	73 - 120

Lab Sample ID: 400-137615-5 MSD
Matrix: Water
Analysis Batch: 352957

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	3.9		10.0	15.3		mg/L		115	73 - 120	0	8

Lab Sample ID: MB 400-353292/6
Matrix: Water
Analysis Batch: 353292

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			05/11/17 11:01	1

Lab Sample ID: LCS 400-353292/7
Matrix: Water
Analysis Batch: 353292

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.1		mg/L		104	90 - 110

Lab Sample ID: MRL 400-353292/3
Matrix: Water
Analysis Batch: 353292

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.11	J	mg/L		55	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

Lab Sample ID: 400-137613-A-10 MS
Matrix: Water
Analysis Batch: 353292

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60	F1	10.0	11.5		mg/L		115	73 - 120

Lab Sample ID: 400-137613-A-10 MSD
Matrix: Water
Analysis Batch: 353292

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	<0.60	F1	10.0	12.3	F1	mg/L		123	73 - 120	6	8

Lab Sample ID: MB 400-353387/6
Matrix: Water
Analysis Batch: 353387

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			05/11/17 14:37		1

Lab Sample ID: LCS 400-353387/7
Matrix: Water
Analysis Batch: 353387

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 400-353387/3
Matrix: Water
Analysis Batch: 353387

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	2.06		mg/L		103	50 - 150

Lab Sample ID: 400-137615-5 MS
Matrix: Water
Analysis Batch: 353387

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0	F1	10.0	16.0		mg/L		119	73 - 120

Lab Sample ID: 400-137615-5 MSD
Matrix: Water
Analysis Batch: 353387

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	4.0	F1	10.0	16.3	F1	mg/L		123	73 - 120	2	8

Lab Sample ID: 400-137615-13 MS
Matrix: Water
Analysis Batch: 353387

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60	F1	10.0	12.2	F1	mg/L		122	73 - 120

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

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

Lab Sample ID: 400-137615-13 MSD
Matrix: Water
Analysis Batch: 353387

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	<0.60	F1	10.0	12.1	F1	mg/L		121	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-353995/3
Matrix: Water
Analysis Batch: 353995

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			05/18/17 09:10	1

Lab Sample ID: LCS 400-353995/4
Matrix: Water
Analysis Batch: 353995

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: 400-137615-5 MS
Matrix: Water
Analysis Batch: 353995

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.930		mg/L		93	75 - 125

Lab Sample ID: 400-137615-5 MSD
Matrix: Water
Analysis Batch: 353995

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.900		mg/L		90	75 - 125	3	4

Lab Sample ID: 400-137615-13 MS
Matrix: Water
Analysis Batch: 353995

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.900		mg/L		90	75 - 125

Lab Sample ID: 400-137615-13 MSD
Matrix: Water
Analysis Batch: 353995

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.930		mg/L		93	75 - 125	3	4

QC Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-137615-9 DU
Matrix: Water
Analysis Batch: 353995

Client Sample ID: AX10356 MW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.040	J	<0.032		mg/L		NC	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-353008/6
Matrix: Water
Analysis Batch: 353008

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			05/10/17 07:50	1

Lab Sample ID: LCS 400-353008/7
Matrix: Water
Analysis Batch: 353008

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	13.6		mg/L		91	90 - 110

Lab Sample ID: MRL 400-353008/3
Matrix: Water
Analysis Batch: 353008

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	4.20	J	mg/L		84	50 - 150

Lab Sample ID: 400-137615-13 MS
Matrix: Water
Analysis Batch: 353008

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4		10.0	8.98		mg/L		90	77 - 128

Lab Sample ID: 400-137615-13 MSD
Matrix: Water
Analysis Batch: 353008

Client Sample ID: AX10360 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	8.98		mg/L		90	77 - 128	0	5

Lab Sample ID: MB 400-353138/17
Matrix: Water
Analysis Batch: 353138

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			05/10/17 14:11	1

QC Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

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

Lab Sample ID: LCS 400-353138/18
Matrix: Water
Analysis Batch: 353138

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.0		mg/L		93	90 - 110

Lab Sample ID: MRL 400-353138/14
Matrix: Water
Analysis Batch: 353138

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	4.22	J	mg/L		84	50 - 150

Lab Sample ID: 400-137613-A-10 MS
Matrix: Water
Analysis Batch: 353138

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	8.29		mg/L		83	77 - 128

Lab Sample ID: 400-137613-A-10 MSD
Matrix: Water
Analysis Batch: 353138

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	8.13		mg/L		81	77 - 128	2	5

Lab Sample ID: MB 400-353139/6
Matrix: Water
Analysis Batch: 353139

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			05/11/17 07:14	1

Lab Sample ID: LCS 400-353139/7
Matrix: Water
Analysis Batch: 353139

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	13.5		mg/L		90	90 - 110

Lab Sample ID: MRL 400-353139/3
Matrix: Water
Analysis Batch: 353139

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.32	J	mg/L		86	50 - 150

Lab Sample ID: 400-137615-5 MS
Matrix: Water
Analysis Batch: 353139

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.6		10.0	14.8		mg/L		93	77 - 128

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-137615-1
 SDG: Barry Gypsum (7)

Lab Sample ID: 400-137615-5 MSD
Matrix: Water
Analysis Batch: 353139

Client Sample ID: AX10352 MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	5.6		10.0	14.7		mg/L		92	77 - 128	1	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record

Client Information		Sampler: Anthony Goggins		Lab PM: Whitmire, Chyenenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: chyenenne.whitmire@testamericainc.com				Page: Page 1 of 1	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #: 400-137615		Preservation Codes:	
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Routine		Total Number of Containers		M - Hexane N - None O - AsNaO2 P - Na2SO4 Q - NaHSO4 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify)	
City: Calera		PO #:				SM 4500 SO4 E		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: AL, 35040		WFO #:				SM 4500 CL E			
Phone: 205-664-6121(Tel)		Project #:				SM 4500 F C			
Email: sgcopela@southernmco.com		CCR				Field Filtered Sample (Yes or No)			
Site: Barry Gypsum (7)		SSOW#:				Perform MSM/SD (Yes or No)			
		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=metal, BT=biotope, A=air)	
Sample Identification		Preservation Code:						Special Instructions/Note:	
AX10348	5/2/17	0635	G	Water	X	X	X	1	MW-7
AX10349	5/2/17	0622	G	Water	X	X	X	1	FB-1 (Field Blank)
AX10350	5/2/17	0724	G	Water	X	X	X	1	MW-6
AX10351	5/2/17	0823	G	Water	X	X	X	1	MW-5
AX10352	5/2/17	0944	G	Water	Y	X	X	1	MW-4
AX10353	5/2/17	0944	G	Water	X	X	X	1	MW-4 Dup (Sample Duplicate)
AX10354	5/2/17	1100	G	Water	X	X	X	1	MW-3
AX10355	5/2/17	1215	G	Water	X	X	X	1	MW-2
AX10356	5/2/17	1317	G	Water	X	X	X	1	MW-1
AX10357	5/2/17	1412	G	Water	X	X	X	1	MW-8
AX10358	5/2/17	1511	G	Water	X	X	X	1	MW-9
AX10359	5/2/17	1630	G	Water	X	X	X	1	MW-10
AX10360	5/2/17	1645	G	Water	Y	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)									
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:									
Time: _____ Method of Shipment: _____									
Relinquished by: Sarah Copeland Date/Time: 05/08/2017, 1330 Company: APC									
Relinquished by: _____ Date/Time: _____ Company: _____									
Relinquished by: _____ Date/Time: _____ Company: _____									
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: _____									



5/8/17 0912 14-16N
 Date/Time: 5/8/17 0912
 Date/Time: 5/8/17 0912
 Date/Time: 5/8/17 0912
 Cooler Temperature(s) °C and Other Remarks: 21.6 °C JLLZ

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Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-137615-1
SDG Number: Barry Gypsum (7)

Login Number: 137615

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Water present in cooler; indicates evidence of melted ice.
Cooler Temperature is acceptable.	False	Cooler temperature outside required temperature criteria.
Cooler Temperature is recorded.	True	21.6°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (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: 400-137615-1
 SDG: Barry Gypsum (7)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17 *
West Virginia DEP	State Program	3	136	06-30-17

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-137872-1

TestAmerica Sample Delivery Group: Barry Gypsum (7)

Client Project/Site: CCR Plant Barry

For:

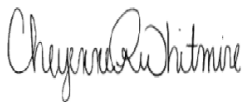
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/14/2017 10:48:53 AM

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: 400-137872-1
SDG: Barry Gypsum (7)

Job ID: 400-137872-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-137872-1

RAD

Method(s) PrecSep_0: Radium 228 prep Batch 160-309324. The following samples were reduced due to limited volume: AX10361 MW-7 (400-137872-1), AX10362 FB-1 (400-137872-2), AX10363 MW-6 (400-137872-3), AX10363 MW-6 (400-137872-3[DU]), AX10364 MW-5 (400-137872-4), AX10365 MW-4 (400-137872-5), AX10366 MW-4 DUP (400-137872-6), AX10367 MW-3 (400-137872-7), AX10368 MW-2 (400-137872-8), AX10369 MW-1 (400-137872-9), AX10370 MW-8 (400-137872-10), AX10371 MW-9 (400-137872-11), AX10372 MW-10 (400-137872-12) and AX10373 EB-1 (400-137872-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-309312. The following samples were reduced due to limited volume: AX10361 MW-7 (400-137872-1), AX10362 FB-1 (400-137872-2), AX10363 MW-6 (400-137872-3), AX10363 MW-6 (400-137872-3[DU]), AX10364 MW-5 (400-137872-4), AX10365 MW-4 (400-137872-5), AX10366 MW-4 DUP (400-137872-6), AX10367 MW-3 (400-137872-7), AX10368 MW-2 (400-137872-8), AX10369 MW-1 (400-137872-9), AX10370 MW-8 (400-137872-10), AX10371 MW-9 (400-137872-11), AX10372 MW-10 (400-137872-12) and AX10373 EB-1 (400-137872-13).

Method Summary

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

TestAmerica Job ID: 400-137872-1
SDG: Barry Gypsum (7)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

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: 400-137872-1
SDG: Barry Gypsum (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-137872-1	AX10361 MW-7	Water	05/02/17 06:35	05/09/17 10:25
400-137872-2	AX10362 FB-1	Water	05/02/17 06:22	05/09/17 10:25
400-137872-3	AX10363 MW-6	Water	05/02/17 07:24	05/09/17 10:25
400-137872-4	AX10364 MW-5	Water	05/02/17 08:23	05/09/17 10:25
400-137872-5	AX10365 MW-4	Water	05/02/17 09:44	05/09/17 10:25
400-137872-6	AX10366 MW-4 DUP	Water	05/02/17 09:44	05/09/17 10:25
400-137872-7	AX10367 MW-3	Water	05/02/17 11:00	05/09/17 10:25
400-137872-8	AX10368 MW-2	Water	05/02/17 12:15	05/09/17 10:25
400-137872-9	AX10369 MW-1	Water	05/02/17 13:17	05/09/17 10:25
400-137872-10	AX10370 MW-8	Water	05/02/17 14:12	05/09/17 10:25
400-137872-11	AX10371 MW-9	Water	05/02/17 15:11	05/09/17 10:25
400-137872-12	AX10372 MW-10	Water	05/02/17 16:30	05/09/17 10:25
400-137872-13	AX10373 EB-1	Water	05/02/17 16:45	05/09/17 10:25

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10361 MW-7

Lab Sample ID: 400-137872-1

Date Collected: 05/02/17 06:35

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.149		0.105	0.106	1.00	0.146	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.355	0.360	1.00	0.539	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	86.4		40 - 110					05/18/17 10:00	06/02/17 10:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.804		0.370	0.375	5.00	0.539	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10362 FB-1

Lab Sample ID: 400-137872-2

Date Collected: 05/02/17 06:22

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192		0.106	0.108	1.00	0.124	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.315	U	0.259	0.260	1.00	0.409	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.507		0.280	0.282	5.00	0.409	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10363 MW-6

Lab Sample ID: 400-137872-3

Date Collected: 05/02/17 07:24

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.453		0.153	0.158	1.00	0.135	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.956		0.351	0.361	1.00	0.485	pCi/L	05/18/17 10:00	06/02/17 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					05/18/17 10:00	06/02/17 10:39	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.41		0.382	0.395	5.00	0.485	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10364 MW-5

Lab Sample ID: 400-137872-4

Date Collected: 05/02/17 08:23

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.247		0.114	0.116	1.00	0.122	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.266	0.268	1.00	0.421	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	90.1		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.587		0.290	0.292	5.00	0.421	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10365 MW-4

Lab Sample ID: 400-137872-5

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.278		0.130	0.132	1.00	0.153	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.899		0.339	0.349	1.00	0.468	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.18		0.363	0.373	5.00	0.468	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10366 MW-4 DUP

Lab Sample ID: 400-137872-6

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.291		0.129	0.132	1.00	0.145	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.521	U	0.446	0.449	1.00	0.718	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	69.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.812		0.465	0.468	5.00	0.718	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10367 MW-3

Lab Sample ID: 400-137872-7

Date Collected: 05/02/17 11:00

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.187		0.0992	0.101	1.00	0.112	pCi/L	05/18/17 09:29	06/09/17 06:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/18/17 09:29	06/09/17 06:15	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.787		0.368	0.375	1.00	0.538	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	74.0		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.974		0.381	0.388	5.00	0.538	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10368 MW-2

Lab Sample ID: 400-137872-8

Date Collected: 05/02/17 12:15

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.491		0.152	0.158	1.00	0.117	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.169	U	0.300	0.301	1.00	0.508	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.0		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.660		0.337	0.340	5.00	0.508	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10369 MW-1

Lab Sample ID: 400-137872-9

Date Collected: 05/02/17 13:17

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.244		0.129	0.131	1.00	0.163	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.524		0.319	0.323	1.00	0.487	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.768		0.344	0.348	5.00	0.487	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10370 MW-8

Lab Sample ID: 400-137872-10

Date Collected: 05/02/17 14:12

Matrix: Water

Date Received: 05/09/17 10:25

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		0.124	0.126	1.00	0.150	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.604		0.314	0.319	1.00	0.466	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.4		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.853		0.338	0.343	5.00	0.466	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10371 MW-9

Lab Sample ID: 400-137872-11

Date Collected: 05/02/17 15:11

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.679		0.185	0.195	1.00	0.146	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.630		0.363	0.368	1.00	0.554	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	84.1		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.31		0.408	0.416	5.00	0.554	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10372 MW-10

Lab Sample ID: 400-137872-12

Date Collected: 05/02/17 16:30

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.561		0.162	0.170	1.00	0.125	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0876	U	0.260	0.260	1.00	0.452	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	86.7		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.649		0.306	0.311	5.00	0.452	pCi/L		06/12/17 11:55	1

Client Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10373 EB-1

Lab Sample ID: 400-137872-13

Date Collected: 05/02/17 16:45

Matrix: Water

Date Received: 05/09/17 10:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00412	U	0.0650	0.0650	1.00	0.140	pCi/L	05/18/17 09:29	06/09/17 06:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/18/17 09:29	06/09/17 06:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.429	U	0.306	0.309	1.00	0.477	pCi/L	05/18/17 10:00	06/02/17 10:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/18/17 10:00	06/02/17 10:40	1
Y Carrier	81.9		40 - 110					05/18/17 10:00	06/02/17 10:40	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.425	U	0.313	0.316	5.00	0.477	pCi/L		06/12/17 11:55	1

Definitions/Glossary

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

TestAmerica Job ID: 400-137872-1
SDG: Barry Gypsum (7)

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: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10361 MW-7

Lab Sample ID: 400-137872-1

Date Collected: 05/02/17 06:35

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10362 FB-1

Lab Sample ID: 400-137872-2

Date Collected: 05/02/17 06:22

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10363 MW-6

Lab Sample ID: 400-137872-3

Date Collected: 05/02/17 07:24

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10364 MW-5

Lab Sample ID: 400-137872-4

Date Collected: 05/02/17 08:23

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10365 MW-4

Lab Sample ID: 400-137872-5

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10366 MW-4 DUP

Lab Sample ID: 400-137872-6

Date Collected: 05/02/17 09:44

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10367 MW-3

Lab Sample ID: 400-137872-7

Date Collected: 05/02/17 11:00

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:15	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10368 MW-2

Lab Sample ID: 400-137872-8

Date Collected: 05/02/17 12:15

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Client Sample ID: AX10369 MW-1

Lab Sample ID: 400-137872-9

Date Collected: 05/02/17 13:17

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10370 MW-8

Lab Sample ID: 400-137872-10

Date Collected: 05/02/17 14:12

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10371 MW-9

Lab Sample ID: 400-137872-11

Date Collected: 05/02/17 15:11

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Client Sample ID: AX10372 MW-10

Lab Sample ID: 400-137872-12

Date Collected: 05/02/17 16:30

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-137872-1
SDG: Barry Gypsum (7)

Client Sample ID: AX10373 EB-1

Lab Sample ID: 400-137872-13

Date Collected: 05/02/17 16:45

Matrix: Water

Date Received: 05/09/17 10:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			309312	05/18/17 09:29	LDE	TAL SL
Total/NA	Analysis	9315		1	312649	06/09/17 06:16	RTM	TAL SL
Total/NA	Prep	PrecSep_0			309324	05/18/17 10:00	LDE	TAL SL
Total/NA	Analysis	9320		1	311618	06/02/17 10:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	313033	06/12/17 11:55	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: 400-137872-1
SDG: Barry Gypsum (7)

Rad

Prep Batch: 309312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137872-1	AX10361 MW-7	Total/NA	Water	PrecSep-21	
400-137872-2	AX10362 FB-1	Total/NA	Water	PrecSep-21	
400-137872-3	AX10363 MW-6	Total/NA	Water	PrecSep-21	
400-137872-4	AX10364 MW-5	Total/NA	Water	PrecSep-21	
400-137872-5	AX10365 MW-4	Total/NA	Water	PrecSep-21	
400-137872-6	AX10366 MW-4 DUP	Total/NA	Water	PrecSep-21	
400-137872-7	AX10367 MW-3	Total/NA	Water	PrecSep-21	
400-137872-8	AX10368 MW-2	Total/NA	Water	PrecSep-21	
400-137872-9	AX10369 MW-1	Total/NA	Water	PrecSep-21	
400-137872-10	AX10370 MW-8	Total/NA	Water	PrecSep-21	
400-137872-11	AX10371 MW-9	Total/NA	Water	PrecSep-21	
400-137872-12	AX10372 MW-10	Total/NA	Water	PrecSep-21	
400-137872-13	AX10373 EB-1	Total/NA	Water	PrecSep-21	
MB 160-309312/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-309312/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-137872-3 DU	AX10363 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 309324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-137872-1	AX10361 MW-7	Total/NA	Water	PrecSep_0	
400-137872-2	AX10362 FB-1	Total/NA	Water	PrecSep_0	
400-137872-3	AX10363 MW-6	Total/NA	Water	PrecSep_0	
400-137872-4	AX10364 MW-5	Total/NA	Water	PrecSep_0	
400-137872-5	AX10365 MW-4	Total/NA	Water	PrecSep_0	
400-137872-6	AX10366 MW-4 DUP	Total/NA	Water	PrecSep_0	
400-137872-7	AX10367 MW-3	Total/NA	Water	PrecSep_0	
400-137872-8	AX10368 MW-2	Total/NA	Water	PrecSep_0	
400-137872-9	AX10369 MW-1	Total/NA	Water	PrecSep_0	
400-137872-10	AX10370 MW-8	Total/NA	Water	PrecSep_0	
400-137872-11	AX10371 MW-9	Total/NA	Water	PrecSep_0	
400-137872-12	AX10372 MW-10	Total/NA	Water	PrecSep_0	
400-137872-13	AX10373 EB-1	Total/NA	Water	PrecSep_0	
MB 160-309324/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-309324/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-137872-3 DU	AX10363 MW-6	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-309312/1-A
Matrix: Water
Analysis Batch: 312649

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309312

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04104	U	0.0815	0.0816	1.00	0.147	pCi/L	05/18/17 09:29	06/09/17 06:14	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/18/17 09:29	06/09/17 06:14	1

Lab Sample ID: LCS 160-309312/2-A
Matrix: Water
Analysis Batch: 312649

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309312

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	12.98		1.38	1.00	0.125	pCi/L	86	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	95.0		40 - 110						

Lab Sample ID: 400-137872-3 DU
Matrix: Water
Analysis Batch: 312649

Client Sample ID: AX10363 MW-6
Prep Type: Total/NA
Prep Batch: 309312

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.453		0.4311		0.161	1.00	0.153	pCi/L	0.07	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	94.7		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-309324/1-A
Matrix: Water
Analysis Batch: 311618

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 309324

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01858	U	0.248	0.248	1.00	0.444	pCi/L	05/18/17 10:00	06/02/17 10:38	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/18/17 10:00	06/02/17 10:38	1
Y Carrier	84.9		40 - 110					05/18/17 10:00	06/02/17 10:38	1

QC Sample Results

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

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

Lab Sample ID: LCS 160-309324/2-A
Matrix: Water
Analysis Batch: 311618

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 309324

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.8	19.80		2.11	1.00	0.454	pCi/L	111	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	95.0		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: 400-137872-3 DU
Matrix: Water
Analysis Batch: 311618

Client Sample ID: AX10363 MW-6
Prep Type: Total/NA
Prep Batch: 309324

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.956		0.7030		0.329	1.00	0.464	pCi/L	0.37	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	84.1		40 - 110

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

Lab Sample ID: 400-137872-3 DU
Matrix: Water
Analysis Batch: 313033

Client Sample ID: AX10363 MW-6
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	1.41		1.134		0.366	5.00	0.464	pCi/L	0.36	

Chain of Custody Record

Client Information		Lab PM: Whitmore, Chyenne R		Carrier Tracking No(s):	
Client Contact: Sarah Copeland		E-Mail: chylene.whitmore@testamericainc.com		COC No: 400-56525-24537.1	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Page: Page 1 of 2	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Job #: 400-137872	
City: Calera		PO #:		Preservation Codes:	
State, Zip: AL, 35040		WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
Phone: 205-664-6121(Tel)		Project #: 40007143		Other:	
Email: sgcopela@southernco.com		SSOW#:			
Site: Barry Gypsum (7)					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Gas, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
AX10361	5/2/17	0635	G	Water	X	X		1	MW-7
AX10362	5/2/17	0622	G	Water	X	X		1	FB-1 (Field Blank)
AX10363	5/2/17	0724	G	Water	Y	X		3	MW-6
AX10364	5/2/17	0823	G	Water	X	X		1	MW-5
AX10365	5/2/17	0944	G	Water	X	X		1	MW-4
AX10366	5/2/17	0944	G	Water	X	X		1	MW-4 Dup (Sample Duplicate)
AX10367	5/2/17	1100	G	Water	X	X		1	MW-3
AX10368	5/2/17	1215	G	Water	X	X		1	MW-2
AX10369	5/2/17	1317	G	Water	X	X		1	MW-1
AX10370	5/2/17	1412	G	Water	X	X		1	MW-8

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: **Sarah Copeland** Date/Time: **05/08/2017, 1330**
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Custody Seals Intact: Yes No Δ No Δ No
 Custody Seal No.: _____

Received by: **Repa Oilly** Date/Time: **5/9/2017 10:25**
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____

Special Instructions/OC Requirements: _____
 Return To Client Disposal By Lab Archive For _____ Months

Method of Shipment: _____



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-137872-1
SDG Number: Barry Gypsum (7)

Login Number: 137872

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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



Accreditation/Certification Summary

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

TestAmerica Job ID: 400-137872-1
 SDG: Barry Gypsum (7)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17 *
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-17 *
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17 *
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-18

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-137872-1
SDG: Barry Gypsum (7)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica Pensacola



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 05/04/2017 10:00

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Angie Jimmerson"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Barry Gypsum"/>
Analysis Requested	<input type="text" value="Bottle 1 (1L): Radiological"/>		
Comments	<input type="text" value="Radium Duplicate MW-6
There is no temperature preservation requirement for Radium."/>		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7	05/02/2017	06:35	1	Groundwater		AX10361
FB-1	05/02/2017	06:22	1	Field Blank		AX10362
MW-6	05/02/2017	07:24	3	Groundwater		AX10363
MW-5	05/02/2017	08:23	1	Groundwater		AX10364
MW-4	05/02/2017	09:44	1	Groundwater		AX10365
MW-4DUP	05/02/2017	09:44	1	Sample Duplicate		AX10366
MW-3	05/02/2017	11:00	1	Groundwater		AX10367
MW-2	05/02/2017	12:15	1	Groundwater		AX10368
MW-1	05/02/2017	13:17	1	Groundwater		AX10369
MW-8	05/02/2017	14:12	1	Groundwater		AX10370
MW-9	05/02/2017	15:11	1	Groundwater		AX10371
MW-10	05/02/2017	16:30	1	Groundwater		AX10372
EB-1	05/02/2017	16:45	1	Equipment Blank		AX10373

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.05.04 08:10:21 -05'00'</small>	05/04/2017 08:10

SmarTroll ID	<input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="3901-20009-2-1"/>	Cooler Temp	<input type="text" value="NA"/>
		Thermometer ID	<input type="text" value="NA"/>
		pH Strip ID	<input type="text" value="5521-28268-20-12"/>

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_1103

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:

Supervision:

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



Anions

Barry Gypsum

WMWBARG_1103

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. There was no job narrative provided due to lack of non-conformances.



Metals ICP

Barry Gypsum

WMWBARG_1103

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>
AX13182	20170613AG	WMWBARG_1103
AX13183	20170613AG	WMWBARG_1103
AX13184	20170613AG	WMWBARG_1103
AX13185	20170613AG	WMWBARG_1103
AX13186	20170613AG	WMWBARG_1103
AX13187	20170613AG	WMWBARG_1103
AX13188	20170613AG	WMWBARG_1103
AX13189	20170613AG	WMWBARG_1103
AX13190	20170613AG	WMWBARG_1103
AX13191	20170613AG	WMWBARG_1103
AX13192	20170613AH	WMWBARG_1103
AX13193	20170613AH	WMWBARG_1103
AX13194	20170613AH	WMWBARG_1103

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes. An additional rinse was added between samples monitoring Li due to possible matrix issues.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.



- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2 dilution to compensate for any potential matrix effects.
 8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Gypsum

WMWBARG_1103

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>
AX13182	596600	WMWBARG_1103
AX13183	596600	WMWBARG_1103
AX13184	596600	WMWBARG_1103
AX13185	596600	WMWBARG_1103
AX13186	596600	WMWBARG_1103
AX13187	596600	WMWBARG_1103
AX13188	596600	WMWBARG_1103
AX13189	596600	WMWBARG_1103
AX13190	596600	WMWBARG_1103
AX13191	596600	WMWBARG_1103
AX13192	596601	WMWBARG_1103
AX13193	596601	WMWBARG_1103
AX13194	596601	WMWBARG_1103

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_1103

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>
AX13182	596506	WMWBARG_1103
AX13183	596506	WMWBARG_1103
AX13184	596506	WMWBARG_1103
AX13185	596506	WMWBARG_1103
AX13186	596506	WMWBARG_1103
AX13187	596506	WMWBARG_1103
AX13188	596506	WMWBARG_1103
AX13189	596506	WMWBARG_1103
AX13190	596506	WMWBARG_1103
AX13191	596506	WMWBARG_1103
AX13192	596862	WMWBARG_1103
AX13193	596862	WMWBARG_1103
AX13194	596862	WMWBARG_1103

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

General Quality Control Procedures:

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



- All calibration met criteria for the requested analyte.
- All response signals were satisfactory except for the ending CCV for samples AX13192-194. There was a drop in signal response during read time, so the entire batch (596862) was run a second time. All response signals were satisfactory for the 2nd run, and the results from the 2nd run were reported in LabWorks.

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_1103

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>
AX13182	596500	WMWBARG_1103
AX13183	596500	WMWBARG_1103
AX13184	596500	WMWBARG_1103
AX13185	596500	WMWBARG_1103
AX13186	596500	WMWBARG_1103
AX13187	596500	WMWBARG_1103
AX13188	597489	WMWBARG_1103
AX13189	597489	WMWBARG_1103
AX13190	597489	WMWBARG_1103
AX13191	597489	WMWBARG_1103
AX13192	596500	WMWBARG_1103
AX13193	597489	WMWBARG_1103
AX13194	596500	WMWBARG_1103

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 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX13192 and AX13193 which did not meet the 2.5mg residue.

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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0799	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	0.978	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00360	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	35.3	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.1	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	7.6	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115		88.9	70 to 130	1.59	20
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115		92.4	70 to 130	2.33	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046		96.9	70 to 130	0.386	20
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115		87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115		102	70 to 130	1.32	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23		94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115		92.2	70 to 130	2.01	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75		98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115		98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115		89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115		101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115		106	70 to 130	1.49	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115		95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15		90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115		105	70 to 130	0.928	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX13182

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.108	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.25	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	34.7	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	5.3	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115		92.4	70 to 130	2.33	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115		88.9	70 to 130	1.59	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046		96.9	70 to 130	0.386	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115		95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15		90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115		105	70 to 130	0.928	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23		94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115		92.2	70 to 130	2.01	20
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115		89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115		101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115		106	70 to 130	1.49	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75		98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115		98.5	70 to 130	0.672	20
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115		87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115		102	70 to 130	1.32	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX13183

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0700	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.55	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	32.7	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	7.1	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

Sample	Analysis	Units	MB	MB			LFB			Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX13184

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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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 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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0780	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.28	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	42.7	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	6.6	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20	
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20	
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20	
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20	
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20	
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20	
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20	
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20	
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20	
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20	
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20	
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20	
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20	
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20	
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX13185

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0788	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	J 0.0442	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.66	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00300	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	36.7	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	8.6	mg/L

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Issued By: State of Florida, Department of Health

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20	
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20	
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20	
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20	
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20	
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20	
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20	
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20	
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20	
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20	
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20	
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20	
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20	
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20	
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX13186

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0844	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	J 0.0509	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	4.72	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00576	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	47.3	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.6	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	10	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

Sample	Analysis	Units	MB	MB			MS	MSD	LFB	LFB		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20		
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20		
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20		
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20		
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20		
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20		
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20		
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20		
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20		
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20		
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20		
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20		
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20		
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20		
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	20		

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX13187

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0437	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.29	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	28.0	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	6.3	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.1	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115		92.4	70 to 130	2.33	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115		88.9	70 to 130	1.59	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046		96.9	70 to 130	0.386	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115		95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15		90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115		105	70 to 130	0.928	20
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115		87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115		102	70 to 130	1.32	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23		94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115		92.2	70 to 130	2.01	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75		98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115		98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115		89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115		101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115		106	70 to 130	1.49	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX13188

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec		
								Duplicate	LFB	Limit	Rec	Limit	Limit	
AX13150	Solids, Dissolved	mg/L	0.00	25				255	51.0	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, 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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0287	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	0.545	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00220	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.9	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115		92.4	70 to 130	2.33	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115		88.9	70 to 130	1.59	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046		96.9	70 to 130	0.386	20
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115		87.1	70 to 130	1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115		102	70 to 130	1.32	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115		95.5	70 to 130	1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15		90.3	70 to 130	1.67	20
AX13191	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115		105	70 to 130	0.928	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23		94.2	70 to 130	4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115		92.2	70 to 130	2.01	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75		98.7	70 to 130	0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115		98.5	70 to 130	0.672	20
AX13191	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115		89.2	70 to 130	1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115		101	70 to 130	0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115		106	70 to 130	1.49	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX13189

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec		
								Duplicate	LFB	Limit	Rec	Limit	Limit	
AX13150	Solids, Dissolved	mg/L	0.00		25			255	51.0	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, 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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.107	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.17	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	5.2	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	7.1	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115		92.4	70 to 130		2.33	20
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115		88.9	70 to 130		1.59	20
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046		96.9	70 to 130		0.386	20
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23		94.2	70 to 130		4.91	20
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115		92.2	70 to 130		2.01	20
AX13191	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115		87.1	70 to 130		1.50	20
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115		102	70 to 130		1.32	20
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75		98.7	70 to 130		0.817	20
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115		98.5	70 to 130		0.672	20
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115		95.5	70 to 130		1.02	20
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15		90.3	70 to 130		1.67	20
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115		105	70 to 130		0.928	20
AX13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115		89.2	70 to 130		1.07	20
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115		101	70 to 130		0.584	20
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115		106	70 to 130		1.49	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX13190

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Limit
AX13150	Solids, Dissolved	mg/L	0.00		25			255	51.0	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, 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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0991	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	0.706	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	J 0.00201	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/14/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	36.0	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	J 0.070	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	8.4	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

Sample	Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AX13191	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0924	0.0903	0.0981	0.085 to 0.115	92.4	70 to 130	2.33	20	
AX13191	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0889	0.0875	0.0950	0.085 to 0.115	88.9	70 to 130	1.59	20	
AX13191	Mercury, Total by CVAA	mg/L	0.0000545	0.0005	0.004	0.00388	0.00389	0.00390	0.0034 to 0.0046	96.9	70 to 130	0.386	20	
AX13191	Lithium, Total	mg/L	-0.0000976	0.022	0.20	0.188	0.179	0.184	0.17 to 0.23	94.2	70 to 130	4.91	20	
AX13191	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0922	0.0903	0.0943	0.085 to 0.115	92.2	70 to 130	2.01	20	
AX13191	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.186	0.183	0.0925	0.085 to 0.115	87.1	70 to 130	1.50	20	
AX13191	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.104	0.107	0.085 to 0.115	102	70 to 130	1.32	20	
AX13191	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0955	0.0946	0.100	0.085 to 0.115	95.5	70 to 130	1.02	20	
AX13191	Boron, Total	mg/L	-0.00396	0.044	1.00	0.903	0.918	0.904	0.85 to 1.15	90.3	70 to 130	1.67	20	
AX13191	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.106	0.103	0.085 to 0.115	105	70 to 130	0.928	20	
AX13191	Calcium, Total	mg/L	-0.0450	0.22	5.00	5.64	5.60	4.67	4.25 to 5.75	98.7	70 to 130	0.817	20	
AX13191	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0985	0.0992	0.0989	0.085 to 0.115	98.5	70 to 130	0.672	20	
AX13191	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0892	0.0882	0.0954	0.085 to 0.115	89.2	70 to 130	1.07	20	
AX13191	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.101	0.101	0.103	0.085 to 0.115	101	70 to 130	0.584	20	
AX13191	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.106	0.105	0.101	0.085 to 0.115	106	70 to 130	1.49	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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX13191

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec		
								Duplicate	LFB	Limit	Rec	Limit	Limit	
AX13150	Solids, Dissolved	mg/L	0.00		25			255	51.0	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, 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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX13194	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108	70 to 130	1.86	20
AX13194	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102	70 to 130	0.223	20
AX13194	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6	70 to 130	5.04	20
AX13194	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9	70 to 130	6.70	20
AX13194	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7	70 to 130	5.67	20
AX13194	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107	70 to 130	4.99	20
AX13194	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9	70 to 130	0.0327	20
AX13194	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6	70 to 130	6.05	20
AX13194	Calcium, Total	mg/L	-0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8	70 to 130	0.0562	20
AX13194	Lithium, Total	mg/L	-0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8	70 to 130	0.445	20
AX13194	Mercury, Total by CVAA	mg/L	0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0	70 to 130	0.933	20
AX13194	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4	70 to 130	5.12	20
AX13194	Boron, Total	mg/L	-0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7	70 to 130	0.575	20
AX13194	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6	70 to 130	6.49	20
AX13194	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103	70 to 130	4.67	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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX13192

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX13229	Solids, Dissolved	mg/L	16.0	25			333	55.0	40 to 60			0.301	5

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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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/21/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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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: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX13194	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108	70 to 130	1.86	20
AX13194	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102	70 to 130	0.223	20
AX13194	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6	70 to 130	5.04	20
AX13194	Barium, Total	mg/L	0.0000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6	70 to 130	6.05	20
AX13194	Calcium, Total	mg/L	-0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8	70 to 130	0.0562	20
AX13194	Cobalt, Total	mg/L	0.0000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107	70 to 130	4.99	20
AX13194	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9	70 to 130	0.0327	20
AX13194	Lithium, Total	mg/L	-0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8	70 to 130	0.445	20
AX13194	Mercury, Total by CVAA	mg/L	0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0	70 to 130	0.933	20
AX13194	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4	70 to 130	5.12	20
AX13194	Boron, Total	mg/L	-0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7	70 to 130	0.575	20
AX13194	Cadmium, Total	mg/L	0.0000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6	70 to 130	6.49	20
AX13194	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103	70 to 130	4.67	20
AX13194	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9	70 to 130	6.70	20
AX13194	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7	70 to 130	5.67	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWBARGE
 Sample Date: 07-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX13193

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX13150	Solids, Dissolved	mg/L	0.00	25			255	51.0	40 to 60			0.00	5

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	0.0784	mg/L
* Beryllium, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/13/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/13/2017	EPA 200.7		2	0.10	0.5	1.28	mg/L
* Cadmium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/15/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/16/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/13/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/15/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/15/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/15/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/14/2017	SM 2540C		1		25	38.7	mg/L
* Chloride, Total, by Test America	SGC	7/10/2017	SM 4500 Cl_E		1	0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC	7/10/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/10/2017	SM 4500 SO4_E		1	1.40	5.00	6.7	mg/L

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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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX13194	Lead, Total	mg/L	0.0000340	0.0022	0.10	0.108	0.106	0.101	0.085 to 0.115	108	70 to 130	1.86	20
AX13194	Beryllium, Total	mg/L	0.0000426	0.00132	0.10	0.102	0.102	0.107	0.085 to 0.115	102	70 to 130	0.223	20
AX13194	Molybdenum, Total	mg/L	0.0000173	0.0044	0.10	0.0926	0.0881	0.0943	0.085 to 0.115	92.6	70 to 130	5.04	20
AX13194	Lithium, Total	mg/L	-0.0000905	0.022	0.20	0.182	0.181	0.192	0.17 to 0.23	90.8	70 to 130	0.445	20
AX13194	Mercury, Total by CVAA	mg/L	0.0000144	0.0005	0.004	0.00380	0.00377	0.00372	0.0034 to 0.0046	95.0	70 to 130	0.933	20
AX13194	Selenium, Total	mg/L	0.0000258	0.0044	0.10	0.0934	0.0888	0.0981	0.085 to 0.115	93.4	70 to 130	5.12	20
AX13194	Antimony, Total	mg/L	0.0000575	0.00132	0.10	0.0919	0.0860	0.0950	0.085 to 0.115	91.9	70 to 130	6.70	20
AX13194	Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0967	0.0914	0.100	0.085 to 0.115	96.7	70 to 130	5.67	20
AX13194	Cobalt, Total	mg/L	0.00000298	0.0044	0.10	0.107	0.102	0.103	0.085 to 0.115	107	70 to 130	4.99	20
AX13194	Thallium, Total	mg/L	0.0000405	0.00044	0.10	0.0999	0.0999	0.0989	0.085 to 0.115	99.9	70 to 130	0.0327	20
AX13194	Boron, Total	mg/L	-0.00431	0.044	1.00	0.927	0.932	0.922	0.85 to 1.15	92.7	70 to 130	0.575	20
AX13194	Cadmium, Total	mg/L	0.00000569	0.00044	0.10	0.0916	0.0859	0.0954	0.085 to 0.115	91.6	70 to 130	6.49	20
AX13194	Chromium, Total	mg/L	0.0000599	0.0044	0.10	0.103	0.0979	0.103	0.085 to 0.115	103	70 to 130	4.67	20
AX13194	Barium, Total	mg/L	0.00000882	0.0044	0.10	0.171	0.161	0.0925	0.085 to 0.115	92.6	70 to 130	6.05	20
AX13194	Calcium, Total	mg/L	-0.0443	0.22	5.00	6.12	6.11	4.90	4.25 to 5.75	96.8	70 to 130	0.0562	20

This Certificate states the physical and/or chemical characteristics 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: 06-Jun-17
 Customer ID:
 Delivery Date: 08-Jun-17

Description: Barry Gypsum - MW-4 DUP

Laboratory ID Number: AX13194

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX13229	Solids, Dissolved	mg/L	16.0	25				333	55.0	40 to 60			0.301	5

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Expiration: June 30, 2018

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CC:

Definitions



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

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



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 06/08/2017 12:06

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Bo Cotton	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions		
Comments	All anions outsourced to Test America, Pensacola.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	06/06/2017	08:45	4	Groundwater		AX13182
MW-2	06/06/2017	09:52	4	Groundwater		AX13183
MW-3	06/06/2017	11:02	4	Groundwater		AX13184
MW-4	06/06/2017	12:05	4	Groundwater		AX13185
MW-5	06/06/2017	13:09	4	Groundwater		AX13186
MW-6	06/06/2017	14:24	4	Groundwater		AX13187
MW-7	06/07/2017	08:34	4	Groundwater		AX13188
MW-8	06/07/2017	09:27	4	Groundwater		AX13189
MW-9	06/07/2017	10:35	4	Groundwater		AX13190
MW-10	06/07/2017	11:18	4	Groundwater		AX13191
FB-1	06/06/2017	12:52	4	Field Blank		AX13192
EB-1	06/07/2017	11:30	4	Equipment Blank		AX13193
MW-4DUP	06/06/2017	12:05	4	Sample Duplicate		AX13194

Relinquished By	Received By	Date/Time
	Brooke Williams <small>Digitally signed by Brooke Williams Date: 2017.06.08 13:06:41 -05'00'</small>	06/08/2017 13:07

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp	0.5 degrees C
		Thermometer ID	2403-7026-4-2
		pH Strip ID	4831-24389-20-16

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: 400-139305-1

TestAmerica Sample Delivery Group: Barry Gypsum (8)

Client Project/Site: CCR Plant Barry

For:

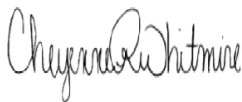
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/29/2017 3:02:10 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

TotalAccess

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Visit us at:

www.testamericainc.com

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

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

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

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Detection Summary

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

TestAmerica Job ID: 400-139305-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13182 MW-1

Lab Sample ID: 400-139305-1

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
Sulfate	7.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13183 MW-2

Lab Sample ID: 400-139305-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		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	5.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13184 MW-3

Lab Sample ID: 400-139305-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13185 MW-4

Lab Sample ID: 400-139305-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13186 MW-5

Lab Sample ID: 400-139305-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13187 MW-6

Lab Sample ID: 400-139305-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	10		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13188 MW-7

Lab Sample ID: 400-139305-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13189 MW-8

Lab Sample ID: 400-139305-8

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	2.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13190 MW-9

Lab Sample ID: 400-139305-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

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: 400-139305-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13190 MW-9 (Continued)

Lab Sample ID: 400-139305-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
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: AX13191 MW-10

Lab Sample ID: 400-139305-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX13192 FB-1

Lab Sample ID: 400-139305-11

No Detections.

Client Sample ID: AX13193 EB-1

Lab Sample ID: 400-139305-12

No Detections.

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.7		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: 400-139305-1
SDG: Barry Gypsum (8)

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

Protocol References:

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

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-139305-1
SDG: Barry Gypsum (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139305-1	AX13182 MW-1	Water	06/06/17 08:45	06/13/17 08:53
400-139305-2	AX13183 MW-2	Water	06/06/17 09:52	06/13/17 08:53
400-139305-3	AX13184 MW-3	Water	06/06/17 11:02	06/13/17 08:53
400-139305-4	AX13185 MW-4	Water	06/06/17 12:05	06/13/17 08:53
400-139305-5	AX13186 MW-5	Water	06/06/17 13:09	06/13/17 08:53
400-139305-6	AX13187 MW-6	Water	06/06/17 14:24	06/13/17 08:53
400-139305-7	AX13188 MW-7	Water	06/07/17 08:34	06/13/17 08:53
400-139305-8	AX13189 MW-8	Water	06/07/17 09:27	06/13/17 08:53
400-139305-9	AX13190 MW-9	Water	06/07/17 10:35	06/13/17 08:53
400-139305-10	AX13191 MW-10	Water	06/07/17 11:18	06/13/17 08:53
400-139305-11	AX13192 FB-1	Water	06/06/17 12:52	06/13/17 08:53
400-139305-12	AX13193 EB-1	Water	06/07/17 11:30	06/13/17 08:53
400-139305-13	AX13194 MW-4 DUP	Water	06/06/17 12:05	06/13/17 08:53

Client Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13182 MW-1

Lab Sample ID: 400-139305-1

Date Collected: 06/06/17 08:45

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		2.0	0.60	mg/L			06/21/17 13:27	1
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 12:03	1
Sulfate	7.6		5.0	1.4	mg/L			06/21/17 15:03	1

Client Sample ID: AX13183 MW-2

Lab Sample ID: 400-139305-2

Date Collected: 06/06/17 09:52

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	0.040	J	0.10	0.032	mg/L			06/24/17 12:00	1
Sulfate	5.3		5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13184 MW-3

Lab Sample ID: 400-139305-3

Date Collected: 06/06/17 11:02

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 11:56	1
Sulfate	7.1		5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13185 MW-4

Lab Sample ID: 400-139305-4

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:07	1
Sulfate	6.6		5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13186 MW-5

Lab Sample ID: 400-139305-5

Date Collected: 06/06/17 13:09

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:39	1
Sulfate	8.6		5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13187 MW-6

Lab Sample ID: 400-139305-6

Date Collected: 06/06/17 14:24

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:08	1
Sulfate	10		5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13188 MW-7

Lab Sample ID: 400-139305-7

Date Collected: 06/07/17 08:34

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.3		2.0	0.60	mg/L			06/21/17 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:11	1
Sulfate	3.1	J	5.0	1.4	mg/L			06/21/17 15:39	1

Client Sample ID: AX13189 MW-8

Lab Sample ID: 400-139305-8

Date Collected: 06/07/17 09:27

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 10:26	1
Sulfate	2.9	J	5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13190 MW-9

Lab Sample ID: 400-139305-9

Date Collected: 06/07/17 10:35

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.2		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	0.070	J	0.10	0.032	mg/L			06/27/17 17:52	1
Sulfate	7.1		5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13191 MW-10

Lab Sample ID: 400-139305-10

Date Collected: 06/07/17 11:18

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	0.070	J	0.10	0.032	mg/L			06/27/17 18:01	1
Sulfate	8.4		5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13192 FB-1

Lab Sample ID: 400-139305-11

Date Collected: 06/06/17 12:52

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:31	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13192 FB-1

Lab Sample ID: 400-139305-11

Date Collected: 06/06/17 12:52

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 10:29	1
Sulfate	<1.4		5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13193 EB-1

Lab Sample ID: 400-139305-12

Date Collected: 06/07/17 11:30

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 18:04	1
Sulfate	<1.4		5.0	1.4	mg/L			06/22/17 10:48	1

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/13/17 08:53

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			06/22/17 12:31	1
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 17:45	1
Sulfate	6.7		5.0	1.4	mg/L			06/22/17 10:48	1

Definitions/Glossary

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

TestAmerica Job ID: 400-139305-1
SDG: Barry Gypsum (8)

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: 400-139305-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13182 MW-1

Date Collected: 06/06/17 08:45

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-1

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	357866	06/21/17 13:27	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 12:03	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:03	JLB	TAL PEN

Client Sample ID: AX13183 MW-2

Date Collected: 06/06/17 09:52

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-2

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	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 12:00	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13184 MW-3

Date Collected: 06/06/17 11:02

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-3

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	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358231	06/24/17 11:56	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13185 MW-4

Date Collected: 06/06/17 12:05

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-4

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	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13186 MW-5

Date Collected: 06/06/17 13:09

Date Received: 06/13/17 08:53

Lab Sample ID: 400-139305-5

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	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:39	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-139305-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13187 MW-6

Lab Sample ID: 400-139305-6

Date Collected: 06/06/17 14:24

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:08	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13188 MW-7

Lab Sample ID: 400-139305-7

Date Collected: 06/07/17 08:34

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	357866	06/21/17 13:43	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	357892	06/21/17 15:39	JLB	TAL PEN

Client Sample ID: AX13189 MW-8

Lab Sample ID: 400-139305-8

Date Collected: 06/07/17 09:27

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:26	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13190 MW-9

Lab Sample ID: 400-139305-9

Date Collected: 06/07/17 10:35

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13191 MW-10

Lab Sample ID: 400-139305-10

Date Collected: 06/07/17 11:18

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 18:01	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-139305-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13192 FB-1

Lab Sample ID: 400-139305-11

Date Collected: 06/06/17 12:52

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358226	06/24/17 10:29	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13193 EB-1

Lab Sample ID: 400-139305-12

Date Collected: 06/07/17 11:30

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 18:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	RRC	TAL PEN

Client Sample ID: AX13194 MW-4 DUP

Lab Sample ID: 400-139305-13

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/13/17 08:53

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	358006	06/22/17 12:31	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	358604	06/27/17 17:45	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	358005	06/22/17 10:48	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: 400-139305-1
SDG: Barry Gypsum (8)

General Chemistry

Analysis Batch: 357866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 Cl- E	
MB 400-357866/16	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-357866/17	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-357866/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 357892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 SO4 E	
MB 400-357892/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-357892/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-357892/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 358005

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
MB 400-358005/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-358005/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-358005/12	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 358006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 Cl- E	
MB 400-358006/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

General Chemistry (Continued)

Analysis Batch: 358006 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-358006/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-358006/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 Cl- E	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 358226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-8	AX13189 MW-8	Total/NA	Water	SM 4500 F C	
400-139305-11	AX13192 FB-1	Total/NA	Water	SM 4500 F C	
MB 400-358226/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358226/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139172-A-14 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-139172-A-14 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-139178-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 358231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-1	AX13182 MW-1	Total/NA	Water	SM 4500 F C	
400-139305-2	AX13183 MW-2	Total/NA	Water	SM 4500 F C	
400-139305-3	AX13184 MW-3	Total/NA	Water	SM 4500 F C	
MB 400-358231/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358231/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139178-A-16 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-139178-A-16 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 358604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139305-4	AX13185 MW-4	Total/NA	Water	SM 4500 F C	
400-139305-5	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-6	AX13187 MW-6	Total/NA	Water	SM 4500 F C	
400-139305-7	AX13188 MW-7	Total/NA	Water	SM 4500 F C	
400-139305-9	AX13190 MW-9	Total/NA	Water	SM 4500 F C	
400-139305-10	AX13191 MW-10	Total/NA	Water	SM 4500 F C	
400-139305-12	AX13193 EB-1	Total/NA	Water	SM 4500 F C	
400-139305-13	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
MB 400-358604/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-358604/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-139305-5 MS	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-5 MSD	AX13186 MW-5	Total/NA	Water	SM 4500 F C	
400-139305-13 MS	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-139305-13 MSD	AX13194 MW-4 DUP	Total/NA	Water	SM 4500 F C	
400-139305-9 DU	AX13190 MW-9	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-357866/16
Matrix: Water
Analysis Batch: 357866

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/21/17 11:27	1

Lab Sample ID: LCS 400-357866/17
Matrix: Water
Analysis Batch: 357866

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.7		mg/L		109	90 - 110

Lab Sample ID: MRL 400-357866/13
Matrix: Water
Analysis Batch: 357866

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	1.09	J	mg/L		54	50 - 150

Lab Sample ID: 400-139305-5 MS
Matrix: Water
Analysis Batch: 357866

Client Sample ID: AX13186 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.4		10.0	15.4		mg/L		120	73 - 120

Lab Sample ID: 400-139305-5 MSD
Matrix: Water
Analysis Batch: 357866

Client Sample ID: AX13186 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	3.4		10.0	15.3		mg/L		119	73 - 120	1	8

Lab Sample ID: MB 400-358006/6
Matrix: Water
Analysis Batch: 358006

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/22/17 12:10	1

Lab Sample ID: LCS 400-358006/7
Matrix: Water
Analysis Batch: 358006

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.2		mg/L		107	90 - 110

Lab Sample ID: MRL 400-358006/3
Matrix: Water
Analysis Batch: 358006

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.21	J	mg/L		60	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Lab Sample ID: 400-139305-13 MS
Matrix: Water
Analysis Batch: 358006

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.2		10.0	15.0		mg/L		118	73 - 120

Lab Sample ID: 400-139305-13 MSD
Matrix: Water
Analysis Batch: 358006

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.2		10.0	15.2		mg/L		120	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-358226/3
Matrix: Water
Analysis Batch: 358226

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 09:45	1

Lab Sample ID: LCS 400-358226/4
Matrix: Water
Analysis Batch: 358226

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.94		mg/L		99	90 - 110

Lab Sample ID: 400-139172-A-14 MS
Matrix: Water
Analysis Batch: 358226

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	0.11		1.00	1.10		mg/L		99	75 - 125

Lab Sample ID: 400-139172-A-14 MSD
Matrix: Water
Analysis Batch: 358226

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	0.11		1.00	1.08		mg/L		97	75 - 125	2	4

Lab Sample ID: 400-139178-A-3 DU
Matrix: Water
Analysis Batch: 358226

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.049	J	0.0480	J	mg/L		2	4

QC Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 400-358231/3
Matrix: Water
Analysis Batch: 358231

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/24/17 11:09	1

Lab Sample ID: LCS 400-358231/4
Matrix: Water
Analysis Batch: 358231

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: 400-139178-A-16 MS
Matrix: Water
Analysis Batch: 358231

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	1.02		mg/L		96	75 - 125

Lab Sample ID: 400-139178-A-16 MSD
Matrix: Water
Analysis Batch: 358231

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	1.00		mg/L		94	75 - 125	2	4

Lab Sample ID: MB 400-358604/3
Matrix: Water
Analysis Batch: 358604

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/27/17 16:45	1

Lab Sample ID: LCS 400-358604/4
Matrix: Water
Analysis Batch: 358604

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.02		mg/L		101	90 - 110

Lab Sample ID: 400-139305-5 MS
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13186 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.970		mg/L		97	75 - 125

Lab Sample ID: 400-139305-5 MSD
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13186 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
Fluoride	<0.032		1.00	0.970		mg/L		97	75 - 125	0	4

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

Lab Sample ID: 400-139305-13 MS
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.950		mg/L		95	75 - 125

Lab Sample ID: 400-139305-13 MSD
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.950		mg/L		95	75 - 125	0	4

Lab Sample ID: 400-139305-9 DU
Matrix: Water
Analysis Batch: 358604

Client Sample ID: AX13190 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.070	J	0.0700	J	mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-357892/6
Matrix: Water
Analysis Batch: 357892

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/21/17 14:40	1

Lab Sample ID: LCS 400-357892/7
Matrix: Water
Analysis Batch: 357892

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.8		mg/L		106	90 - 110

Lab Sample ID: MRL 400-357892/3
Matrix: Water
Analysis Batch: 357892

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	4.37	J	mg/L		87	50 - 150

Lab Sample ID: 400-139305-5 MS
Matrix: Water
Analysis Batch: 357892

Client Sample ID: AX13186 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	8.6		10.0	19.4		mg/L		108	77 - 128

QC Sample Results

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

TestAmerica Job ID: 400-139305-1
 SDG: Barry Gypsum (8)

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

Lab Sample ID: 400-139305-5 MSD
Matrix: Water
Analysis Batch: 357892

Client Sample ID: AX13186 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	8.6		10.0	19.6		mg/L		110	77 - 128	1	5

Lab Sample ID: MB 400-358005/15
Matrix: Water
Analysis Batch: 358005

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/22/17 10:27	1

Lab Sample ID: LCS 400-358005/16
Matrix: Water
Analysis Batch: 358005

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.6		mg/L		104	90 - 110

Lab Sample ID: MRL 400-358005/12
Matrix: Water
Analysis Batch: 358005

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	4.35	J	mg/L		87	50 - 150

Lab Sample ID: 400-139305-13 MS
Matrix: Water
Analysis Batch: 358005

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA


Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	6.7		10.0	18.3		mg/L		116	77 - 128

Lab Sample ID: 400-139305-13 MSD
Matrix: Water
Analysis Batch: 358005

Client Sample ID: AX13194 MW-4 DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	6.7		10.0	18.1		mg/L		114	77 - 128	1	5

Chain of Custody Record

Client Information		Sampler: Anthony Goggins		Lab PM: Whitmire, Cheyenne R		COC No: 400-56525-24537.1				
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 1				
Company: Alabama Power General Test Laboratory		Due Date Requested:		Carrier Tracking No(s):		Job #:				
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Analysis Requested		Preservation Codes:				
City: Calera		PO #:		 400-139305 COC		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:				
State, Zip: AL, 35040		WO #:		<input checked="" type="checkbox"/> Perform MS/MSD (Yes or No)		M - Hexane N - None O - AsNaO2 P - NaZORs Q - NaZSO3 R - NaZSO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)				
Phone: 205-664-6121 (Tel)		Project #:		<input checked="" type="checkbox"/> Field Filtered Sample (Yes or No)		Special Instructions/Note:				
Email: sgcopela@southernco.com		40007143		<input checked="" type="checkbox"/> Total Number of Containers						
CCR		SSOW#:								
Site: Barry Gypsum (8)										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteloff, BT=BIOSUR, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	SM 4500 F _o	SM 4500 Cl _E	SM 4500 SO ₄ E
AX13182	6/6/17	0845	G	Water			X	X	X	
AX13183	6/6/17	0952	G	Water			X	X	X	
AX13184	6/6/17	1102	G	Water			X	X	X	
AX13185	6/6/17	1205	G	Water			X	X	X	
AX13186	6/6/17	1309	G	Water		Y	X	X	X	
AX13187	6/6/17	1424	G	Water			X	X	X	
AX13188	6/7/17	0834	G	Water			X	X	X	
AX13189	6/7/17	0927	G	Water			X	X	X	
AX13190	6/7/17	1035	G	Water			X	X	X	
AX13191	6/7/17	1118	G	Water			X	X	X	
AX13192	6/6/17	1252	G	Water			X	X	X	
AX13193	6/7/17	1130	G	Water			X	X	X	
AX13194	6/6/17	1205	G	Water		Y	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)										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Special Instructions/QC Requirements:										
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 06/12/2017; 0945 Company: APC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: 4.5°C JRL 7										



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-139305-1
SDG Number: Barry Gypsum (8)

Login Number: 139305
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	4.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: 400-139305-1
SDG: Barry Gypsum (8)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-139174-1

TestAmerica Sample Delivery Group: Barry Gypsum (8)

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:

7/14/2017 2:59:50 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: 400-139174-1
SDG: Barry Gypsum (8)

Job ID: 400-139174-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-139174-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-314406. The following samples were reduced due to limited volume: AX13195 MW-1 (400-139174-1), AX13196 MW-2 (400-139174-2), AX13197 MW-3 (400-139174-3), AX13198 MW-4 (400-139174-4), AX13199 MW-5 (400-139174-5), AX13200 MW-6 (400-139174-6), AX13200 MW-6 (400-139174-6[DU]), AX13201 MW-7 (400-139174-7), AX13202 MW-8 (400-139174-8), AX13203 MW-9 (400-139174-9), AX13204 MW-10 (400-139174-10), AX13205 FB-1 (400-139174-11), AX13206 EB-1 (400-139174-12) and AX13207 MW-4 DUP (400-139174-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-314394. The following samples were reduced due to limited volume: AX13195 MW-1 (400-139174-1), AX13196 MW-2 (400-139174-2), AX13197 MW-3 (400-139174-3), AX13198 MW-4 (400-139174-4), AX13199 MW-5 (400-139174-5), AX13200 MW-6 (400-139174-6), AX13200 MW-6 (400-139174-6[DU]), AX13201 MW-7 (400-139174-7), AX13202 MW-8 (400-139174-8), AX13203 MW-9 (400-139174-9), AX13204 MW-10 (400-139174-10), AX13205 FB-1 (400-139174-11), AX13206 EB-1 (400-139174-12) and AX13207 MW-4 DUP (400-139174-13).

Method Summary

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-139174-1	AX13195 MW-1	Water	06/06/17 08:45	06/12/17 14:27
400-139174-2	AX13196 MW-2	Water	06/06/17 09:52	06/12/17 14:27
400-139174-3	AX13197 MW-3	Water	06/06/17 11:02	06/12/17 14:27
400-139174-4	AX13198 MW-4	Water	06/06/17 12:05	06/12/17 14:27
400-139174-5	AX13199 MW-5	Water	06/06/17 13:09	06/12/17 14:27
400-139174-6	AX13200 MW-6	Water	06/06/17 14:24	06/12/17 14:27
400-139174-7	AX13201 MW-7	Water	06/07/17 08:34	06/12/17 14:27
400-139174-8	AX13202 MW-8	Water	06/07/17 09:27	06/12/17 14:27
400-139174-9	AX13203 MW-9	Water	06/07/17 10:35	06/12/17 14:27
400-139174-10	AX13204 MW-10	Water	06/07/17 11:18	06/12/17 14:27
400-139174-11	AX13205 FB-1	Water	06/06/17 12:52	06/12/17 14:27
400-139174-12	AX13206 EB-1	Water	06/07/17 11:30	06/12/17 14:27
400-139174-13	AX13207 MW-4 DUP	Water	06/06/17 12:05	06/12/17 14:27

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13195 MW-1

Lab Sample ID: 400-139174-1

Date Collected: 06/06/17 08:45

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.697		0.172	0.183	1.00	0.129	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.342	U	0.299	0.301	1.00	0.479	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	89.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.04		0.345	0.352	5.00	0.479	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13196 MW-2

Lab Sample ID: 400-139174-2

Date Collected: 06/06/17 09:52

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.492		0.150	0.156	1.00	0.135	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.147	U	0.265	0.266	1.00	0.451	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.639		0.305	0.308	5.00	0.451	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13197 MW-3

Lab Sample ID: 400-139174-3

Date Collected: 06/06/17 11:02

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.369		0.133	0.137	1.00	0.123	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.378	U	0.254	0.257	1.00	0.388	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	90.8		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.748		0.287	0.291	5.00	0.388	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13198 MW-4

Lab Sample ID: 400-139174-4

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.411		0.134	0.139	1.00	0.111	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.687		0.289	0.296	1.00	0.398	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	89.3		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.319	0.327	5.00	0.398	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13199 MW-5

Lab Sample ID: 400-139174-5

Date Collected: 06/06/17 13:09

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.112	0.114	1.00	0.131	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.366	U	0.275	0.277	1.00	0.430	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.591		0.296	0.299	5.00	0.430	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13200 MW-6

Lab Sample ID: 400-139174-6

Date Collected: 06/06/17 14:24

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.408		0.134	0.139	1.00	0.120	pCi/L	06/21/17 08:58	07/13/17 06:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/21/17 08:58	07/13/17 06:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0673	U	0.260	0.261	1.00	0.455	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.476		0.293	0.295	5.00	0.455	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13201 MW-7

Lab Sample ID: 400-139174-7

Date Collected: 06/07/17 08:34

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.116	0.119	1.00	0.118	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/21/17 08:58	07/13/17 06:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.149	U	0.208	0.208	1.00	0.410	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	92.0		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.136	U	0.238	0.240	5.00	0.410	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13202 MW-8

Lab Sample ID: 400-139174-8

Date Collected: 06/07/17 09:27

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.289		0.112	0.115	1.00	0.106	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/21/17 08:58	07/13/17 06:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.233	0.233	1.00	0.385	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	91.2		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.477		0.258	0.260	5.00	0.385	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13203 MW-9

Lab Sample ID: 400-139174-9

Date Collected: 06/07/17 10:35

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.612		0.158	0.167	1.00	0.115	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/21/17 08:58	07/13/17 06:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.507		0.285	0.289	1.00	0.426	pCi/L	06/21/17 09:52	06/29/17 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					06/21/17 09:52	06/29/17 14:51	1
Y Carrier	90.5		40 - 110					06/21/17 09:52	06/29/17 14:51	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.326	0.334	5.00	0.426	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13204 MW-10

Lab Sample ID: 400-139174-10

Date Collected: 06/07/17 11:18

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.610		0.165	0.174	1.00	0.152	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 08:58	07/13/17 06:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.793		0.342	0.350	1.00	0.489	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	87.5		40 - 110					06/21/17 09:52	06/29/17 14:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.40		0.380	0.391	5.00	0.489	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13205 FB-1

Lab Sample ID: 400-139174-11

Date Collected: 06/06/17 12:52

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0858	U	0.0801	0.0805	1.00	0.122	pCi/L	06/21/17 08:58	07/13/17 06:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 08:58	07/13/17 06:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00745	U	0.231	0.231	1.00	0.415	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	92.7		40 - 110					06/21/17 09:52	06/29/17 14:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0932	U	0.244	0.244	5.00	0.415	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13206 EB-1

Lab Sample ID: 400-139174-12

Date Collected: 06/07/17 11:30

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0595	U	0.0850	0.0852	1.00	0.144	pCi/L	06/21/17 08:58	07/13/17 06:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 08:58	07/13/17 06:49	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00548	U	0.225	0.225	1.00	0.410	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	88.6		40 - 110					06/21/17 09:52	06/29/17 14:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0650	U	0.240	0.240	5.00	0.410	pCi/L		07/13/17 12:03	1

Client Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13207 MW-4 DUP

Lab Sample ID: 400-139174-13

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/12/17 14:27

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.225		0.108	0.110	1.00	0.124	pCi/L	06/21/17 08:58	07/13/17 08:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/21/17 08:58	07/13/17 08:43	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.343	0.355	1.00	0.451	pCi/L	06/21/17 09:52	06/29/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/21/17 09:52	06/29/17 14:52	1
Y Carrier	87.5		40 - 110					06/21/17 09:52	06/29/17 14:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.25		0.359	0.372	5.00	0.451	pCi/L		07/13/17 12:03	1

Definitions/Glossary

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Client Sample ID: AX13195 MW-1

Lab Sample ID: 400-139174-1

Date Collected: 06/06/17 08:45

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13196 MW-2

Lab Sample ID: 400-139174-2

Date Collected: 06/06/17 09:52

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13197 MW-3

Lab Sample ID: 400-139174-3

Date Collected: 06/06/17 11:02

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13198 MW-4

Lab Sample ID: 400-139174-4

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13199 MW-5

Lab Sample ID: 400-139174-5

Date Collected: 06/06/17 13:09

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13200 MW-6

Lab Sample ID: 400-139174-6

Date Collected: 06/06/17 14:24

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13201 MW-7

Lab Sample ID: 400-139174-7

Date Collected: 06/07/17 08:34

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13202 MW-8

Lab Sample ID: 400-139174-8

Date Collected: 06/07/17 09:27

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13203 MW-9

Lab Sample ID: 400-139174-9

Date Collected: 06/07/17 10:35

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:51	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13204 MW-10

Lab Sample ID: 400-139174-10

Date Collected: 06/07/17 11:18

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13205 FB-1

Lab Sample ID: 400-139174-11

Date Collected: 06/06/17 12:52

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Client Sample ID: AX13206 EB-1

Lab Sample ID: 400-139174-12

Date Collected: 06/07/17 11:30

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 06:49	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Client Sample ID: AX13207 MW-4 DUP

Lab Sample ID: 400-139174-13

Date Collected: 06/06/17 12:05

Matrix: Water

Date Received: 06/12/17 14:27

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			314394	06/21/17 08:58	LDE	TAL SL
Total/NA	Analysis	9315		1	317263	07/13/17 08:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			314406	06/21/17 09:52	LDE	TAL SL
Total/NA	Analysis	9320		1	315792	06/29/17 14:52	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	317282	07/13/17 12:03	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: 400-139174-1
 SDG: Barry Gypsum (8)

Rad

Prep Batch: 314394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139174-1	AX13195 MW-1	Total/NA	Water	PrecSep-21	
400-139174-2	AX13196 MW-2	Total/NA	Water	PrecSep-21	
400-139174-3	AX13197 MW-3	Total/NA	Water	PrecSep-21	
400-139174-4	AX13198 MW-4	Total/NA	Water	PrecSep-21	
400-139174-5	AX13199 MW-5	Total/NA	Water	PrecSep-21	
400-139174-6	AX13200 MW-6	Total/NA	Water	PrecSep-21	
400-139174-7	AX13201 MW-7	Total/NA	Water	PrecSep-21	
400-139174-8	AX13202 MW-8	Total/NA	Water	PrecSep-21	
400-139174-9	AX13203 MW-9	Total/NA	Water	PrecSep-21	
400-139174-10	AX13204 MW-10	Total/NA	Water	PrecSep-21	
400-139174-11	AX13205 FB-1	Total/NA	Water	PrecSep-21	
400-139174-12	AX13206 EB-1	Total/NA	Water	PrecSep-21	
400-139174-13	AX13207 MW-4 DUP	Total/NA	Water	PrecSep-21	
MB 160-314394/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-314394/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-139174-6 DU	AX13200 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 314406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-139174-1	AX13195 MW-1	Total/NA	Water	PrecSep_0	
400-139174-2	AX13196 MW-2	Total/NA	Water	PrecSep_0	
400-139174-3	AX13197 MW-3	Total/NA	Water	PrecSep_0	
400-139174-4	AX13198 MW-4	Total/NA	Water	PrecSep_0	
400-139174-5	AX13199 MW-5	Total/NA	Water	PrecSep_0	
400-139174-6	AX13200 MW-6	Total/NA	Water	PrecSep_0	
400-139174-7	AX13201 MW-7	Total/NA	Water	PrecSep_0	
400-139174-8	AX13202 MW-8	Total/NA	Water	PrecSep_0	
400-139174-9	AX13203 MW-9	Total/NA	Water	PrecSep_0	
400-139174-10	AX13204 MW-10	Total/NA	Water	PrecSep_0	
400-139174-11	AX13205 FB-1	Total/NA	Water	PrecSep_0	
400-139174-12	AX13206 EB-1	Total/NA	Water	PrecSep_0	
400-139174-13	AX13207 MW-4 DUP	Total/NA	Water	PrecSep_0	
MB 160-314406/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-314406/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-139174-6 DU	AX13200 MW-6	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-314394/1-A
Matrix: Water
Analysis Batch: 317263

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314394

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01017	U	0.0640	0.0640	1.00	0.128	pCi/L	06/21/17 08:58	07/13/17 06:46	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/21/17 08:58	07/13/17 06:46	1

Lab Sample ID: LCS 160-314394/2-A
Matrix: Water
Analysis Batch: 317263

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314394

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	15.46		1.58	1.00	0.131	pCi/L	102	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	99.1		40 - 110						

Lab Sample ID: 400-139174-6 DU
Matrix: Water
Analysis Batch: 317263

Client Sample ID: AX13200 MW-6
Prep Type: Total/NA
Prep Batch: 314394

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.408		0.5201		0.157	1.00	0.131	pCi/L	0.38	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	101		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-314406/1-A
Matrix: Water
Analysis Batch: 315792

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314406

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4699		0.289	0.292	1.00	0.438	pCi/L	06/21/17 09:52	06/29/17 14:50	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/21/17 09:52	06/29/17 14:50	1
Y Carrier	91.6		40 - 110					06/21/17 09:52	06/29/17 14:50	1

QC Sample Results

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

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

Lab Sample ID: LCS 160-314406/2-A
Matrix: Water
Analysis Batch: 315792

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314406

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.7	17.36		1.87	1.00	0.421	pCi/L	98	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.1		40 - 110
Y Carrier	90.8		40 - 110

Lab Sample ID: 400-139174-6 DU
Matrix: Water
Analysis Batch: 315792

Client Sample ID: AX13200 MW-6
Prep Type: Total/NA
Prep Batch: 314406

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0673	U	0.5247		0.279	1.00	0.404	pCi/L	0.85	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	92.3		40 - 110

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

Lab Sample ID: 400-139174-6 DU
Matrix: Water
Analysis Batch: 317282


Client Sample ID: AX13200 MW-6
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	0.476		1.045		0.320	5.00	0.404	pCi/L	0.92	

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Gypsum (8)		Sampler: Anthony Goggins Lab PM: Whitmire, Cheyenne R Phone: _____ E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking No(s): 400-56525-24537.1 Page: Page 1 of 2 Job #: 400-139174	
Due Date Requested: TAT Requested (days): Routine		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:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
Sample Identification Sample ID: AX13195 Sample ID: AX13196 Sample ID: AX13197 Sample ID: AX13198 Sample ID: AX13199		Sample Date 6/6/17 6/6/17 6/6/17 6/6/17 6/6/17		Sample Time 0845 0952 1102 1205 1309	
Sample Type (C=comp, G=grab) G G G G G		Matrix (Water, Soil, Other) Water Water Water Water Water		Preservation Code: G G G G G	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No		1 1 1 1 1	
Special Instructions/Note: 9315 Ra226, 9320 Ra228, Ra226Ra228, GPPC		Special Instructions/Note: MW-1 MW-2 MW-3 MW-4 MW-5			
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: 06/12/2017: 0945 Relinquished by: Date/Time: Relinquished by: Date/Time:					
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:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No					
Cooler Temperature(s) °C and Other Remarks:					



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-139174-1
SDG Number: Barry Gypsum (8)

Login Number: 139174

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

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



Accreditation/Certification Summary

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

TestAmerica Job ID: 400-139174-1
 SDG: Barry Gypsum (8)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17 *
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-17 *
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17 *
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-139174-1
SDG: Barry Gypsum (8)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17 *
Pennsylvania	NELAP	3	68-00540	02-21-18
South Carolina	State Program	4	85002001	06-30-17 *
Texas	NELAP	6	T104704193-16-10	07-31-17 *
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17 *
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-17 *
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica Pensacola



Chain of Custody Groundwater

APC General Testing Laboratory
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 06/08/2017 12:07

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Bo Cotton	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium duplicate collected MW-6 No temperature requirement.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	06/06/2017	08:45	1	Groundwater		AX13195
MW-2	06/06/2017	09:52	1	Groundwater		AX13196
MW-3	06/06/2017	11:02	1	Groundwater		AX13197
MW-4	06/06/2017	12:05	1	Groundwater		AX13198
MW-5	06/06/2017	13:09	1	Groundwater		AX13199
MW-6	06/06/2017	14:24	3	Groundwater		AX13200
MW-7	06/07/2017	08:34	1	Groundwater		AX13201
MW-8	06/07/2017	09:27	1	Groundwater		AX13202
MW-9	06/07/2017	10:35	1	Groundwater		AX13203
MW-10	06/07/2017	11:18	1	Groundwater		AX13204
FB-1	06/06/2017	12:52	1	Field Blank		AX13205
EB-1	06/07/2017	11:30	1	Equipment Blank		AX13206
MW-4DUP	06/06/2017	12:05	1	Sample Duplicate		AX13207

Relinquished By	Received By	Date/Time
	Brooke Williams <small>Digitally signed by Brooke Williams Date: 2017.06.08 13:15:34 -05'00'</small>	06/08/2017 13:15

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
		Thermometer ID
		pH Strip ID
		N/A
		N/A
		4831-24389-20-16

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

Analytical Report

 Alabama Power



Sample Group : WMWBARG_1115

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 : Anne Ryals
maryals@southernco.com
(205) 664-6032

The following data has been reviewed and approved by:

Quality Control:

Supervision:

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



Anions

Barry Gypsum

WMWBARG_1115

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola, for analysis. There was no job narrative provided due to lack of non-conformances.



Metals ICP

Barry Gypsum

WMWBARG_1115

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>
AX21392	20170921bGK	WMWBARG_1115
AX21393	20170921bGK	WMWBARG_1115
AX21394	20170921bGK	WMWBARG_1115
AX21395	20170921bGK	WMWBARG_1115
AX21635	20170921bGK	WMWBARG_1115
AX21636	20170921bGK	WMWBARG_1115
AX21637	20170921bGK	WMWBARG_1115
AX21638	20170921bGK	WMWBARG_1115
AX21639	20170921bGK	WMWBARG_1115
AX21640	20170921bGK	WMWBARG_1115
AX21641	20170921bHK	WMWBARG_1115
AX21642	20170921bHK	WMWBARG_1115
AX21643	20170921bHK	WMWBARG_1115

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 dilution to compensate for potential matrix effects.
 8. The raw data results include results corrected for dilution.



TDS

Barry Gypsum

WMWBARG_1115

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>
AX21392	602953	WMWBARG_1115
AX21393	603292	WMWBARG_1115
AX21394	602953	WMWBARG_1115
AX21395	602953	WMWBARG_1115
AX21635	602956	WMWBARG_1115
AX21636	602956	WMWBARG_1115
AX21637	602956	WMWBARG_1115
AX21638	602956	WMWBARG_1115
AX21639	602956	WMWBARG_1115
AX21640	602956	WMWBARG_1115
AX21641	603008	WMWBARG_1115
AX21642	603008	WMWBARG_1115
AX21643	603008	WMWBARG_1115

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 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX21640 and AX21643 which did not meet the 2.5mg residue requirement.

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

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.44	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	35.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	8.5	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.0	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	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
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7

Laboratory ID Number: AX21392

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec
AX21632	Solids, Dissolved	mg/L	4.00	25				281	55.0	40 to 60			0.898 5

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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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.43	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/25/2017	SM 2540C		1		25	29.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	8.9	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.2	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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	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
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-7DUP

Laboratory ID Number: AX21393

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21645	Solids, Dissolved	mg/L	-1.00	25			18100	55.0	40 to 60	0.976	5

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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



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	J 0.0709	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	4.39	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	42.7	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	7.5	mg/L

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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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-6

Laboratory ID Number: AX21394

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec
AX21632	Solids, Dissolved	mg/L	4.00	25				281	55.0	40 to 60			0.898 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

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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:

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 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.47	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	26.7	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	7.2	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: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 12-Sep-17
 Customer ID:
 Delivery Date: 13-Sep-17

Description: Barry Gypsum - MW-4

Laboratory ID Number: AX21395

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec
				Limit				Duplicate	LFB	Limit	Prec
AX21632	Solids, Dissolved	mg/L	4.00	25				281	55.0	40 to 60	0.898
											5

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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
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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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.71	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	38.0	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	7.3	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-3

Laboratory ID Number: AX21635

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60			0.464 5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.60	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	39.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	J 0.043	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.9	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-2

Laboratory ID Number: AX21636

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Limit
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60			0.464 5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.14	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	36.7	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.0	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	8.4	mg/L

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Expiration: June 30, 2018

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-1

Laboratory ID Number: AX21637

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60			0.464	5

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	0.723	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	31.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.9	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.2	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-8

Laboratory ID Number: AX21638

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec
				Limit				Duplicate	LFB	Limit	Prec
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60	0.464
											5

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Expiration: June 30, 2018

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	J 0.0411	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.61	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	37.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	7.6	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

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-5

Laboratory ID Number: AX21639

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60			0.464 5

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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:

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX21640

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	J 0.73	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX21640

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21640	Boron, Total	mg/L	0.00120	0.044	1.00	0.913	1.01	0.973	0.85 to 1.15	91.3	70 to 130	10.3	20
AX21640	Calcium, Total	mg/L	-0.00696	0.22	5.00	5.02	4.94	4.98	4.25 to 5.75	100	70 to 130	1.47	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGFB
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Field Blank

Laboratory ID Number: AX21640

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21634	Solids, Dissolved	mg/L	4.00	25				322	55.0	40 to 60			0.464	5

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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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	J 0.0394	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	0.873	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	35.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	5.1	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	8.7	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX21643	Boron, Total	mg/L	0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7	70 to 130	1.27	20
AX21643	Calcium, Total	mg/L	-0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8	70 to 130	4.97	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-10

Laboratory ID Number: AX21641

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec
AX21686	Solids, Dissolved	mg/L	8.00	25				357	52.0	40 to 60			0.279 5

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Laboratory certification ID: E571114

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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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	J 0.0320	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	1.25	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	37.3	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	7.3	mg/L

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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: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21643	Calcium, Total	mg/L	-0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8	70 to 130	4.97	20
AX21643	Boron, Total	mg/L	0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7	70 to 130	1.27	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARG
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum - MW-9

Laboratory ID Number: AX21642

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec
								Duplicate	LFB	Limit	Prec
AX21686	Solids, Dissolved	mg/L	8.00	25				357	52.0	40 to 60	0.279
											5

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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 Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGE
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Boron, Total	HRG	9/21/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/19/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/24/2017	SM 4500 Cl_E		1	0.60	2.00	J 0.91	mg/L
* Fluoride, Total, by Test America	BAB	9/29/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/26/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGE
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21643	Boron, Total	mg/L	0.000827	0.044	1.00	0.957	0.969	0.959	0.85 to 1.15	95.7	70 to 130	1.27	20
AX21643	Calcium, Total	mg/L	-0.00736	0.22	5.00	4.79	5.03	4.99	4.25 to 5.75	95.8	70 to 130	4.97	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWBARGE
 Sample Date: 13-Sep-17
 Customer ID:
 Delivery Date: 14-Sep-17

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: AX21643

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec
				Limit				Duplicate	LFB	Limit	Prec
AX21686	Solids, Dissolved	mg/L	8.00	25				357	52.0	40 to 60	0.279
											5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Definitions



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

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

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: 400-143535-1

TestAmerica SDG: Plant Barry Gypsum Storage Area

Client Project/Site: CCR Plant Barry

For:

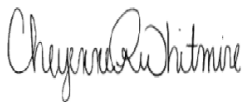
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

9/29/2017 6:48:23 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

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

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

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

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Detection Summary

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

TestAmerica Job ID: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21392 MW-7

Lab Sample ID: 400-143535-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21393 MW-7 DUP

Lab Sample ID: 400-143535-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21394 MW-6

Lab Sample ID: 400-143535-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.5		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21395 MW-4

Lab Sample ID: 400-143535-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21635 MW-3

Lab Sample ID: 400-143535-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21636 MW-2

Lab Sample ID: 400-143535-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.043	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21637 MW-1

Lab Sample ID: 400-143535-7

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	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21638 MW-8

Lab Sample ID: 400-143535-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21639 MW-5

Lab Sample ID: 400-143535-9

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: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21639 MW-5 (Continued)

Lab Sample ID: 400-143535-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	7.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21640 FB-1

Lab Sample ID: 400-143535-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.73	J	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX21641 MW-10

Lab Sample ID: 400-143535-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21642 MW-9

Lab Sample ID: 400-143535-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	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: AX21643 EB-1

Lab Sample ID: 400-143535-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.91	J	2.0	0.60	mg/L	1		SM 4500 Cl- 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: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

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: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-143535-1	AX21392 MW-7	Water	09/12/17 15:14	09/20/17 13:50
400-143535-2	AX21393 MW-7 DUP	Water	09/12/17 15:14	09/20/17 13:50
400-143535-3	AX21394 MW-6	Water	09/12/17 16:12	09/20/17 13:50
400-143535-4	AX21395 MW-4	Water	09/12/17 17:07	09/20/17 13:50
400-143535-5	AX21635 MW-3	Water	09/13/17 09:35	09/20/17 13:50
400-143535-6	AX21636 MW-2	Water	09/13/17 10:31	09/20/17 13:50
400-143535-7	AX21637 MW-1	Water	09/13/17 11:25	09/20/17 13:50
400-143535-8	AX21638 MW-8	Water	09/13/17 12:19	09/20/17 13:50
400-143535-9	AX21639 MW-5	Water	09/13/17 13:06	09/20/17 13:50
400-143535-10	AX21640 FB-1	Water	09/13/17 12:50	09/20/17 13:50
400-143535-11	AX21641 MW-10	Water	09/13/17 13:56	09/20/17 13:50
400-143535-12	AX21642 MW-9	Water	09/13/17 14:37	09/20/17 13:50
400-143535-13	AX21643 EB-1	Water	09/13/17 14:43	09/20/17 13:50

Client Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21392 MW-7

Lab Sample ID: 400-143535-1

Date Collected: 09/12/17 15:14

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5		2.0	0.60	mg/L			09/24/17 08:27	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:11	1
Sulfate	3.0	J	5.0	1.4	mg/L			09/26/17 09:09	1

Client Sample ID: AX21393 MW-7 DUP

Lab Sample ID: 400-143535-2

Date Collected: 09/12/17 15:14

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.9		2.0	0.60	mg/L			09/24/17 08:27	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:21	1
Sulfate	3.2	J	5.0	1.4	mg/L			09/26/17 09:09	1

Client Sample ID: AX21394 MW-6

Lab Sample ID: 400-143535-3

Date Collected: 09/12/17 16:12

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			09/24/17 08:27	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:23	1
Sulfate	7.5		5.0	1.4	mg/L			09/26/17 09:09	1

Client Sample ID: AX21395 MW-4

Lab Sample ID: 400-143535-4

Date Collected: 09/12/17 17:07

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			09/24/17 08:27	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:25	1
Sulfate	7.2		5.0	1.4	mg/L			09/26/17 09:09	1

Client Sample ID: AX21635 MW-3

Lab Sample ID: 400-143535-5

Date Collected: 09/13/17 09:35

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			09/24/17 08:28	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:54	1
Sulfate	7.3		5.0	1.4	mg/L			09/26/17 09:11	1

Client Sample Results

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

TestAmerica Job ID: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21636 MW-2

Lab Sample ID: 400-143535-6

Date Collected: 09/13/17 10:31

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			09/24/17 08:28	1
Fluoride	0.043	J	0.10	0.032	mg/L			09/29/17 15:58	1
Sulfate	4.9	J	5.0	1.4	mg/L			09/26/17 09:11	1

Client Sample ID: AX21637 MW-1

Lab Sample ID: 400-143535-7

Date Collected: 09/13/17 11:25

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	0.040	J	0.10	0.032	mg/L			09/29/17 16:29	1
Sulfate	8.4		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21638 MW-8

Lab Sample ID: 400-143535-8

Date Collected: 09/13/17 12:19

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:32	1
Sulfate	3.2	J	5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21639 MW-5

Lab Sample ID: 400-143535-9

Date Collected: 09/13/17 13:06

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:22	1
Sulfate	7.6		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21640 FB-1

Lab Sample ID: 400-143535-10

Date Collected: 09/13/17 12:50

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.73	J	2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:34	1
Sulfate	<1.4		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21641 MW-10

Lab Sample ID: 400-143535-11

Date Collected: 09/13/17 13:56

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		2.0	0.60	mg/L			09/24/17 08:44	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21641 MW-10

Lab Sample ID: 400-143535-11

Date Collected: 09/13/17 13:56

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L			09/29/17 16:37	1
Sulfate	8.7		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21642 MW-9

Lab Sample ID: 400-143535-12

Date Collected: 09/13/17 14:37

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	0.080	J	0.10	0.032	mg/L			09/29/17 16:40	1
Sulfate	7.3		5.0	1.4	mg/L			09/26/17 09:24	1

Client Sample ID: AX21643 EB-1

Lab Sample ID: 400-143535-13

Date Collected: 09/13/17 14:43

Matrix: Water

Date Received: 09/20/17 13:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.91	J	2.0	0.60	mg/L			09/24/17 08:44	1
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:43	1
Sulfate	<1.4		5.0	1.4	mg/L			09/26/17 09:24	1

Definitions/Glossary

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

TestAmerica Job ID: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

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: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21392 MW-7
Date Collected: 09/12/17 15:14
Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-1
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	369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:11	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21393 MW-7 DUP
Date Collected: 09/12/17 15:14
Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-2
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	369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21394 MW-6
Date Collected: 09/12/17 16:12
Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-3
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	369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21395 MW-4
Date Collected: 09/12/17 17:07
Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-4
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	369311	09/24/17 08:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:09	RRC	TAL PEN

Client Sample ID: AX21635 MW-3
Date Collected: 09/13/17 09:35
Date Received: 09/20/17 13:50

Lab Sample ID: 400-143535-5
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	369311	09/24/17 08:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:11	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21636 MW-2

Lab Sample ID: 400-143535-6

Date Collected: 09/13/17 10:31

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370140	09/29/17 15:58	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:11	RRC	TAL PEN

Client Sample ID: AX21637 MW-1

Lab Sample ID: 400-143535-7

Date Collected: 09/13/17 11:25

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21638 MW-8

Lab Sample ID: 400-143535-8

Date Collected: 09/13/17 12:19

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21639 MW-5

Lab Sample ID: 400-143535-9

Date Collected: 09/13/17 13:06

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:22	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21640 FB-1

Lab Sample ID: 400-143535-10

Date Collected: 09/13/17 12:50

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:34	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Client Sample ID: AX21641 MW-10

Lab Sample ID: 400-143535-11

Date Collected: 09/13/17 13:56

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21642 MW-9

Lab Sample ID: 400-143535-12

Date Collected: 09/13/17 14:37

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:40	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	RRC	TAL PEN

Client Sample ID: AX21643 EB-1

Lab Sample ID: 400-143535-13

Date Collected: 09/13/17 14:43

Matrix: Water

Date Received: 09/20/17 13:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	369311	09/24/17 08:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	370157	09/29/17 16:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	369519	09/26/17 09:24	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: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

General Chemistry

Analysis Batch: 369311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 Cl- E	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-143535-5	AX21635 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-369311/15	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-369311/16	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-369311/12	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 369519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 SO4 E	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-143535-5	AX21635 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-369519/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-369519/18	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-369519/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 370140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-1	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143535-2	AX21393 MW-7 DUP	Total/NA	Water	SM 4500 F C	
400-143535-3	AX21394 MW-6	Total/NA	Water	SM 4500 F C	
400-143535-4	AX21395 MW-4	Total/NA	Water	SM 4500 F C	
400-143535-5	AX21635 MW-3	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: 400-143535-1
SDG: Plant Barry Gypsum Storage Area

General Chemistry (Continued)

Analysis Batch: 370140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-6	AX21636 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-370140/1	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370140/2	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143535-1 MS	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143535-1 MSD	AX21392 MW-7	Total/NA	Water	SM 4500 F C	
400-143536-A-3 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 370157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143535-7	AX21637 MW-1	Total/NA	Water	SM 4500 F C	
400-143535-8	AX21638 MW-8	Total/NA	Water	SM 4500 F C	
400-143535-9	AX21639 MW-5	Total/NA	Water	SM 4500 F C	
400-143535-10	AX21640 FB-1	Total/NA	Water	SM 4500 F C	
400-143535-11	AX21641 MW-10	Total/NA	Water	SM 4500 F C	
400-143535-12	AX21642 MW-9	Total/NA	Water	SM 4500 F C	
400-143535-13	AX21643 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-370157/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-370157/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143535-9 MS	AX21639 MW-5	Total/NA	Water	SM 4500 F C	
400-143535-9 MSD	AX21639 MW-5	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-369311/15
Matrix: Water
Analysis Batch: 369311

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/24/17 08:13	1

Lab Sample ID: LCS 400-369311/16
Matrix: Water
Analysis Batch: 369311

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.2		mg/L		97	90 - 110

Lab Sample ID: MRL 400-369311/12
Matrix: Water
Analysis Batch: 369311

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	2.41		mg/L		120	50 - 150

Lab Sample ID: 400-143535-1 MS
Matrix: Water
Analysis Batch: 369311

Client Sample ID: AX21392 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.5		10.0	18.9		mg/L		104	73 - 120

Lab Sample ID: 400-143535-1 MSD
Matrix: Water
Analysis Batch: 369311

Client Sample ID: AX21392 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	8.5		10.0	18.9		mg/L		104	73 - 120	0	8

Lab Sample ID: 400-143535-9 MS
Matrix: Water
Analysis Batch: 369311

Client Sample ID: AX21639 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.9		10.0	14.7		mg/L		108	73 - 120

Lab Sample ID: 400-143535-9 MSD
Matrix: Water
Analysis Batch: 369311

Client Sample ID: AX21639 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	3.9		10.0	14.7		mg/L		107	73 - 120	1	8

QC Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-370140/1
Matrix: Water
Analysis Batch: 370140

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 15:03	1

Lab Sample ID: LCS 400-370140/2
Matrix: Water
Analysis Batch: 370140

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	3.67		mg/L		92	90 - 110

Lab Sample ID: 400-143535-1 MS
Matrix: Water
Analysis Batch: 370140

Client Sample ID: AX21392 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.964		mg/L		96	75 - 125

Lab Sample ID: 400-143535-1 MSD
Matrix: Water
Analysis Batch: 370140

Client Sample ID: AX21392 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
Fluoride	<0.032		1.00	1.00		mg/L		100	75 - 125	4	4

Lab Sample ID: 400-143536-A-3 DU
Matrix: Water
Analysis Batch: 370140

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.037	J	0.0370	J	mg/L		0	4

Lab Sample ID: MB 400-370157/3
Matrix: Water
Analysis Batch: 370157

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			09/29/17 16:14	1

Lab Sample ID: LCS 400-370157/4
Matrix: Water
Analysis Batch: 370157

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	3.67		mg/L		92	90 - 110

Lab Sample ID: 400-143535-9 MS
Matrix: Water
Analysis Batch: 370157

Client Sample ID: AX21639 MW-5
Prep Type: Total/NA

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

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Lab Sample ID: 400-143535-9 MSD
Matrix: Water
Analysis Batch: 370157

Client Sample ID: AX21639 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
Fluoride	<0.032		1.00	0.960		mg/L					

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-369519/17
Matrix: Water
Analysis Batch: 369519

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			09/26/17 08:56	1

Lab Sample ID: LCS 400-369519/18
Matrix: Water
Analysis Batch: 369519

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.0		mg/L		93	90 - 110

Lab Sample ID: MRL 400-369519/14
Matrix: Water
Analysis Batch: 369519

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	4.58	J	mg/L		92	50 - 150

Lab Sample ID: 400-143535-1 MS
Matrix: Water
Analysis Batch: 369519

Client Sample ID: AX21392 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	3.0	J	10.0	14.1		mg/L		111	77 - 128

Lab Sample ID: 400-143535-1 MSD
Matrix: Water
Analysis Batch: 369519

Client Sample ID: AX21392 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	3.0	J	10.0	13.8		mg/L		108	77 - 128	3	5

Lab Sample ID: 400-143535-9 MS
Matrix: Water
Analysis Batch: 369519

Client Sample ID: AX21639 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.6		10.0	19.8		mg/L		122	77 - 128

QC Sample Results

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

TestAmerica Job ID: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

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

Lab Sample ID: 400-143535-9 MSD
 Matrix: Water
 Analysis Batch: 369519

Client Sample ID: AX21639 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	7.6		10.0	19.0		mg/L		114	77 - 128	4	5

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

Chain of Custody Record

Client Information		Sampler: Anthony Goggins		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Keith Kornegay		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1		Job #:	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		City: Calera		State, Zip: AL, 35040		Phone: 205-664-6004	
Email: ftkorneg@southernco.com		Project Name:		SSOW#: Barry Gypsum		Due Date Requested:		Analysis Requested	
TAT Requested (days):		Routine		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SM 4500 F.C	
SM 4500 C.E		SM 4500 S.O4.E		SM 4500 S.O4.E		Total Number of Containers		Preservation Codes:	
M - Hexane		N - None		O - AsNaO2		P - Na2O4S		Q - Na2SO3	
R - Na2SO3		S - H2SO4		T - TSP Dodecahydrate		U - Acetone		V - MCAA	
W - ph 4-5		X - other (specify)		Y -		MW-7		MW-7DUP (Sample Duplicate)	
MW-6		MW-4		MW-3		MW-2		MW-1	
MW-8		MW-5		FB-1 (Field Blank)		MW-10		MW-9	
EB-1 (Equipment Blank)									
Special Instructions/Note:		0.0 Feb 7 2017		400-145535 COC					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastefl, BT=tissue, A=air)	
AX21392		9/12/17		1514		G		Water	
AX21393		9/12/17		1514		G		Water	
AX21394		9/12/17		1612		G		Water	
AX21395		9/12/17		1707		G		Water	
AX21635		9/13/17		0935		G		Water	
AX21636		9/13/17		1031		G		Water	
AX21637		9/13/17		1125		G		Water	
AX21638		9/13/17		1219		G		Water	
AX21639		9/13/17		1306		G		Water	
AX21640		9/13/17		1250		G		Water	
AX21641		9/13/17		1356		G		Water	
AX21642		9/13/17		1437		G		Water	
AX21643		9/13/17		1443		G		Water	
Possible Hazard Identification		Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological <input type="checkbox"/>		Special Instructions/QC Requirements:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Relinquished by: Keith Kornegay		Date: 09/19/2017 12:00		Company: APC		Method of Shipment:	
Relinquished by:		Relinquished by:		Date/Time:		Company:		Date/Time:	
Relinquished by:		Relinquished by:		Date/Time:		Company:		Date/Time: 9-20-17 1350	
Custody Seals Intact:		Custody Seal No.:		TA					



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-143535-1
SDG Number: Plant Barry Gypsum Storage Area

Login Number: 143535

List Number: 1

Creator: Hughes, Nicholas T

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	0.0°C - IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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: 400-143535-1
 SDG: Plant Barry Gypsum Storage Area

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18



Plant Barry Gypsum Storage Pond
Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-1	2/23/2016	4.62	SU
BY-GSA-MW-1	4/19/2016	4.74	SU
BY-GSA-MW-1	6/6/2016	4.65	SU
BY-GSA-MW-1	8/30/2016	4.64	SU
BY-GSA-MW-1	10/18/2016	4.74	SU
BY-GSA-MW-1	1/31/2017	4.54	SU
BY-GSA-MW-1	3/20/2017	4.67	SU
BY-GSA-MW-1	5/2/2017	4.79	SU
BY-GSA-MW-1	6/6/2017	4.76	SU
BY-GSA-MW-1	9/13/2017	4.81	SU
BY-GSA-MW-10	2/23/2016	4.67	SU
BY-GSA-MW-10	4/19/2016	4.79	SU
BY-GSA-MW-10	6/7/2016	4.73	SU
BY-GSA-MW-10	8/30/2016	4.68	SU
BY-GSA-MW-10	10/18/2016	4.75	SU
BY-GSA-MW-10	1/30/2017	4.65	SU
BY-GSA-MW-10	3/21/2017	4.68	SU
BY-GSA-MW-10	5/2/2017	4.75	SU
BY-GSA-MW-10	6/7/2017	4.7	SU
BY-GSA-MW-10	9/13/2017	4.71	SU
BY-GSA-MW-2	2/23/2016	4.79	SU
BY-GSA-MW-2	4/19/2016	4.84	SU
BY-GSA-MW-2	6/7/2016	4.81	SU
BY-GSA-MW-2	8/30/2016	4.76	SU
BY-GSA-MW-2	10/18/2016	4.84	SU
BY-GSA-MW-2	1/31/2017	4.6	SU
BY-GSA-MW-2	3/20/2017	4.71	SU
BY-GSA-MW-2	5/2/2017	4.8	SU
BY-GSA-MW-2	6/6/2017	4.72	SU
BY-GSA-MW-2	9/13/2017	4.71	SU
BY-GSA-MW-3	2/23/2016	4.96	SU
BY-GSA-MW-3	4/19/2016	4.94	SU
BY-GSA-MW-3	6/7/2016	4.96	SU
BY-GSA-MW-3	8/30/2016	4.92	SU
BY-GSA-MW-3	10/18/2016	4.98	SU
BY-GSA-MW-3	1/31/2017	4.74	SU
BY-GSA-MW-3	3/20/2017	4.9	SU
BY-GSA-MW-3	5/2/2017	4.98	SU
BY-GSA-MW-3	6/6/2017	4.94	SU
BY-GSA-MW-3	9/13/2017	4.93	SU
BY-GSA-MW-4	2/23/2016	4.74	SU
BY-GSA-MW-4	4/19/2016	4.86	SU
BY-GSA-MW-4	6/6/2016	4.88	SU
BY-GSA-MW-4	8/30/2016	4.91	SU
BY-GSA-MW-4	10/18/2016	4.95	SU
BY-GSA-MW-4	1/31/2017	4.71	SU

Plant Barry Gypsum Storage Pond
Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-4	3/20/2017	4.83	SU
BY-GSA-MW-4	5/2/2017	4.93	SU
BY-GSA-MW-4	6/6/2017	4.9	SU
BY-GSA-MW-4	9/12/2017	4.82	SU
BY-GSA-MW-5	2/23/2016	4.76	SU
BY-GSA-MW-5	4/18/2016	4.75	SU
BY-GSA-MW-5	6/7/2016	4.77	SU
BY-GSA-MW-5	8/30/2016	4.82	SU
BY-GSA-MW-5	10/18/2016	4.82	SU
BY-GSA-MW-5	1/31/2017	4.8	SU
BY-GSA-MW-5	3/21/2017	4.86	SU
BY-GSA-MW-5	5/2/2017	4.89	SU
BY-GSA-MW-5	6/6/2017	4.86	SU
BY-GSA-MW-5	9/13/2017	4.89	SU
BY-GSA-MW-6	2/23/2016	6.59	SU
BY-GSA-MW-6	4/18/2016	6.21	SU
BY-GSA-MW-6	6/6/2016	5.97	SU
BY-GSA-MW-6	8/30/2016	5.99	SU
BY-GSA-MW-6	10/18/2016	5.94	SU
BY-GSA-MW-6	1/31/2017	5.92	SU
BY-GSA-MW-6	3/21/2017	5.74	SU
BY-GSA-MW-6	5/2/2017	5.82	SU
BY-GSA-MW-6	6/6/2017	5.77	SU
BY-GSA-MW-6	9/12/2017	5.64	SU
BY-GSA-MW-7	2/23/2016	5.12	SU
BY-GSA-MW-7	4/18/2016	5.11	SU
BY-GSA-MW-7	6/6/2016	5.14	SU
BY-GSA-MW-7	8/30/2016	5.06	SU
BY-GSA-MW-7	10/18/2016	5.01	SU
BY-GSA-MW-7	1/30/2017	4.74	SU
BY-GSA-MW-7	3/21/2017	5.04	SU
BY-GSA-MW-7	5/2/2017	5.08	SU
BY-GSA-MW-7	6/7/2017	5.07	SU
BY-GSA-MW-7	9/12/2017	5.03	SU
BY-GSA-MW-8	2/23/2016	4.92	SU
BY-GSA-MW-8	4/18/2016	5.16	SU
BY-GSA-MW-8	6/7/2016	5.11	SU
BY-GSA-MW-8	8/30/2016	5.14	SU
BY-GSA-MW-8	10/18/2016	5.09	SU
BY-GSA-MW-8	1/31/2017	5.01	SU
BY-GSA-MW-8	3/21/2017	5.07	SU
BY-GSA-MW-8	5/2/2017	5.13	SU
BY-GSA-MW-8	6/7/2017	5.05	SU
BY-GSA-MW-8	9/13/2017	5.06	SU
BY-GSA-MW-9	2/23/2016	4.56	SU
BY-GSA-MW-9	4/19/2016	4.62	SU

Plant Barry Gypsum Storage Pond
Field pH Data

Well	Date	Obs	Units
BY-GSA-MW-9	6/7/2016	4.64	SU
BY-GSA-MW-9	8/30/2016	4.58	SU
BY-GSA-MW-9	10/18/2016	4.58	SU
BY-GSA-MW-9	1/30/2017	4.44	SU
BY-GSA-MW-9	3/21/2017	4.57	SU
BY-GSA-MW-9	5/2/2017	4.64	SU
BY-GSA-MW-9	6/7/2017	4.58	SU
BY-GSA-MW-9	9/13/2017	4.54	SU

Appendix B

Statistical Data Evaluation

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 10:22 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>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	BY-GSA-MW-6	1.766	n/a	9/12/2017	4.39	Yes	36	1.326	0.2257	0	None	No	0.001254	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-6	5.032	4.584	9/12/2017	5.64	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-8	5.032	4.584	9/13/2017	5.06	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-9	5.032	4.584	9/13/2017	4.54	Yes	40	4.808	0.1159	0	None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	39.98	n/a	9/12/2017	42.7	Yes	36	29.58	5.339	19.44	Kaplan-Meier	No	0.001254	Param Inter 1 of 2

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 12/18/2017, 2:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDsND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	BY-GSA-MW-10	4.811	n/a	9/13/2017	5.1	Yes	8	3.39	0.4912	0	None	No	0.001254 Param Intra 1 of 2

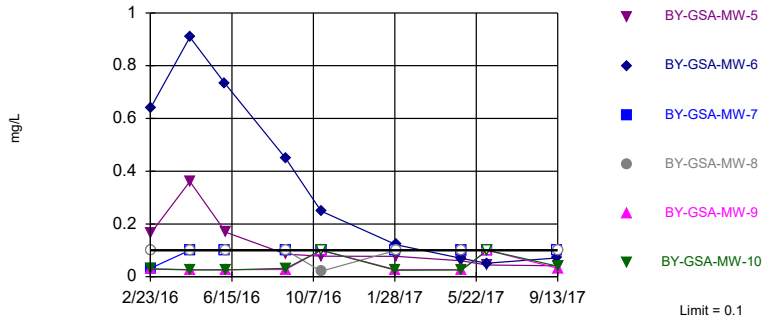
Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 10:22 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.1	n/a	9/13/2017	0.0411	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.1	n/a	9/12/2017	0.0709	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.1	n/a	9/13/2017	0.032	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-10	0.1	n/a	9/13/2017	0.0394	No	36	n/a	n/a	86.11 n/a	n/a	0.001386	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-GSA-MW-5	1.766	n/a	9/13/2017	1.61	No	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-6	1.766	n/a	9/12/2017	4.39	Yes	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-7	1.766	n/a	9/12/2017	1.44	No	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-8	1.766	n/a	9/13/2017	0.723	No	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-9	1.766	n/a	9/13/2017	1.25	No	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Calcium (mg/L)	BY-GSA-MW-10	1.766	n/a	9/13/2017	0.873	No	36	1.326	0.2257	0 None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.1	n/a	9/12/2017	0.1ND	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.1	n/a	9/13/2017	0.1ND	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.1	n/a	9/13/2017	0.08	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.1	n/a	9/13/2017	0.08	No	36	n/a	n/a	30.56 n/a	n/a	0.001386	NP Inter (normality) 1 of 2
pH (pH)	BY-GSA-MW-5	5.032	4.584	9/13/2017	4.89	No	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-6	5.032	4.584	9/12/2017	5.64	Yes	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-7	5.032	4.584	9/12/2017	5.03	No	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-8	5.032	4.584	9/13/2017	5.06	Yes	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-9	5.032	4.584	9/13/2017	4.54	Yes	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
pH (pH)	BY-GSA-MW-10	5.032	4.584	9/13/2017	4.71	No	40	4.808	0.1159	0 None	No	0.0006268	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-5	39.98	n/a	9/13/2017	37.3	No	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	39.98	n/a	9/12/2017	42.7	Yes	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-7	39.98	n/a	9/12/2017	35.3	No	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-8	39.98	n/a	9/13/2017	31.3	No	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-9	39.98	n/a	9/13/2017	37.3	No	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-10	39.98	n/a	9/13/2017	35.3	No	36	29.58	5.339	19.44 Kaplan-Meier	No	0.001254	Param Inter 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

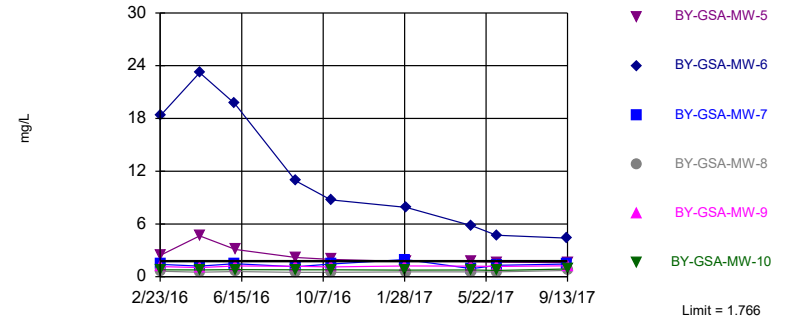


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 86.11% NDs. Annual per-constituent alpha = 0.0165. Individual comparison alpha = 0.001386 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit: BY-GSA-MW-6

Prediction Limit
Interwell Parametric

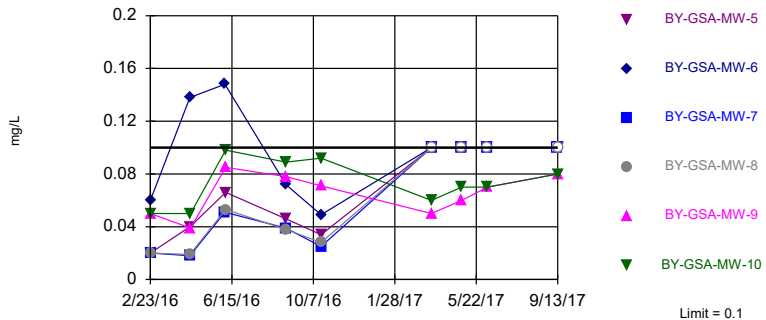


Background Data Summary: Mean=1.326, Std. Dev.=0.2257, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.912. Kappa = 1.948 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Interwell Non-parametric

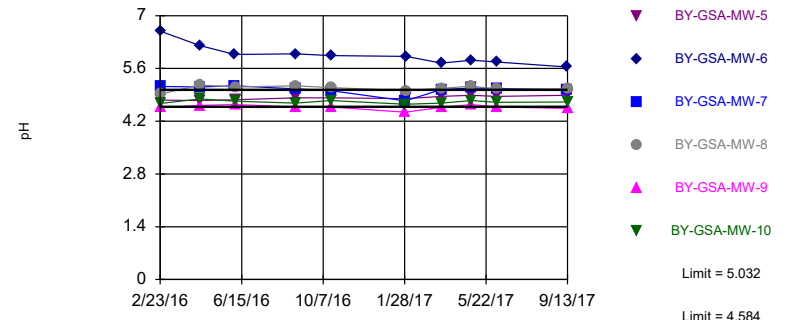


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 30.56% NDs. Annual per-constituent alpha = 0.0165. Individual comparison alpha = 0.001386 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 11/3/2017 10:18 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limits: BY-GSA-MW-6, BY-GSA-MW-8, BY-GSA-MW-9

Prediction Limit
Interwell Parametric

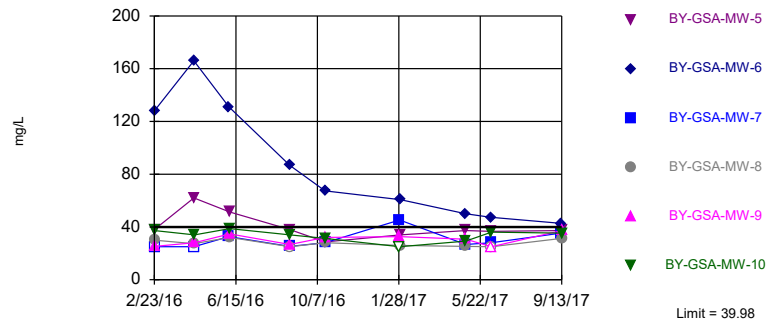


Background Data Summary: Mean=4.808, Std. Dev.=0.1159, n=40. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9539, critical = 0.919. Kappa = 1.932 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0006268. Comparing 6 points to limit.

Constituent: pH Analysis Run 11/3/2017 10:18 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 (after Kaplan-Meier Adjustment): Mean=29.58, Std. Dev.=5.339, n=36, 19.44% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9133, critical = 0.912. Kappa = 1.948 (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 11/3/2017 10:18 AM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry GSA

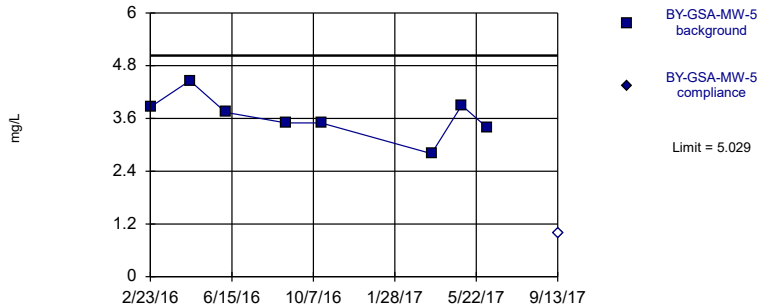
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 12/13/2017, 1:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Chloride (mg/L)	BY-GSA-MW-2	5.214	n/a	9/13/2017	1ND	No	8	4.234	0.3387	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-3	4.6	n/a	9/13/2017	1ND	No	8	n/a	n/a	0	n/a	n/a	0.02144 NP Intra (normality) 1 of 2
Chloride (mg/L)	BY-GSA-MW-4	4.832	n/a	9/12/2017	4.3	No	8	3.731	0.3804	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-1	4.523	n/a	9/13/2017	1ND	No	8	3.439	0.3747	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-5	5.029	n/a	9/13/2017	1ND	No	8	3.645	0.4782	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-6	7.877	n/a	9/12/2017	4.3	No	8	4.939	1.015	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-7	9.509	n/a	9/12/2017	8.5	No	8	5.241	1.475	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-8	6.064	n/a	9/13/2017	4.9	No	8	4.734	0.4596	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-9	7.801	n/a	9/13/2017	6.5	No	8	4.693	1.074	0	None	No	0.001254 Param Intra 1 of 2
Chloride (mg/L)	BY-GSA-MW-10	4.811	n/a	9/13/2017	5.1	Yes	8	3.39	0.4912	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	10.46	n/a	9/13/2017	4.9	No	8	6.863	1.244	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.743	n/a	9/13/2017	7.3	No	8	7.62	0.7334	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.42	n/a	9/12/2017	7.2	No	8	6.776	0.5682	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-1	11.77	n/a	9/13/2017	8.4	No	8	8.495	1.132	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	33.89	n/a	9/13/2017	7.6	No	8	13.88	6.918	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	97.27	n/a	9/12/2017	7.5	No	8	25.44	24.82	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	4.741	n/a	9/12/2017	3	No	8	3.27	0.5082	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.47	n/a	9/13/2017	3.2	No	8	3.689	0.6156	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	10.58	n/a	9/13/2017	7.3	No	8	7.591	1.032	0	None	No	0.001254 Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.4	n/a	9/13/2017	8.7	No	8	9.664	1.292	0	None	No	0.001254 Param Intra 1 of 2

Within Limit

Prediction Limit
 Intrawell Parametric

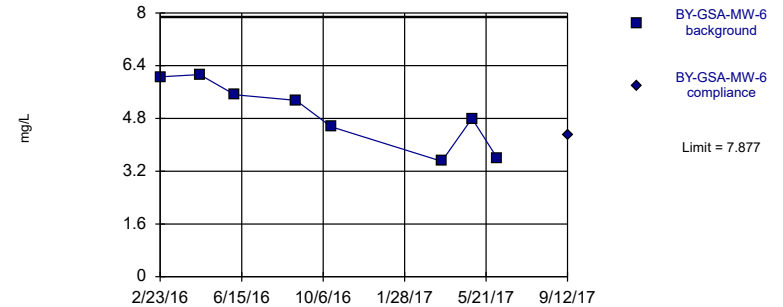


Background Data Summary: Mean=3.645, Std. Dev.=0.4782, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9592, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

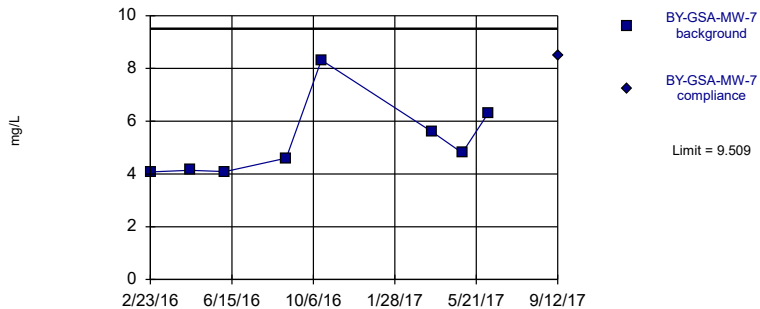


Background Data Summary: Mean=4.939, Std. Dev.=1.015, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

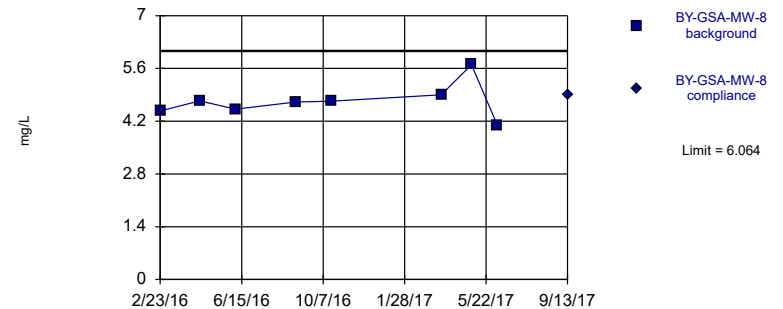


Background Data Summary: Mean=5.241, Std. Dev.=1.475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8191, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
 Intrawell Parametric

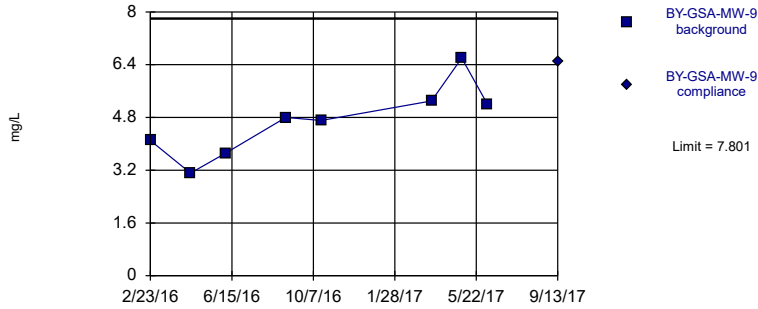


Background Data Summary: Mean=4.734, Std. Dev.=0.4596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8848, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

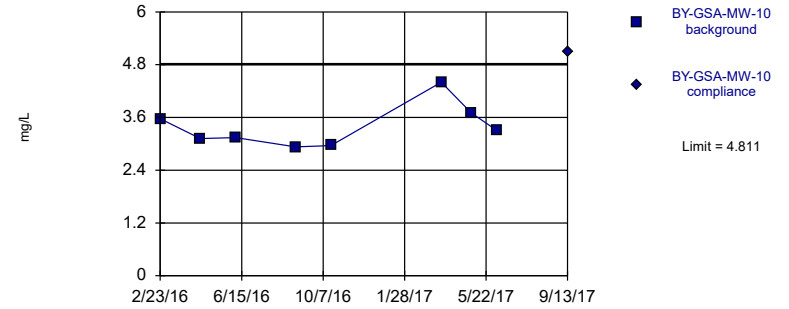


Background Data Summary: Mean=4.693, Std. Dev.=1.074, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9767, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

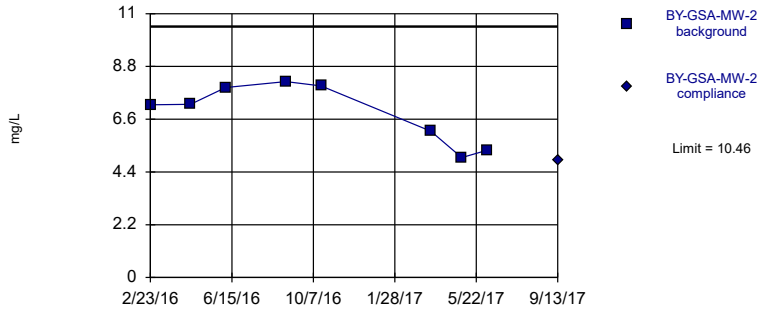


Background Data Summary: Mean=3.39, Std. Dev.=0.4912, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8688, critical = 0.749. Kappa overridden to 2.894.

Constituent: Chloride Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

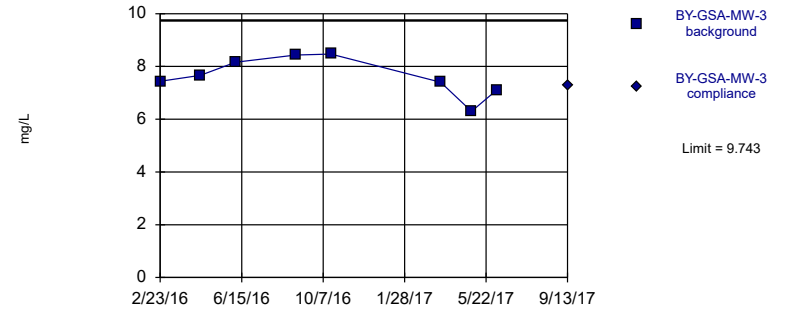


Background Data Summary: Mean=6.863, Std. Dev.=1.244, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8803, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit
Intrawell Parametric

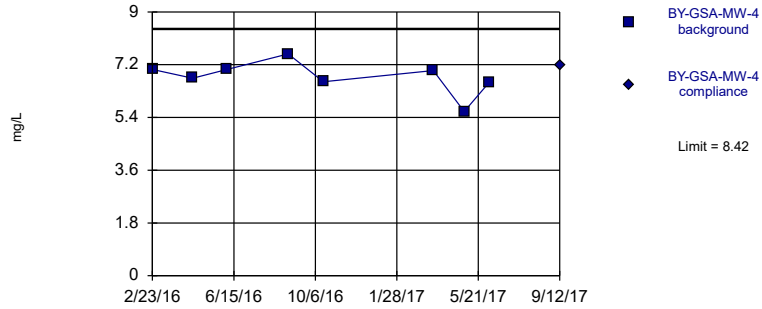


Background Data Summary: Mean=7.62, Std. Dev.=0.7334, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9376, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

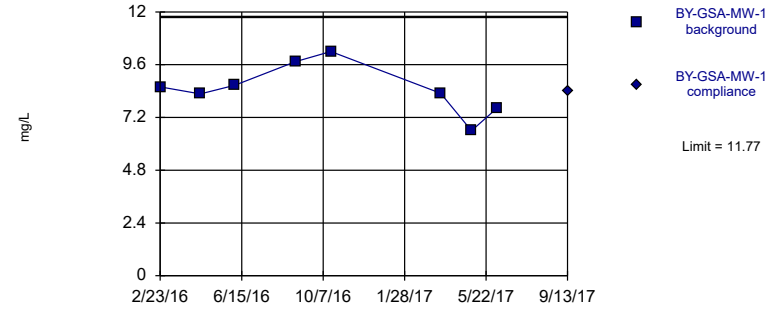


Background Data Summary: Mean=6.776, Std. Dev.=0.5682, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8914, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

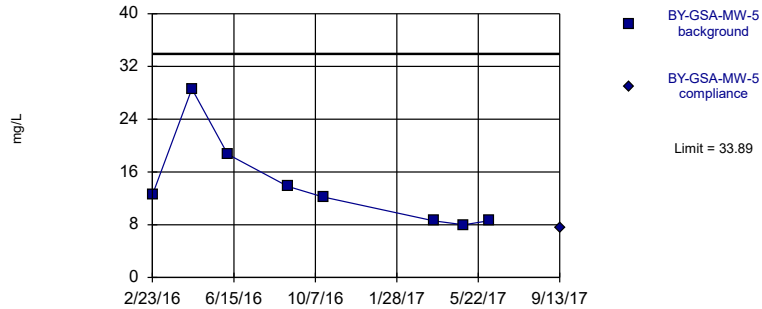


Background Data Summary: Mean=8.495, Std. Dev.=1.132, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9632, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

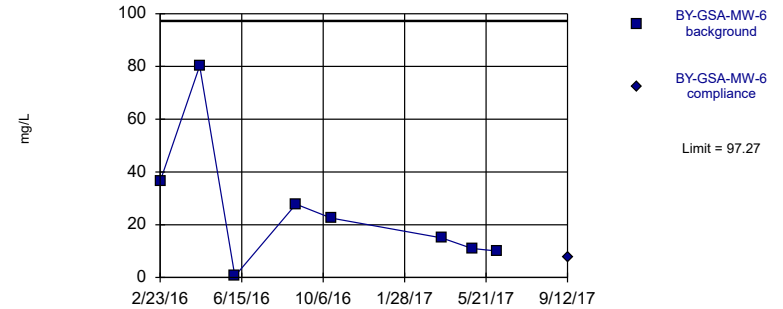


Background Data Summary: Mean=13.88, Std. Dev.=6.918, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8212, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

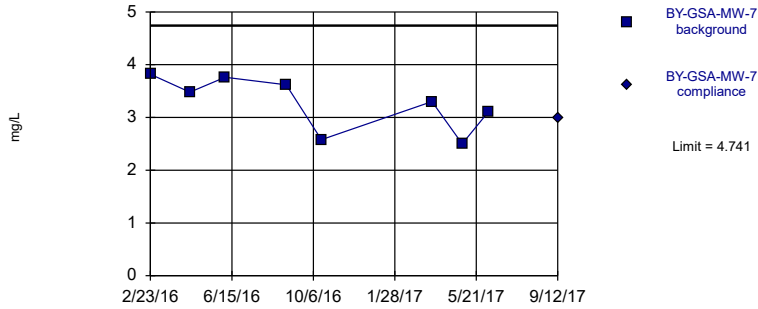


Background Data Summary: Mean=25.44, Std. Dev.=24.82, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8338, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

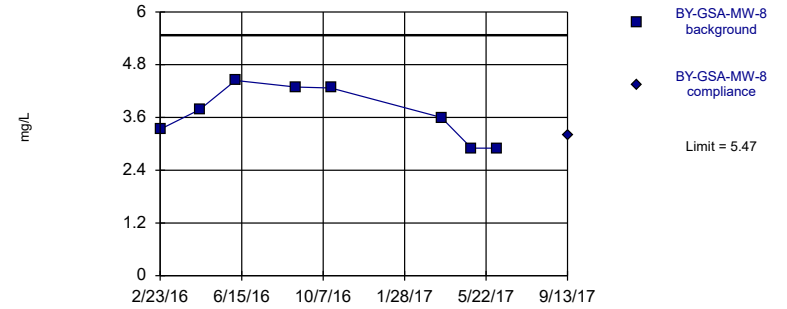


Background Data Summary: Mean=3.27, Std. Dev.=0.5082, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8962, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

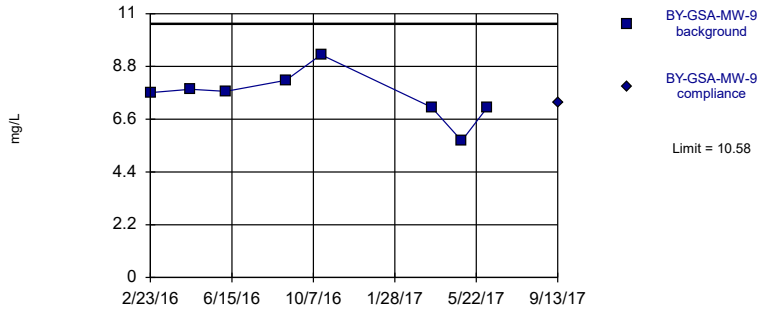


Background Data Summary: Mean=3.689, Std. Dev.=0.6156, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Within Limit

Prediction Limit Intrawell Parametric

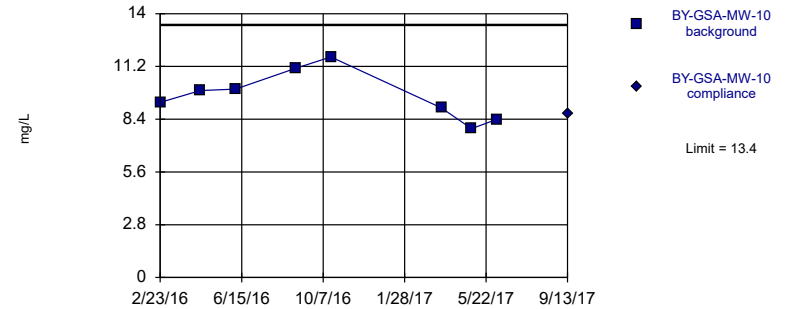


Background Data Summary: Mean=7.591, Std. Dev.=1.032, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.749. Kappa overridden to 2.894.

Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM 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 overridden to 2.894.

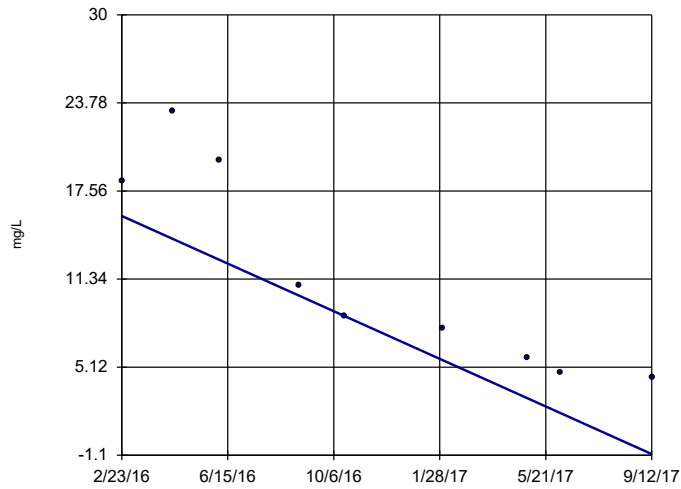
Constituent: Sulfate Analysis Run 12/13/2017 1:29 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry GSA

Trend Test Summary - All Results

Plant Barry Client: Southern Company Data: Barry GSA Printed 11/3/2017, 1:13 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	-10.82	-32	-25	Yes	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-10	0.5078	12	25	No	9	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-6	-0.4011	-39	-30	Yes	10	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-8	-0.03942	-9	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-9	-0.01798	-7	-30	No	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-64.2	-32	-25	Yes	9	0	n/a	n/a	0.01	NP

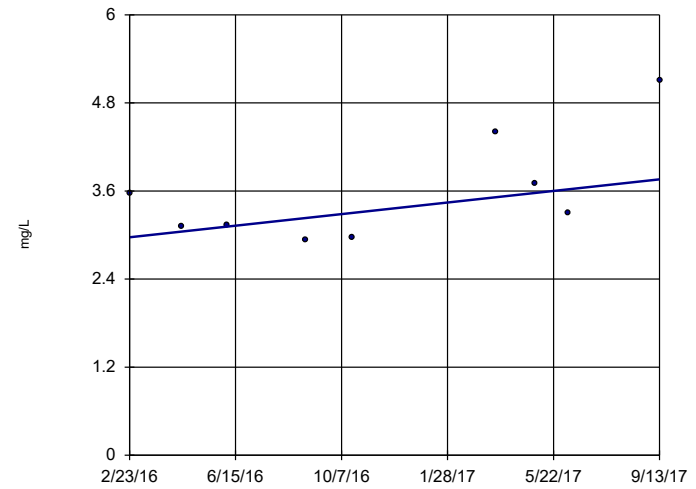
Sen's Slope Estimator
BY-GSA-MW-6



n = 9
Slope = -10.82 units per year.
Mann-Kendall statistic = -32
critical = -25
Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Calcium Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

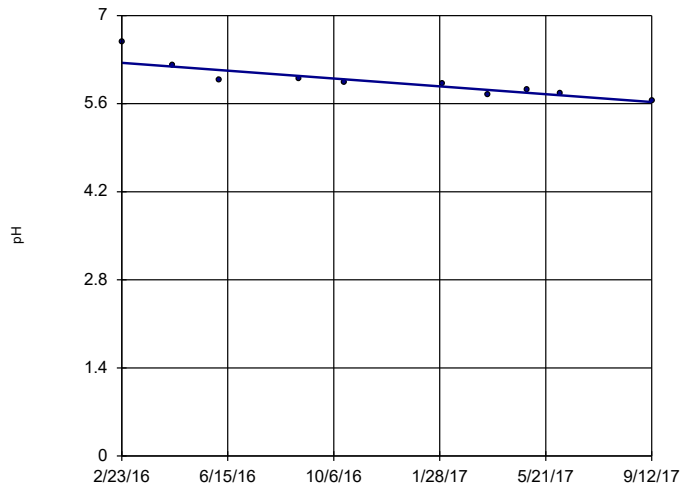
Sen's Slope Estimator
BY-GSA-MW-10



n = 9
Slope = 0.5078 units per year.
Mann-Kendall statistic = 12
critical = 25
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: Chloride Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

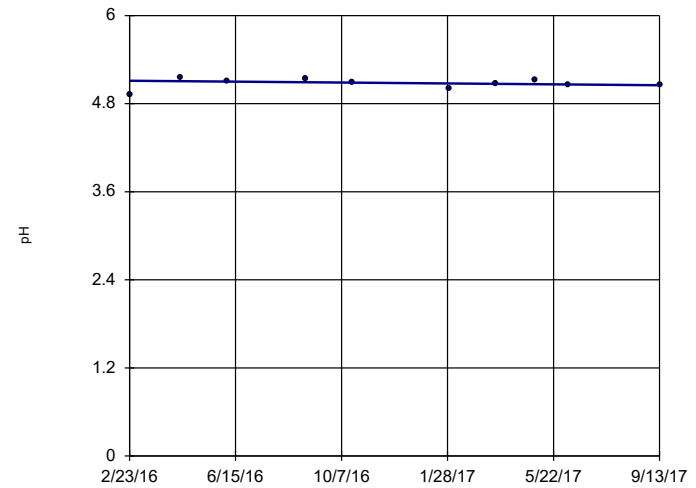
Sen's Slope Estimator
BY-GSA-MW-6



n = 10
Slope = -0.4011 units per year.
Mann-Kendall statistic = -39
critical = -30
Decreasing trend significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: pH Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator
BY-GSA-MW-8

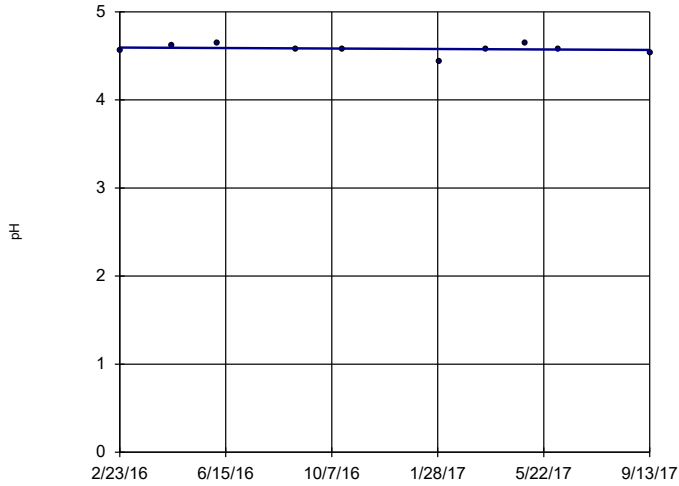


n = 10
Slope = -0.03942 units per year.
Mann-Kendall statistic = -9
critical = -30
Trend not significant at 99% confidence level ($\alpha = 0.005$ per tail).

Constituent: pH Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

BY-GSA-MW-9

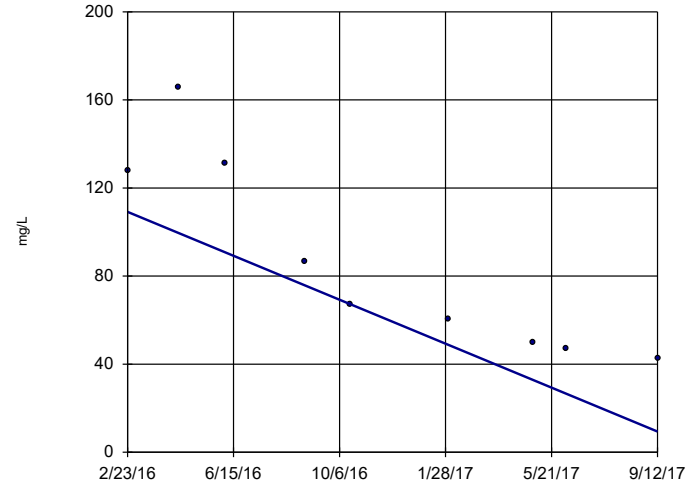


n = 10
Slope = -0.01798
units per year.
Mann-Kendall
statistic = -7
critical = -30
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: pH Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Sen's Slope Estimator

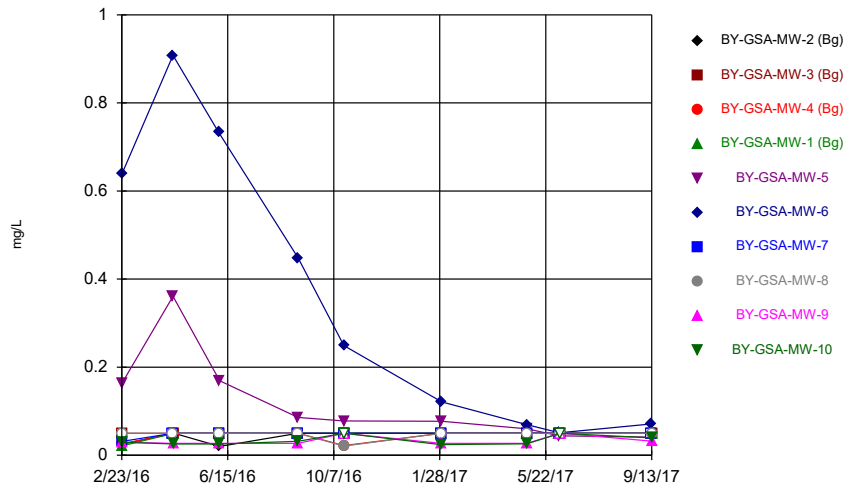
BY-GSA-MW-6



n = 9
Slope = -64.2
units per year.
Mann-Kendall
statistic = -32
critical = -25
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

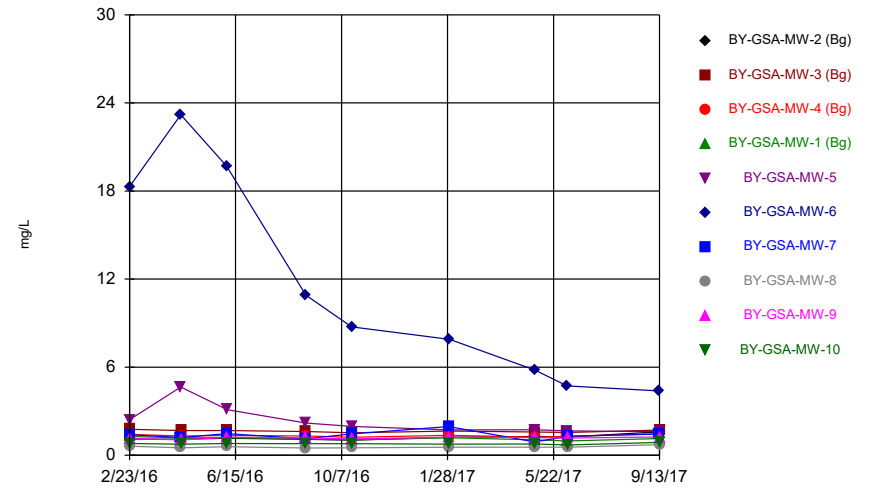
Constituent: TDS Analysis Run 11/3/2017 11:56 AM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



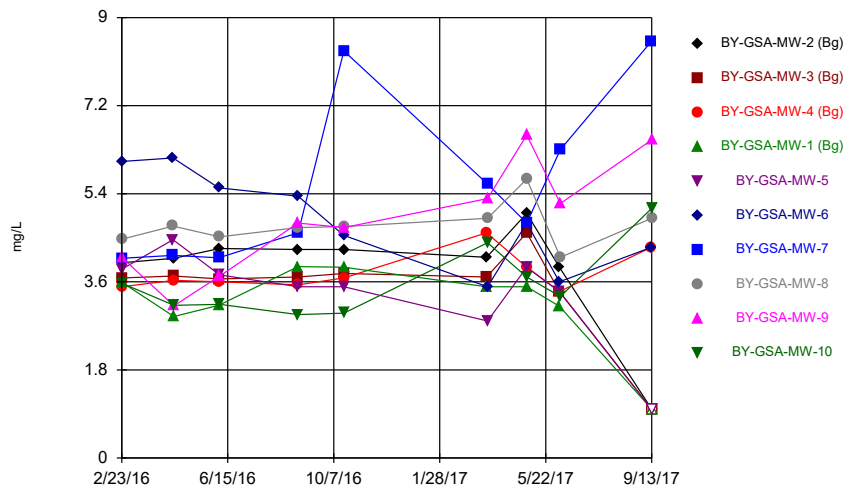
Constituent: Boron Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



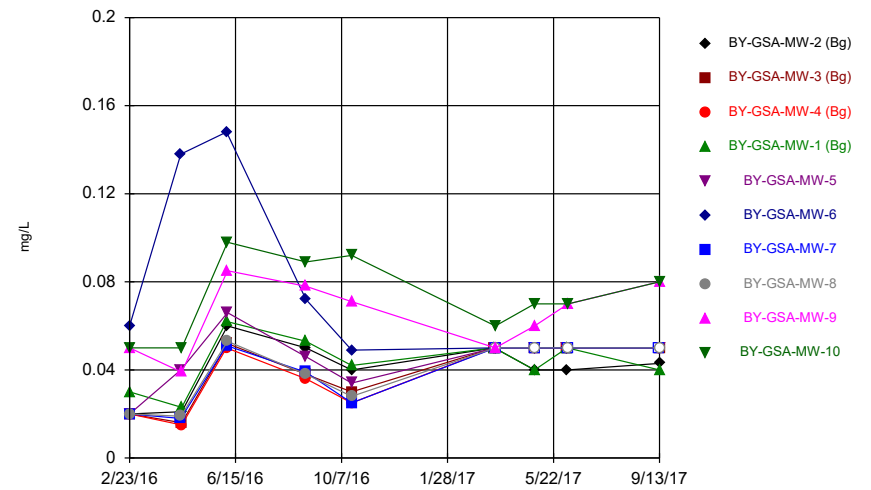
Constituent: Calcium Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



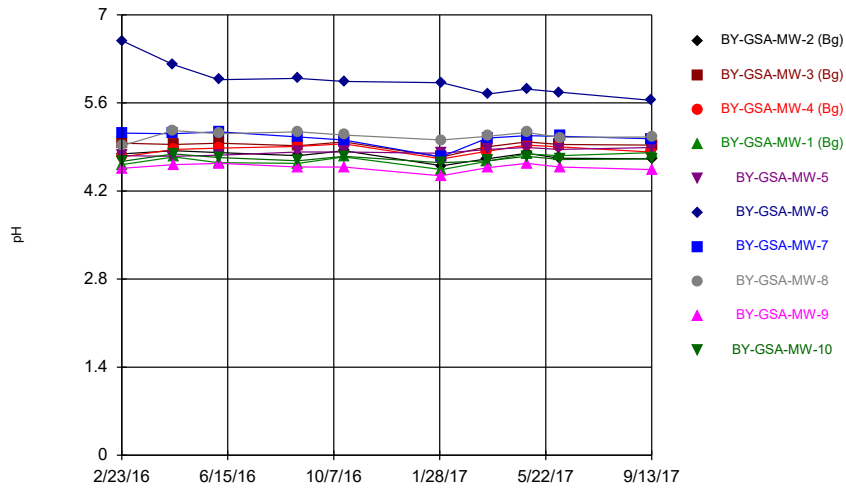
Constituent: Chloride Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



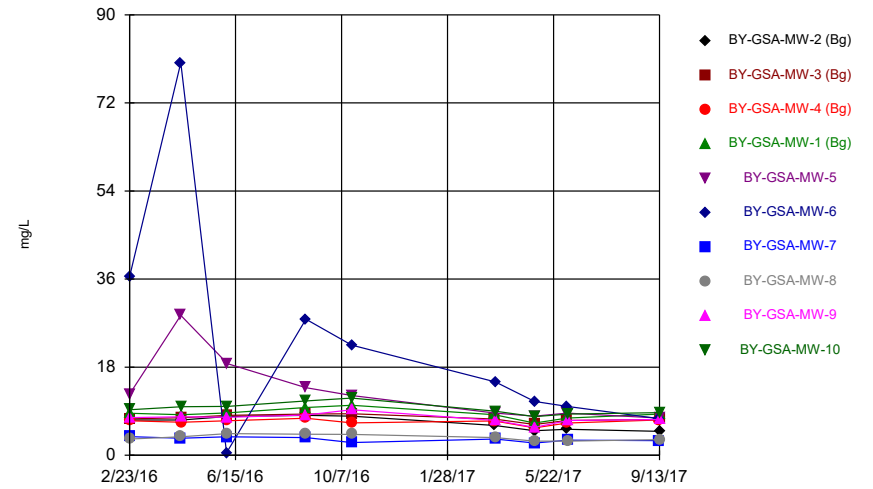
Constituent: Fluoride Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
Plant Barry Client: Southern Company Data: Barry GSA

Time Series



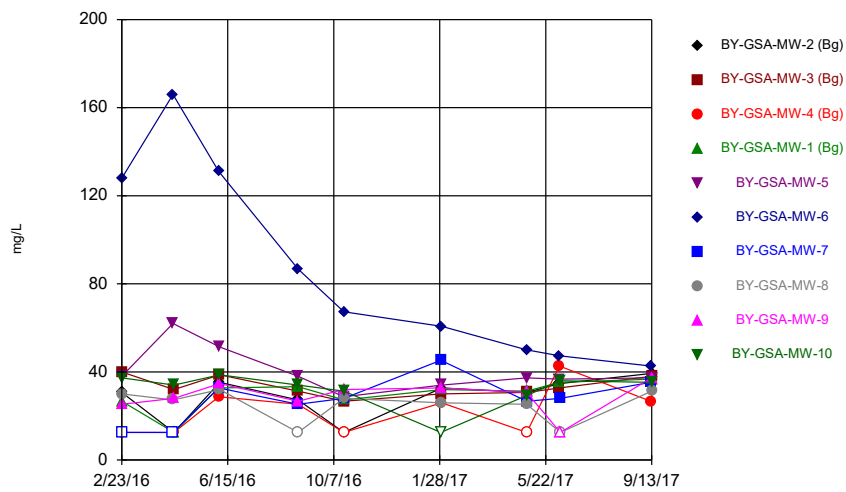
Constituent: pH Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

Time Series



Constituent: Sulfate Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA

Time Series



Constituent: TDS Analysis Run 12/13/2017 1:37 PM View: Time Series - All Wells
 Plant Barry Client: Southern Company Data: Barry GSA