

2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

**ALABAMA POWER COMPANY
PLANT GASTON
GYPSUM POND**

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Prepared for

Alabama Power Company
Birmingham, Alabama

By

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Earth Science and Environmental Engineering



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ABBREVIATIONS

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

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR 257 Subpart D), this 2017 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2017 groundwater monitoring activities at the Plant Gaston Gypsum Pond and satisfies the requirements of §257.90(e). Semi-annual monitoring and reporting for Plant Gaston 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 E.C. Gaston Steam Plant (Plant Gaston) is in Shelby County, Alabama. The physical address is 31972 Alabama Highway 25, Wilsonville, AL 35186. Plant Gaston lies in Section 1, Township 21 South, Range 1 East, Sections 5 and 6, Township 21 South, Range 2 East, and Sections 31 and 32, Township 20 South, Range 2 East data are based on visual inspection of USGS topographic quadrangle maps and GIS maps (USGS, 1980b).

The Gypsum Pond is located south-southwest of the main plant along the Coosa River. **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 Gaston's topography is characterized by a flat valley adjacent to the Coosa river. Elevations typically range from 400 to 600 ft above mean sea level (MSL) in the Coosa Valley district of the Valley and Ridge physiographic province. The Coosa Valley extends approximately 20 miles (Sapp and Emplaincourt, 1975). Local topography is characterized by moderate relief with elevations ranging from approximately 395 ft MSL along the eastern plant boundary to approximately 530 ft MSL at a hilltop in the southwestern portion of the plant.

3.2 Geology and Hydrogeology

Plant Gaston is located in the Coosa Valley district of the Valley and Ridge Physiographic Province of central Alabama, which is characterized by moderate relief with elevations ranging from approximately 395 ft MSL along the eastern plant boundary to approximately 530 ft MSL at a hilltop in the southwestern portion of the plant. The geologic units on the property have been folded and faulted at various intervals, and several faults consisting of low-to-high angle thrust faults and some normal faults are present. Fault sets trend obliquely to one another in the northeastern portion of the plant, resulting in a series of imbricate thrust slices of Fort Payne chert, Parkwood and Floyd shales, and Newala limestone (Frings, 1980).

The plant is on a portion of the Valley and Ridge province known as the Coosa deformed belt, which is a long, sinuous, structurally complex zone that can be subdivided laterally into three segments by two lateral offsets. (GSA, 2010b) The Coosa deformed belt is situated on the Yellowleaf thrust sheet, which is a shallowly detached structural complex with small-scale, commonly isoclinal parasitic folding (McIntyre, *et al.*, 2010). Two lateral offsets subdivide the belt, the Harpersville offset and the Reeds Mill offset. The

Harpersville offset is located on the southwest end of the Coosa deformed belt and lies just northeast of the plant. **Figure 2, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

The boundaries of the Coosa deformed belt are delineated by the Coosa synclinorium to the north and the Pell City thrust fault to the south. Most structures in the belt trend northeast-southwest, although a northwest-southeast trend is encountered in the plant area. Imbricate thrust slices of sedimentary Paleozoic rocks comprise the geological material of the belt (Frings, 1981). The area is underlain by a structurally complex Paleozoic sequence of sedimentary rocks that range from Cambrian to Mississippian in age. Carbonate rocks comprise the bulk of the Cambrian and Ordovician rocks, and cherty limestone, sandstone, and shale comprise the Mississippian-age units. Also present in some portions of the plant is a thin unit of Devonian-age sandstone or shale.

Generalized near surface stratigraphy of the site, in descending order, consists of approximately 18 to 60 ft of overburden materials overlying the Ordovician Newala Limestone. Overburden materials are predominantly comprised of yellow-brown, clayey sand with zones of clay and gravelly fines. The underlying Newala Limestone was encountered at depths ranging from 18 to 60 ft and was described as a medium to dark gray, micritic limestone with thin shale layers and minor amounts of dolomite. A 12-ft thick section of light gray, sandstone was encountered at monitoring well location GN-GSA-MW-13, possibly indicating the presence of the Parkwood Formation at portions of the site. Pyrite occurrence was noted at monitoring well location GN-GSA-MW-13 as well.

3.3 Uppermost Aquifer

The uppermost aquifer beneath the site is the Valley and Ridge aquifer system. At the site, monitoring wells are generally screened in overburden material, the overburden-top of rock interface, and upper portions of the Newala Limestone. The first zone of saturation most commonly pertains to coarse sediments near the top of rock interface. Depth to the top of the uppermost aquifer is generally on the order of 30 to 40 ft below ground surface (BGS), but can vary at locations where overburden moisture is not present and weathered or fractured rock yields little groundwater for pumping. Groundwater elevations from overburden and rock screened wells are relatively uniform, indicating unconfined conditions.

The Valley and Ridge aquifer system, found in the Coosa, Cahaba, Birmingham-Big Canoe, and Murphrees Valleys, includes the Weisner Formation; Shady Dolomite; Conasauga Formation; Copper Ridge and Chepultepec Dolomites; as well as the Longview, Newala, Lenoir, and Little Oak Limestones. In some areas, the Knox Group includes Copper Ridge, Chepultepec, Longview, and Newala united as one group. This aquifer system includes the Ketona, Brierfield, and Bibb Dolomites in Shelby County. Other rock

units of Cambrian to Devonian age are included within the Valley and Ridge aquifer system, due to the fact that they do not form effective barriers to ground water movement among permeable units of the system. However, these other units are not significant sources of ground water (Kopaska-Merkel *et al.*, 2005).

At the site, the uppermost aquifer consists of Knox dolomite. Wells were generally screened in fractured or weathered intervals of Knox dolomite, where permeability is enhanced. Depths to these intervals are highly variable at the site and range from 35 to nearly 125 ft BGS.

3.4 Flow Interpretation

Groundwater flow at the site is generally from north to south. Groundwater flow is accomplished via porous or Darcian flow mechanics through coarse overburden materials and accomplished via fractures or other discontinuities within the Newala Limestone. A potentiometric surface map for the site is presented in a later section.

4.0 GROUNDWATER MONITORING SYSTEM

Pursuant to §257.91, Plant Gaston 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, lateral and downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation measurements.

Hydrogeologic characterization data show that groundwater flow at the site is generally from north to south. The monitoring system is designed to monitor water quality as groundwater flows laterally from north to south across the site. 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 15 monitoring wells. As required by §257.90(e)(1), monitoring well locations referenced to the gypsum pond are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Gaston Gypsum Pond.

4.1.1 Upgradient Wells

Monitoring well locations GN-GSA-MW-1, GN-GSA-MW-2, GN-GSA-MW-14S, and GN-GSA-MW-15 serve as upgradient locations for the Gypsum Pond. Upgradient wells are located north 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 GN-GSA-MW-3 through GN-GSA-MW-13 are utilized as downgradient locations for the Gypsum Pond. Downgradient locations are located lateral to and south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

Table 1. Groundwater Monitoring Network Details

Well ID	Purpose	Installation Date	Northing	Easting	Total Depth	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Top of Screen Elevation (feet MSL)
GN-GSA-MW-1	Downgradient	11/5/2015	1002932.67	465110.34	168.5	426.73	423.21	309.75
GN-GSA-MW-2	Upgradient	10/28/2015	1003344.33	465112.9	55.0	421.19	417.63	372.88
GN-GSA-MW-3	Upgradient	10/21/2015	1003093.69	464357.74	54.3	425.3	421.84	379.06
GN-GSA-MW-4	Downgradient	10/27/2015	1002849.78	463873.54	46.5	427.71	424.87	391.37
GN-GSA-MW-5	Downgradient	11/19/2015	1002321.38	464049.62	55.0	429.49	426.08	392.47
GN-GSA-MW-6	Downgradient	11/17/2015	1001935.61	464191.94	45.0	427.64	424.55	390.7
GN-GSA-MW-7	Downgradient	11/10/2015	1001142.07	464485.43	50.0	423.79	420.38	385.22
GN-GSA-MW-8	Downgradient	10/28/2015	1000455.33	464781.68	54.9	417.58	414.51	376.45
GN-GSA-MW-9	Downgradient	10/29/2015	1000625.59	465070.63	44.0	417.68	414.76	381.13
GN-GSA-MW-10	Downgradient	12/9/2015	1000898.07	465327.37	40.0	418.04	414.78	386.53
GN-GSA-MW-11	Downgradient	11/12/2015	1001309.48	465221.83	31.0	417.69	414.81	393.48
GN-GSA-MW-12	Downgradient	10/29/2015	1001872.32	465065.28	36.0	417.10	413.8	394.16
GN-GSA-MW-13	Downgradient	12/15/2015	1002342.5	465346.71	45.0	422.74	419.82	384.58
GN-GSA-MW-14S	Upgradient	5/3/2016	1003222.16	464632.71	52.0	424.06	420.32	391.08
GN-GSA-MW-15	Upgradient	5/5/2016	1003002.35	464146.68	46.3	426.19	422.53	386.62

Notes:

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

5.0 GROUNDWATER MONITORING HISTORY

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

5.1 Available Monitoring Data

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

5.2 Historical Groundwater Flow

Groundwater flow at the site is generally from north to south. Groundwater flow is accomplished via porous or Darcian flow mechanics through coarse overburden materials and accomplished via fractures or other discontinuities within the Newala Limestone.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 2 to 7 ft are typical at the site in downgradient wells. Groundwater elevation variations on the north side of the pond are typically greater and are indicative of recharge zones. **Figure 4, Potentiometric Surface Map (September 2017)**, presents groundwater flow for the first Detection Monitoring Event. 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 water level data for the site.

Table 2. Historical Well Sampling Summary									
	Background								Detection
Event	B.1	B.2	B.3	B.4	B.5	B.6	B.7	B.8	D.1
Date	3/2016	5/2016	7/2016	9/2016	11/2016	2/2017	5/2017	7/2017	9/2017

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

Table 3. Historical Groundwater Elevation Summary				
Well ID	Average GW Elevation (ft MSL)	Highest GW Elevation (ft MSL)	Lowest GW Elevation (ft MSL)	GW Elevation Variation (ft)
GN-GSA-MW-1	398.15	400.37	393.80	6.57
GN-GSA-MW-2	400.74	405.46	397.04	8.42
GN-GSA-MW-3	404.83	410.69	398.61	12.08
GN-GSA-MW-4	399.45	401.83	396.14	5.69
GN-GSA-MW-5	398.58	400.50	395.20	5.30
GN-GSA-MW-6	396.17	397.82	391.06	6.76
GN-GSA-MW-7	396.02	397.11	395.19	1.92
GN-GSA-MW-8	396.64	398.40	394.82	3.58
GN-GSA-MW-9	396.00	397.02	394.74	2.28
GN-GSA-MW-10	395.98	397.06	394.91	2.15
GN-GSA-MW-11	396.61	398.01	394.37	3.64
GN-GSA-MW-12	397.84	400.55	393.14	7.41
GN-GSA-MW-13	397.93	403.24	394.69	8.55
GN-GSA-MW-14S	401.83	411.70	395.94	15.76
GN-GSA-MW-15	398.15	400.37	393.80	6.57

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

- 0.1 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 strict 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 (RPDs), post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits.

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

7.0 GROUNDWATER DATA EVALUATION

7.1 Groundwater Elevation Data Evaluation

Prior to recording water levels, each well was opened and allowed to equilibrate to atmospheric pressure. Within a 24-hour period, depths to groundwater were measured to the nearest 0.01 ft 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 13.4 to 30.32 ft MSL. Groundwater levels for the most recent sampling event are included in **Table 4, Groundwater Elevations (September 2017)**.

The most recent potentiometric surface map presented in **Figure 4, Potentiometric Surface Map (September 2017)**, shows that groundwater flow at the site is generally from north to south. Groundwater flow is accomplished via porous or Darcian flow mechanics through coarse overburden materials and accomplished via fractures or other discontinuities within the Newala Limestone. A potentiometric surface map for the site is presented in a later section.

Table 4. Groundwater Elevations (September 2017)			
Well ID	TOC Elev (ft MSL)	Depth to GW (ft TOC)	GW Elevation
GN-GSA-MW-1	426.35	28.64	398.09
GN-GSA-MW-2	420.92	22.04	399.15
GN-GSA-MW-3	424.75	21.75	403.55
GN-GSA-MW-4	427.65	13.40	414.25
GN-GSA-MW-5	429.33	30.32	399.17
GN-GSA-MW-6	427.40	29.09	398.55
GN-GSA-MW-7	423.47	26.49	397.3
GN-GSA-MW-8	417.31	21.25	396.33
GN-GSA-MW-9	417.51	20.93	396.75
GN-GSA-MW-10	417.73	21.64	396.4
GN-GSA-MW-11	417.47	21.48	396.21
GN-GSA-MW-12	416.71	20.18	396.92
GN-GSA-MW-13	422.42	24.95	397.79
GN-GSA-MW-14S	426.35	23.22	400.84
GN-GSA-MW-15	420.92	21.58	404.61

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 intrawell and interwell prediction limit methods. The intrawell prediction limits, combined with the 1-of-3 verification resample plan, are used for calcium, chloride, sulfate, and total dissolved solids (TDS) 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, are used to evaluate boron, fluoride, and pH. 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 SSI over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSIs.

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, except for TDS in well GN-GSA-MW-1. It was noted that fluoride and sulfate for some wells contained concentrations that appeared to be possible outliers; however, the values were nondetects and the remaining values in the datasets were less than the reporting limit. Therefore, the only value flagged as an outlier was the reported concentration of 2240 mg/L in well GN-GSA-MW-10. When any values are identified as outliers, they are plotted in a lighter font on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

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

The results of the trend analyses on proposed background data showed a few statistically significant decreasing trends. All trends noted were relatively low in magnitude when compared to average concentrations. Therefore, no other adjustments were necessary. No adjustments to records were required at this time, and observations will continue to be monitored as more data is collected.

- Prediction limits were developed as recommended in the USEPA Unified Guidance, and based on the following: Annual false positive rate of 10%
- 1-of-2 verification resample plan – Interwell Prediction Limits (boron, fluoride, and pH)
- 1-of-3 verification resample plan – Intrawell Prediction Limits (calcium, chloride, sulfate, and TDS)
- Semi-annual sampling
- Constituents = 7 (Appendix III)
- Downgradient wells = 10

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

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

- Statistical analyses are required on wells and 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 Gypsum Pond was statistically analyzed in accordance with the PE-certified statistical methods described above. Based on the statistical analysis included in Appendix B, SSIs of the prediction limits 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 Gaston Gypsum Pond is in detection monitoring. SSIs of Appendix III parameters have been identified. Pursuant to §257.94(e)(1), APC has 90 days from the date of determination to either (1) prepare a demonstration that a source other than the 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(e)(1-2), APC will conduct an alternate source demonstration or initiate assessment monitoring program within 90 days. eight (8) independent 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 of March 2016 to July 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.

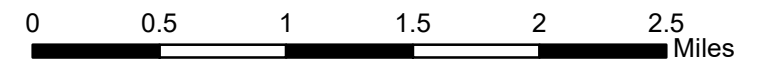
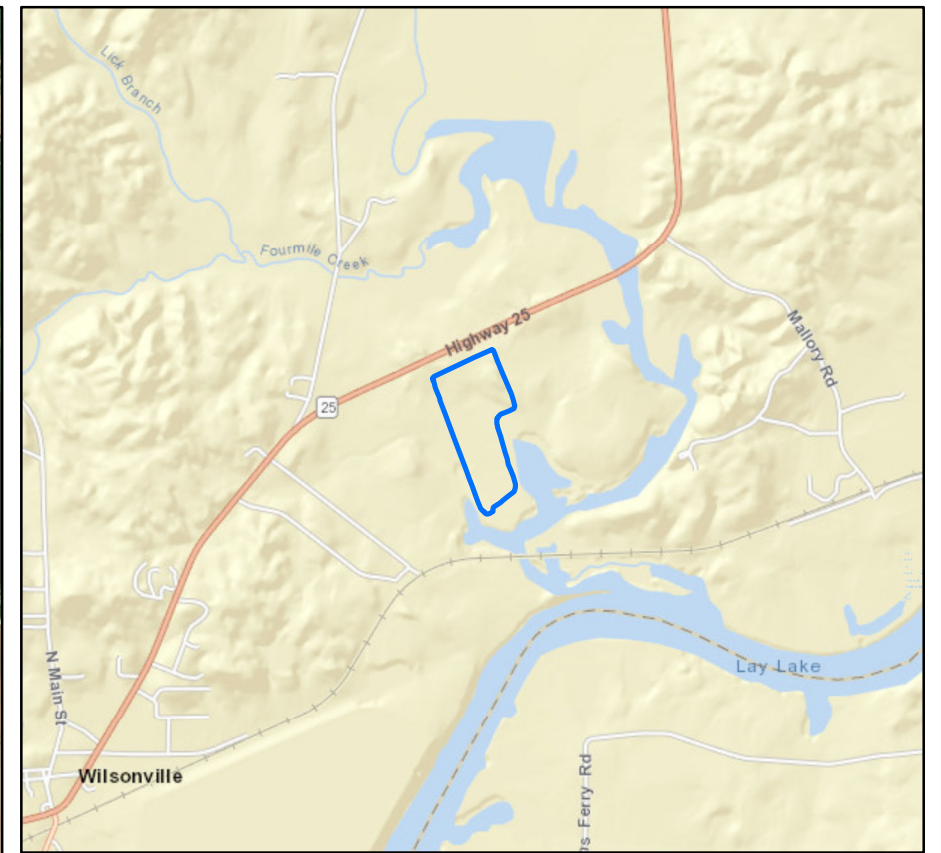
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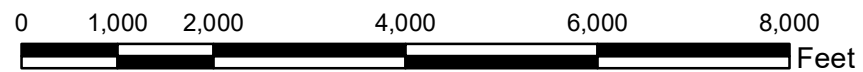
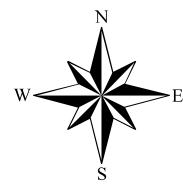
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Figures



Legend

Gypsum Storage Area Boundary



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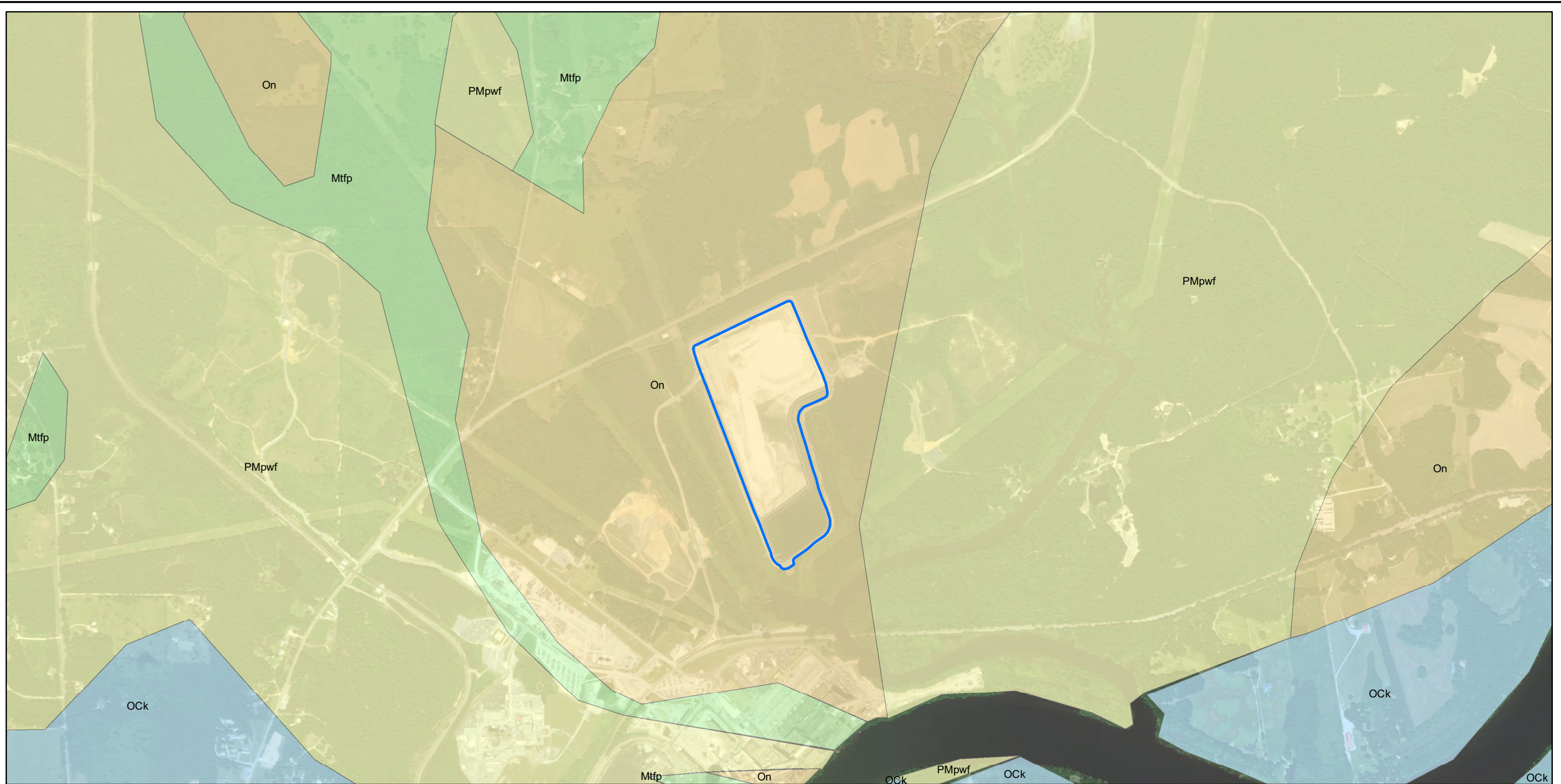
**Southern Company Generation
Earth Science and Environmental Engineering**

FOR

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

Alabama Power Company

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		ES4062-S1	1		

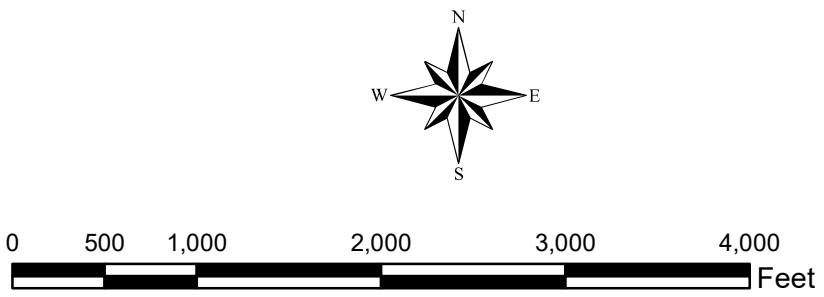


Legend

Gypsum Storage Area Boundary

Geologic Units

- Knox Group undifferentiated
- Newala Limestone
- Parkwood Formation and Floyd Shale undifferentiated
- Tuscomb Limestone and Fort Payne Chert undifferentiated



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


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

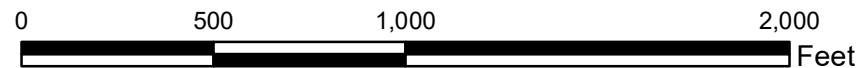
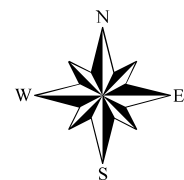
FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:12k		ES4062-S2	1		



Legend

-  Monitoring Well Network
-  Gypsum Storage Area Boundary



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

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

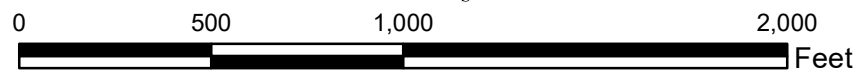
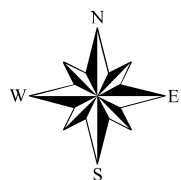
FOR

Alabama Power Company					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:6k		ES4062-S3	1		



Legend

- ⊕ Monitoring Well **GN-GSA-MW-1** Well ID
397.71 Groundwater Elevation
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Gypsum Storage Area Boundary



NOTES: 1. NAVD88 indicates North American Vertical Datum of 1988.
2. NM indicates not measured.

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**PLANT GASTON
GYPSUM STORAGE AREA
FIGURE 4
POTENTIOMETRIC SURFACE MAP
SEPTEMBER 5, 2017**

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

FOR

Alabama Power Company

SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:6k		ES4062-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



Sample Group : WMWGASG_17

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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:



Anions

Gaston Gypsum

WMWGASG_17

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>
AW07838	564686	564688	564690	WMWGASG_17
AW07839	564686	564688	564690	WMWGASG_17
AW07840	564686	564688	564690	WMWGASG_17
AW07841	564686	564688	564690	WMWGASG_17
AW07842	564686	564688	564690	WMWGASG_17
AW07843	564686	564688	564690	WMWGASG_17
AW07844	564686	564688	564690	WMWGASG_17
AW07846	564686	564688	564690	WMWGASG_17
AW07847	564686	564688	564690	WMWGASG_17
AW07848	564686	564688	564690	WMWGASG_17
AW07849	564687	564689	564691	WMWGASG_17
AW07850	564687	564689	564691	WMWGASG_17
AW07851	564687	564689	564691	WMWGASG_17
AW07852	564687	564689	564691	WMWGASG_17
AW07853	564687	564689	564691	WMWGASG_17
AW07854	564687	564689	564691	WMWGASG_17
AW07855	564687	564689	564691	WMWGASG_17

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.
- 7.

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



Metals ICP

Gaston Gypsum

WMWGASG_17

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>
AW07838	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07839	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07840	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07841	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07842	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07843	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07844	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07846	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07847	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07848	20160408B/20160411/20160413/20170327	WMWGASG_17
AW07849	20160408C/20160411A	WMWGASG_17
AW07850	20160408C/20160411A	WMWGASG_17
AW07851	20160408C/20160411A	WMWGASG_17
AW07852	20160408C/20160411A	WMWGASG_17
AW07853	20160408C/20160411A	WMWGASG_17
AW07854	20160408C/20160411A	WMWGASG_17
AW07855	20160408C/20160411A	WMWGASG_17

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 exception of AW07838-7848 inclusive. These samples were rescheduled for potential bottle swapping/mislabeling and were re-prepared, re-analyzed and reported outside of the hold time.
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 with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	AX07847

The concentration of this analyte in the matrix spike/matrix spike duplicate was less than 30 percent of the concentration in the sample causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution with the following exceptions: the following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.



<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW07839	Calcium	10X
AW07840	Calcium	10X
AW07841	Calcium	10X
AW07842	Calcium	10X
AW07844	Calcium	10X
AW07847	Calcium	10X
AW07847MS	Calcium	10X
AW07847MSD	Calcium	10X
AW07848	Calcium	10X
AW07850	Calcium	10.15x
AW07852	Calcium	10.15x
AW07854	Calcium	10.15x
AW07855	Calcium	10.15x

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



Metals ICPMS

Gaston Gypsum

WMWGASG_17

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>
AW07838	561402	WMWGASG_17
AW07839	561402	WMWGASG_17
AW07840	561402	WMWGASG_17
AW07841	561402	WMWGASG_17
AW07842	561402	WMWGASG_17
AW07843	561402	WMWGASG_17
AW07844	561402	WMWGASG_17
AW07846	561402	WMWGASG_17
AW07847	561402	WMWGASG_17
AW07848	561402	WMWGASG_17
AW07849	561403	WMWGASG_17
AW07850	561403	WMWGASG_17
AW07851	561403	WMWGASG_17
AW07852	561403	WMWGASG_17
AW07853	561403	WMWGASG_17
AW07854	561403	WMWGASG_17
AW07855	561403	WMWGASG_17

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 0.0002 mg/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 Se 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

Gaston Gypsum

WMWGASG_17

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>
AW07838	561728	WMWGASG_17
AW07839	561728	WMWGASG_17
AW07840	561728	WMWGASG_17
AW07841	561728	WMWGASG_17
AW07842	561728	WMWGASG_17
AW07843	561728	WMWGASG_17
AW07844	561728	WMWGASG_17
AW07846	561728	WMWGASG_17
AW07847	561728	WMWGASG_17
AW07848	561728	WMWGASG_17
AW07849	561828	WMWGASG_17
AW07850	561828	WMWGASG_17
AW07851	561828	WMWGASG_17
AW07852	561828	WMWGASG_17
AW07853	561828	WMWGASG_17
AW07854	561828	WMWGASG_17
AW07855	561828	WMWGASG_17

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

Gaston Gypsum

WMWGASG_17

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>
AW07838	561545	WMWGASG_17
AW07839	561545	WMWGASG_17
AW07840	561545	WMWGASG_17
AW07841	561545	WMWGASG_17
AW07842	561545	WMWGASG_17
AW07843	561545	WMWGASG_17
AW07844	561545	WMWGASG_17
AW07846	561545	WMWGASG_17
AW07847	561545	WMWGASG_17
AW07848	561545	WMWGASG_17
AW07849	561545	WMWGASG_17
AW07850	561545	WMWGASG_17
AW07851	561545	WMWGASG_17
AW07852	561545	WMWGASG_17
AW07853	561545	WMWGASG_17
AW07854	561545	WMWGASG_17
AW07855	561545	WMWGASG_17

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 to reflect filter volume and project limits.
8. AW07848 was incorrectly reported in the original report due to a data transcription error. This error was discovered during the review of a later sample event. A corrected copy has been issued to reflect the accurate result.



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 AW07843, AW07846, and AW07851 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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW07838

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	J 0.00116	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	0.0444	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	1.43	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	J 0.0311	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		1	0.1	0.5	36.9	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0241	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	203	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	3.35	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	0.325	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	6.06	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: CORRECTED COPY: Reporting limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/24/17
 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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW07838

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW07838

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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Expiration: June 30, 2018

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

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW07839

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0389	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		10	1.0	5	75.3	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	272	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	3.60	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	J 0.0220	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	6.48	mg/L

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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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW07839

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW07839

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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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

CC:

Reported: 10/13/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW07840

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0597	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		10	1.0	5	106	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00232	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	J 0.000228	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	334	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	3.67	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	J 0.0600	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	32.6	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW07840

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW07840

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	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 1/24/17
 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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW07841

Name	Analyst	Test Date	Reference	Vio	Spec	DF	MDL	RL	Q	Results	Units
Radiological											
Total Radium,GPEL	SGC	10/10/2016	GA			1				Attached	
Metals, Cyanide, Total Phenols											
* Antimony, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8			5.075	0.001	0.005	J	0.00157	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01		0.0432	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7			1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7			10	1.0	5		79.9	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	J	0.00662	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1			1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7			1	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8			5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics											
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C			1		25		244	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0			1	0.04	0.25		3.16	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0			1	0.01	0.3	J	0.0390	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0			1	0.3	1		7.64	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW07841

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07848 Thallium, Total	mg/L	0.0000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	

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 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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW07841

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13 DUP

Laboratory ID Number: AW07842

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	J 0.00170	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0450	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		10	1.0	5	78.0	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00687	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	249	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	3.15	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	J 0.0380	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	7.67	mg/L

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Batch QC Summary



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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13 DUP

Laboratory ID Number: AW07842

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-13 DUP

Laboratory ID Number: AW07842

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6		1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32		0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25				235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7		2.76	10.7	9 to 11	109	80 to 120	0.722	20

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07843

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07843

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	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 1/24/17
 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: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07843

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW07844

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0333	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		10	1.0	5	48.1	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00403	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	185	mg/L
* Chloride, Total	SES	3/25/2016	EPA 300.0		1	0.04	0.25	4.84	mg/L
* Fluoride, Total	SES	3/25/2016	EPA 300.0		1	0.01	0.3	J 0.0280	mg/L
* Sulfate, Total	SES	3/25/2016	EPA 300.0		1	0.3	1	14.1	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW07844

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW07844

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	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: WMWGASGEB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW07846

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW07846

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	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: WMWGASGEB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW07846

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit	Limit			Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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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

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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW07847

Name	Analyst	Test Date	Reference	Vio	Spec	DF	MDL	RL	Q	Results	Units
Radiological											
Total Radium,GPEL	SGC	10/10/2016	GA			1				Attached	
Metals, Cyanide, Total Phenols											
* Antimony, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0006	0.003	U	Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8			5.075	0.001	0.005	U	Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01		0.0200	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7			1	0.02	0.1	U	Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7			10	1.0	5		59.1	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	J	0.00656	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1			1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7			1	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8			5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8			5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics											
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C			1		25		202	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0			1	0.04	0.25		3.28	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0			1	0.01	0.3	J	0.0630	mg/L
* Sulfate, Total	SES	3/26/2016	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. SGC 1/24/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 Recovery for Calcium was out of spec. The spike amount was less than 30% of the sample amount.

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW07847

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	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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 Recovery for Calcium was out of spec. The spike amount was less than 30% of the sample amount.

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW07847

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 Recovery for Calcium was out of spec. The spike amount was less than 30% of the sample amount.

CC:

Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW07848

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0339	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	3/27/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	3/27/2017	EPA 200.7		10	1.0	5	90.3	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	3/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	3/27/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	239	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	2.78	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.0200	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	1.62	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: CORRECTED COPY: A data transcription error, in Dissolved Solids, was discovered and corrected. The originally reported result of 2239 mg/L has been corrected to 239 mg/L. AWR 10/12/17
 Reporting limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/24/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 Precision for Fluoride is out of range.
 Fluoride is reported as an estimate. SGC 10/7/16

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW07848

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07847 Boron, Total	mg/L	-0.00299	0.044	1.00	0.995	1.01	0.984	0.85 to 1.15	99.5	70 to 130	0.988	20	
AW07848 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0985	0.0966	0.0984	0.085 to 0.115	98.5	70 to 130	1.96	20	
AW07848 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0985	0.0959	0.0987	0.085 to 0.115	98.5	70 to 130	2.74	20	
AW07848 Mercury, Total by CVAA	mg/L	0.0000138	0.0005	0.004	0.0040	0.0041	0.004	0.0034 to 0.0046	100	70 to 130	2.47	20	
AW07847 Lithium, Total	mg/L	-0.0000821	0.022	0.20	0.244	0.246	0.205	0.17 to 0.23	122	70 to 130	0.707	20	
AW07848 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0968	0.0946	0.0976	0.085 to 0.115	96.8	70 to 130	2.25	20	
AW07848 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0972	0.0974	0.085 to 0.115	97.2	70 to 130	0.0495	20	
AW07848 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.102	0.0999	0.103	0.085 to 0.115	102	70 to 130	2.23	20	
AW07847 Calcium, Total	mg/L	-0.00260	0.22	5.00	61.4	63.3	4.85	4.25 to 5.75	45.6	70 to 130	2.98	20	
AW07848 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0935	0.0908	0.0915	0.085 to 0.115	93.5	70 to 130	2.93	20	
AW07848 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.105	0.102	0.106	0.085 to 0.115	105	70 to 130	2.53	20	
AW07848 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.124	0.121	0.0895	0.085 to 0.115	90.1	70 to 130	2.15	20	
AW07848 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.128	0.110	0.103	0.085 to 0.115	128	70 to 130	15.3	20	
AW07848 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	1.04	20	
AW07848 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0984	0.0959	0.0969	0.085 to 0.115	98.4	70 to 130	2.54	20	

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Laboratory certification ID: E571114

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 Precision for Fluoride is out of range.
 Fluoride is reported as an estimate. SGC 10/7/16

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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW07848

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW07848	Sulfate, Total	mg/L	0.00	1.0	20.0	22.6	1.58	20.0	18 to 22	105	80 to 120	2.50	20
AW07848	Fluoride, Total	mg/L	0.00	0.3	2.0	2.32	0.016	2.14	1.8 to 2.2	115	80 to 120	22.2	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07848	Chloride, Total	mg/L	0.00	0.25	10.0	13.7	2.76	10.7	9 to 11	109	80 to 120	0.722	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 Precision for Fluoride is out of range.
 Fluoride is reported as an estimate. SGC 10/7/16

CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW07849

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0149	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.1	0.5	1.32	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	27.3	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	3.36	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	1.89	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW07849

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	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 1/24/17
 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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW07849

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
			Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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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

CC:

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 (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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW07850

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0252	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/13/2016	EPA 200.7		10.15	1.0	5.0	45.9	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	149	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	2.26	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.0350	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	5.54	mg/L

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Expiration: June 30, 2018

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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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW07850

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	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 1/24/17
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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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW07850

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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Expiration: June 30, 2018

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CC:

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 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: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07851

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07851

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	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: WMWGASGFB
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW07851

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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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

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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW07852

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	J 0.00130	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0224	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	J 0.0387	mg/L
* Calcium, Total	HRG	4/13/2016	EPA 200.7		10.15	1.0	5.0	70.2	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	237	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	4.43	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.0580	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	16.2	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 1/24/17
 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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW07852

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW07852

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW07853

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00756	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	J 0.0309	mg/L
* Calcium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.1	0.5	14.8	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00454	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	56.7	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	2.64	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.0200	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	7.59	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW07853

Sample Analysis	Units	MB	MB				LFB		Rec		Prec	
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	20
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	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: WMWGASG
 Sample Date: 23-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW07853

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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CC:

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW07854

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	J 0.00112	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0249	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/13/2016	EPA 200.7		10.15	1.0	5.0	57.4	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00317	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	179	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	1.73	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.132	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	2.42	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW07854

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	20	

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Alabama Power General Test Laboratory
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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW07854

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	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: CORRECTED COPY: Reporting limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. SGC 1/24/17
 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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8 DUP

Laboratory ID Number: AW07855

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium,GPEL	SGC	10/10/2016	GA		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	J 0.00104	mg/L
* Barium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	0.0263	mg/L
* Beryllium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	4/8/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/13/2016	EPA 200.7		10.15	1.0	5.0	58.5	mg/L
* Cadmium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	4/4/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/8/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00333	mg/L
* Lead, Total	ABB	4/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	4/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	3/30/2016	SM 2540C		1		25	171	mg/L
* Chloride, Total	SES	3/26/2016	EPA 300.0		1	0.04	0.25	1.73	mg/L
* Fluoride, Total	SES	3/26/2016	EPA 300.0		1	0.01	0.3	J 0.131	mg/L
* Sulfate, Total	SES	3/26/2016	EPA 300.0		1	0.3	1	2.41	mg/L

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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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8 DUP

Laboratory ID Number: AW07855

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW07855 Chromium, Total	mg/L	0.00000206	0.0044	0.10	0.100	0.102	0.101	0.085 to 0.115	100	70 to 130	1.65	20	
AW07855 Barium, Total	mg/L	0.00000251	0.0044	0.10	0.115	0.115	0.0895	0.085 to 0.115	88.7	70 to 130	0.234	20	
AW07855 Selenium, Total	mg/L	0.0000418	0.0044	0.10	0.0984	0.0995	0.103	0.085 to 0.115	98.4	70 to 130	1.18	20	
AW07855 Lead, Total	mg/L	0.00000858	0.0022	0.10	0.0946	0.0954	0.0976	0.085 to 0.115	94.6	70 to 130	0.837	20	
AW07855 Mercury, Total by CVAA	mg/L	0.00017	0.0005	0.004	0.00408	0.00395	0.00397	0.0034 to 0.0046	102	70 to 130	3.24	20	
AW07855 Beryllium, Total	mg/L	-0.0000579	0.00132	0.10	0.111	0.107	0.103	0.085 to 0.115	111	70 to 130	4.24	20	
AW07855 Thallium, Total	mg/L	0.00000663	0.00044	0.10	0.0965	0.0975	0.0984	0.085 to 0.115	96.5	70 to 130	1.09	20	
AW07985 Boron, Total	mg/L	0.00230	0.044	1.000	0.980	1.12	0.928	0.85 to 1.15	98.0	70 to 130	13.3	20	
AW07855 Cobalt, Total	mg/L	-0.0000116	0.0044	0.10	0.0955	0.0966	0.0987	0.085 to 0.115	95.5	70 to 130	1.12	20	
AW07855 Molybdenum, Total	mg/L	0.0000150	0.0044	0.10	0.0980	0.0987	0.0969	0.085 to 0.115	94.7	70 to 130	0.676	20	
AW07985 Lithium, Total	mg/L	0.000213	0.022	0.200	0.215	0.203	0.210	0.17 to 0.23	108	70 to 130	5.74	20	
AW07855 Antimony, Total	mg/L	0.000175	0.00132	0.10	0.0901	0.0918	0.0915	0.085 to 0.115	90.1	70 to 130	1.93	20	
AW07855 Arsenic, Total	mg/L	0.00000940	0.0022	0.10	0.100	0.101	0.106	0.085 to 0.115	99.0	70 to 130	1.45	20	
AW07855 Cadmium, Total	mg/L	0.00000504	0.00044	0.10	0.0972	0.0985	0.0974	0.085 to 0.115	97.2	70 to 130	1.41	20	
AW07985 Calcium, Total	mg/L	-0.00476	0.22	5.000	5.15	4.84	5.05	4.25 to 5.75	103	70 to 130	6.21	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: WMWGASG
 Sample Date: 24-Mar-16
 Customer ID:
 Delivery Date: 25-Mar-16

Description: Gaston Gypsum - MW-8 DUP

Laboratory ID Number: AW07855

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW07841	Solids, Dissolved	mg/L	1	25			235	41.0	40 to 60			1.88	5
AW07855	Chloride, Total	mg/L	0.00	0.25	10.0	12.5	1.74	10.7	9 to 11	108	80 to 120	0.576	20
AW07855	Fluoride, Total	mg/L	0.00	0.3	2.0	2.28	0.133	2.12	1.8 to 2.2	107	80 to 120	1.52	20
AW07855	Sulfate, Total	mg/L	0.00	1.0	20.0	22.9	2.42	20.0	18 to 22	102	80 to 120	0.414	20

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Laboratory certification ID: E571114

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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. SGC 1/24/17
 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

Report To Sarah Copeland
 APC GSC Building 8

Sample #	Location	Sample Description	Customer Sample ID	Date Collected	Test Method
102606001	Gaston Gypsum	MW-1 Groundwater	AW07838, Water	3/24/2016 10:35:00 AM	Ga Tech
102606002	Gaston Gypsum	MW-2 Groundwater	AW07839, Water	3/23/2016 11:30:00 AM	Ga Tech
102606003	Gaston Gypsum	MW-3 Groundwater	AW07840, Water	3/23/2016 4:10:00 PM	Ga Tech
102606004	Gaston Gypsum	MW-13 Groundwater	AW07841, Water	3/24/2016 9:10:00 AM	Ga Tech
102606005	Gaston Gypsum	MW-13 DUP	AW07842, Water	3/24/2016 9:10:00 AM	Ga Tech
102606006	Gaston Gypsum	FB-1 Field Blank	AW07843, Water	3/23/2016 12:45:00 PM	Ga Tech
102606007	Gaston Gypsum	MW-5 Groundwater	AW07844, Water	3/23/2016 11:50:00 AM	Ga Tech
102606009	Gaston Gypsum	EB-1 Equipment	AW07846, Water	3/23/2016 12:05:00 PM	Ga Tech
102606010	Gaston Gypsum	MW-7 Groundwater	AW07847, Water	3/23/2016 4:40:00 PM	Ga Tech
102606011	Gaston Gypsum	MW-10 Groundwater	AW07848, Water	3/24/2016 10:00:00 AM	Ga Tech
102606012	Gaston Gypsum	MW-6 Groundwater	AW07849, Water	3/23/2016 11:00:00 AM	Ga Tech
102606013	Gaston Gypsum	MW-9 Groundwater	AW07850, Water	3/23/2016 1:45:00 PM	Ga Tech
102606014	Gaston Gypsum	FB-2 Field Blank	AW07851, Water	3/23/2016 2:00:00 PM	Ga Tech
102606015	Gaston Gypsum	MW-12 Groundwater	AW07852, Water	3/23/2016 3:55:00 PM	Ga Tech
102606016	Gaston Gypsum	MW-11 Groundwater	AW07853, Water	3/23/2016 5:25:00 PM	Ga Tech
102606017	Gaston Gypsum	MW-8 Groundwater	AW07854, Water	3/24/2016 9:15:00 AM	Ga Tech
102606018	Gaston Gypsum	MW-8 DUP	AW07855, Water	3/24/2016 9:15:00 AM	Ga Tech

Certification

Data approved by Gary Smith
 Georgia Power Company

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606001
 Collection Date 3/24/2016 10:35:00 AM
 Sampling Media Water
 Station AW07838
 Sample ID MW-1 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.84E-01
Ra-228	Ga Tech	pCi/L			6.97E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606002
 Collection Date 3/23/2016 11:30:00 AM
 Sampling Media Water
 Station AW07839
 Sample ID MW-2 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.67E-01
Ra-228	Ga Tech	pCi/L			6.66E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606003
 Collection Date 3/23/2016 4:10:00 PM
 Sampling Media Water
 Station AW07840
 Sample ID MW-3 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226 1	Ga Tech	pCi/L	9.32E-01	+/- 7.98E-01	
Ra-228	Ga Tech	pCi/L			7.83E-01
Total Isotopic Radium	Ga Tech	pCi/L	9.32E-01		

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606004
 Collection Date 3/24/2016 9:10:00 AM
 Sampling Media Water
 Station AW07841
 Sample ID MW-13 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.57E-01
Ra-228	Ga Tech	pCi/L			6.78E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606005
 Collection Date 3/24/2016 9:10:00 AM
 Sampling Media Water
 Station AW07842
 Sample ID MW-13 DUP Gaston Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.76E-01
Ra-228	Ga Tech	pCi/L			5.28E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606006
 Collection Date 3/23/2016 12:45:00 PM
 Sampling Media Water
 Station AW07843
 Sample ID FB-1 Field Blank Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.85E-01
Ra-228	Ga Tech	pCi/L			6.28E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606007
 Collection Date 3/23/2016 11:50:00 AM
 Sampling Media Water
 Station AW07844
 Sample ID MW-5 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.14E-01
Ra-228	Ga Tech	pCi/L			7.67E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606009
 Collection Date 3/23/2016 12:05:00 PM
 Sampling Media Water
 Station AW07846
 Sample ID EB-1 Equipment Blank Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.00E-01
Ra-228	Ga Tech	pCi/L			6.42E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606010
 Collection Date 3/23/2016 4:40:00 PM
 Sampling Media Water
 Station AW07847
 Sample ID MW-7 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.22E-01
Ra-228	Ga Tech	pCi/L			5.14E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

Report To Sarah Copeland
 APC GSC Building 8

Location APC Lab
 Sample Number 102606011
 Collection Date 3/24/2016 10:00:00 AM
 Sampling Media Water
 Station AW07848
 Sample ID MW-10 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.60E-01
Ra-228	Ga Tech	pCi/L			6.75E-01

Comments

1 - J7|Estimated value. RA-226 precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision

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 102606012
 Collection Date 3/23/2016 11:00:00 AM
 Sampling Media Water
 Station AW07849
 Sample ID MW-6 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.26E-01
Ra-228	Ga Tech	pCi/L			5.71E-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 102606013
 Collection Date 3/23/2016 1:45:00 PM
 Sampling Media Water
 Station AW07850
 Sample ID MW-9 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.16E-01
Ra-228	Ga Tech	pCi/L			6.27E-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 102606014
 Collection Date 3/23/2016 2:00:00 PM
 Sampling Media Water
 Station AW07851
 Sample ID FB-2 Field Blank Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.86E-01
Ra-228	Ga Tech	pCi/L			7.19E-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 102606015
Collection Date 3/23/2016 3:55:00 PM
Sampling Media Water
Station AW07852
Sample ID MW-12 Groundwater Gaston
Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.17E-01
Ra-228	Ga Tech	pCi/L			5.67E-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 102606016
 Collection Date 3/23/2016 5:25:00 PM
 Sampling Media Water
 Station AW07853
 Sample ID MW-11 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.96E-01
Ra-228	Ga Tech	pCi/L			7.07E-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 102606017
 Collection Date 3/24/2016 9:15:00 AM
 Sampling Media Water
 Station AW07854
 Sample ID MW-8 Groundwater Gaston
 Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.05E-01
Ra-228	Ga Tech	pCi/L			6.36E-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 102606018
 Collection Date 3/24/2016 9:15:00 AM
 Sampling Media Water
 Station AW07855
 Sample ID MW-8 DUP Gaston Gypsum

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.46E-01
Ra-228	Ga Tech	pCi/L			5.04E-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 Co.
 Report To: Sarah Capeland
 Address: sgcapela@southernco.com

Phone/Fax: 205-1064-10121
 Contact: Gaston Gypsum
 Project Location: 5 Gaston Gypsum
 Account Number: 6
 Special Instructions: 7

Sample Shipment Date: 3/28/10
 Sampled By: N.P. / J.R. / C.S.
Print Name

Signature _____
 Sample Received Date: 10
 Sample Received By: 11
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY
 Work Order No. 102606
 Reviewed By: _____

12 Page 1 of 2
 13 Standard Turnaround Time _____
 # of Business Days (Rush) _____
(Must be cleared through Env. Lab. prior to shipment)

PRESERVATIVE 21
 Sample Type Key: 23
 G-Grab
 D-Other
 C-Composite
 Matrix Key: 24
 SW-Surface Water
 GW-Ground Water
 SL-Sludge
 W-Wipe
 LW-Liquid
 LW-Drinking Water
 DW-Other Water
 Preservative Key: 25
 H-Hydrochloric Acid
 N-Nitric Acid
 S-Sulfuric Acid
 SH-Sodium Hydroxide
 P-Phosphoric Acid
 ST-Sodium Thiosulfate
 L-Lime
 U-Unpreserved
 O-Other (Specify) _____

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16		Sample Description 17	Matrix	No. of Containers	ANALYSIS REQUESTED 22		LAB USE ONLY 26 Comments
		Date	Time				21	23	
<u>102606</u>	<u>AW07838</u>	<u>3/24</u>	<u>1035</u>	<u>MW-1 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>Ra-226</u>
<u>2</u>	<u>AW07839</u>	<u>3/23</u>	<u>1130</u>	<u>MW-2 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>Ra-228</u>
<u>3</u>	<u>AW07840</u>	<u>3/23</u>	<u>1110</u>	<u>MW-3 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>4</u>	<u>AW07841</u>	<u>3/24</u>	<u>0910</u>	<u>MW-13 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>5</u>	<u>AW07842</u>	<u>3/24</u>	<u>0910</u>	<u>MW-13 DUP</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>6</u>	<u>AW07843</u>	<u>3/23</u>	<u>1245</u>	<u>FB-1 Field Blank</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>7</u>	<u>AW07844</u>	<u>3/23</u>	<u>1150</u>	<u>MW-5 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>8</u>	<u>AW07845</u>	<u>3/23</u>	<u>1155</u>	<u>RD-1 Radiological DUP</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>9</u>	<u>AW07846</u>	<u>3/23</u>	<u>1705</u>	<u>EB-1 Equipment Blank</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	
<u>10</u>	<u>AW07847</u>	<u>3/23</u>	<u>1140</u>	<u>MW-7 Groundwater</u>	<u>GW</u>	<u>2</u>	<u>X</u>	<u>X</u>	

FOR CHAIN OF CUSTODY USE ONLY 27
 Relinquished by: [Signature] Date/Time 3/28/10 0950 20.0°C (GPEL-IR-3P) no ice, cover, pH 2
 Received by: [Signature] Date/Time 3-31-16 01030
 Relinquished by: _____ Date/Time _____
 Received by: _____ Date/Time _____

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. 102606

Reviewed By: _____

12 Page 1 of 2

13 Standard Turnaround Time

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

Sample Shipment Date: 3/29/16

Sampled By: _____
 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: 1 APC
 Report To: Saman Copeland
 Address: 2

Sgopela@southernco.com

Phone/Fax: 3 205-6104-6121

Contact: 4

Project Location: 5 Gaston Gypsum

Account Number: 6

Special Instructions: 7

LAB USE ONLY LAB ID	Sample Number 15	Collection 16		Sample Description 17	Matrix	No. of Containers			Sample Type 18	PRESERVATIVE 21	ANALYSIS REQUESTED 22	Sample Type Key: 23 G-Gab O-Other C-Composite	Matrix Key: 24 SW-Surface Water GW-Ground Water WW-Waste Water W-Wipe DW-Drinking Water LQ-Liquid Preservative Key: 25 H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide P-Phosphoric Acid I-Ice U-Unpreserved D-Other (Specify)	LAB USE ONLY Comments 26					
		Date	Time			19	20												
102606011	AW07849	3/24	1000	MW-10 Groundwater	GD	2													
12	AW07849	3/23	1100	MW-6 Groundwater	GD	2													
13	AW07850	3/23	1345	MW-9 Groundwater	GD	2													
14	AW07851	3/23	1400	FB-2 Field Blank	GD	2													
15	AW07852	3/23	1555	MW-12 Groundwater	GD	2													
16	AW07853	3/23	1725	MW-11 Groundwater	GD	2													
17	AW07854	3/24	0915	MW-8 Groundwater	GD	2													
18	AW07855	3/24	0915	MW-8 DUP	GD	2													
FOR CHAIN OF CUSTODY USE ONLY																			
Reinquired by: <u>28</u>												LAB USE ONLY: Sample Receipt Information <u>30</u>							
Received by: <u>29</u>												Date/Time <u>3/29/16 0950</u>		Date/Time <u>3-31-16 01030</u>		Date/Time <u>3-31-16 01030</u>		Date/Time <u>3-31-16 01030</u>	
Reinquired by: _____												Date/Time _____		Date/Time _____		Date/Time _____		Date/Time _____	
Received by: _____												Date/Time _____		Date/Time _____		Date/Time _____		Date/Time _____	

Sample Receipt Checklist



Client: APC Lab
 Workorder No.: 102606
 Carrier: COURIER

of Samples: 18
 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 ^{NO ICE} False	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	20
COC is present	True	Missing collection year on COC samples were logged based on sample container labels.
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COG	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	True	
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	
Multiphase samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

QUALITY CONTROL DATA

Workorders: 102753, 102585, 102604, 102606,

QC Batch: 16930

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102753001, 102585007-011, 102604001-003, 102606001-007, 102606009-011

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.542E-01	1.0	
Radium-228	pCi/l	<5.725E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.954	4.074	82.2	70-130	
Radium-228	pCi/l	5.067	5.878	116	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	24.4	20	J7
Radium-228	pCi/l	8.3	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	

J7| Estimated value. Precision for associated (LCS)/(LCSD) is outside of laboratory established control limits for precision.

QUALITY CONTROL DATA

Workorders: 102606, 102638

QC Batch: 16950

Analysis Method: Ga Tech

QC Batch Method: Ga Tech

Associated Lab Samples: 102606012-018, 102638001-012

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<3.586E-01	1.0	
Radium-228	pCi/l	<7.348E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.742	5.882	124	70-130	
Radium-228	pCi/l	4.889	5.707	117	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	12.9	20	
Radium-228	pCi/l	16.2	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 : WMWGASG_23

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_23

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>
AW12150	565566	565568	565570	WMWGASG_23
AW12151	565566	565568	565570	WMWGASG_23
AW12152	565566	565568	565570	WMWGASG_23
AW12153	565566	565568	565570	WMWGASG_23
AW12154	565566	565568	565570	WMWGASG_23
AW12155	565566	565568	565570	WMWGASG_23
AW12156	565566	565568	565570	WMWGASG_23
AW12157	565566	565568	565570	WMWGASG_23
AW12158	565566	565568	565570	WMWGASG_23
AW12159	565566	565568	565570	WMWGASG_23
AW12160	565567	565569	565571	WMWGASG_23
AW12161	565567	565569	565571	WMWGASG_23
AW12162	565567	565569	565571	WMWGASG_23
AW12163	565567	565569	565571	WMWGASG_23
AW12164	565567	565569	565571	WMWGASG_23
AW12165	565567	565569	565571	WMWGASG_23
AW12166	565567	565569	565571	WMWGASG_23

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 blanks for anion sulfate in batch 565570 and 565571 presented positive concentrations above the MDL of 0.3, at 0.747 mg/L. Ten batch samples (AW12154, AW12156, AW12157, AW12159, AW12160, AW12162, AW12163, AW12164, AW12165 and AW12166) presented positive sulfate concentrations below 10x the value of the sulfate blank, and should be considered as quantitatively estimated concentrations with the potential for high bias on the reported values.
- 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

Gaston Gypsum

WMWGASG_23

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>
AW12150	20160523A	WMWGASG_23
AW12151	20160523B	WMWGASG_23
AW12152	20160523B	WMWGASG_23
AW12153	20160523B	WMWGASG_23
AW12154	20160523B	WMWGASG_23
AW12155	20160523B	WMWGASG_23
AW12156	20160523B	WMWGASG_23
AW12157	20160523B	WMWGASG_23
AW12158	20160523B	WMWGASG_23
AW12159	20160523B	WMWGASG_23
AW12160	20160523B	WMWGASG_23
AW12161	20160523C	WMWGASG_23
AW12162	20160523C	WMWGASG_23
AW12163	20160523C	WMWGASG_23
AW12164	20160523C	WMWGASG_23
AW12165	20160523C	WMWGASG_23
AW12166	20160523C	WMWGASG_23

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 with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW12150	Calcium	10.15x
AW12150MS	Calcium	10.15x
AW12150MSD	Calcium	10.15x
AW12151	Calcium	10.15x
AW12152	Calcium	10.15x
AW12153	Calcium	10.15x
AW12157	Calcium	10.15x
AW12158	Calcium	10.15x
AW12160	Calcium	10.15x
AW12160MS	Calcium	10.15x
AW12160MSD	Calcium	10.15x
AW12161	Calcium	10.15x
AW12165	Calcium	10.15x
AW12166	Calcium	10.15x
AW12166MS	Calcium	10.15x
AW12166MSD	Calcium	10.15x

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



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



Metals ICPMS

Gaston Gypsum

WMWGASG_23

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>
AW12150	565749	WMWGASG_23
AW12151	565749	WMWGASG_23
AW12152	565749	WMWGASG_23
AW12153	565749	WMWGASG_23
AW12154	565749	WMWGASG_23
AW12155	565749	WMWGASG_23
AW12156	565749	WMWGASG_23
AW12157	565749	WMWGASG_23
AW12158	565749	WMWGASG_23
AW12159	565749	WMWGASG_23
AW12160	565750	WMWGASG_23
AW12161	565750	WMWGASG_23
AW12162	565750	WMWGASG_23
AW12163	565750	WMWGASG_23
AW12164	565750	WMWGASG_23
AW12165	565750	WMWGASG_23
AW12166	565750	WMWGASG_23

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 Sb and Ba 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

Gaston Gypsum

WMWGASG_23

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>
AW12150	565456	WMWGASG_23
AW12151	565456	WMWGASG_23
AW12152	565456	WMWGASG_23
AW12153	565456	WMWGASG_23
AW12154	565456	WMWGASG_23
AW12155	565456	WMWGASG_23
AW12156	565456	WMWGASG_23
AW12157	565456	WMWGASG_23
AW12158	565456	WMWGASG_23
AW12159	566031	WMWGASG_23
AW12160	566031	WMWGASG_23
AW12161	566031	WMWGASG_23
AW12162	566031	WMWGASG_23
AW12163	566031	WMWGASG_23
AW12164	566031	WMWGASG_23
AW12165	566031	WMWGASG_23
AW12166	566031	WMWGASG_23

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

Gaston Gypsum

WMWGASG_23

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>
AW12150	565379	WMWGASG_23
AW12151	565379	WMWGASG_23
AW12152	565379	WMWGASG_23
AW12153	565379	WMWGASG_23
AW12154	565379	WMWGASG_23
AW12155	565379	WMWGASG_23
AW12156	565379	WMWGASG_23
AW12157	565379	WMWGASG_23
AW12158	565379	WMWGASG_23
AW12159	565380	WMWGASG_23
AW12160	565380	WMWGASG_23
AW12161	565380	WMWGASG_23
AW12162	565380	WMWGASG_23
AW12163	565380	WMWGASG_23
AW12164	565380	WMWGASG_23
AW12165	565380	WMWGASG_23
AW12166	565380	WMWGASG_23

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 AW12155 and AW12156 are now reported as Not Detected.

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

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW12154, AW12155, and AW12162 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW12150

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000616	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0552	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		10.15	1.0	5.0	75.7	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	283	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	4.18	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.068	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	11.1	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

Alabama Power 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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW12150

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12150 Calcium, Total	mg/L	-0.0228	0.22	5.00	81.3	80.5	4.98	4.25 to 5.75	112	70 to 130	0.989	20	
AW12159 Cadmium, Total	mg/L	0.00000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12150 Lithium, Total	mg/L	-0.000290	0.022	0.20	0.224	0.227	0.200	0.17 to 0.23	112	70 to 130	1.33	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12150 Boron, Total	mg/L	-0.00160	0.044	1.00	0.997	1.03	0.967	0.85 to 1.15	99.7	70 to 130	3.26	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW12150

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2 DUP

Laboratory ID Number: AW12151

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0560	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	74.2	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	278	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	4.14	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.068	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	10.9	mg/L

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Expiration: June 30, 2018

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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2 DUP

Laboratory ID Number: AW12151

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	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
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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-2 DUP

Laboratory ID Number: AW12151

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec	Limit		
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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

CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW12152

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0622	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	109	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	349	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.34	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.111	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	27.6	mg/L

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Laboratory certification ID: E571114

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW12152

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW12152

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample		LFB Limit	Rec		Prec Limit	
							Duplicate	LFB		Rec Limit	Prec		
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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Expiration: June 30, 2018

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

CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW12153

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0378	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	46.0	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00289	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	176	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	4.19	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.074	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	13.5	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. 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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW12153

Sample Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit
		MB	Limit					Limit	Rec	Limit		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW12153

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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CC:

Reported: 7/12/2017
 Version: 2.0

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 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: WMWGASGEB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW12154

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.052	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	J 0.751	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW12154

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20	

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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: WMWGASGEB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW12154

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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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

CC:

Reported: 7/12/2017
 Version: 2.0

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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12155

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	5/17/2016	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. The TDS result is now correctly listed as 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: WMWGASGFB
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12155

Sample Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit
		MB	Limit					Limit	Rec	Limit	Prec	
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	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.
 The TDS result is now correctly listed as 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: WMWGASGFB
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12155

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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CC:

Reported: 7/12/2017
 Version: 2.0

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW12156

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0168	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	1.13	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.04	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.055	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	1.79	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW12156

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW12156

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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CC:

Reported: 7/12/2017
 Version: 2.0

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW12157

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0291	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	57.0	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00424	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	195	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	1.68	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.176	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	2.16	mg/L

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW12157

Sample Analysis	Units	MB	MB				LFB			Rec		Prec
			Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20
AW12159 Cadmium, Total	mg/L	0.00000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20
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 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW12157

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12158	Solids, Dissolved	mg/L	-2.0	25			207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20

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CC:

Reported: 7/12/2017
 Version: 2.0

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Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW12158

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0221	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	58.9	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00505	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	207	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.08	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.105	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	11.9	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW12158

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12158 Mercury, Total by CVAA	mg/L	0.00003	0.0005	0.00400	0.00350	0.00356	0.00383	0.0034 to 0.0046	87.5	70 to 130	1.70	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW12158

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4		5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41		0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12158	Solids, Dissolved	mg/L	-2.0	25				207	54	40 to 60			0.00	5
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1		3.07	10.1	9 to 11	110	80 to 120	0.326	20

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

CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW12159

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
Radiological										
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1				Attached	
Metals, Cyanide, Total Phenols										
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	J	0.000629	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005		0.0410	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01		1.83	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	J	0.0334	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5		37.9	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01		0.0239	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
General Characteristics										
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25		204	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25		3.06	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3		0.330	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1		5.47	mg/L

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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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW12159

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12159 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0909	0.0888	0.085 to 0.115	90.7	70 to 130	0.163	20	
AW12159 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0871	0.0872	0.0876	0.085 to 0.115	87.1	70 to 130	0.118	20	
AW12159 Barium, Total	mg/L	0.00000503	0.0044	0.10	1.93	1.92	0.100	0.085 to 0.115	100	70 to 130	0.141	20	
AW12159 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0980	0.0982	0.085 to 0.115	98.9	70 to 130	0.940	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12159 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.136	0.136	0.0989	0.085 to 0.115	95.0	70 to 130	0.362	20	
AW12159 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.125	0.124	0.0986	0.085 to 0.115	101	70 to 130	0.132	20	
AW12159 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.103	0.0961	0.085 to 0.115	104	70 to 130	1.13	20	
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20	
AW12159 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0911	0.0910	0.0898	0.085 to 0.115	90.5	70 to 130	0.186	20	
AW12159 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0983	0.0971	0.0985	0.085 to 0.115	98.3	70 to 130	1.29	20	
AW12159 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0963	0.0956	0.0991	0.085 to 0.115	96.3	70 to 130	0.699	20	
AW12159 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0956	0.0966	0.0956	0.085 to 0.115	95.6	70 to 130	1.07	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW12159

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12159	Fluoride, Total	mg/L	0.000	0.3	2.00	2.41	0.330	2.02	1.8 to 2.2	104	80 to 120	0.00	20
AW12159	Sulfate, Total	mg/L	0.747	1.0	20.00	25.4	5.48	19.7	18 to 22	99.6	80 to 120	0.183	20
AW12159	Chloride, Total	mg/L	0.000	0.25	10.00	14.1	3.07	10.1	9 to 11	110	80 to 120	0.326	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW12160

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	J 0.00182	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0609	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	77.6	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00549	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	247	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.02	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.085	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	6.79	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
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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW12160

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20	
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20	
AW12160 Boron, Total	mg/L	0.00168	0.044	1.00	0.961	1.11	0.971	0.85 to 1.15	96.1	70 to 130	14.4	20	
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090520	20	
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20	
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	20	
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20	
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20	
AW12160 Calcium, Total	mg/L	-0.0279	0.22	5.00	81.7	82.2	4.84	4.25 to 5.75	82.0	70 to 130	0.610	20	
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20	
AW12160 Lithium, Total	mg/L	-0.0000117	0.022	0.20	0.223	0.223	0.195	0.17 to 0.23	112	70 to 130	0.00	20	
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20	
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20	
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20	
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	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

Reported: 7/12/2017
 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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW12160

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW12161

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	J 0.00107	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0232	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	J 0.0384	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	65.6	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	226	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.38	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.095	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	12.1	mg/L

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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



Corrected Copy

To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW12161

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090	520	
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20	
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20	
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20	
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20	
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15	99.3	70 to 130	2.68	20	
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20	
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20	
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	20	
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20	
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20	
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75	92.0	70 to 130	0.185	20	
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23	108	70 to 130	1.39	20	
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20	
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	20	

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Expiration: June 30, 2018

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

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: WMWGASG
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW12161

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	5
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20

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Expiration: June 30, 2018

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

CC:

Reported: 7/12/2017
 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: WMWGASGFB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12162

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	J 0.746	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12162

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090	520	
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20	
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20	
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20	
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20	
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15	99.3	70 to 130	2.68	20	
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20	
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20	
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	20	
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20	
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20	
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75	92.0	70 to 130	0.185	20	
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23	108	70 to 130	1.39	20	
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20	
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	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: WMWGASGFB
 Sample Date: 10-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW12162

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	5
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW12163

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00769	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	J 0.0306	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	11.5	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00407	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	54.7	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.02	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.063	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	6.60	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW12163

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec
			Limit	Spike				Limit	Rec	Limit	Prec	Limit
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090	520
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15	99.3	70 to 130	2.68	20
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	20
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75	92.0	70 to 130	0.185	20
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23	108	70 to 130	1.39	20
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW12163

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW12166	Solids, Dissolved	mg/L	-2.0	25				173	54	40 to 60			1.70	5
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2		2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6		5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07		0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	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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CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11 DUP

Laboratory ID Number: AW12164

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00829	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	J 0.0305	mg/L
* Calcium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.1	0.5	11.7	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	J 0.00396	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	57.3	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	3.02	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.063	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	6.59	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11 DUP

Laboratory ID Number: AW12164

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115		98.9	70 to 130	0.0090	520
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046		91.0	70 to 130	0.606	20
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115		87.3	70 to 130	0.772	20
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115		94.4	70 to 130	0.0631	20
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115		88.4	70 to 130	2.31	20
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115		98.0	70 to 130	1.04	20
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115		103	70 to 130	0.744	20
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15		99.3	70 to 130	2.68	20
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115		96.6	70 to 130	0.928	20
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115		90.7	70 to 130	1.01	20
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115		95.5	70 to 130	0.137	20
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75		92.0	70 to 130	0.185	20
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23		108	70 to 130	1.39	20
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115		100	70 to 130	0.0643	20
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115		104	70 to 130	0.304	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-11 DUP

Laboratory ID Number: AW12164

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	5

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CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW12165

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0375	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	91.1	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	257	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	2.62	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.062	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	2.15	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW12165

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec
			Limit	Spike				Limit	Rec	Limit	Prec	Limit
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090	520
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15	99.3	70 to 130	2.68	20
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	20
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75	92.0	70 to 130	0.185	20
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23	108	70 to 130	1.39	20
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	20

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW12165

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	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: 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:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW12166

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	10/26/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	0.0327	mg/L
* Beryllium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/23/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/24/2016	EPA 200.7		10.15	1.0	5.0	49.4	mg/L
* Cadmium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	5/24/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/23/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	5/20/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	5/20/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	5/17/2016	SM 2540C		1		25	179	mg/L
* Chloride, Total	SES	5/17/2016	EPA 300.0		1	0.04	0.25	2.26	mg/L
* Fluoride, Total	SES	5/17/2016	EPA 300.0		1	0.01	0.3	J 0.080	mg/L
* Sulfate, Total	SES	5/17/2016	EPA 300.0		1	0.3	1	5.66	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: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW12166

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW12166 Lead, Total	mg/L	0.00000411	0.0022	0.10	0.0989	0.0989	0.0982	0.085 to 0.115	98.9	70 to 130	0.0090	520	
AW12868 Mercury, Total by CVAA	mg/L	0.0000743	0.0005	0.004	0.00364	0.00366	0.00395	0.0034 to 0.0046	91.0	70 to 130	0.606	20	
AW12166 Arsenic, Total	mg/L	0.00000654	0.0022	0.10	0.0944	0.0944	0.0989	0.085 to 0.115	94.4	70 to 130	0.0631	20	
AW12166 Cobalt, Total	mg/L	0.000000456	0.0044	0.10	0.0873	0.0880	0.0876	0.085 to 0.115	87.3	70 to 130	0.772	20	
AW12166 Antimony, Total	mg/L	0.0000950	0.00132	0.10	0.0884	0.0905	0.0898	0.085 to 0.115	88.4	70 to 130	2.31	20	
AW12166 Beryllium, Total	mg/L	0.0000100	0.00132	0.10	0.0980	0.0990	0.0985	0.085 to 0.115	98.0	70 to 130	1.04	20	
AW12166 Barium, Total	mg/L	0.00000503	0.0044	0.10	0.136	0.137	0.100	0.085 to 0.115	103	70 to 130	0.744	20	
AW12166 Boron, Total	mg/L	0.00192	0.044	1.00	0.993	1.02	1.01	0.85 to 1.15	99.3	70 to 130	2.68	20	
AW12166 Cadmium, Total	mg/L	0.000000712	0.00044	0.10	0.0966	0.0975	0.0956	0.085 to 0.115	96.6	70 to 130	0.928	20	
AW12166 Chromium, Total	mg/L	0.00000567	0.0044	0.10	0.0907	0.0916	0.0888	0.085 to 0.115	90.7	70 to 130	1.01	20	
AW12166 Selenium, Total	mg/L	0.0000349	0.0044	0.10	0.0955	0.0954	0.0991	0.085 to 0.115	95.5	70 to 130	0.137	20	
AW12166 Calcium, Total	mg/L	-0.0284	0.22	5.00	54.0	53.9	5.25	4.25 to 5.75	92.0	70 to 130	0.185	20	
AW12166 Lithium, Total	mg/L	0.0000413	0.022	0.20	0.215	0.218	0.208	0.17 to 0.23	108	70 to 130	1.39	20	
AW12166 Molybdenum, Total	mg/L	0.00000525	0.0044	0.10	0.1000	0.0999	0.0986	0.085 to 0.115	100	70 to 130	0.0643	20	
AW12166 Thallium, Total	mg/L	0.00000199	0.00044	0.10	0.104	0.104	0.0961	0.085 to 0.115	104	70 to 130	0.304	20	

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 (205) 664-6032 or 6171
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 11-May-16
 Customer ID:
 Delivery Date: 12-May-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW12166

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW12166	Chloride, Total	mg/L	0.000	0.25	10.00	13.2	2.25	10.1	9 to 11	109	80 to 120	0.443	20
AW12166	Solids, Dissolved	mg/L	-2.0	25			173	54	40 to 60			1.70	5
AW12166	Sulfate, Total	mg/L	0.747	1.0	20.00	25.6	5.63	19.6	18 to 22	99.7	80 to 120	0.531	20
AW12166	Fluoride, Total	mg/L	0.000	0.3	2.00	2.07	0.080	2.01	1.8 to 2.2	99.5	80 to 120	0.00	20

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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

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: 400-123618-1

TestAmerica Sample Delivery Group: Gaston Gypsum (2)

Client Project/Site: CCR Plant Gaston

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 5:41:41 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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

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Method Summary

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

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

Protocol References:

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

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-123618-1	AW12150 MW-2	Water	05/10/16 10:27	06/28/16 15:43
400-123618-2	AW12151 MW-2 DUP	Water	05/10/16 10:27	06/28/16 15:43
400-123618-3	AW12152 MW-3	Water	05/10/16 13:00	06/28/16 15:43
400-123618-4	AW12153 MW-5	Water	05/11/16 16:14	06/28/16 15:43
400-123618-5	AW12154 EB-1	Water	05/10/16 15:43	06/28/16 15:43
400-123618-6	AW12155 FB-2	Water	05/11/16 14:08	06/28/16 15:43
400-123618-7	AW12156 MW-6	Water	05/11/16 10:37	06/28/16 15:43
400-123618-8	AW12157 MW-8	Water	05/11/16 15:08	06/28/16 15:43
400-123618-9	AW12158 MW-7	Water	05/11/16 17:40	06/28/16 15:43
400-123618-10	AW12159 MW-1	Water	05/10/16 10:45	06/28/16 15:43
400-123618-11	AW12160 MW-13	Water	05/10/16 12:50	06/28/16 15:43
400-123618-12	AW12161 MW-12	Water	05/10/16 14:30	06/28/16 15:43
400-123618-13	AW12162 FB-1	Water	05/10/16 14:45	06/28/16 15:43
400-123618-14	AW12163 MW-11	Water	05/11/16 10:40	06/28/16 15:43
400-123618-15	AW12164 MW-11 DUP	Water	05/11/16 10:40	06/28/16 15:43
400-123618-16	AW12165 MW-10	Water	05/11/16 12:20	06/28/16 15:43
400-123618-17	AW12166 MW-9	Water	05/11/16 14:30	06/28/16 15:43

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12150 MW-2

Lab Sample ID: 400-123618-1

Date Collected: 05/10/16 10:27

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.226		0.0775	0.0802	1.00	0.0767	pCi/L	07/01/16 15:44	07/26/16 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					07/01/16 15:44	07/26/16 11:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0146	U	0.221	0.221	1.00	0.397	pCi/L	07/01/16 16:39	07/20/16 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					07/01/16 16:39	07/20/16 13:45	1
Y Carrier	84.7		40 - 110					07/01/16 16:39	07/20/16 13:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.240	U	0.234	0.235	5.00	0.397	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12151 MW-2 DUP

Lab Sample ID: 400-123618-2

Date Collected: 05/10/16 10:27

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0918	U	0.0893	0.0897	1.00	0.142	pCi/L	07/01/16 15:44	07/26/16 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					07/01/16 15:44	07/26/16 11:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0934	U	0.329	0.329	1.00	0.599	pCi/L	07/01/16 16:39	07/20/16 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					07/01/16 16:39	07/20/16 13:45	1
Y Carrier	86.0		40 - 110					07/01/16 16:39	07/20/16 13:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.00158	U	0.341	0.341	5.00	0.599	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12152 MW-3

Lab Sample ID: 400-123618-3

Date Collected: 05/10/16 13:00

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.678		0.132	0.146	1.00	0.117	pCi/L	07/01/16 15:44	07/26/16 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/01/16 15:44	07/26/16 11:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.262	U	0.253	0.254	1.00	0.410	pCi/L	07/01/16 16:39	07/20/16 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/01/16 16:39	07/20/16 13:45	1
Y Carrier	84.9		40 - 110					07/01/16 16:39	07/20/16 13:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.940		0.286	0.293	5.00	0.410	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12153 MW-5

Lab Sample ID: 400-123618-4

Date Collected: 05/11/16 16:14

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0987		0.0574	0.0581	1.00	0.0763	pCi/L	07/01/16 15:44	07/26/16 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 15:44	07/26/16 11:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0829	U	0.206	0.206	1.00	0.383	pCi/L	07/01/16 16:39	07/20/16 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 16:39	07/20/16 13:45	1
Y Carrier	88.2		40 - 110					07/01/16 16:39	07/20/16 13:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0157	U	0.214	0.214	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 Gaston

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12154 EB-1

Lab Sample ID: 400-123618-5

Date Collected: 05/10/16 15:43

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0242	U	0.0629	0.0630	1.00	0.112	pCi/L	07/01/16 15:44	07/26/16 11:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/01/16 15:44	07/26/16 11:40	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.206	U	0.192	0.193	1.00	0.386	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	86.4		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.182	U	0.202	0.203	5.00	0.386	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12155 FB-2

Lab Sample ID: 400-123618-6

Date Collected: 05/11/16 14:08

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00763	U	0.0607	0.0607	1.00	0.112	pCi/L	07/01/16 15:44	07/26/16 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					07/01/16 15:44	07/26/16 11:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00223	U	0.191	0.191	1.00	0.348	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	81.5		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.00540	U	0.201	0.201	5.00	0.348	pCi/L		07/28/16 20:03	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12156 MW-6

Lab Sample ID: 400-123618-7

Date Collected: 05/11/16 10:37

Matrix: Water

Date Received: 06/28/16 15:43

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		0.0627	0.0635	1.00	0.0816	pCi/L	07/01/16 15:44	07/26/16 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/01/16 15:44	07/26/16 11:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U	0.264	0.264	1.00	0.453	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	83.0		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.222	U	0.271	0.271	5.00	0.453	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12157 MW-8

Lab Sample ID: 400-123618-8

Date Collected: 05/11/16 15:08

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0812	U	0.0672	0.0676	1.00	0.104	pCi/L	07/01/16 15:44	07/26/16 11:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/01/16 15:44	07/26/16 11:41	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.121	U	0.195	0.195	1.00	0.330	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	84.9		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.202	U	0.206	0.206	5.00	0.330	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12158 MW-7

Lab Sample ID: 400-123618-9

Date Collected: 05/11/16 17:40

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.126		0.0678	0.0687	1.00	0.0859	pCi/L	07/01/16 15:44	07/26/16 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					07/01/16 15:44	07/26/16 15:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.203	U	0.257	0.257	1.00	0.426	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.1		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	83.4		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.329	U	0.265	0.266	5.00	0.426	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12159 MW-1

Lab Sample ID: 400-123618-10

Date Collected: 05/10/16 10:45

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.678		0.127	0.141	1.00	0.110	pCi/L	07/01/16 15:44	07/26/16 15:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					07/01/16 15:44	07/26/16 15:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.212	0.213	1.00	0.341	pCi/L	07/01/16 16:39	07/20/16 13:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110					07/01/16 16:39	07/20/16 13:46	1
Y Carrier	85.2		40 - 110					07/01/16 16:39	07/20/16 13:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.904		0.247	0.255	5.00	0.341	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12160 MW-13

Lab Sample ID: 400-123618-11

Date Collected: 05/10/16 12:50

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130		0.0790	0.0798	1.00	0.115	pCi/L	07/01/16 15:44	07/26/16 15:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/01/16 15:44	07/26/16 15:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.187	U	0.213	0.213	1.00	0.416	pCi/L	07/01/16 16:39	07/20/16 13:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/01/16 16:39	07/20/16 13:47	1
Y Carrier	83.7		40 - 110					07/01/16 16:39	07/20/16 13:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0573	U	0.227	0.228	5.00	0.416	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12161 MW-12

Lab Sample ID: 400-123618-12

Date Collected: 05/10/16 14:30

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0857	U	0.0589	0.0594	1.00	0.0860	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0546	U	0.216	0.216	1.00	0.398	pCi/L	07/01/16 16:39	07/20/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 16:39	07/20/16 13:48	1
Y Carrier	84.9		40 - 110					07/01/16 16:39	07/20/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0311	U	0.224	0.224	5.00	0.398	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12162 FB-1

Lab Sample ID: 400-123618-13

Date Collected: 05/10/16 14:45

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.000889	U	0.0497	0.0497	1.00	0.0954	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.182	U	0.228	0.228	1.00	0.377	pCi/L	07/01/16 16:39	07/20/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.6		40 - 110					07/01/16 16:39	07/20/16 13:48	1
Y Carrier	84.5		40 - 110					07/01/16 16:39	07/20/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.181	U	0.233	0.234	5.00	0.377	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12163 MW-11

Lab Sample ID: 400-123618-14

Date Collected: 05/11/16 10:40

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0416	U	0.0574	0.0575	1.00	0.0964	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0417	U	0.201	0.202	1.00	0.357	pCi/L	07/01/16 16:39	07/20/16 13:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		40 - 110					07/01/16 16:39	07/20/16 13:49	1
Y Carrier	85.2		40 - 110					07/01/16 16:39	07/20/16 13:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0833	U	0.209	0.210	5.00	0.357	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12164 MW-11 DUP

Lab Sample ID: 400-123618-15

Date Collected: 05/11/16 10:40

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0516	U	0.0497	0.0499	1.00	0.0780	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.165	U	0.197	0.197	1.00	0.325	pCi/L	07/01/16 16:39	07/20/16 13:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.4		40 - 110					07/01/16 16:39	07/20/16 13:49	1
Y Carrier	86.7		40 - 110					07/01/16 16:39	07/20/16 13:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.216	U	0.203	0.204	5.00	0.325	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12165 MW-10

Lab Sample ID: 400-123618-16

Date Collected: 05/11/16 12:20

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.137		0.0651	0.0663	1.00	0.0826	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0602	U	0.207	0.207	1.00	0.362	pCi/L	07/01/16 16:39	07/20/16 13:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.2		40 - 110					07/01/16 16:39	07/20/16 13:49	1
Y Carrier	86.0		40 - 110					07/01/16 16:39	07/20/16 13:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.197	U	0.217	0.217	5.00	0.362	pCi/L		07/28/16 20:07	1

Client Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12166 MW-9

Lab Sample ID: 400-123618-17

Date Collected: 05/11/16 14:30

Matrix: Water

Date Received: 06/28/16 15:43

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.188	U	0.161	0.162	1.00	0.249	pCi/L	07/01/16 15:44	07/26/16 17:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					07/01/16 15:44	07/26/16 17:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.715	U	0.628	0.632	1.00	1.00	pCi/L	07/01/16 16:39	07/20/16 13:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					07/01/16 16:39	07/20/16 13:49	1
Y Carrier	84.5		40 - 110					07/01/16 16:39	07/20/16 13:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.903	U	0.648	0.652	5.00	1.00	pCi/L		07/28/16 20:07	1

Definitions/Glossary

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Client Sample ID: AW12150 MW-2

Date Collected: 05/10/16 10:27

Date Received: 06/28/16 15:43

Lab Sample ID: 400-123618-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW12151 MW-2 DUP

Date Collected: 05/10/16 10:27

Date Received: 06/28/16 15:43

Lab Sample ID: 400-123618-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW12152 MW-3

Date Collected: 05/10/16 13:00

Date Received: 06/28/16 15:43

Lab Sample ID: 400-123618-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW12153 MW-5

Date Collected: 05/11/16 16:14

Date Received: 06/28/16 15:43

Lab Sample ID: 400-123618-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:45	ALS	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 Gaston

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12154 EB-1

Lab Sample ID: 400-123618-5

Date Collected: 05/10/16 15:43

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW12155 FB-2

Lab Sample ID: 400-123618-6

Date Collected: 05/11/16 14:08

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:41	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:03	RTM	TAL SL

Client Sample ID: AW12156 MW-6

Lab Sample ID: 400-123618-7

Date Collected: 05/11/16 10:37

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:41	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12157 MW-8

Lab Sample ID: 400-123618-8

Date Collected: 05/11/16 15:08

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 11:41	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Client Sample ID: AW12158 MW-7

Lab Sample ID: 400-123618-9

Date Collected: 05/11/16 17:40

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 15:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12159 MW-1

Lab Sample ID: 400-123618-10

Date Collected: 05/10/16 10:45

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 15:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:46	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12160 MW-13

Lab Sample ID: 400-123618-11

Date Collected: 05/10/16 12:50

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262069	07/26/16 15:59	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:47	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12161 MW-12

Lab Sample ID: 400-123618-12

Date Collected: 05/10/16 14:30

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Client Sample ID: AW12162 FB-1

Lab Sample ID: 400-123618-13

Date Collected: 05/10/16 14:45

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12163 MW-11

Lab Sample ID: 400-123618-14

Date Collected: 05/11/16 10:40

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261340	07/20/16 13:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12164 MW-11 DUP

Lab Sample ID: 400-123618-15

Date Collected: 05/11/16 10:40

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261339	07/20/16 13:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Client Sample ID: AW12165 MW-10

Lab Sample ID: 400-123618-16

Date Collected: 05/11/16 12:20

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261339	07/20/16 13:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Client Sample ID: AW12166 MW-9

Lab Sample ID: 400-123618-17

Date Collected: 05/11/16 14:30

Matrix: Water

Date Received: 06/28/16 15:43

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258931	07/01/16 15:44	MCJ	TAL SL
Total/NA	Analysis	9315		1	262071	07/26/16 17:30	RTM	TAL SL
Total/NA	Prep	PrecSep_0			258935	07/01/16 16:39	MCJ	TAL SL
Total/NA	Analysis	9320		1	261339	07/20/16 13:49	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262592	07/28/16 20:07	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 Gaston

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Rad

Prep Batch: 258931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123618-1	AW12150 MW-2	Total/NA	Water	PrecSep-21	
400-123618-2	AW12151 MW-2 DUP	Total/NA	Water	PrecSep-21	
400-123618-3	AW12152 MW-3	Total/NA	Water	PrecSep-21	
400-123618-4	AW12153 MW-5	Total/NA	Water	PrecSep-21	
400-123618-5	AW12154 EB-1	Total/NA	Water	PrecSep-21	
400-123618-6	AW12155 FB-2	Total/NA	Water	PrecSep-21	
400-123618-7	AW12156 MW-6	Total/NA	Water	PrecSep-21	
400-123618-8	AW12157 MW-8	Total/NA	Water	PrecSep-21	
400-123618-9	AW12158 MW-7	Total/NA	Water	PrecSep-21	
400-123618-10	AW12159 MW-1	Total/NA	Water	PrecSep-21	
400-123618-11	AW12160 MW-13	Total/NA	Water	PrecSep-21	
400-123618-12	AW12161 MW-12	Total/NA	Water	PrecSep-21	
400-123618-13	AW12162 FB-1	Total/NA	Water	PrecSep-21	
400-123618-14	AW12163 MW-11	Total/NA	Water	PrecSep-21	
400-123618-15	AW12164 MW-11 DUP	Total/NA	Water	PrecSep-21	
400-123618-16	AW12165 MW-10	Total/NA	Water	PrecSep-21	
400-123618-17	AW12166 MW-9	Total/NA	Water	PrecSep-21	
MB 160-258931/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-258931/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-123618-11 DU	AW12160 MW-13	Total/NA	Water	PrecSep-21	

Prep Batch: 258935

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-123618-1	AW12150 MW-2	Total/NA	Water	PrecSep_0	
400-123618-2	AW12151 MW-2 DUP	Total/NA	Water	PrecSep_0	
400-123618-3	AW12152 MW-3	Total/NA	Water	PrecSep_0	
400-123618-4	AW12153 MW-5	Total/NA	Water	PrecSep_0	
400-123618-5	AW12154 EB-1	Total/NA	Water	PrecSep_0	
400-123618-6	AW12155 FB-2	Total/NA	Water	PrecSep_0	
400-123618-7	AW12156 MW-6	Total/NA	Water	PrecSep_0	
400-123618-8	AW12157 MW-8	Total/NA	Water	PrecSep_0	
400-123618-9	AW12158 MW-7	Total/NA	Water	PrecSep_0	
400-123618-10	AW12159 MW-1	Total/NA	Water	PrecSep_0	
400-123618-11	AW12160 MW-13	Total/NA	Water	PrecSep_0	
400-123618-12	AW12161 MW-12	Total/NA	Water	PrecSep_0	
400-123618-13	AW12162 FB-1	Total/NA	Water	PrecSep_0	
400-123618-14	AW12163 MW-11	Total/NA	Water	PrecSep_0	
400-123618-15	AW12164 MW-11 DUP	Total/NA	Water	PrecSep_0	
400-123618-16	AW12165 MW-10	Total/NA	Water	PrecSep_0	
400-123618-17	AW12166 MW-9	Total/NA	Water	PrecSep_0	
MB 160-258935/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-258935/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-123618-11 DU	AW12160 MW-13	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-258931/1-A
Matrix: Water
Analysis Batch: 262074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258931

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07412	U	0.0704	0.0708	1.00	0.112	pCi/L	07/01/16 15:44	07/26/16 08:06	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					07/01/16 15:44	07/26/16 08:06	1

Lab Sample ID: LCS 160-258931/2-A
Matrix: Water
Analysis Batch: 262074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258931

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.2	13.82		1.35	1.00	0.0782	pCi/L	124	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	94.0		40 - 110						

Lab Sample ID: 400-123618-11 DU
Matrix: Water
Analysis Batch: 262071

Client Sample ID: AW12160 MW-13
Prep Type: Total/NA
Prep Batch: 258931

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.130		0.1370		0.0690	1.00	0.0909	pCi/L	0.05	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.2		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-258935/1-A
Matrix: Water
Analysis Batch: 261340

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258935

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2132	U	0.271	0.272	1.00	0.449	pCi/L	07/01/16 16:39	07/20/16 13:44	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					07/01/16 16:39	07/20/16 13:44	1
Y Carrier	83.4		40 - 110					07/01/16 16:39	07/20/16 13:44	1

QC Sample Results

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

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

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

Lab Sample ID: LCS 160-258935/2-A
Matrix: Water
Analysis Batch: 261340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258935

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.8	19.16		2.00	1.00	0.417	pCi/L	129	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.0		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: 400-123618-11 DU
Matrix: Water
Analysis Batch: 261340

Client Sample ID: AW12160 MW-13
Prep Type: Total/NA
Prep Batch: 258935

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.187	U	-0.04634	U	0.190	1.00	0.354	pCi/L	0.35	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.2		40 - 110
Y Carrier	84.1		40 - 110

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-123618-1
SDG Number: Gaston Gypsum (2)

Login Number: 123618

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 Gaston

TestAmerica Job ID: 400-123618-1
 SDG: Gaston Gypsum (2)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-16
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-16
Iowa	State Program	7	367	07-31-16
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-16 *
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 Gaston

TestAmerica Job ID: 400-123618-1
SDG: Gaston Gypsum (2)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-16 *
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-15-9	07-31-17
USDA	Federal		P330-07-00122	01-09-17
Utah	NELAP	8	MO000542015-7	07-31-16 *
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-16 *
West Virginia DEP	State Program	3	381	08-31-16 *

* Certification renewal pending - certification considered valid.

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 : WMWGASG_30

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_30

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>
AW16819	569316	569318	569320	WMWGASG_30
AW16820	569316	569318	569320	WMWGASG_30
AW16821	569316	569318	569320	WMWGASG_30
AW16822	569316	569318	569320	WMWGASG_30
AW16823	569316	569318	569320	WMWGASG_30
AW16824	569316	569318	569320	WMWGASG_30
AW16825	569316	569318	569320	WMWGASG_30
AW16826	569316	569318	569320	WMWGASG_30
AW16827	569316	569318	569320	WMWGASG_30
AW16828	569316	569318	569320	WMWGASG_30
AW16829	569317	569319	569321	WMWGASG_30
AW16830	569317	569319	569321	WMWGASG_30
AW16831	569317	569319	569321	WMWGASG_30
AW16832	569317	569319	569321	WMWGASG_30
AW16833	569317	569319	569321	WMWGASG_30
AW16834	569317	569319	569321	WMWGASG_30
AW16835	569317	569319	569321	WMWGASG_30
AW16836	569317	569319	569321	WMWGASG_30
AW16837	569317	569319	569321	WMWGASG_30
AW16838	569322	569323	569324	WMWGASG_30

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

Gaston Gypsum

WMWGASG_30

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>
AW16819	20160720D	WMWGASG_30
AW16820	20160720D	WMWGASG_30
AW16821	20160720D	WMWGASG_30
AW16822	20160720D	WMWGASG_30
AW16823	20160720D	WMWGASG_30
AW16824	20160720D	WMWGASG_30
AW16825	20160720D	WMWGASG_30
AW16826	20160720D	WMWGASG_30
AW16827	20160720D	WMWGASG_30
AW16828	20160720D	WMWGASG_30
AW16829	20160720E	WMWGASG_30
AW16830	20160720E	WMWGASG_30
AW16831	20160720E	WMWGASG_30
AW16832	20160720E	WMWGASG_30
AW16833	20160720E	WMWGASG_30
AW16834	20160720E	WMWGASG_30
AW16835	20160720E	WMWGASG_30
AW16836	20160720E	WMWGASG_30
AW16837	20160720E	WMWGASG_30
AW16838	20160801	WMWGASG_30

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.



- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch, with the exception of batch 20160801, which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution except for the following: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW16819	Calcium	10.15X
AW16823	Calcium	10.15X
AW16824	Calcium	10.15X
AW16825	Calcium	10.15X
AW16826	Calcium	10.15X
AW16827	Calcium	10.15X
AW16830	Calcium	10.15X
AW16831	Calcium	10.15X
AW16832	Calcium	10.15X
AW16833	Calcium	10.15X
AW16834	Calcium	10.15X

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Case Narrative

 Alabama Power



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



Metals ICPMS

Gaston Gypsum

WMWGASG_30

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>
AW16819	570270	WMWGASG_30
AW16820	570270	WMWGASG_30
AW16821	570270	WMWGASG_30
AW16822	570270	WMWGASG_30
AW16823	570270	WMWGASG_30
AW16824	570270	WMWGASG_30
AW16825	570270	WMWGASG_30
AW16826	570270	WMWGASG_30
AW16827	570270	WMWGASG_30
AW16828	570270	WMWGASG_30
AW16829	570271	WMWGASG_30
AW16830	570271	WMWGASG_30
AW16831	570271	WMWGASG_30
AW16832	570271	WMWGASG_30
AW16833	570271	WMWGASG_30
AW16834	570271	WMWGASG_30
AW16835	570271	WMWGASG_30
AW16836	570271	WMWGASG_30
AW16837	570271	WMWGASG_30
AW16838	571095	WMWGASG_30

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, with the exception of batch 571095, which is a dissolved sample and does not get digested.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
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

Gaston Gypsum

WMWGASG_30

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>
AW16819	569188	WMWGASG_30
AW16820	569188	WMWGASG_30
AW16821	569188	WMWGASG_30
AW16822	569188	WMWGASG_30
AW16823	569188	WMWGASG_30
AW16824	569821	WMWGASG_30
AW16825	569821	WMWGASG_30
AW16826	569821	WMWGASG_30
AW16827	569821	WMWGASG_30
AW16828	569821	WMWGASG_30
AW16829	569821	WMWGASG_30
AW16830	569821	WMWGASG_30
AW16831	569821	WMWGASG_30
AW16832	569821	WMWGASG_30
AW16833	569821	WMWGASG_30
AW16834	569822	WMWGASG_30
AW16835	569822	WMWGASG_30
AW16836	569822	WMWGASG_30
AW16837	569822	WMWGASG_30
AW16838	569506	WMWGASG_30

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

Gaston Gypsum

WMWGASG_30

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>
AW16819	569189	WMWGASG_30
AW16820	569189	WMWGASG_30
AW16821	569189	WMWGASG_30
AW16822	569189	WMWGASG_30
AW16823	569189	WMWGASG_30
AW16824	569189	WMWGASG_30
AW16825	569189	WMWGASG_30
AW16826	569189	WMWGASG_30
AW16827	569189	WMWGASG_30
AW16828	569190	WMWGASG_30
AW16829	569190	WMWGASG_30
AW16830	569190	WMWGASG_30
AW16831	569190	WMWGASG_30
AW16832	569190	WMWGASG_30
AW16833	569190	WMWGASG_30
AW16834	569190	WMWGASG_30
AW16835	569190	WMWGASG_30
AW16836	569190	WMWGASG_30
AW16837	569190	WMWGASG_30

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 AW16820 and AW16821 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, with the exception of:



<u>Sample ID</u>	<u>Milligram Difference</u>
LCS	0.7
AW16819	0.9
AW16820	1.2
AW16821	1.2
AW16823	1.1
AW16824	1.0
AW16825	1.2
AW16827	0.8
AW16827 duplicate	1.3
AW16829	1.0
AW16830	0.7
AW16831	0.6
AW16832	0.7
AW16836	0.6
AW16837	0.6

Samples with a milligram difference of 1.0 mg and above will be qualified. Samples with a milligram difference of less than 1.0 mg will remain unqualified, as this amount does not significantly affect reported results.

- 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 AW16822, AW16828, and AW16835 which were <2.5.

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW16819

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0456	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	52.1	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00485	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/8/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	203	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	4.67	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.065	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	17.1	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. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17

Alabama Power General Test Laboratory
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 Calera, AL 35040
 (205) 664-6032 or 6171
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW16819

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16823 Mercury, Total by CVAA	mg/L	0.0000956	0.0005	0.004	0.00355	0.00367	0.00408	0.0034 to 0.0046	88.8	70 to 130	3.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW16819

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW16820

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0166	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	1.18	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/8/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	2.86	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.047	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	1.30	mg/L

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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
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW16820

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.0000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16823 Mercury, Total by CVAA	mg/L	0.0000956	0.0005	0.004	0.00355	0.00367	0.00408	0.0034 to 0.0046	88.8	70 to 130	3.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	

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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
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW16820

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	5
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg limit.

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AW16821

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0167	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	1.17	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/8/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	2.88	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.048	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	1.33	mg/L

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AW16821

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16823 Mercury, Total by CVAA	mg/L	0.0000956	0.0005	0.004	0.00355	0.00367	0.00408	0.0034 to 0.0046	88.8	70 to 130	3.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	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
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AW16821

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	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

Issued By: State of Florida, Department of Health

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Comments: CORRECTED COPY: Reporting Limit for TDS was incorrectly listed as 2.5 mg/L. The RL has now been corrected. The result for TDS has now been correctly changed to Not Detected. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg limit.

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16822

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/8/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	J 0.388	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

Alabama Power 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: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16822

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16823 Mercury, Total by CVAA	mg/L	0.0000956	0.0005	0.004	0.00355	0.00367	0.00408	0.0034 to 0.0046	88.8	70 to 130	3.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16822

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW16823

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0227	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	60.8	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00515	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/8/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	202	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	2.96	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.094	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	11.1	mg/L

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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 The difference between the last two consecutive final weights for TDS resulted in 1.1mg, which is above the required 0.5mg limit.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW16823

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.0000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16823 Mercury, Total by CVAA	mg/L	0.0000956	0.0005	0.004	0.00355	0.00367	0.00408	0.0034 to 0.0046	88.8	70 to 130	3.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	

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 The difference between the last two consecutive final weights for TDS resulted in 1.1mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW16823

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	LFB	Limit	Rec	Prec	Prec	Limit
								Duplicate	LFB			Rec	Limit	Prec	Limit
AW16827	Solids, Dissolved	mg/L	-5.0		25			311	47		40 to 60			0.797	5
AW16828	Sulfate, Total	mg/L	0.000		1.0	20.00	19.8	0.385	19.7		18 to 22	97.1	80 to 120	0.259	20
AW16828	Chloride, Total	mg/L	0.000		0.25	10.00	9.83	0.000	9.84		9 to 11	98.3	80 to 120	0	20
AW16828	Fluoride, Total	mg/L	0.000		0.3	2.00	1.96	0.000	1.97		1.8 to 2.2	98.0	80 to 120	0	20

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW16824

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	J 0.00124	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0317	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	56.7	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00489	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	192	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	1.68	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.167	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	1.70	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW16824

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW16824

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	5
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	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. SGC 1/26/17
 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
 The difference between the last two consecutive final weights for TDS resulted in 1.0mg, which is above the required 0.5mg limit.

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW16825

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0342	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	56.0	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	183	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	2.28	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.072	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	5.62	mg/L

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 The difference between the last two consecutive final weights for TDS resulted in 1.2mg, which is above the required 0.5mg limit.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW16825

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115		103	70 to 130		1.16	20
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115		94.5	70 to 130		1.40	20
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75		92.0	70 to 130		7.93	20
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115		103	70 to 130		0.813	20
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115		102	70 to 130		1.54	20
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115		103	70 to 130		1.13	20
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115		103	70 to 130		0.596	20
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115		99.7	70 to 130		1.31	20
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115		102	70 to 130		0.181	20
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115		100	70 to 130		0.283	20
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115		101	70 to 130		0.370	20
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15		99.4	70 to 130		1.62	20
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23		91.0	70 to 130		7.92	20
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115		100	70 to 130		0.680	20
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046		97.8	70 to 130		1.07	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW16825

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	5
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	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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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/17/17
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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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW16826

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0374	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	90.7	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	256	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	2.53	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.051	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	1.89	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW16826

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.0000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW16826

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit	
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20	
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20	
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60				0.797	5
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20	

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

CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW16827

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0512	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	98.7	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	316	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	3.08	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	J 0.089	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	23.6	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW16827

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW16827

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16827	Solids, Dissolved	mg/L	-5.0	25			311	47	40 to 60			0.797	5

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW16828

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	7/8/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	7/8/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	7/8/2016	EPA 300.0		1	0.3	1	J 0.386	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: WMWGASGEB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW16828

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW16828 Beryllium, Total	mg/L	0.0000546	0.00132	0.10	0.0945	0.0958	0.0967	0.085 to 0.115	94.5	70 to 130	1.40	20	
AW16828 Calcium, Total	mg/L	-0.00968	0.22	5.00	4.60	4.98	4.30	4.25 to 5.75	92.0	70 to 130	7.93	20	
AW16828 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.103	0.104	0.0986	0.085 to 0.115	103	70 to 130	0.813	20	
AW16828 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.103	0.105	0.105	0.085 to 0.115	103	70 to 130	1.16	20	
AW16828 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.102	0.104	0.104	0.085 to 0.115	102	70 to 130	1.54	20	
AW16828 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.103	0.105	0.103	0.085 to 0.115	103	70 to 130	1.13	20	
AW16828 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.103	0.0948	0.085 to 0.115	103	70 to 130	0.596	20	
AW16828 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0997	0.101	0.0965	0.085 to 0.115	99.7	70 to 130	1.31	20	
AW16828 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.181	20	
AW16828 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.100	0.101	0.0975	0.085 to 0.115	100	70 to 130	0.283	20	
AW16828 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.101	0.101	0.108	0.085 to 0.115	101	70 to 130	0.370	20	
AW16828 Boron, Total	mg/L	-0.000478	0.044	1.00	0.994	0.978	0.991	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW16828 Lithium, Total	mg/L	0.000185	0.022	0.20	0.182	0.197	0.187	0.17 to 0.23	91.0	70 to 130	7.92	20	
AW16828 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.680	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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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: WMWGASGEB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW16828

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16828	Fluoride, Total	mg/L	0.000	0.3	2.00	1.96	0.000	1.97	1.8 to 2.2	98.0	80 to 120	0	20
AW16828	Chloride, Total	mg/L	0.000	0.25	10.00	9.83	0.000	9.84	9 to 11	98.3	80 to 120	0	20
AW16828	Sulfate, Total	mg/L	0.000	1.0	20.00	19.8	0.385	19.7	18 to 22	97.1	80 to 120	0.259	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	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 3/17/17

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW16829

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	J 0.000718	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	0.0333	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	1.71	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	J 0.0359	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	35.3	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0176	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	188	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	2.90	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	0.325	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	4.80	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
 The difference between the last two consecutive final weights for TDS resulted in 1.0mg, which is above the required 0.5mg limit.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW16829

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB	Rec		Prec	Limit
			Limit	Spike					Limit	Rec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	20
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	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
 The difference between the last two consecutive final weights for TDS resulted in 1.0mg, which is above the required 0.5mg 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW16829

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	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
 The difference between the last two consecutive final weights for TDS resulted in 1.0mg, which is above the required 0.5mg limit.

CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW16830

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0329	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	78.8	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	294	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.12	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.052	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	6.70	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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW16830

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20	
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20	
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20	
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20	
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	20	
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20	
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20	
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20	
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20	
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20	
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20	
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW16830

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	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: 7/12/2017
 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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW16831

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0375	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	50.8	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	194	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.86	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.072	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	11.7	mg/L

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Laboratory certification ID: E571114

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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. 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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW16831

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20	
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20	
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20	
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20	
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20	
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20	
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20	
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20	
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20	
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20	
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20	
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620		

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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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW16831

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5

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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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW16832

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0376	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	49.3	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	191	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.94	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.072	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	12.0	mg/L

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 744 County Road 87, GSC#8
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW16832

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20	
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20	
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20	
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20	
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20	
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20	
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20	
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20	
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20	
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20	
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20	
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620		

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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: WMWGASG
 Sample Date: 05-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW16832

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	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:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW16833

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	J 0.00152	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0542	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	72.0	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00537	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	247	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.10	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.075	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	7.59	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW16833

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20	
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20	
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20	
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20	
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20	
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20	
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20	
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20	
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20	
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20	
AW16833 Mercury, Total by CVAA	mg/L	0.0000366	0.0005	0.004	0.00391	0.00396	0.00392	0.0034 to 0.0046	97.8	70 to 130	1.07	20	
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	20	
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20	
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW16833

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	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:

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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW16834

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	J 0.00113	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0199	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	J 0.0290	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		10.15	1.0	5.0	58.2	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	191	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	2.62	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.069	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	7.70	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW16834

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20	
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20	
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	20	
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20	
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20	
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20	
AW17474 Mercury, Total by CVAA	mg/L	0.0000346	0.0005	0.004	0.00401	0.00401	0.00403	0.0034 to 0.0046	100	70 to 130	0.0224	20	
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20	
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20	
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20	
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20	
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20	
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20	
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW16834

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	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:

Reported: 7/12/2017
 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: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16835

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	7/9/2016	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: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16835

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20
AW17474 Mercury, Total by CVAA	mg/L	0.0000346	0.0005	0.004	0.00401	0.00401	0.00403	0.0034 to 0.0046	100	70 to 130	0.0224	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: WMWGASGFB
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW16835

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20

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CC:

Reported: 7/12/2017
 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: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW16836

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00975	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	J 0.0307	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	10.4	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00654	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	76.0	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	4.01	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.053	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	11.8	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW16836

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit		
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20
AW17474 Mercury, Total by CVAA	mg/L	0.0000346	0.0005	0.004	0.00401	0.00401	0.00403	0.0034 to 0.0046	100	70 to 130	0.0224	20
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW16836

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20

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CC:

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

Certificate Of Analysis



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW16837

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	0.0140	mg/L
* Beryllium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/20/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.1	0.5	10.7	mg/L
* Cadmium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	J 0.00313	mg/L
* Chromium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	7/18/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/20/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	RDA	7/21/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	RDA	7/21/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	7/11/2016	SM 2540C		1		25	55.3	mg/L
* Chloride, Total	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.78	mg/L
* Fluoride, Total	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.062	mg/L
* Sulfate, Total	SES	7/9/2016	EPA 300.0		1	0.3	1	5.38	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW16837

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW17246 Lithium, Total	mg/L	0.000281	0.022	0.20	0.229	0.221	0.198	0.17 to 0.23	114	70 to 130	3.56	20
AW17246 Lead, Total	mg/L	0.0000160	0.0022	0.10	0.104	0.105	0.0986	0.085 to 0.115	104	70 to 130	0.499	20
AW17246 Calcium, Total	mg/L	-0.00848	0.22	5.00	75.6	71.2	4.92	4.25 to 5.75	134	70 to 130	5.99	20
AW17246 Antimony, Total	mg/L	0.0000765	0.00132	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.229	20
AW17246 Boron, Total	mg/L	-0.00132	0.044	1.00	0.980	0.966	0.973	0.85 to 1.15	98.0	70 to 130	1.44	20
AW17246 Arsenic, Total	mg/L	0.00000965	0.0022	0.10	0.103	0.103	0.108	0.085 to 0.115	102	70 to 130	0.226	20
AW17246 Selenium, Total	mg/L	0.0000542	0.0044	0.10	0.104	0.105	0.105	0.085 to 0.115	104	70 to 130	1.06	20
AW17246 Thallium, Total	mg/L	0.00000286	0.00044	0.10	0.102	0.102	0.0975	0.085 to 0.115	102	70 to 130	0.377	20
AW17474 Mercury, Total by CVAA	mg/L	0.0000346	0.0005	0.004	0.00401	0.00401	0.00403	0.0034 to 0.0046	100	70 to 130	0.0224	20
AW17246 Barium, Total	mg/L	0.0000386	0.0044	0.10	0.156	0.156	0.103	0.085 to 0.115	106	70 to 130	0.0636	20
AW17246 Beryllium, Total	mg/L	0.00000546	0.00132	0.10	0.0929	0.0936	0.0967	0.085 to 0.115	92.9	70 to 130	0.709	20
AW17246 Cobalt, Total	mg/L	0.00000193	0.0044	0.10	0.0993	0.0997	0.0965	0.085 to 0.115	99.3	70 to 130	0.367	20
AW17246 Cadmium, Total	mg/L	0.00000416	0.00044	0.10	0.103	0.104	0.0948	0.085 to 0.115	103	70 to 130	0.0269	20
AW17246 Molybdenum, Total	mg/L	0.0000126	0.0044	0.10	0.105	0.106	0.101	0.085 to 0.115	101	70 to 130	0.752	20
AW17246 Chromium, Total	mg/L	0.00000855	0.0044	0.10	0.102	0.102	0.100	0.085 to 0.115	102	70 to 130	0.0062620	20

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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW16837

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW16837	Sulfate, Total	mg/L	0.000	1.0	20.00	24.9	5.38	19.5	18 to 22	97.6	80 to 120	0.00	20
AW16834	Solids, Dissolved	mg/L	-5.0	25			198	47	40 to 60			1.80	5
AW16837	Fluoride, Total	mg/L	0.000	0.3	2.00	1.95	0.063	1.94	1.8 to 2.2	94.4	80 to 120	1.60	20
AW16837	Chloride, Total	mg/L	0.000	0.25	10.00	13.6	3.78	9.84	9 to 11	98.2	80 to 120	0.00	20

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

CC:

Reported: 7/12/2017
 Version: 2.0

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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**

Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15 Diss

Laboratory ID Number: AW16838

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	11/7/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Barium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.002	0.01	0.0106	mg/L
* Beryllium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Boron, Dissolved	HRG	8/1/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Dissolved	HRG	8/1/2016	EPA 200.7		1.015	0.1	0.5	10.8	mg/L
* Cadmium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.002	0.01	J 0.00267	mg/L
* Chromium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	MCW	7/14/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	8/1/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Lead, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Selenium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Thallium, Dissolved	TAS	8/1/2016	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Chloride, Dissolved	SES	7/9/2016	EPA 300.0		1	0.04	0.25	3.79	mg/L
Fluoride, Dissolved	SES	7/9/2016	EPA 300.0		1	0.01	0.3	J 0.062	mg/L
Sulfate, Dissolved	SES	7/9/2016	EPA 300.0		1	0.3	1	10.3	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: REVISED COPY: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



Revised Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15 Diss

Laboratory ID Number: AW16838

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB	Rec		Prec	Limit
			Limit	Spike					Limit	Prec		
AW16838 Lithium, Dissolved	mg/L	0.0000503	0.022	0.20	0.206	0.206	0.201	0.17 to 0.23	103	70 to 130	0.00	20
AW16838 Cobalt, Dissolved	mg/L	0.000000438	0.0044	0.10	0.0930	0.0915			90.3	70 to 130	1.63	20
AW16838 Arsenic, Dissolved	mg/L	0.00000250	0.0022	0.10	0.0899	0.0876			89.9	70 to 130	2.57	20
AW16838 Boron, Dissolved	mg/L	0.00196	0.044	1.00	0.958	0.960	0.945	0.85 to 1.15	95.8	70 to 130	0.209	20
AW16838 Chromium, Dissolved	mg/L	-0.00000366	0.0044	0.10	0.0941	0.0915			94.1	70 to 130	2.81	20
AW16838 Mercury, Dissolved by CVAA	mg/L	0.0000555	0.0005	0.004	0.00379	0.00380	0.00381	0.0034 to 0.0046	94.8	70 to 130	0.179	20
AW16838 Selenium, Dissolved	mg/L	0.00000466	0.0044	0.10	0.0945	0.0938			94.5	70 to 130	0.716	20
AW16838 Antimony, Dissolved	mg/L	0.0000362	0.00132	0.10	0.0837	0.0828			83.7	70 to 130	1.06	20
AW16838 Calcium, Dissolved	mg/L	-0.0105	0.22	5.00	15.6	15.4	4.96	4.25 to 5.75	96.0	70 to 130	1.29	20
AW16838 Barium, Dissolved	mg/L	0.00000226	0.0044	0.10	0.0944	0.0944			83.8	70 to 130	0.0430	20
AW16838 Beryllium, Dissolved	mg/L	0.00000160	0.00132	0.10	0.0968	0.0956			96.8	70 to 130	1.24	20
AW16838 Cadmium, Dissolved	mg/L	0.000000788	0.00044	0.10	0.0918	0.0913			91.8	70 to 130	0.612	20
AW16838 Lead, Dissolved	mg/L	0.00000131	0.0022	0.10	0.0928	0.0921			92.8	70 to 130	0.708	20
AW16838 Molybdenum, Dissolved	mg/L	0.00000506	0.0044	0.10	0.0918	0.0903			91.8	70 to 130	1.73	20
AW16838 Thallium, Dissolved	mg/L	0.000000716	0.00044	0.10	0.0936	0.0930			93.6	70 to 130	0.641	20

This Certificate states the physical and/or chemical characteristics 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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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer
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Customer Account: WMWGASG
 Sample Date: 06-Jul-16
 Customer ID:
 Delivery Date: 07-Jul-16

Description: Gaston Gypsum - MW-15 Diss

Laboratory ID Number: AW16838

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW16838	Fluoride, Dissolved	mg/L	0.000	0.3	2.00	1.94	0.061	1.95	1.8 to 2.2	93.9	80 to 120	1.63	20
AW16838	Chloride, Dissolved	mg/L	0.000	0.25	10.00	13.7	3.79	9.87	9 to 11	99.1	80 to 120	0.132	20
AW16838	Sulfate, Dissolved	mg/L	0.000	1.0	20.00	30.1	10.4	19.5	18 to 22	99.0	80 to 120	0.966	20

This Certificate states the physical and/or chemical characteristics 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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Expiration: June 30, 2018

Comments: REVISED COPY: 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

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: 400-124407-1

TestAmerica Sample Delivery Group: Gaston Gypsum (3)

Client Project/Site: CCR Plant Gaston

For:

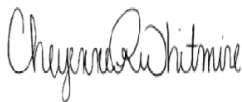
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

8/16/2016 5:38:37 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 Gaston

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Job ID: 400-124407-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-124407-1

RAD

Method(s) 903.0, 9315: Radium-226 Prep Batch 160-261461: The Laboratory Control Sample, Matrix Spike and the Matrix Spike Duplicate (LCS/MS/MSD) spike recoveries (152%, 150%, and 146%) associated with the following samples is outside the upper QC limit of 137% indicating a potential positive bias for that analyte : AW16838 MW-15 DISSOLVED (400-124407-20), (LCS 160-261461/2-A), (MB 160-261461/1-A), (240-67143-J-1-A), (240-67143-B-1-A MS) and (240-67143-B-1-B MSD). This analyte was not observed above the requested limit in the associated samples; therefore, the sample data was not adversely affected by this excursion. The data have been qualified and reported.

Method(s) PrecSep-21: Radium-226 Prep Batch: 160-261170: The following samples were prepared at a reduced aliquot due to limited volume. AW16819 MW-5 (400-124407-1), AW16820 MW-6 (400-124407-2), AW16821 MW-6 DUP (400-124407-3), AW16822 FB-1 (400-124407-4), AW16823 MW-7 (400-124407-5), AW16824 MW-8 (400-124407-6), AW16825 MW-9 (400-124407-7), AW16826 MW-10 (400-124407-8), AW16827 MW-3 (400-124407-9), AW16828 EB-1 (400-124407-10), AW16829 MW-1 (400-124407-11), AW16830 MW-2 (400-124407-12), AW16831 MW-14 S (400-124407-13), AW16832 MW-14 S DUP (400-124407-14), AW16833 MW-13 (400-124407-15), AW16834 MW-12 (400-124407-16), AW16835 FB-2 (400-124407-17), AW16836 MW-11 (400-124407-18), AW16837 MW-15 (400-124407-19) and (400-124407-A-15 DU)

Method Summary

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-124407-1	AW16819 MW-5	Water	07/06/16 10:48	07/13/16 15:54
400-124407-2	AW16820 MW-6	Water	07/06/16 11:35	07/13/16 15:54
400-124407-3	AW16821 MW-6 DUP	Water	07/06/16 11:35	07/13/16 15:54
400-124407-4	AW16822 FB-1	Water	07/06/16 12:55	07/13/16 15:54
400-124407-5	AW16823 MW-7	Water	07/06/16 13:15	07/13/16 15:54
400-124407-6	AW16824 MW-8	Water	07/06/16 14:10	07/13/16 15:54
400-124407-7	AW16825 MW-9	Water	07/06/16 15:12	07/13/16 15:54
400-124407-8	AW16826 MW-10	Water	07/06/16 16:05	07/13/16 15:54
400-124407-9	AW16827 MW-3	Water	07/06/16 17:23	07/13/16 15:54
400-124407-10	AW16828 EB-1	Water	07/06/16 17:45	07/13/16 15:54
400-124407-11	AW16829 MW-1	Water	07/05/16 11:10	07/13/16 15:54
400-124407-12	AW16830 MW-2	Water	07/05/16 12:37	07/13/16 15:54
400-124407-13	AW16831 MW-14 S	Water	07/05/16 14:50	07/13/16 15:54
400-124407-14	AW16832 MW-14 S DUP	Water	07/05/16 14:50	07/13/16 15:54
400-124407-15	AW16833 MW-13	Water	07/06/16 10:10	07/13/16 15:54
400-124407-16	AW16834 MW-12	Water	07/06/16 11:20	07/13/16 15:54
400-124407-17	AW16835 FB-2	Water	07/06/16 11:27	07/13/16 15:54
400-124407-18	AW16836 MW-11	Water	07/06/16 13:25	07/13/16 15:54
400-124407-19	AW16837 MW-15	Water	07/06/16 17:35	07/13/16 15:54
400-124407-20	AW16838 MW-15 DISSOLVED	Water	07/06/16 17:35	07/13/16 15:54

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16819 MW-5

Lab Sample ID: 400-124407-1

Date Collected: 07/06/16 10:48

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0677	U	0.0856	0.0858	1.00	0.142	pCi/L	07/19/16 13:38	08/10/16 09:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					07/19/16 13:38	08/10/16 09:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.581		0.348	0.352	1.00	0.530	pCi/L	07/19/16 14:26	08/05/16 13:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.0		40 - 110					07/19/16 14:26	08/05/16 13:30	1
Y Carrier	85.6		40 - 110					07/19/16 14:26	08/05/16 13:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.648		0.358	0.362	5.00	0.530	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16820 MW-6

Lab Sample ID: 400-124407-2

Date Collected: 07/06/16 11:35

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.185		0.0909	0.0924	1.00	0.115	pCi/L	07/19/16 13:38	08/10/16 09:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					07/19/16 13:38	08/10/16 09:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.340	0.340	1.00	0.574	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.6		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	87.1		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.375	U	0.351	0.352	5.00	0.574	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16821 MW-6 DUP

Lab Sample ID: 400-124407-3

Date Collected: 07/06/16 11:35

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.115	U	0.100	0.101	1.00	0.156	pCi/L	07/19/16 13:38	08/10/16 09:13	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/19/16 13:38	08/10/16 09:13	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.170	U	0.332	0.333	1.00	0.567	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	85.6		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.285	U	0.347	0.348	5.00	0.567	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16822 FB-1

Lab Sample ID: 400-124407-4

Date Collected: 07/06/16 12:55

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00417	U	0.0625	0.0625	1.00	0.122	pCi/L	07/19/16 13:38	08/10/16 20:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/19/16 13:38	08/10/16 20:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.148	U	0.256	0.257	1.00	0.495	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	84.1		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.144	U	0.264	0.264	5.00	0.495	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16823 MW-7

Lab Sample ID: 400-124407-5

Date Collected: 07/06/16 13:15

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.106	U	0.0936	0.0941	1.00	0.146	pCi/L	07/19/16 13:38	08/10/16 09:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					07/19/16 13:38	08/10/16 09:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.235	U	0.385	0.386	1.00	0.720	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.8		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	78.9		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.129	U	0.396	0.397	5.00	0.720	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16824 MW-8

Lab Sample ID: 400-124407-6

Date Collected: 07/06/16 14:10

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0848	U	0.0730	0.0734	1.00	0.110	pCi/L	07/19/16 13:38	08/10/16 09:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					07/19/16 13:38	08/10/16 09:12	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.206	U	0.365	0.365	1.00	0.619	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.2		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	82.2		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.291	U	0.372	0.372	5.00	0.619	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16825 MW-9

Lab Sample ID: 400-124407-7

Date Collected: 07/06/16 15:12

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.109	U	0.0885	0.0891	1.00	0.136	pCi/L	07/19/16 13:38	08/10/16 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					07/19/16 13:38	08/10/16 09:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0815	U	0.345	0.345	1.00	0.603	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	80.4		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.190	U	0.356	0.356	5.00	0.603	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16826 MW-10

Lab Sample ID: 400-124407-8

Date Collected: 07/06/16 16:05

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0636	U	0.0822	0.0824	1.00	0.137	pCi/L	07/19/16 13:38	08/10/16 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					07/19/16 13:38	08/10/16 09:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.135	U	0.325	0.325	1.00	0.609	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.6		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	78.9		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0714	U	0.335	0.335	5.00	0.609	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16827 MW-3

Lab Sample ID: 400-124407-9

Date Collected: 07/06/16 17:23

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.518		0.138	0.145	1.00	0.137	pCi/L	07/19/16 13:38	08/10/16 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/19/16 13:38	08/10/16 09:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.360	U	0.298	0.300	1.00	0.472	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	84.1		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.878		0.328	0.333	5.00	0.472	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16828 EB-1

Lab Sample ID: 400-124407-10

Date Collected: 07/06/16 17:45

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0122	U	0.0670	0.0670	1.00	0.135	pCi/L	07/19/16 13:38	08/10/16 09:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/19/16 13:38	08/10/16 09:11	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.100	U	0.309	0.309	1.00	0.568	pCi/L	07/19/16 14:26	08/05/16 13:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					07/19/16 14:26	08/05/16 13:31	1
Y Carrier	86.7		40 - 110					07/19/16 14:26	08/05/16 13:31	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.113	U	0.316	0.316	5.00	0.568	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16829 MW-1

Lab Sample ID: 400-124407-11

Date Collected: 07/05/16 11:10

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.590		0.140	0.150	1.00	0.123	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.380	U	0.311	0.313	1.00	0.495	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.9		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	86.7		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.971		0.342	0.347	5.00	0.495	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16830 MW-2

Lab Sample ID: 400-124407-12

Date Collected: 07/05/16 12:37

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0959	U	0.0775	0.0779	1.00	0.116	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.279	0.279	1.00	0.481	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	86.0		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.225	U	0.289	0.289	5.00	0.481	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16831 MW-14 S

Lab Sample ID: 400-124407-13

Date Collected: 07/05/16 14:50

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.148		0.0832	0.0843	1.00	0.107	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.237	U	0.319	0.319	1.00	0.532	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	83.7		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.385	U	0.329	0.330	5.00	0.532	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16832 MW-14 S DUP

Lab Sample ID: 400-124407-14

Date Collected: 07/05/16 14:50

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.171		0.0861	0.0875	1.00	0.105	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.589		0.357	0.361	1.00	0.539	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.2		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	83.4		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.760		0.367	0.372	5.00	0.539	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16833 MW-13

Lab Sample ID: 400-124407-15

Date Collected: 07/06/16 10:10

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0783	U	0.0971	0.0973	1.00	0.161	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.529	U	0.349	0.352	1.00	0.534	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	80.4		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.607		0.362	0.366	5.00	0.534	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16834 MW-12

Lab Sample ID: 400-124407-16

Date Collected: 07/06/16 11:20

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0223	U	0.0600	0.0600	1.00	0.111	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.336	U	0.346	0.348	1.00	0.564	pCi/L	07/19/16 14:26	08/05/16 13:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					07/19/16 14:26	08/05/16 13:32	1
Y Carrier	80.4		40 - 110					07/19/16 14:26	08/05/16 13:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.359	U	0.352	0.353	5.00	0.564	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16835 FB-2

Lab Sample ID: 400-124407-17

Date Collected: 07/06/16 11:27

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0172	U	0.0677	0.0677	1.00	0.127	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0333	U	0.311	0.311	1.00	0.556	pCi/L	07/19/16 14:26	08/05/16 13:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		40 - 110					07/19/16 14:26	08/05/16 13:33	1
Y Carrier	80.7		40 - 110					07/19/16 14:26	08/05/16 13:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0505	U	0.318	0.318	5.00	0.556	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16836 MW-11

Lab Sample ID: 400-124407-18

Date Collected: 07/06/16 13:25

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0398	U	0.0625	0.0626	1.00	0.108	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0429	U	0.280	0.280	1.00	0.498	pCi/L	07/19/16 14:26	08/05/16 13:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110					07/19/16 14:26	08/05/16 13:33	1
Y Carrier	84.9		40 - 110					07/19/16 14:26	08/05/16 13:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0827	U	0.287	0.287	5.00	0.498	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16837 MW-15

Lab Sample ID: 400-124407-19

Date Collected: 07/06/16 17:35

Matrix: Water

Date Received: 07/13/16 15:54

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.191		0.0918	0.0934	1.00	0.115	pCi/L	07/19/16 13:38	08/10/16 09:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/19/16 13:38	08/10/16 09:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.372	U	0.297	0.299	1.00	0.468	pCi/L	07/19/16 14:26	08/05/16 13:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					07/19/16 14:26	08/05/16 13:34	1
Y Carrier	88.2		40 - 110					07/19/16 14:26	08/05/16 13:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.563		0.311	0.313	5.00	0.468	pCi/L		08/11/16 03:42	1

Client Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16838 MW-15 DISSOLVED

Lab Sample ID: 400-124407-20

Date Collected: 07/06/16 17:35

Matrix: Water

Date Received: 07/13/16 15:54

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.233	*	0.112	0.114	1.00	0.137	pCi/L	07/20/16 17:47	08/11/16 06:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					07/20/16 17:47	08/11/16 06:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.307	U	0.305	0.306	1.00	0.496	pCi/L	07/20/16 18:09	08/09/16 16:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					07/20/16 18:09	08/09/16 16:14	1
Y Carrier	82.6		40 - 110					07/20/16 18:09	08/09/16 16:14	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.540		0.325	0.327	5.00	0.496	pCi/L		08/12/16 15:16	1

Definitions/Glossary

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Qualifiers

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
U	Result is less than the sample detection limit.
*	LCS or LCSD is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Gaston

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Client Sample ID: AW16819 MW-5

Date Collected: 07/06/16 10:48

Date Received: 07/13/16 15:54

Lab Sample ID: 400-124407-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 09:13	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16820 MW-6

Date Collected: 07/06/16 11:35

Date Received: 07/13/16 15:54

Lab Sample ID: 400-124407-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 09:13	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16821 MW-6 DUP

Date Collected: 07/06/16 11:35

Date Received: 07/13/16 15:54

Lab Sample ID: 400-124407-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 09:13	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16822 FB-1

Date Collected: 07/06/16 12:55

Date Received: 07/13/16 15:54

Lab Sample ID: 400-124407-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 20:22	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Client Sample ID: AW16823 MW-7

Lab Sample ID: 400-124407-5

Date Collected: 07/06/16 13:15

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 09:12	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16824 MW-8

Lab Sample ID: 400-124407-6

Date Collected: 07/06/16 14:10

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264312	08/10/16 09:12	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16825 MW-9

Lab Sample ID: 400-124407-7

Date Collected: 07/06/16 15:12

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:11	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16826 MW-10

Lab Sample ID: 400-124407-8

Date Collected: 07/06/16 16:05

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:11	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Client Sample ID: AW16827 MW-3

Lab Sample ID: 400-124407-9

Date Collected: 07/06/16 17:23

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:11	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16828 EB-1

Lab Sample ID: 400-124407-10

Date Collected: 07/06/16 17:45

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:11	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:31	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16829 MW-1

Lab Sample ID: 400-124407-11

Date Collected: 07/05/16 11:10

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16830 MW-2

Lab Sample ID: 400-124407-12

Date Collected: 07/05/16 12:37

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Client Sample ID: AW16831 MW-14 S

Lab Sample ID: 400-124407-13

Date Collected: 07/05/16 14:50

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16832 MW-14 S DUP

Lab Sample ID: 400-124407-14

Date Collected: 07/05/16 14:50

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16833 MW-13

Lab Sample ID: 400-124407-15

Date Collected: 07/06/16 10:10

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16834 MW-12

Lab Sample ID: 400-124407-16

Date Collected: 07/06/16 11:20

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Client Sample ID: AW16835 FB-2

Lab Sample ID: 400-124407-17

Date Collected: 07/06/16 11:27

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16836 MW-11

Lab Sample ID: 400-124407-18

Date Collected: 07/06/16 13:25

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263605	08/05/16 13:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16837 MW-15

Lab Sample ID: 400-124407-19

Date Collected: 07/06/16 17:35

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			261170	07/19/16 13:38	MCJ	TAL SL
Total/NA	Analysis	9315		1	264310	08/10/16 09:10	ALS	TAL SL
Total/NA	Prep	PrecSep_0			261184	07/19/16 14:26	MCJ	TAL SL
Total/NA	Analysis	9320		1	263659	08/05/16 13:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	264381	08/11/16 03:42	ALS	TAL SL

Client Sample ID: AW16838 MW-15 DISSOLVED

Lab Sample ID: 400-124407-20

Date Collected: 07/06/16 17:35

Matrix: Water

Date Received: 07/13/16 15:54

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			261461	07/20/16 17:47	MCJ	TAL SL
Dissolved	Analysis	9315		1	264482	08/11/16 06:53	ALS	TAL SL
Dissolved	Prep	PrecSep_0			261469	07/20/16 18:09	MCJ	TAL SL
Dissolved	Analysis	9320		1	264052	08/09/16 16:14	ALS	TAL SL
Dissolved	Analysis	Ra226_Ra228		1	264665	08/12/16 15:16	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 Gaston

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Rad

Prep Batch: 261170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124407-1	AW16819 MW-5	Total/NA	Water	PrecSep-21	
400-124407-2	AW16820 MW-6	Total/NA	Water	PrecSep-21	
400-124407-3	AW16821 MW-6 DUP	Total/NA	Water	PrecSep-21	
400-124407-4	AW16822 FB-1	Total/NA	Water	PrecSep-21	
400-124407-5	AW16823 MW-7	Total/NA	Water	PrecSep-21	
400-124407-6	AW16824 MW-8	Total/NA	Water	PrecSep-21	
400-124407-7	AW16825 MW-9	Total/NA	Water	PrecSep-21	
400-124407-8	AW16826 MW-10	Total/NA	Water	PrecSep-21	
400-124407-9	AW16827 MW-3	Total/NA	Water	PrecSep-21	
400-124407-10	AW16828 EB-1	Total/NA	Water	PrecSep-21	
400-124407-11	AW16829 MW-1	Total/NA	Water	PrecSep-21	
400-124407-12	AW16830 MW-2	Total/NA	Water	PrecSep-21	
400-124407-13	AW16831 MW-14 S	Total/NA	Water	PrecSep-21	
400-124407-14	AW16832 MW-14 S DUP	Total/NA	Water	PrecSep-21	
400-124407-15	AW16833 MW-13	Total/NA	Water	PrecSep-21	
400-124407-16	AW16834 MW-12	Total/NA	Water	PrecSep-21	
400-124407-17	AW16835 FB-2	Total/NA	Water	PrecSep-21	
400-124407-18	AW16836 MW-11	Total/NA	Water	PrecSep-21	
400-124407-19	AW16837 MW-15	Total/NA	Water	PrecSep-21	
MB 160-261170/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-261170/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-124407-15 DU	AW16833 MW-13	Total/NA	Water	PrecSep-21	

Prep Batch: 261184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124407-1	AW16819 MW-5	Total/NA	Water	PrecSep_0	
400-124407-2	AW16820 MW-6	Total/NA	Water	PrecSep_0	
400-124407-3	AW16821 MW-6 DUP	Total/NA	Water	PrecSep_0	
400-124407-4	AW16822 FB-1	Total/NA	Water	PrecSep_0	
400-124407-5	AW16823 MW-7	Total/NA	Water	PrecSep_0	
400-124407-6	AW16824 MW-8	Total/NA	Water	PrecSep_0	
400-124407-7	AW16825 MW-9	Total/NA	Water	PrecSep_0	
400-124407-8	AW16826 MW-10	Total/NA	Water	PrecSep_0	
400-124407-9	AW16827 MW-3	Total/NA	Water	PrecSep_0	
400-124407-10	AW16828 EB-1	Total/NA	Water	PrecSep_0	
400-124407-11	AW16829 MW-1	Total/NA	Water	PrecSep_0	
400-124407-12	AW16830 MW-2	Total/NA	Water	PrecSep_0	
400-124407-13	AW16831 MW-14 S	Total/NA	Water	PrecSep_0	
400-124407-14	AW16832 MW-14 S DUP	Total/NA	Water	PrecSep_0	
400-124407-15	AW16833 MW-13	Total/NA	Water	PrecSep_0	
400-124407-16	AW16834 MW-12	Total/NA	Water	PrecSep_0	
400-124407-17	AW16835 FB-2	Total/NA	Water	PrecSep_0	
400-124407-18	AW16836 MW-11	Total/NA	Water	PrecSep_0	
400-124407-19	AW16837 MW-15	Total/NA	Water	PrecSep_0	
MB 160-261184/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-261184/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-124407-15 DU	AW16833 MW-13	Total/NA	Water	PrecSep_0	

Prep Batch: 261461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124407-20	AW16838 MW-15 DISSOLVED	Dissolved	Water	PrecSep-21	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston Gypsum (3)

Rad (Continued)

Prep Batch: 261461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-261461/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-261461/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
240-67143-B-1-A MS	Matrix Spike	Total/NA	Water	PrecSep-21	
240-67143-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 261469

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-124407-20	AW16838 MW-15 DISSOLVED	Dissolved	Water	PrecSep_0	
MB 160-261469/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-261469/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
240-67143-B-1-C MS	Matrix Spike	Total/NA	Water	PrecSep_0	
240-67143-B-1-D MSD	Matrix Spike Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-261170/1-A
Matrix: Water
Analysis Batch: 264312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261170

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.007295	U	0.0943	0.0943	1.00	0.175	pCi/L	07/19/16 13:38	08/10/16 09:13	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	85.8		40 - 110	07/19/16 13:38	08/10/16 09:13	1				

Lab Sample ID: LCS 160-261170/2-A
Matrix: Water
Analysis Batch: 264312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261170

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	14.9	20.12		1.97	1.00	0.102	pCi/L	135	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	81.2		40 - 110	07/19/16 13:38	08/10/16 09:13	1			

Lab Sample ID: 400-124407-15 DU
Matrix: Water
Analysis Batch: 264310

Client Sample ID: AW16833 MW-13
Prep Type: Total/NA
Prep Batch: 261170

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.0783	U	0.1513		0.0927	1.00	0.128	pCi/L	0.38	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	86.6		40 - 110	07/19/16 13:38	08/10/16 09:13	1				

Lab Sample ID: MB 160-261461/1-A
Matrix: Water
Analysis Batch: 264482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261461

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0000	U	0.0776	0.0776	1.00	0.153	pCi/L	07/20/16 17:47	08/11/16 06:54	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	80.6		40 - 110	07/20/16 17:47	08/11/16 06:54	1				

Lab Sample ID: LCS 160-261461/2-A
Matrix: Water
Analysis Batch: 264625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261461

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.2	16.98	*	1.69	1.00	0.161	pCi/L	152	68 - 137

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

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

Lab Sample ID: LCS 160-261461/2-A
Matrix: Water
Analysis Batch: 264625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261461

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	78.3		40 - 110

Lab Sample ID: 240-67143-B-1-A MS
Matrix: Water
Analysis Batch: 264625

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 261461

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	0.113	U *	11.2	16.70	F1	1.66	1.00	0.134	pCi/L	150	75 - 138

	MS	MS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	80.1		40 - 110

Lab Sample ID: 240-67143-B-1-B MSD
Matrix: Water
Analysis Batch: 264625

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 261461

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.113	U *	11.2	16.33	F1	1.63	1.00	0.144	pCi/L	146	75 - 138	0.11	1

	MSD	MSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	80.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-261184/1-A
Matrix: Water
Analysis Batch: 263605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261184

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.07809	U	0.369	0.369	1.00	0.644	pCi/L	07/19/16 14:26	08/05/16 13:30	1

	MB	MB		Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	85.8		40 - 110	07/19/16 14:26	08/05/16 13:30	1
Y Carrier	82.2		40 - 110	07/19/16 14:26	08/05/16 13:30	1

Lab Sample ID: LCS 160-261184/2-A
Matrix: Water
Analysis Batch: 263605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261184

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.7	23.81		2.56	1.00	0.651	pCi/L	121	56 - 140

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

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

Lab Sample ID: LCS 160-261184/2-A
Matrix: Water
Analysis Batch: 263605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261184

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	81.2		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: 400-124407-15 DU
Matrix: Water
Analysis Batch: 263605

Client Sample ID: AW16833 MW-13
Prep Type: Total/NA
Prep Batch: 261184

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.529	U	0.2204	U	0.342	1.00	0.573	pCi/L	0.44	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	86.6		40 - 110
Y Carrier	85.6		40 - 110

Lab Sample ID: MB 160-261469/1-A
Matrix: Water
Analysis Batch: 264052

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 261469

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3185	U	0.299	0.300	1.00	0.483	pCi/L	07/20/16 18:09	08/09/16 16:13	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.6		40 - 110	07/20/16 18:09	08/09/16 16:13	1
Y Carrier	86.0		40 - 110	07/20/16 18:09	08/09/16 16:13	1

Lab Sample ID: LCS 160-261469/2-A
Matrix: Water
Analysis Batch: 264052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 261469

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.7	17.61		1.89	1.00	0.495	pCi/L	119	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	80.0		40 - 110

Lab Sample ID: 240-67143-B-1-C MS
Matrix: Water
Analysis Batch: 264052

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 261469

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.0606	U	14.8	19.09		2.04	1.00	0.443	pCi/L	129	45 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-124407-1
 SDG: Gaston Gypsum (3)

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

Lab Sample ID: 240-67143-B-1-C MS
Matrix: Water
Analysis Batch: 264052

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 261469

	<i>MS</i>	<i>MS</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Ba Carrier</i>	80.1		40 - 110
<i>Y Carrier</i>	80.7		40 - 110

Lab Sample ID: 240-67143-B-1-D MSD
Matrix: Water
Analysis Batch: 264052

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 261469

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qual</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qual</i>	<i>Total Uncert. (2σ+/-)</i>	<i>RL</i>	<i>MDC</i>	<i>Unit</i>	<i>%Rec</i>	<i>%Rec. Limits</i>		<i>RER</i>	
											<i>RER</i>	<i>Limit</i>		
Radium-228	0.0606	U	14.7	18.67		2.00	1.00	0.513	pCi/L	127	45 - 150	0.10	1	

	<i>MSD</i>	<i>MSD</i>	
<i>Carrier</i>	<i>%Yield</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Ba Carrier</i>	80.3		40 - 110
<i>Y Carrier</i>	83.0		40 - 110

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Chain of Custody Record

Client Information		Sampler: Jason Rouss		Lab PVI: Whitmire, Cheyenne R		Carrier Tracking No(s): 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page 2 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #: 400-124407	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Perform MS/MSD (Yes or No) 9316, Ra226, 9320, Ra228, Ra226Ra228, GPPC		Preservation Codes:	
City: Calera		PO #:		Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>		M - Hexane	
State, Zip: AL, 35040		WO #:		Matrix (W=water, S=solid, O=oil, BT=BTU, A=Air)		N - None	
Phone: 205-664-6121(Tel)		Project #: 40007143		Sample Type (C=comp, G=grab)		O - AsNaO2	
Email: sgcopela@southernco.com		SSOW#:		Sample Time		P - Na2O4S	
Project Name: CCR		Sample Date		Sample Date		Q - Na2SO3	
Site: Gaston Gypsum (3)		Sample Date		Sample Date		R - Na2S2O3	
		Sample Date		Sample Date		S - H2SO4	
		Sample Date		Sample Date		G - Amchlor	
		Sample Date		Sample Date		H - Ascorbic Acid	
		Sample Date		Sample Date		I - Ice	
		Sample Date		Sample Date		J - DI Water	
		Sample Date		Sample Date		K - EDTA	
		Sample Date		Sample Date		L - EDA	
		Sample Date		Sample Date		Other:	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
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		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
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		Sample Date		Sample Date		MW-2	
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		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
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		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
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		Sample Date		Sample Date		MW-2	
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		Sample Date		Sample Date		FB-2 (Field Blank)	
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		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
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		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
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		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
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		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
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		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
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		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
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		Sample Date		Sample Date		MW-12	
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		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
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		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	
		Sample Date		Sample Date		Special Instructions/Note:	
		Sample Date		Sample Date		MW-1	
		Sample Date		Sample Date		MW-2	
		Sample Date		Sample Date		MW-14 S	
		Sample Date		Sample Date		MW-14 S Dup (Sample Duplicate)	
		Sample Date		Sample Date		MW-13	
		Sample Date		Sample Date		MW-12	
		Sample Date		Sample Date		FB-2 (Field Blank)	
		Sample Date		Sample Date		MW-11	
		Sample Date		Sample Date		MW-15	
		Sample Date		Sample Date		MW-15 Dissolved	
		Sample Date		Sample Date		Total Number of Containers	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-124407-1
SDG Number: Gaston Gypsum (3)

Login Number: 124407

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.	True	17.5°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Gaston

TestAmerica Job ID: 400-124407-1
 SDG: Gaston 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	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-16
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-15-9	09-30-16
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	08-31-16

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16
Iowa	State Program	7	373	12-01-16
Kansas	NELAP	7	E-10236	07-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-124407-1
SDG: Gaston 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.

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 : WMWGASG_37

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_37

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>
AW21384	573658	573659	573660	WMWGASG_37
AW21385	573658	573659	573660	WMWGASG_37
AW21386	573658	573659	573660	WMWGASG_37
AW21387	573658	573659	573660	WMWGASG_37
AW21388	573681	573682	573683	WMWGASG_37

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exception: the blank for anion sulfate in batch 573683 presented a positive concentration above the MDL of 0.3, at 0.428 mg/L. The sulfate concentration in associated batch sample AW21388 was reported above the MDL but is less than 10x the blank sample concentration, and is considered as a quantitatively estimated result with indication of potential high bias.
- All laboratory fortified blanks were within acceptance criteria for the anions requested.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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



- A laboratory fortified matrix (LFM) sample was analyzed with each batch. All acceptance criteria for accuracy were met. It is noted that the parent sample of the LFM and the LFM sample were over-range for sulfate in batch 573683 and were not reported.
 - 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 associated batch samples were analyzed without 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

Gaston Gypsum

WMWGASG_37

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>
AW21384	20160907D_20160908A	WMWGASG_37
AW21385	20160907D_20160908A	WMWGASG_37
AW21386	20160907D_20160908A	WMWGASG_37
AW21387	20160907D_20160908A	WMWGASG_37
AW21388	20160907D_20160908A	WMWGASG_37

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 with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW21384	Calcium	10.15X
AW21385	Calcium	10.15X

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



Metals ICPMS

Gaston Gypsum

WMWGASG_37

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>
AW21384	574567	WMWGASG_37
AW21385	574567	WMWGASG_37
AW21386	574567	WMWGASG_37
AW21387	574567	WMWGASG_37
AW21388	574568	WMWGASG_37

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

Gaston Gypsum

WMWGASG_37

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>
AW21384	574284	WMWGASG_37
AW21385	574284	WMWGASG_37
AW21386	574418	WMWGASG_37
AW21387	574418	WMWGASG_37
AW21388	574418	WMWGASG_37

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory, with the exception of the method blank in batch 574284. There was a drop in signal, but the highest point was still below the limit of quantitation for the requested analyte.



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

Gaston Gypsum

WMWGASG_37

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>
AW21384	574112	WMWGASG_37
AW21385	574112	WMWGASG_37
AW21386	574112	WMWGASG_37
AW21387	574112	WMWGASG_37
AW21388	574112	WMWGASG_37

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. Sample AW21388 is 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, with the exception of:

<u>Sample ID</u>	<u>Milligram Difference</u>
Blank	1.0
LCS	1.2

Samples with a milligram difference of 1.0 mg and above will be qualified. Samples with a milligram difference of less than 1.0 mg will remain unqualified, as this amount does not significantly affect reported results.

- 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 AW21386 and AW21388 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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW21384

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/2/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	0.0353	mg/L
* Beryllium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/7/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2016	EPA 200.7		10.15	1.0	5.0	51.7	mg/L
* Cadmium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/29/2016	SM 2540C		1		25	208	mg/L
* Chloride, Total	SES	8/24/2016	EPA 300.0		1	0.04	0.25	4.69	mg/L
* Fluoride, Total	SES	8/24/2016	EPA 300.0		1	0.01	0.3	J 0.066	mg/L
* Sulfate, Total	SES	8/24/2016	EPA 300.0		1	0.3	1	13.7	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: 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: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW21384

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW21387 Selenium, Total	mg/L	0.0000158	0.0044	0.10	0.0957	0.0944	0.101	0.085 to 0.115	95.7	70 to 130	1.34	20	
AW21387 Cadmium, Total	mg/L	-0.000000493	0.00044	0.10	0.0991	0.0994	0.103	0.085 to 0.115	99.1	70 to 130	0.323	20	
AW21385 Mercury, Total by CVAA	mg/L	0.000131	0.0005	0.004	0.00403	0.00402	0.00398	0.0034 to 0.0046	101	70 to 130	0.261	20	
AW21387 Molybdenum, Total	mg/L	-0.00000325	0.0044	0.10	0.0944	0.0952	0.0981	0.085 to 0.115	94.4	70 to 130	0.808	20	
AW21387 Antimony, Total	mg/L	0.0000353	0.00132	0.10	0.0931	0.0947	0.0985	0.085 to 0.115	93.1	70 to 130	1.75	20	
AW21387 Chromium, Total	mg/L	-0.00000174	0.0044	0.10	0.0987	0.0990	0.0969	0.085 to 0.115	98.7	70 to 130	0.342	20	
AW21505 Calcium, Total	mg/L	-0.0150	0.22	5.00	550	546	4.96	4.25 to 5.75	220	70 to 130	0.730	20	
AW21387 Beryllium, Total	mg/L	0.0000972	0.00132	0.10	0.120	0.121	0.114	0.085 to 0.115	120	70 to 130	0.0559	20	
AW21387 Lead, Total	mg/L	0.00000521	0.0022	0.10	0.0988	0.0986	0.101	0.085 to 0.115	98.8	70 to 130	0.150	20	
AW21387 Thallium, Total	mg/L	-0.00000898	0.00044	0.10	0.1000	0.101	0.0989	0.085 to 0.115	100	70 to 130	0.589	20	
AW21505 Boron, Total	mg/L	0.00445	0.044	1.00	1.78	1.78	0.944	0.85 to 1.15	98.1	70 to 130	0.00	20	
AW21505 Lithium, Total	mg/L	0.000162	0.022	0.20	0.577	0.574	0.205	0.17 to 0.23	108	70 to 130	0.521	20	
AW21387 Arsenic, Total	mg/L	-0.00000367	0.0022	0.10	0.0930	0.0940	0.0979	0.085 to 0.115	93.0	70 to 130	1.02	20	
AW21387 Barium, Total	mg/L	-0.00000142	0.0044	0.10	0.104	0.104	0.0970	0.085 to 0.115	95.4	70 to 130	0.0014520	20	
AW21387 Cobalt, Total	mg/L	-0.00000268	0.0044	0.10	0.0932	0.0933	0.0967	0.085 to 0.115	93.2	70 to 130	0.119	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: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW21384

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW21387	Sulfate, Total	mg/L	0.295	1.0	20.00	23.9	4.21	19.7	18 to 22	98.4	80 to 120	0.474	20
AW21505	Solids, Dissolved	mg/L	4.00	25			5050	46.0	40 to 60			0.298	5
AW21387	Chloride, Total	mg/L	0.000	0.25	10.00	13.4	3.47	9.90	9 to 11	99.3	80 to 120	0.00	20
AW21387	Fluoride, Total	mg/L	0.000	0.3	2.00	1.99	0.044	2.01	1.8 to 2.2	97.2	80 to 120	2.25	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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW21385

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/2/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	0.0365	mg/L
* Beryllium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/7/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/8/2016	EPA 200.7		10.15	1.0	5.0	49.9	mg/L
* Cadmium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	8/31/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/29/2016	SM 2540C		1		25	209	mg/L
* Chloride, Total	SES	8/24/2016	EPA 300.0		1	0.04	0.25	4.62	mg/L
* Fluoride, Total	SES	8/24/2016	EPA 300.0		1	0.01	0.3	J 0.065	mg/L
* Sulfate, Total	SES	8/24/2016	EPA 300.0		1	0.3	1	13.5	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW21385

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW21387 Selenium, Total	mg/L	0.0000158	0.0044	0.10	0.0957	0.0944	0.101	0.085 to 0.115	95.7	70 to 130	1.34	20	
AW21387 Cadmium, Total	mg/L	-0.000000493	0.00044	0.10	0.0991	0.0994	0.103	0.085 to 0.115	99.1	70 to 130	0.323	20	
AW21387 Antimony, Total	mg/L	0.0000353	0.00132	0.10	0.0931	0.0947	0.0985	0.085 to 0.115	93.1	70 to 130	1.75	20	
AW21387 Chromium, Total	mg/L	-0.00000174	0.0044	0.10	0.0987	0.0990	0.0969	0.085 to 0.115	98.7	70 to 130	0.342	20	
AW21505 Calcium, Total	mg/L	-0.0150	0.22	5.00	550	546	4.96	4.25 to 5.75	220	70 to 130	0.730	20	
AW21387 Beryllium, Total	mg/L	0.0000972	0.00132	0.10	0.120	0.121	0.114	0.085 to 0.115	120	70 to 130	0.0559	20	
AW21387 Lead, Total	mg/L	0.00000521	0.0022	0.10	0.0988	0.0986	0.101	0.085 to 0.115	98.8	70 to 130	0.150	20	
AW21387 Arsenic, Total	mg/L	-0.00000367	0.0022	0.10	0.0930	0.0940	0.0979	0.085 to 0.115	93.0	70 to 130	1.02	20	
AW21387 Barium, Total	mg/L	-0.00000142	0.0044	0.10	0.104	0.104	0.0970	0.085 to 0.115	95.4	70 to 130	0.0014520	20	
AW21387 Cobalt, Total	mg/L	-0.00000268	0.0044	0.10	0.0932	0.0933	0.0967	0.085 to 0.115	93.2	70 to 130	0.119	20	
AW21385 Mercury, Total by CVAA	mg/L	0.000131	0.0005	0.004	0.00403	0.00402	0.00398	0.0034 to 0.0046	101	70 to 130	0.261	20	
AW21387 Molybdenum, Total	mg/L	-0.00000325	0.0044	0.10	0.0944	0.0952	0.0981	0.085 to 0.115	94.4	70 to 130	0.808	20	
AW21387 Thallium, Total	mg/L	-0.00000898	0.00044	0.10	0.1000	0.101	0.0989	0.085 to 0.115	100	70 to 130	0.589	20	
AW21505 Boron, Total	mg/L	0.00445	0.044	1.00	1.78	1.78	0.944	0.85 to 1.15	98.1	70 to 130	0.00	20	
AW21505 Lithium, Total	mg/L	0.000162	0.022	0.20	0.577	0.574	0.205	0.17 to 0.23	108	70 to 130	0.521	20	

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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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW21385

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW21505	Solids, Dissolved	mg/L	4.00	25			5050	46.0	40 to 60			0.298	5
AW21387	Sulfate, Total	mg/L	0.295	1.0	20.00	23.9	4.21	19.7	18 to 22	98.4	80 to 120	0.474	20
AW21387	Chloride, Total	mg/L	0.000	0.25	10.00	13.4	3.47	9.90	9 to 11	99.3	80 to 120	0.00	20
AW21387	Fluoride, Total	mg/L	0.000	0.3	2.00	1.99	0.044	2.01	1.8 to 2.2	97.2	80 to 120	2.25	20

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW21386

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/2/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/7/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/1/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/29/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	8/24/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	8/24/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	8/24/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Corrected Copy

To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW21386

Sample Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
		MB	Limit					Limit	Rec	Limit	Prec		
AW21387 Cadmium, Total	mg/L	-0.000000493	0.00044	0.10	0.0991	0.0994	0.103	0.085 to 0.115	99.1	70 to 130	0.323	20	
AW21387 Selenium, Total	mg/L	0.0000158	0.0044	0.10	0.0957	0.0944	0.101	0.085 to 0.115	95.7	70 to 130	1.34	20	
AW21387 Arsenic, Total	mg/L	-0.00000367	0.0022	0.10	0.0930	0.0940	0.0979	0.085 to 0.115	93.0	70 to 130	1.02	20	
AW21387 Barium, Total	mg/L	-0.00000142	0.0044	0.10	0.104	0.104	0.0970	0.085 to 0.115	95.4	70 to 130	0.0014520		
AW21387 Cobalt, Total	mg/L	-0.00000268	0.0044	0.10	0.0932	0.0933	0.0967	0.085 to 0.115	93.2	70 to 130	0.119	20	
AW21387 Beryllium, Total	mg/L	0.0000972	0.00132	0.10	0.120	0.121	0.114	0.085 to 0.115	120	70 to 130	0.0559	20	
AW21387 Lead, Total	mg/L	0.00000521	0.0022	0.10	0.0988	0.0986	0.101	0.085 to 0.115	98.8	70 to 130	0.150	20	
AW21387 Antimony, Total	mg/L	0.0000353	0.00132	0.10	0.0931	0.0947	0.0985	0.085 to 0.115	93.1	70 to 130	1.75	20	
AW21387 Chromium, Total	mg/L	-0.00000174	0.0044	0.10	0.0987	0.0990	0.0969	0.085 to 0.115	98.7	70 to 130	0.342	20	
AW21505 Calcium, Total	mg/L	-0.0150	0.22	5.00	550	546	4.96	4.25 to 5.75	220	70 to 130	0.730	20	
AW21387 Thallium, Total	mg/L	-0.00000898	0.00044	0.10	0.1000	0.101	0.0989	0.085 to 0.115	100	70 to 130	0.589	20	
AW21505 Boron, Total	mg/L	0.00445	0.044	1.00	1.78	1.78	0.944	0.85 to 1.15	98.1	70 to 130	0.00	20	
AW21505 Lithium, Total	mg/L	0.000162	0.022	0.20	0.577	0.574	0.205	0.17 to 0.23	108	70 to 130	0.521	20	
AW21387 Molybdenum, Total	mg/L	-0.00000325	0.0044	0.10	0.0944	0.0952	0.0981	0.085 to 0.115	94.4	70 to 130	0.808	20	
AW21510 Mercury, Total by CVAA	mg/L	0.000146	0.0005	0.004	0.00404	0.00406	0.00407	0.0034 to 0.0046	101	70 to 130	0.595	20	

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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: WMWGASGFB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW21386

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW21505	Solids, Dissolved	mg/L	4.00	25			5050	46.0	40 to 60			0.298	5
AW21387	Sulfate, Total	mg/L	0.295	1.0	20.00	23.9	4.21	19.7	18 to 22	98.4	80 to 120	0.474	20
AW21387	Chloride, Total	mg/L	0.000	0.25	10.00	13.4	3.47	9.90	9 to 11	99.3	80 to 120	0.00	20
AW21387	Fluoride, Total	mg/L	0.000	0.3	2.00	1.99	0.044	2.01	1.8 to 2.2	97.2	80 to 120	2.25	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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW21387

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/2/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	J 0.00858	mg/L
* Beryllium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/7/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.1	0.5	7.34	mg/L
* Cadmium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/1/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/29/2016	SM 2540C		1		25	45.3	mg/L
* Chloride, Total	SES	8/24/2016	EPA 300.0		1	0.04	0.25	3.47	mg/L
* Fluoride, Total	SES	8/24/2016	EPA 300.0		1	0.01	0.3	J 0.045	mg/L
* Sulfate, Total	SES	8/24/2016	EPA 300.0		1	0.3	1	4.23	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: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW21387

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW21387 Cadmium, Total	mg/L	-0.000000493	0.00044	0.10	0.0991	0.0994	0.103	0.085 to 0.115	99.1	70 to 130	0.323	20	
AW21387 Selenium, Total	mg/L	0.0000158	0.0044	0.10	0.0957	0.0944	0.101	0.085 to 0.115	95.7	70 to 130	1.34	20	
AW21387 Beryllium, Total	mg/L	0.0000972	0.00132	0.10	0.120	0.121	0.114	0.085 to 0.115	120	70 to 130	0.0559	20	
AW21387 Lead, Total	mg/L	0.00000521	0.0022	0.10	0.0988	0.0986	0.101	0.085 to 0.115	98.8	70 to 130	0.150	20	
AW21387 Arsenic, Total	mg/L	-0.00000367	0.0022	0.10	0.0930	0.0940	0.0979	0.085 to 0.115	93.0	70 to 130	1.02	20	
AW21387 Barium, Total	mg/L	-0.00000142	0.0044	0.10	0.104	0.104	0.0970	0.085 to 0.115	95.4	70 to 130	0.0014520	20	
AW21387 Cobalt, Total	mg/L	-0.00000268	0.0044	0.10	0.0932	0.0933	0.0967	0.085 to 0.115	93.2	70 to 130	0.119	20	
AW21387 Antimony, Total	mg/L	0.0000353	0.00132	0.10	0.0931	0.0947	0.0985	0.085 to 0.115	93.1	70 to 130	1.75	20	
AW21387 Chromium, Total	mg/L	-0.00000174	0.0044	0.10	0.0987	0.0990	0.0969	0.085 to 0.115	98.7	70 to 130	0.342	20	
AW21505 Calcium, Total	mg/L	-0.0150	0.22	5.00	550	546	4.96	4.25 to 5.75	220	70 to 130	0.730	20	
AW21387 Thallium, Total	mg/L	-0.00000898	0.00044	0.10	0.1000	0.101	0.0989	0.085 to 0.115	100	70 to 130	0.589	20	
AW21505 Boron, Total	mg/L	0.00445	0.044	1.00	1.78	1.78	0.944	0.85 to 1.15	98.1	70 to 130	0.00	20	
AW21505 Lithium, Total	mg/L	0.000162	0.022	0.20	0.577	0.574	0.205	0.17 to 0.23	108	70 to 130	0.521	20	
AW21387 Molybdenum, Total	mg/L	-0.00000325	0.0044	0.10	0.0944	0.0952	0.0981	0.085 to 0.115	94.4	70 to 130	0.808	20	
AW21510 Mercury, Total by CVAA	mg/L	0.000146	0.0005	0.004	0.00404	0.00406	0.00407	0.0034 to 0.0046	101	70 to 130	0.595	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: WMWGASG
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW21387

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW21505	Solids, Dissolved	mg/L	4.00	25			5050	46.0	40 to 60			0.298	5
AW21387	Sulfate, Total	mg/L	0.295	1.0	20.00	23.9	4.21	19.7	18 to 22	98.4	80 to 120	0.474	20
AW21387	Chloride, Total	mg/L	0.000	0.25	10.00	13.4	3.47	9.90	9 to 11	99.3	80 to 120	0.00	20
AW21387	Fluoride, Total	mg/L	0.000	0.3	2.00	1.99	0.044	2.01	1.8 to 2.2	97.2	80 to 120	2.25	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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW21388

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/2/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Arsenic, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	9/7/2016	EPA 200.7		1.015	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
* Cobalt, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/1/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/7/2016	EPA 200.7		1.015	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	TAS	9/6/2016	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	TAS	9/6/2016	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	8/29/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	8/25/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	8/25/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	8/25/2016	EPA 300.0		1	0.3	1	J 0.301	mg/L

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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: WMWGASGEB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW21388

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW21512 Thallium, Total	mg/L	-0.00000898	0.00044	0.10	0.104	0.102	0.0989	0.085 to 0.115	104	70 to 130	2.58	20	
AW21512 Arsenic, Total	mg/L	-0.00000367	0.0022	0.10	0.0962	0.0959	0.0979	0.085 to 0.115	96.2	70 to 130	0.374	20	
AW21505 Calcium, Total	mg/L	-0.0150	0.22	5.00	550	546	4.96	4.25 to 5.75	220	70 to 130	0.730	20	
AW21512 Beryllium, Total	mg/L	0.0000972	0.00132	0.10	0.115	0.110	0.114	0.085 to 0.115	112	70 to 130	3.92	20	
AW21512 Barium, Total	mg/L	-0.00000142	0.0044	0.10	0.103	0.103	0.0970	0.085 to 0.115	93.4	70 to 130	0.0202	20	
AW21512 Cadmium, Total	mg/L	-0.00000493	0.00044	0.10	0.0974	0.0972	0.103	0.085 to 0.115	96.1	70 to 130	0.262	20	
AW21512 Cobalt, Total	mg/L	-0.00000268	0.0044	0.10	0.381	0.375	0.0967	0.085 to 0.115	110	70 to 130	1.52	20	
AW21512 Molybdenum, Total	mg/L	-0.00000325	0.0044	0.10	0.103	0.102	0.0981	0.085 to 0.115	103	70 to 130	0.335	20	
AW21505 Boron, Total	mg/L	0.00445	0.044	1.00	1.78	1.78	0.944	0.85 to 1.15	98.1	70 to 130	0.00	20	
AW21505 Lithium, Total	mg/L	0.000162	0.022	0.20	0.577	0.574	0.205	0.17 to 0.23	108	70 to 130	0.521	20	
AW21512 Antimony, Total	mg/L	0.0000353	0.00132	0.10	0.0952	0.0942	0.0985	0.085 to 0.115	95.2	70 to 130	1.01	20	
AW21512 Chromium, Total	mg/L	-0.00000174	0.0044	0.10	0.0990	0.0984	0.0969	0.085 to 0.115	99.0	70 to 130	0.532	20	
AW21512 Lead, Total	mg/L	0.00000521	0.0022	0.10	0.101	0.0983	0.101	0.085 to 0.115	101	70 to 130	3.08	20	
AW21510 Mercury, Total by CVAA	mg/L	0.000146	0.0005	0.004	0.00404	0.00406	0.00407	0.0034 to 0.0046	101	70 to 130	0.595	20	
AW21512 Selenium, Total	mg/L	0.0000158	0.0044	0.10	0.0894	0.0896	0.101	0.085 to 0.115	89.4	70 to 130	0.203	20	

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 Calera, AL 35040
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 23-Aug-16
 Customer ID:
 Delivery Date: 24-Aug-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW21388

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW21512	Chloride, Total	mg/L	0.000	0.25	10.00	11.4	1.46	9.91	9 to 11	99.3	80 to 120	0.683	20
AW21512	Fluoride, Total	mg/L	0.000	0.3	2.00	2.33	0.347	2.03	1.8 to 2.2	99.2	80 to 120	0.289	20
AW21505	Solids, Dissolved	mg/L	4.00	25			5050	46.0	40 to 60			0.298	5
AW21512	Sulfate, Total	mg/L	0.428	1.0	800	3000	2200	20.2	18 to 22	101	80 to 120	0.456	20

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CC:

Reported: 7/12/2017
 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

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: 400-126543-1

TestAmerica Sample Delivery Group: Gaston Gypsum (1)

Client Project/Site: CCR Plant Gaston

For:

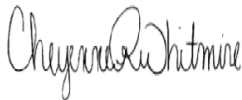
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

9/30/2016 4:51:54 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 Gaston

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Job ID: 400-126543-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-126543-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-268621: The following samples were prepared at a reduced aliquot due to limited volume. AW21384 MW-14S (400-126543-1), AW21385 MW-14S DUP (400-126543-2), AW21386 FB-1 (400-126543-3), AW21387 MW-15 (400-126543-4), AW21387 MW-15 (400-126543-4[DU]) and AW21388 EB-1 (400-126543-5)

Method(s) PrecSep-21: Radium-226 Prep Batch: 160-268616:: The following samples were prepared at a reduced aliquot due to limited volume. AW21384 MW-14S (400-126543-1), AW21385 MW-14S DUP (400-126543-2), AW21386 FB-1 (400-126543-3), AW21387 MW-15 (400-126543-4), AW21387 MW-15 (400-126543-4[DU]) and AW21388 EB-1 (400-126543-5)



Method Summary

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

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

Protocol References:

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

Laboratory References:

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



Sample Summary

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-126543-1	AW21384 MW-14S	Water	08/23/16 10:30	08/30/16 16:08
400-126543-2	AW21385 MW-14S DUP	Water	08/23/16 10:30	08/30/16 16:08
400-126543-3	AW21386 FB-1	Water	08/23/16 10:53	08/30/16 16:08
400-126543-4	AW21387 MW-15	Water	08/23/16 14:07	08/30/16 16:08
400-126543-5	AW21388 EB-1	Water	08/23/16 15:30	08/30/16 16:08

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Client Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Client Sample ID: AW21384 MW-14S

Lab Sample ID: 400-126543-1

Date Collected: 08/23/16 10:30

Matrix: Water

Date Received: 08/30/16 16:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213		0.0823	0.0845	1.00	0.0964	pCi/L	09/08/16 17:31	09/30/16 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/08/16 17:31	09/30/16 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.198	U	0.285	0.286	1.00	0.478	pCi/L	09/08/16 18:24	09/19/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.7		40 - 110					09/08/16 18:24	09/19/16 13:48	1
Y Carrier	91.6		40 - 110					09/08/16 18:24	09/19/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.411	U	0.297	0.298	5.00	0.478	pCi/L		09/30/16 13:40	1

Client Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Client Sample ID: AW21385 MW-14S DUP

Lab Sample ID: 400-126543-2

Date Collected: 08/23/16 10:30

Matrix: Water

Date Received: 08/30/16 16:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.183		0.0787	0.0804	1.00	0.0956	pCi/L	09/08/16 17:31	09/30/16 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					09/08/16 17:31	09/30/16 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.216	U	0.348	0.349	1.00	0.586	pCi/L	09/08/16 18:24	09/19/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.5		40 - 110					09/08/16 18:24	09/19/16 13:48	1
Y Carrier	89.3		40 - 110					09/08/16 18:24	09/19/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.399	U	0.357	0.358	5.00	0.586	pCi/L		09/30/16 13:40	1

Client Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Client Sample ID: AW21386 FB-1

Lab Sample ID: 400-126543-3

Date Collected: 08/23/16 10:53

Matrix: Water

Date Received: 08/30/16 16:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0113	U	0.0411	0.0411	1.00	0.0874	pCi/L	09/08/16 17:31	09/30/16 05:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/08/16 17:31	09/30/16 05:47	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.188	U	0.283	0.283	1.00	0.476	pCi/L	09/08/16 18:24	09/19/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110					09/08/16 18:24	09/19/16 13:48	1
Y Carrier	86.4		40 - 110					09/08/16 18:24	09/19/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.176	U	0.286	0.286	5.00	0.476	pCi/L		09/30/16 13:40	1

Client Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Client Sample ID: AW21387 MW-15

Lab Sample ID: 400-126543-4

Date Collected: 08/23/16 14:07

Matrix: Water

Date Received: 08/30/16 16:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141		0.0663	0.0675	1.00	0.0803	pCi/L	09/08/16 17:31	09/30/16 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					09/08/16 17:31	09/30/16 05:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.322	0.322	1.00	0.540	pCi/L	09/08/16 18:24	09/19/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.6		40 - 110					09/08/16 18:24	09/19/16 13:48	1
Y Carrier	88.6		40 - 110					09/08/16 18:24	09/19/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.352	U	0.329	0.329	5.00	0.540	pCi/L		09/30/16 13:40	1

Client Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Client Sample ID: AW21388 EB-1

Lab Sample ID: 400-126543-5

Date Collected: 08/23/16 15:30

Matrix: Water

Date Received: 08/30/16 16:08

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0300	U	0.0471	0.0472	1.00	0.0814	pCi/L	09/08/16 17:31	09/30/16 05:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					09/08/16 17:31	09/30/16 05:48	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0115	U	0.273	0.273	1.00	0.491	pCi/L	09/08/16 18:24	09/19/16 13:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.9		40 - 110					09/08/16 18:24	09/19/16 13:48	1
Y Carrier	89.3		40 - 110					09/08/16 18:24	09/19/16 13:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0415	U	0.277	0.277	5.00	0.491	pCi/L		09/30/16 13:40	1

Definitions/Glossary

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Client Sample ID: AW21384 MW-14S

Lab Sample ID: 400-126543-1

Date Collected: 08/23/16 10:30

Matrix: Water

Date Received: 08/30/16 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			268616	09/08/16 17:31	MCJ	TAL SL
Total/NA	Analysis	9315		1	272536	09/30/16 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			268621	09/08/16 18:24	MCJ	TAL SL
Total/NA	Analysis	9320		1	270529	09/19/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272577	09/30/16 13:40	RTM	TAL SL

Client Sample ID: AW21385 MW-14S DUP

Lab Sample ID: 400-126543-2

Date Collected: 08/23/16 10:30

Matrix: Water

Date Received: 08/30/16 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			268616	09/08/16 17:31	MCJ	TAL SL
Total/NA	Analysis	9315		1	272536	09/30/16 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			268621	09/08/16 18:24	MCJ	TAL SL
Total/NA	Analysis	9320		1	270529	09/19/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272577	09/30/16 13:40	RTM	TAL SL

Client Sample ID: AW21386 FB-1

Lab Sample ID: 400-126543-3

Date Collected: 08/23/16 10:53

Matrix: Water

Date Received: 08/30/16 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			268616	09/08/16 17:31	MCJ	TAL SL
Total/NA	Analysis	9315		1	272536	09/30/16 05:47	RTM	TAL SL
Total/NA	Prep	PrecSep_0			268621	09/08/16 18:24	MCJ	TAL SL
Total/NA	Analysis	9320		1	270529	09/19/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272577	09/30/16 13:40	RTM	TAL SL

Client Sample ID: AW21387 MW-15

Lab Sample ID: 400-126543-4

Date Collected: 08/23/16 14:07

Matrix: Water

Date Received: 08/30/16 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			268616	09/08/16 17:31	MCJ	TAL SL
Total/NA	Analysis	9315		1	272536	09/30/16 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			268621	09/08/16 18:24	MCJ	TAL SL
Total/NA	Analysis	9320		1	270529	09/19/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272577	09/30/16 13:40	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Client Sample ID: AW21388 EB-1

Lab Sample ID: 400-126543-5

Date Collected: 08/23/16 15:30

Matrix: Water

Date Received: 08/30/16 16:08

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			268616	09/08/16 17:31	MCJ	TAL SL
Total/NA	Analysis	9315		1	272536	09/30/16 05:48	RTM	TAL SL
Total/NA	Prep	PrecSep_0			268621	09/08/16 18:24	MCJ	TAL SL
Total/NA	Analysis	9320		1	270529	09/19/16 13:48	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272577	09/30/16 13:40	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 Gaston

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Rad

Prep Batch: 268616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126543-1	AW21384 MW-14S	Total/NA	Water	PrecSep-21	
400-126543-2	AW21385 MW-14S DUP	Total/NA	Water	PrecSep-21	
400-126543-3	AW21386 FB-1	Total/NA	Water	PrecSep-21	
400-126543-4	AW21387 MW-15	Total/NA	Water	PrecSep-21	
400-126543-5	AW21388 EB-1	Total/NA	Water	PrecSep-21	
MB 160-268616/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-268616/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-126543-4 DU	AW21387 MW-15	Total/NA	Water	PrecSep-21	

Prep Batch: 268621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-126543-1	AW21384 MW-14S	Total/NA	Water	PrecSep_0	
400-126543-2	AW21385 MW-14S DUP	Total/NA	Water	PrecSep_0	
400-126543-3	AW21386 FB-1	Total/NA	Water	PrecSep_0	
400-126543-4	AW21387 MW-15	Total/NA	Water	PrecSep_0	
400-126543-5	AW21388 EB-1	Total/NA	Water	PrecSep_0	
MB 160-268621/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-268621/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-126543-4 DU	AW21387 MW-15	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-268616/1-A
Matrix: Water
Analysis Batch: 272536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 268616

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09138		0.0536	0.0542	1.00	0.0749	pCi/L	09/08/16 17:31	09/30/16 05:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/08/16 17:31	09/30/16 05:47	1

Lab Sample ID: LCS 160-268616/2-A
Matrix: Water
Analysis Batch: 272536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 268616

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.1	13.78		1.33	1.00	0.0682	pCi/L	124	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.6		40 - 110						

Lab Sample ID: 400-126543-4 DU
Matrix: Water
Analysis Batch: 272536

Client Sample ID: AW21387 MW-15
Prep Type: Total/NA
Prep Batch: 268616

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.141		0.1148	U	0.0810	1.00	0.121	pCi/L	0.17	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	93.7		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-268621/1-A
Matrix: Water
Analysis Batch: 270529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 268621

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3214	U	0.241	0.242	1.00	0.379	pCi/L	09/08/16 18:24	09/19/16 13:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					09/08/16 18:24	09/19/16 13:47	1
Y Carrier	91.6		40 - 110					09/08/16 18:24	09/19/16 13:47	1

QC Sample Results

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

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

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

Lab Sample ID: LCS 160-268621/2-A
Matrix: Water
Analysis Batch: 270529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 268621

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	14.5	17.70		1.85	1.00	0.404	pCi/L	122	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	90.6		40 - 110
Y Carrier	92.0		40 - 110

Lab Sample ID: 400-126543-4 DU
Matrix: Water
Analysis Batch: 270529

Client Sample ID: AW21387 MW-15
Prep Type: Total/NA
Prep Batch: 268621

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.212	U	0.09456	U	0.293	1.00	0.507	pCi/L	0.19	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.7		40 - 110
Y Carrier	91.6		40 - 110

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

Lab Sample ID: 400-126543-4 DU
Matrix: Water
Analysis Batch: 272577

Client Sample ID: AW21387 MW-15
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	0.352	U	0.2094	U	0.304	5.00	0.507	pCi/L	0.23	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-126543-1
SDG Number: Gaston Gypsum (1)

Login Number: 126543

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	27.6°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Gaston

TestAmerica Job ID: 400-126543-1
 SDG: Gaston Gypsum (1)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-17
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	07-31-16 *
Kansas	NELAP	7	E-10253	10-31-16
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16
Louisiana	NELAP	6	30976	06-30-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-16
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-17
Rhode Island	State Program	1	LAO00307	12-30-16
South Carolina	State Program	4	96026	06-30-16 *
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-17
Washington	State Program	10	C915	05-15-17
West Virginia DEP	State Program	3	136	06-30-17

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18
Connecticut	State Program	1	PH-0241	03-31-17
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	003757	11-30-16 *
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-16 *
Kentucky (DW)	State Program	4	90125	12-31-16
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA160008	12-31-16
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542016-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-126543-1
SDG: Gaston Gypsum (1)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-17 *
South Carolina	State Program	4	85002001	06-30-16 *
Texas	NELAP	6	T104704193-16-10	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	08-31-16 *

* Certification renewal pending - certification considered valid.

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

Analytical Report

 Alabama Power



Sample Group : WMWGASG_41

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_41

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW22764	575016	575018	575020	WMWGASG_41
AW22765	575016	575018	575020	WMWGASG_41
AW22766	575016	575018	575020	WMWGASG_41
AW22767	575016	575018	575020	WMWGASG_41
AW22768	575016	575018	575020	WMWGASG_41
AW22769	575016	575018	575020	WMWGASG_41
AW22770	575016	575018	575020	WMWGASG_41
AW22771	575016	575018	575020	WMWGASG_41
AW22772	575016	575018	575020	WMWGASG_41
AW22773	575016	575018	575020	WMWGASG_41
AW22774	575017	575019	575021	WMWGASG_41
AW22775	575017	575019	575021	WMWGASG_41
AW22776	575017	575019	575021	WMWGASG_41
AW22777	575017	575019	575021	WMWGASG_41
AW22778	575017	575019	575021	WMWGASG_41
AW22779	575017	575019	575021	WMWGASG_41
AW22780	575017	575019	575021	WMWGASG_41
AW22781	575017	575019	575021	WMWGASG_41
AW22782	575017	575019	575021	WMWGASG_41

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 associated batch samples were analyzed without 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

Gaston Gypsum

WMWGASG_41

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW22764	20160927A	WMWGASG_41
AW22765	20160927A	WMWGASG_41
AW22766	20160927A	WMWGASG_41
AW22767	20160927A	WMWGASG_41
AW22768	20160927A	WMWGASG_41
AW22769	20160927A	WMWGASG_41
AW22770	20160927A	WMWGASG_41
AW22771	20160927A	WMWGASG_41
AW22772	20160927A	WMWGASG_41
AW22773	20160927A	WMWGASG_41
AW22774	20160927B	WMWGASG_41
AW22775	20160927B	WMWGASG_41
AW22776	20160927B	WMWGASG_41
AW22777	20160927B	WMWGASG_41
AW22778	20160927B	WMWGASG_41
AW22779	20160927B	WMWGASG_41
AW22780	20160927B	WMWGASG_41
AW22781	20160927B	WMWGASG_41
AW22782	20160927B	WMWGASG_41

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 with the following exceptions:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	AW22782

The concentration of this analyte in the matrix spike was less than 30 percent of the sample concentration, causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.



<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW22764	Calcium	10X
AW22766	Calcium	10X
AW22768	Calcium	10X
AW22769	Calcium	10X
AW22771	Calcium	10X
AW22772	Calcium	10X
AW22774	Calcium	10X
AW22777	Calcium	10X
AW22778	Calcium	10X
AW22779	Calcium	10X
AW22780	Calcium	10X
AW22782	Calcium	10X
AW22782MS	Calcium	10X
AW22782MSD	Calcium	10X

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



Metals ICPMS

Gaston Gypsum

WMWGASG_41

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW22764	576301	WMWGASG_41
AW22765	576301	WMWGASG_41
AW22766	576301	WMWGASG_41
AW22767	576301	WMWGASG_41
AW22768	576301	WMWGASG_41
AW22769	576301	WMWGASG_41
AW22770	576301	WMWGASG_41
AW22771	576301	WMWGASG_41
AW22772	576301	WMWGASG_41
AW22773	576301	WMWGASG_41
AW22774	576302	WMWGASG_41
AW22775	576302	WMWGASG_41
AW22776	576302	WMWGASG_41
AW22777	576302	WMWGASG_41
AW22778	576302	WMWGASG_41
AW22779	576302	WMWGASG_41
AW22780	576302	WMWGASG_41
AW22781	576302	WMWGASG_41
AW22782	576302	WMWGASG_41

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

Gaston Gypsum

WMWGASG_41

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW22764	575872	WMWGASG_41
AW22765	575872	WMWGASG_41
AW22766	575872	WMWGASG_41
AW22767	575873	WMWGASG_41
AW22768	575873	WMWGASG_41
AW22769	575873	WMWGASG_41
AW22770	575873	WMWGASG_41
AW22771	575873	WMWGASG_41
AW22772	575873	WMWGASG_41
AW22773	575873	WMWGASG_41
AW22774	575873	WMWGASG_41
AW22775	575873	WMWGASG_41
AW22776	575873	WMWGASG_41
AW22777	575874	WMWGASG_41
AW22778	575874	WMWGASG_41
AW22779	575874	WMWGASG_41
AW22780	575874	WMWGASG_41
AW22781	575874	WMWGASG_41
AW22782	575874	WMWGASG_41

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

Gaston Gypsum

WMWGASG_41

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW22764	575331	WMWGASG_41
AW22765	575331	WMWGASG_41
AW22766	575331	WMWGASG_41
AW22767	575331	WMWGASG_41
AW22768	575331	WMWGASG_41
AW22769	575331	WMWGASG_41
AW22770	575331	WMWGASG_41
AW22771	575331	WMWGASG_41
AW22772	575331	WMWGASG_41
AW22773	575332	WMWGASG_41
AW22774	575332	WMWGASG_41
AW22775	575332	WMWGASG_41
AW22776	575332	WMWGASG_41
AW22777	575332	WMWGASG_41
AW22778	575332	WMWGASG_41
AW22779	575332	WMWGASG_41
AW22780	575332	WMWGASG_41
AW22781	575332	WMWGASG_41
AW22782	575332	WMWGASG_41

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. It has been corrected based on the filter volume and project limits. Sample AW22775 is 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 AW22767, AW22773, and AW22776 which were <2.5mg.

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW22764

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	J 0.000730	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0297	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	84.3	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	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	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	295	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	3.21	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.038	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	6.85	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW22764

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	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	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW22764

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60			0.518	5
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW22765

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	J 0.000833	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	0.0289	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	1.65	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	J 0.0316	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	34.8	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	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	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0138	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	188	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.54	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	0.315	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	3.91	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

Alabama Power 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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW22765

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	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	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	

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 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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW22765

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec Rec	Rec Limit	Prec	Prec Limit
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60			0.518	5
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW22766

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	J 0.00197	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0544	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	81.6	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00568	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	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	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	264	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	3.31	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.058	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	9.56	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW22766

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	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	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW22766

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60				0.518 5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW22767

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW22767

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec Limit
			Limit	Spike				Limit	Rec	Limit	Prec	
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20

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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: WMWGASGFB
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW22767

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60				0.518 5

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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.
 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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW22768

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	J 0.00169	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0195	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	J 0.0278	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	62.3	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	200	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.65	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.055	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	6.97	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

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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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW22768

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW22768

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60				0.518 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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW22769

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	J 0.00152	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0190	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	J 0.0278	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	64.1	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	210	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.65	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.054	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	7.00	mg/L

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To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW22769

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	

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

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW22769

Sample	Analysis	Units MB	MB			Sample		LFB	Rec			Prec
			Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Sulfate, Total	mg/L -0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22773	Chloride, Total	mg/L 0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Fluoride, Total	mg/L 0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L 5.00	25			194	46.0	40 to 60				0.518 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



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW22770

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00994	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	7.86	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	37.3	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	3.40	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.042	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	3.84	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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW22770

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	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.
 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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW22770

Sample	Analysis	Units MB	MB			Sample		LFB	Rec		Prec	
			Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Sulfate, Total	mg/L -0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L 5.00	25			194	46.0	40 to 60			0.518	5
AW22773	Fluoride, Total	mg/L 0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Chloride, Total	mg/L 0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	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.
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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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW22771

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0365	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	48.4	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	198	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	4.60	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.062	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	12.4	mg/L

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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

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW22771

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW22771

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60			0.518	5
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	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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 Cadmium MDL was increased from 0.0001 to 0.0002. SGC 3/20/17

CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW22772

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0349	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	47.5	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	192	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	4.56	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.061	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	12.4	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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW22772

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

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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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AW22772

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22772	Solids, Dissolved	mg/L	5.00	25			194	46.0	40 to 60			0.518	5
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	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

CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW22773

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/8/2016	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.
 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: WMWGASGEB
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW22773

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22773 Lithium, Total	mg/L	0.0000365	0.022	0.20	0.206	0.210	0.206	0.17 to 0.23	103	70 to 130	1.92	20	
AW22773 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0986	0.101	0.106	0.085 to 0.115	98.6	70 to 130	2.31	20	
AW22773 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.101	0.103	0.0985	0.085 to 0.115	101	70 to 130	2.10	20	
AW22773 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.102	0.103	0.0997	0.085 to 0.115	102	70 to 130	1.01	20	
AW22773 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0974	0.101	0.0971	0.085 to 0.115	97.4	70 to 130	4.14	20	
AW22773 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0986	0.103	0.104	0.085 to 0.115	98.6	70 to 130	4.17	20	
AW22773 Boron, Total	mg/L	-0.00318	0.044	1.00	0.937	0.948	0.926	0.85 to 1.15	93.7	70 to 130	1.17	20	
AW22773 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0959	0.0974	0.0979	0.085 to 0.115	95.9	70 to 130	1.62	20	
AW22773 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.101	0.102	0.0996	0.085 to 0.115	101	70 to 130	1.03	20	
AW22773 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0944	0.0945	0.103	0.085 to 0.115	94.4	70 to 130	0.0588	20	
AW22773 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0955	0.0968	0.0970	0.085 to 0.115	95.5	70 to 130	1.39	20	
AW22773 Calcium, Total	mg/L	-0.0486	0.22	5.00	4.92	5.06	4.83	4.25 to 5.75	98.5	70 to 130	2.81	20	
AW22773 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0976	0.0989	0.0985	0.085 to 0.115	97.6	70 to 130	1.29	20	
AW22773 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0973	0.101	0.0956	0.085 to 0.115	97.3	70 to 130	4.17	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	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: WMWGASGEB
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW22773

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22773	Chloride, Total	mg/L	0.000	0.25	10.00	9.87	0.000	9.86	9 to 11	98.7	80 to 120	0	20
AW22773	Fluoride, Total	mg/L	0.000	0.3	2.00	2.13	0.000	2.03	1.8 to 2.2	106	80 to 120	0	20
AW22773	Sulfate, Total	mg/L	-0.006	1.0	20.00	19.9	0.000	19.2	18 to 22	99.5	80 to 120	0	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60				0.962 5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW22774

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0378	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	49.7	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00281	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	180	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	4.23	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.052	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	11.2	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW22774

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW22774

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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CC:

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW22775

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0144	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	1.09	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.92	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.036	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	1.14	mg/L

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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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW22775

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW22775

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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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: WMWGASGFB
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW22776

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	U Not Detected	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

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Laboratory ID Number: AW22776

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW22776 Mercury, Total by CVAA	mg/L	0.000112	0.0005	0.004	0.00391	0.00386	0.00389	0.0034 to 0.0046	97.8	70 to 130	1.30	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	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



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 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW22776

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW22777

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0204	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	62.2	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00370	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	204	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.97	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.080	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	10.6	mg/L

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 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW22777

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046		98.5	70 to 130	0.488	20
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23		106	70 to 130	5.08	20
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15		99.4	70 to 130	1.62	20
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115		91.8	70 to 130	0.309	20
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115		96.3	70 to 130	0.391	20
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115		97.1	70 to 130	0.297	20
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115		96.4	70 to 130	0.0313	20
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115		93.9	70 to 130	0.267	20
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115		97.6	70 to 130	0.0130	20
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115		96.2	70 to 130	0.851	20
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115		91.3	70 to 130	0.179	20
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115		95.1	70 to 130	0.298	20
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75		82.9	70 to 130	1.96	20
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115		88.8	70 to 130	0.639	20
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115		96.4	70 to 130	0.146	20

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

Batch QC Summary



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 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW22777

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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 Version: 2.0

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

Certificate Of Analysis  **Alabama Power**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW22778

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	J 0.00137	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0312	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	57.3	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00466	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	193	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	1.70	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.153	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	1.31	mg/L

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Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW22778

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046	98.5	70 to 130	0.488	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW22778

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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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**

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW22779

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0331	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	94.5	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	245	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.51	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.037	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	1.53	mg/L

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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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW22779

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046	98.5	70 to 130	0.488	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	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: WMWGASG
 Sample Date: 06-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW22779

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW22780

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	J 0.00101	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0292	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	53.8	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	173	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.32	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.057	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	5.31	mg/L

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Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW22780

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046	98.5	70 to 130	0.488	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	20	

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Alabama Power General Test Laboratory
 744 County Road 87, GSC#8
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 FAX (205) 257-1654

Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW22780

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	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

CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW22781

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0101	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	J 0.0319	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		1	0.1	0.5	9.73	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	J 0.00737	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	96.0	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	4.51	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.041	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	14.9	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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW22781

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046	98.5	70 to 130	0.488	20	
AW22782 Boron, Total	mg/L	0.000557	0.044	1.00	0.994	0.978	0.933	0.85 to 1.15	99.4	70 to 130	1.62	20	
AW22782 Cobalt, Total	mg/L	-0.00000373	0.0044	0.10	0.0918	0.0915	0.0979	0.085 to 0.115	91.8	70 to 130	0.309	20	
AW22782 Thallium, Total	mg/L	0.0000134	0.00044	0.10	0.0963	0.0967	0.0956	0.085 to 0.115	96.3	70 to 130	0.391	20	
AW22782 Arsenic, Total	mg/L	0.0000135	0.0022	0.10	0.0951	0.0954	0.106	0.085 to 0.115	95.1	70 to 130	0.298	20	
AW22782 Calcium, Total	mg/L	-0.0484	0.22	5.00	103	101	4.79	4.25 to 5.75	82.9	70 to 130	1.96	20	
AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
AW22782 Chromium, Total	mg/L	0.0000241	0.0044	0.10	0.0964	0.0963	0.0985	0.085 to 0.115	96.4	70 to 130	0.146	20	
AW22782 Antimony, Total	mg/L	0.000126	0.00132	0.10	0.0939	0.0941	0.0985	0.085 to 0.115	93.9	70 to 130	0.267	20	
AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
AW22782 Lead, Total	mg/L	0.0000114	0.0022	0.10	0.0962	0.0954	0.0971	0.085 to 0.115	96.2	70 to 130	0.851	20	
AW22782 Selenium, Total	mg/L	0.0000665	0.0044	0.10	0.0913	0.0912	0.103	0.085 to 0.115	91.3	70 to 130	0.179	20	
AW22782 Beryllium, Total	mg/L	0.00000701	0.00132	0.10	0.0971	0.0974	0.104	0.085 to 0.115	97.1	70 to 130	0.297	20	
AW22782 Molybdenum, Total	mg/L	0.00000751	0.0044	0.10	0.0964	0.0964	0.0996	0.085 to 0.115	96.4	70 to 130	0.0313	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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW22781

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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CC:

Reported: 7/12/2017
 Version: 2.0

Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW22782

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	12/6/2016	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	0.0453	mg/L
* Beryllium, Total	JHK	9/22/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	9/27/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	9/27/2016	EPA 200.7		10	1.0	5.0	98.6	mg/L
* Cadmium, Total	JHK	9/22/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	9/19/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	9/27/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	9/22/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	9/22/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	9/22/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	DLJ	9/13/2016	SM 2540C		1		25	309	mg/L
* Chloride, Total	SES	9/8/2016	EPA 300.0		1	0.04	0.25	2.95	mg/L
* Fluoride, Total	SES	9/8/2016	EPA 300.0		1	0.01	0.3	J 0.073	mg/L
* Sulfate, Total	SES	9/8/2016	EPA 300.0		1	0.3	1	22.2	mg/L

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 Recovery for Calcium is out of range.
 Spike amount is less than 30% the sample amount, therefore will not be qualified. SGC 12/6/16

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: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW22782

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW22782 Lithium, Total	mg/L	0.000159	0.022	0.20	0.211	0.222	0.206	0.17 to 0.23	106	70 to 130	5.08	20	
AW23394 Mercury, Total by CVAA	mg/L	0.000113	0.0005	0.004	0.00394	0.00392	0.00389	0.0034 to 0.0046	98.5	70 to 130	0.488	20	
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AW22782 Barium, Total	mg/L	-0.00000342	0.0044	0.10	0.143	0.143	0.0997	0.085 to 0.115	97.6	70 to 130	0.0130	20	
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AW22782 Cadmium, Total	mg/L	0.00000272	0.00044	0.10	0.0888	0.0883	0.0970	0.085 to 0.115	88.8	70 to 130	0.639	20	
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Batch QC Summary



Corrected Copy



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 07-Sep-16
 Customer ID:
 Delivery Date: 07-Sep-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW22782

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec Limit	Prec	Limit	
AW22782	Sulfate, Total	mg/L	-0.007	1.0	20.00	42.2	22.1	18.4	18 to 22	100	80 to 120	0.451	20
AW22782	Chloride, Total	mg/L	0.000	0.25	10.00	12.7	2.93	9.86	9 to 11	97.5	80 to 120	0.680	20
AW22782	Fluoride, Total	mg/L	0.000	0.3	2.00	1.90	0.073	1.90	1.8 to 2.2	91.4	80 to 120	0.00	20
AW22782	Solids, Dissolved	mg/L	5.00	25			315	46.0	40 to 60			0.962	5

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 Recovery for Calcium is out of range.
 Spike amount is less than 30% the sample amount, therefore will not be qualified. SGC 12/6/16

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: 400-127441-1

TestAmerica Sample Delivery Group: Gaston Gypsum (4)

Client Project/Site: CCR Plant Gaston

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

10/19/2016 2:20:55 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 Gaston

TestAmerica Job ID: 400-127441-1
SDG: Gaston Gypsum (4)

Job ID: 400-127441-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-127441-1

RAD

Method(s) 9320: Radium-228 Prep Batch 160-271780: The radium-228 detection goal was not met for the following sample due to insufficient sample available for analysis (see prep NCM 95299): AW22768 MW-12 (400-127441-5). In addition, the sample has a lower yttrium and barium carrier recovery contributing to an elevated MDC. Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 Prep Batch: 160-271780: The following samples were prepared at a reduced aliquot due to limited volume AW22764 MW-2 (400-127441-1), AW22765 MW-1 (400-127441-2), AW22766 MW-13 (400-127441-3), AW22767 FB-2 (400-127441-4), AW22768 MW-12 (400-127441-5), AW22769 MW-12 DUP (400-127441-6), AW22770 MW-15 (400-127441-7), AW22771 MW-14S (400-127441-8), AW22772 MW-14S DUP (400-127441-9), AW22773 EB-1 (400-127441-10), AW22774 MW-5 (400-127441-11), AW22775 MW-6 (400-127441-12), AW22776 FB-1 (400-127441-13), AW22777 MW-7 (400-127441-14), AW22778 MW-8 (400-127441-15), AW22779 MW-10 (400-127441-16), AW22780 MW-9 (400-127441-17), AW22781 MW-11 (400-127441-18), AW22782 MW-3 (400-127441-19) and (400-127441-B-11 DU).

Method(s) PrecSep-21: Radium-226 Prep Batch: 160-271751: The following samples were run at reduced aliquot due to limited volume: AW22764 MW-2 (400-127441-1), AW22765 MW-1 (400-127441-2), AW22766 MW-13 (400-127441-3), AW22767 FB-2 (400-127441-4), AW22768 MW-12 (400-127441-5), AW22769 MW-12 DUP (400-127441-6), AW22770 MW-15 (400-127441-7), AW22771 MW-14S (400-127441-8), AW22772 MW-14S DUP (400-127441-9), AW22773 EB-1 (400-127441-10), AW22774 MW-5 (400-127441-11), AW22775 MW-6 (400-127441-12), AW22776 FB-1 (400-127441-13), AW22777 MW-7 (400-127441-14), AW22778 MW-8 (400-127441-15), AW22779 MW-10 (400-127441-16), AW22780 MW-9 (400-127441-17), AW22781 MW-11 (400-127441-18), AW22782 MW-3 (400-127441-19) and (400-127441-B-11 DU).

Method Summary

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

TestAmerica Job ID: 400-127441-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-127441-1
SDG: Gaston Gypsum (4)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-127441-1	AW22764 MW-2	Water	09/06/16 10:50	09/20/16 15:35
400-127441-2	AW22765 MW-1	Water	09/06/16 11:55	09/20/16 15:35
400-127441-3	AW22766 MW-13	Water	09/06/16 12:55	09/20/16 15:35
400-127441-4	AW22767 FB-2	Water	09/06/16 12:58	09/20/16 15:35
400-127441-5	AW22768 MW-12	Water	09/06/16 13:55	09/20/16 15:35
400-127441-6	AW22769 MW-12 DUP	Water	09/06/16 13:55	09/20/16 15:35
400-127441-7	AW22770 MW-15	Water	09/07/16 10:50	09/20/16 15:35
400-127441-8	AW22771 MW-14S	Water	09/07/16 12:05	09/20/16 15:35
400-127441-9	AW22772 MW-14S DUP	Water	09/07/16 12:05	09/20/16 15:35
400-127441-10	AW22773 EB-1	Water	09/07/16 12:40	09/20/16 15:35
400-127441-11	AW22774 MW-5	Water	09/06/16 11:08	09/20/16 15:35
400-127441-12	AW22775 MW-6	Water	09/06/16 12:05	09/20/16 15:35
400-127441-13	AW22776 FB-1	Water	09/06/16 12:13	09/20/16 15:35
400-127441-14	AW22777 MW-7	Water	09/06/16 13:24	09/20/16 15:35
400-127441-15	AW22778 MW-8	Water	09/06/16 14:55	09/20/16 15:35
400-127441-16	AW22779 MW-10	Water	09/06/16 16:06	09/20/16 15:35
400-127441-17	AW22780 MW-9	Water	09/07/16 09:59	09/20/16 15:35
400-127441-18	AW22781 MW-11	Water	09/07/16 11:48	09/20/16 15:35
400-127441-19	AW22782 MW-3	Water	09/07/16 13:08	09/20/16 15:35

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22764 MW-2

Lab Sample ID: 400-127441-1

Date Collected: 09/06/16 10:50

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156		0.0829	0.0840	1.00	0.109	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.101	U	0.399	0.399	1.00	0.725	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.6		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	80.7		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0553	U	0.407	0.408	5.00	0.725	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22765 MW-1

Lab Sample ID: 400-127441-2

Date Collected: 09/06/16 11:55

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.590		0.138	0.148	1.00	0.123	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.503	U	0.372	0.375	1.00	0.580	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	78.5		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.09		0.397	0.403	5.00	0.580	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22766 MW-13

Lab Sample ID: 400-127441-3

Date Collected: 09/06/16 12:55

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.198		0.0890	0.0907	1.00	0.107	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.272	U	0.382	0.383	1.00	0.639	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.5		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	78.5		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.470	U	0.392	0.393	5.00	0.639	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22767 FB-2

Lab Sample ID: 400-127441-4

Date Collected: 09/06/16 12:58

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0459	U	0.0621	0.0623	1.00	0.104	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.353	U	0.398	0.399	1.00	0.653	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	81.9		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.399	U	0.402	0.404	5.00	0.653	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22768 MW-12

Lab Sample ID: 400-127441-5

Date Collected: 09/06/16 13:55

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.138	U	0.102	0.102	1.00	0.150	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.0		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.890	U G	0.739	0.744	1.00	1.17	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	63.0		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	58.3		40 - 110					09/26/16 14:51	10/11/16 18:34	1

Method: Ra226_Ra228 - Combined Radium-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	U	0.746	0.751	5.00	1.17	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22769 MW-12 DUP

Lab Sample ID: 400-127441-6

Date Collected: 09/06/16 13:55

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108	U	0.0825	0.0830	1.00	0.124	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0939	U	0.349	0.349	1.00	0.609	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.7		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	81.5		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.202	U	0.358	0.358	5.00	0.609	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22770 MW-15

Lab Sample ID: 400-127441-7

Date Collected: 09/07/16 10:50

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.197		0.110	0.111	1.00	0.156	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.882		0.462	0.469	1.00	0.682	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	75.9		40 - 110					09/26/16 14:51	10/11/16 18:34	1

Method: Ra226_Ra228 - Combined Radium-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		0.474	0.482	5.00	0.682	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22771 MW-14S

Lab Sample ID: 400-127441-8

Date Collected: 09/07/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.217		0.0878	0.0900	1.00	0.0973	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.662	U	0.446	0.450	1.00	0.692	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	75.1		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.880		0.455	0.459	5.00	0.692	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22772 MW-14S DUP

Lab Sample ID: 400-127441-9

Date Collected: 09/07/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.261		0.114	0.116	1.00	0.148	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.471	U	0.432	0.435	1.00	0.696	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	77.4		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.732		0.447	0.450	5.00	0.696	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22773 EB-1

Lab Sample ID: 400-127441-10

Date Collected: 09/07/16 12:40

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0281	U	0.0783	0.0784	1.00	0.140	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.396	U	0.502	0.503	1.00	0.833	pCi/L	09/26/16 14:51	10/11/16 18:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.3		40 - 110					09/26/16 14:51	10/11/16 18:34	1
Y Carrier	60.6		40 - 110					09/26/16 14:51	10/11/16 18:34	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.424	U	0.508	0.509	5.00	0.833	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22774 MW-5

Lab Sample ID: 400-127441-11

Date Collected: 09/06/16 11:08

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.197		0.0885	0.0902	1.00	0.106	pCi/L	09/26/16 12:03	10/18/16 10:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/26/16 12:03	10/18/16 10:30	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.436	U	0.373	0.376	1.00	0.595	pCi/L	09/26/16 14:51	10/11/16 18:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/26/16 14:51	10/11/16 18:35	1
Y Carrier	81.5		40 - 110					09/26/16 14:51	10/11/16 18:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.633		0.384	0.386	5.00	0.595	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22775 MW-6

Lab Sample ID: 400-127441-12

Date Collected: 09/06/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.150		0.0828	0.0839	1.00	0.111	pCi/L	09/26/16 12:03	10/18/16 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/26/16 12:03	10/18/16 10:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.458	U	0.414	0.416	1.00	0.665	pCi/L	09/26/16 14:51	10/11/16 18:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		40 - 110					09/26/16 14:51	10/11/16 18:35	1
Y Carrier	76.3		40 - 110					09/26/16 14:51	10/11/16 18:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.607	U	0.422	0.425	5.00	0.665	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22776 FB-1

Lab Sample ID: 400-127441-13

Date Collected: 09/06/16 12:13

Matrix: Water

Date Received: 09/20/16 15:35

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	0.0828	0.0833	1.00	0.124	pCi/L	09/26/16 12:03	10/18/16 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 12:03	10/18/16 10:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.229	U	0.342	0.343	1.00	0.662	pCi/L	09/26/16 14:51	10/11/16 18:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					09/26/16 14:51	10/11/16 18:35	1
Y Carrier	77.4		40 - 110					09/26/16 14:51	10/11/16 18:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.119	U	0.352	0.353	5.00	0.662	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22777 MW-7

Lab Sample ID: 400-127441-14

Date Collected: 09/06/16 13:24

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.186		0.0857	0.0874	1.00	0.102	pCi/L	09/26/16 12:03	10/18/16 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/26/16 12:03	10/18/16 10:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.672	U	0.504	0.508	1.00	0.797	pCi/L	09/26/16 14:51	10/11/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.6		40 - 110					09/26/16 14:51	10/11/16 18:57	1
Y Carrier	80.4		40 - 110					09/26/16 14:51	10/11/16 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	0.858		0.512	0.516	5.00	0.797	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22778 MW-8

Lab Sample ID: 400-127441-15

Date Collected: 09/06/16 14:55

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.176		0.103	0.104	1.00	0.148	pCi/L	09/26/16 12:03	10/18/16 10:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					09/26/16 12:03	10/18/16 10:38	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.228	U	0.392	0.393	1.00	0.742	pCi/L	09/26/16 14:51	10/11/16 18:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.8		40 - 110					09/26/16 14:51	10/11/16 18:57	1
Y Carrier	80.7		40 - 110					09/26/16 14:51	10/11/16 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	-0.0526	U	0.405	0.406	5.00	0.742	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22779 MW-10

Lab Sample ID: 400-127441-16

Date Collected: 09/06/16 16:06

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.171		0.0831	0.0845	1.00	0.103	pCi/L	09/26/16 12:03	10/18/16 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 12:03	10/18/16 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.419	U	0.376	0.378	1.00	0.602	pCi/L	09/26/16 14:51	10/11/16 18:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 14:51	10/11/16 18:35	1
Y Carrier	78.1		40 - 110					09/26/16 14:51	10/11/16 18:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.590	U	0.385	0.388	5.00	0.602	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22780 MW-9

Lab Sample ID: 400-127441-17

Date Collected: 09/07/16 09:59

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111		0.0715	0.0722	1.00	0.0986	pCi/L	09/26/16 12:03	10/18/16 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 12:03	10/18/16 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.347	U	0.389	0.390	1.00	0.638	pCi/L	09/26/16 14:51	10/11/16 18:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		40 - 110					09/26/16 14:51	10/11/16 18:36	1
Y Carrier	75.5		40 - 110					09/26/16 14:51	10/11/16 18:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.458	U	0.395	0.397	5.00	0.638	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22781 MW-11

Lab Sample ID: 400-127441-18

Date Collected: 09/07/16 11:48

Matrix: Water

Date Received: 09/20/16 15:35

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.522		0.136	0.144	1.00	0.115	pCi/L	09/26/16 12:03	10/18/16 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/26/16 12:03	10/18/16 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.567	0.586	1.00	0.799	pCi/L	09/26/16 14:51	10/11/16 18:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					09/26/16 14:51	10/11/16 18:39	1
Y Carrier	80.0		40 - 110					09/26/16 14:51	10/11/16 18:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.13		0.583	0.604	5.00	0.799	pCi/L		10/19/16 08:55	1

Client Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22782 MW-3

Lab Sample ID: 400-127441-19

Date Collected: 09/07/16 13:08

Matrix: Water

Date Received: 09/20/16 15:35

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		0.0761	0.0768	1.00	0.108	pCi/L	09/26/16 12:03	10/18/16 10:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					09/26/16 12:03	10/18/16 10:39	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.34		0.511	0.526	1.00	0.717	pCi/L	09/26/16 14:51	10/11/16 18:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110					09/26/16 14:51	10/11/16 18:39	1
Y Carrier	77.4		40 - 110					09/26/16 14:51	10/11/16 18:39	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.45		0.517	0.531	5.00	0.717	pCi/L		10/19/16 08:55	1

Definitions/Glossary

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

TestAmerica Job ID: 400-127441-1
SDG: Gaston Gypsum (4)

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
G	The Sample MDC is greater than the requested RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, 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 Gaston

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22764 MW-2

Lab Sample ID: 400-127441-1

Date Collected: 09/06/16 10:50

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22765 MW-1

Lab Sample ID: 400-127441-2

Date Collected: 09/06/16 11:55

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22766 MW-13

Lab Sample ID: 400-127441-3

Date Collected: 09/06/16 12:55

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22767 FB-2

Lab Sample ID: 400-127441-4

Date Collected: 09/06/16 12:58

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-127441-1
SDG: Gaston Gypsum (4)

Client Sample ID: AW22768 MW-12

Lab Sample ID: 400-127441-5

Date Collected: 09/06/16 13:55

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22769 MW-12 DUP

Lab Sample ID: 400-127441-6

Date Collected: 09/06/16 13:55

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22770 MW-15

Lab Sample ID: 400-127441-7

Date Collected: 09/07/16 10:50

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22771 MW-14S

Lab Sample ID: 400-127441-8

Date Collected: 09/07/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22772 MW-14S DUP

Lab Sample ID: 400-127441-9

Date Collected: 09/07/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22773 EB-1

Lab Sample ID: 400-127441-10

Date Collected: 09/07/16 12:40

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:34	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22774 MW-5

Lab Sample ID: 400-127441-11

Date Collected: 09/06/16 11:08

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274963	10/18/16 10:30	JLW	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22775 MW-6

Lab Sample ID: 400-127441-12

Date Collected: 09/06/16 12:05

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-127441-1
SDG: Gaston Gypsum (4)

Client Sample ID: AW22776 FB-1

Lab Sample ID: 400-127441-13

Date Collected: 09/06/16 12:13

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22777 MW-7

Lab Sample ID: 400-127441-14

Date Collected: 09/06/16 13:24

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274017	10/11/16 18:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22778 MW-8

Lab Sample ID: 400-127441-15

Date Collected: 09/06/16 14:55

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274017	10/11/16 18:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22779 MW-10

Lab Sample ID: 400-127441-16

Date Collected: 09/06/16 16:06

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:35	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW22780 MW-9

Lab Sample ID: 400-127441-17

Date Collected: 09/07/16 09:59

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274024	10/11/16 18:36	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22781 MW-11

Lab Sample ID: 400-127441-18

Date Collected: 09/07/16 11:48

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274017	10/11/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	RTM	TAL SL

Client Sample ID: AW22782 MW-3

Lab Sample ID: 400-127441-19

Date Collected: 09/07/16 13:08

Matrix: Water

Date Received: 09/20/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			271751	09/26/16 12:03	ATS	TAL SL
Total/NA	Analysis	9315		1	274964	10/18/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			271780	09/26/16 14:51	CMC	TAL SL
Total/NA	Analysis	9320		1	274017	10/11/16 18:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	275105	10/19/16 08:55	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 Gaston

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Rad

Prep Batch: 271751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127441-1	AW22764 MW-2	Total/NA	Water	PrecSep-21	
400-127441-2	AW22765 MW-1	Total/NA	Water	PrecSep-21	
400-127441-3	AW22766 MW-13	Total/NA	Water	PrecSep-21	
400-127441-4	AW22767 FB-2	Total/NA	Water	PrecSep-21	
400-127441-5	AW22768 MW-12	Total/NA	Water	PrecSep-21	
400-127441-6	AW22769 MW-12 DUP	Total/NA	Water	PrecSep-21	
400-127441-7	AW22770 MW-15	Total/NA	Water	PrecSep-21	
400-127441-8	AW22771 MW-14S	Total/NA	Water	PrecSep-21	
400-127441-9	AW22772 MW-14S DUP	Total/NA	Water	PrecSep-21	
400-127441-10	AW22773 EB-1	Total/NA	Water	PrecSep-21	
400-127441-11	AW22774 MW-5	Total/NA	Water	PrecSep-21	
400-127441-12	AW22775 MW-6	Total/NA	Water	PrecSep-21	
400-127441-13	AW22776 FB-1	Total/NA	Water	PrecSep-21	
400-127441-14	AW22777 MW-7	Total/NA	Water	PrecSep-21	
400-127441-15	AW22778 MW-8	Total/NA	Water	PrecSep-21	
400-127441-16	AW22779 MW-10	Total/NA	Water	PrecSep-21	
400-127441-17	AW22780 MW-9	Total/NA	Water	PrecSep-21	
400-127441-18	AW22781 MW-11	Total/NA	Water	PrecSep-21	
400-127441-19	AW22782 MW-3	Total/NA	Water	PrecSep-21	
MB 160-271751/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-271751/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-127441-11 DU	AW22774 MW-5	Total/NA	Water	PrecSep-21	

Prep Batch: 271780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-127441-1	AW22764 MW-2	Total/NA	Water	PrecSep_0	
400-127441-2	AW22765 MW-1	Total/NA	Water	PrecSep_0	
400-127441-3	AW22766 MW-13	Total/NA	Water	PrecSep_0	
400-127441-4	AW22767 FB-2	Total/NA	Water	PrecSep_0	
400-127441-5	AW22768 MW-12	Total/NA	Water	PrecSep_0	
400-127441-6	AW22769 MW-12 DUP	Total/NA	Water	PrecSep_0	
400-127441-7	AW22770 MW-15	Total/NA	Water	PrecSep_0	
400-127441-8	AW22771 MW-14S	Total/NA	Water	PrecSep_0	
400-127441-9	AW22772 MW-14S DUP	Total/NA	Water	PrecSep_0	
400-127441-10	AW22773 EB-1	Total/NA	Water	PrecSep_0	
400-127441-11	AW22774 MW-5	Total/NA	Water	PrecSep_0	
400-127441-12	AW22775 MW-6	Total/NA	Water	PrecSep_0	
400-127441-13	AW22776 FB-1	Total/NA	Water	PrecSep_0	
400-127441-14	AW22777 MW-7	Total/NA	Water	PrecSep_0	
400-127441-15	AW22778 MW-8	Total/NA	Water	PrecSep_0	
400-127441-16	AW22779 MW-10	Total/NA	Water	PrecSep_0	
400-127441-17	AW22780 MW-9	Total/NA	Water	PrecSep_0	
400-127441-18	AW22781 MW-11	Total/NA	Water	PrecSep_0	
400-127441-19	AW22782 MW-3	Total/NA	Water	PrecSep_0	
MB 160-271780/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-271780/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-127441-11 DU	AW22774 MW-5	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-271751/1-A
Matrix: Water
Analysis Batch: 274963

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271751

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.04343	U	0.0719	0.0720	1.00	0.124	pCi/L	09/26/16 12:03	10/18/16 10:29	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.8		40 - 110		09/26/16 12:03	10/18/16 10:29	1			

Lab Sample ID: LCS 160-271751/2-A
Matrix: Water
Analysis Batch: 274963

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271751

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	14.8	19.14		1.86	1.00	0.111	pCi/L	129	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	84.6		40 - 110						

Lab Sample ID: 400-127441-11 DU
Matrix: Water
Analysis Batch: 274963

Client Sample ID: AW22774 MW-5
Prep Type: Total/NA
Prep Batch: 271751

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.197		0.1357		0.0892	1.00	0.128	pCi/L	0.34	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	91.5		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-271780/1-A
Matrix: Water
Analysis Batch: 274024

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 271780

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.6609	U	0.481	0.485	1.00	0.755	pCi/L	09/26/16 14:51	10/11/16 18:33	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.8		40 - 110		09/26/16 14:51	10/11/16 18:33	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	75.5		40 - 110		09/26/16 14:51	10/11/16 18:33	1			

QC Sample Results

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

TestAmerica Job ID: 400-127441-1
 SDG: Gaston Gypsum (4)

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

Lab Sample ID: LCS 160-271780/2-A
Matrix: Water
Analysis Batch: 274024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 271780

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	19.2	22.39		2.47	1.00	0.635	pCi/L	116	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	84.6		40 - 110
Y Carrier	78.5		40 - 110

Lab Sample ID: 400-127441-11 DU
Matrix: Water
Analysis Batch: 274024

Client Sample ID: AW22774 MW-5
Prep Type: Total/NA
Prep Batch: 271780

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.436	U	0.2880	U	0.375	1.00	0.622	pCi/L	0.20	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	91.5		40 - 110
Y Carrier	81.9		40 - 110

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: Gaston Gypsum (4)

Sampler: Anthony Goggins
 Lab PVI: Whitmire, Cheyenne R
 Carrier Tracking No(s):
 Lab PVI: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Job #: 40007143
 SSOW#: 40007143
 Project #: 40007143
 CCR: 40007143

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, B=BIOTISSUE, A=Air)	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:	Analysis Requested	
									Preservation Code	Preservation Codes
AW22774	9/6/16	1108	G	Water	X	X	2	MW-5		
AW22775	9/6/16	1205	G	Water	X	X	1	MW-6		
AW22776	9/6/16	1213	G	Water	X	X	1	FB-1 (Field Blank)		
AW22777	9/6/16	1324	G	Water	X	X		MW-7		
AW22778	9/6/16	1455	G	Water	X	X		MW-8		
AW22779	9/6/16	1606	G	Water	X	X		MW-10		
AW22780	9/7/16	0959	G	Water	X	X		MW-9		
AW22781	9/7/16	1148	G	Water	X	X		MW-11		
AW22782	9/7/16	1308	G	Water	X	X		MW-3		

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

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

Special Instructions/ QC Requirements:
 Return To Client Disposal By Lab Archive For _____ Months

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Empty Kit Relinquished by: Sarah Copeland
 Date/Time: 09/20/2016; 11:30
 Company: APC

Relinquished by:
 Date/Time:
 Company:

Relinquished by:
 Date/Time:
 Company:

Custody Seals Intact:
 A Yes A No
 Custody Seal No.:

Received by: [Signature]
 Date/Time: 9/20/16 1535
 Company: TIA - PEN

Received by:
 Date/Time:
 Company:

Received by:
 Date/Time:
 Company:

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-127441-1
SDG Number: Gaston Gypsum (4)

Login Number: 127441

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 Gaston

TestAmerica Job ID: 400-127441-1
 SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-127441-1
SDG: Gaston 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	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
USDA	Federal		P330-14-0016	01-09-17
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17

* Certification renewal pending - certification considered valid.

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

Analytical Report

 Alabama Power



Sample Group : WMWGASG_1057

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_1057

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Chloride Batch ID</u>	<u>Fluoride Batch ID</u>	<u>Sulfate Batch ID</u>	<u>Project ID</u>
AW28002	581865	581867	581869	WMWGASG_1057
AW28003	581865	581867	581869	WMWGASG_1057
AW28004	581865	581867	581869	WMWGASG_1057
AW28005	581865	581867	581869	WMWGASG_1057
AW28006	581865	581867	581869	WMWGASG_1057
AW28007	581865	581867	581869	WMWGASG_1057
AW28082	581865	581867	581869	WMWGASG_1057
AW28083	581865	581867	581869	WMWGASG_1057
AW28084	581865	581867	581869	WMWGASG_1057
AW28085	581865	581867	581869	WMWGASG_1057
AW28086	581866	581868	581870	WMWGASG_1057
AW28087	581866	581868	581870	WMWGASG_1057
AW28088	581866	581868	581870	WMWGASG_1057
AW28089	581866	581868	581870	WMWGASG_1057
AW28090	581866	581868	581870	WMWGASG_1057
AW28091	581866	581868	581870	WMWGASG_1057
AW28092	581866	581868	581870	WMWGASG_1057
AW28093	581866	581868	581870	WMWGASG_1057
AW28094	581866	581868	581870	WMWGASG_1057

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exception:



1. The blank for anion sulfate in batch 581870 presented a negative concentration above the MDL of 0.3, at -0.763 mg/L. One batch sample (AW28092) presented a negative sulfate concentration below 10x the absolute value of the sulfate blank, and should be considered as a quantitatively estimated non-detect concentration, with the potential for low bias on the reported RL value. Six batch samples (AW28086, AW28087, AW28089, AW28090, AW28091 and AW28093) presented positive sulfate concentrations above the RL but below 10x the absolute value of the sulfate blank, and should be considered as quantitatively estimated with the potential for low bias on the reported results.
- All laboratory fortified blanks (LFB) were within acceptance criteria for the anions requested, with the following exceptions:
 1. The closing LFB for fluoride in batch 581867 was below the lower recovery limit of 90%, at 89%. Due to low LFB recovery, the reported results for associated batch fluoride samples AW28002, AW28003, AW28004, AW28006, AW28007 and AW28082 - AW28085, inclusive, are qualified as quantitatively estimated non-detect values with indication of potential low bias on the reported RL values; the reported result for fluoride in sample AW28005 is qualified as a quantitatively estimated value with indication of potential low bias on the reported result.
 2. The opening LFB for fluoride in batch 581868 was below the lower recovery limit of 90%, at 89%. Due to low LFB recovery, the reported results for associated batch fluoride samples AW28088 - AW28094, inclusive, are qualified as quantitatively estimated non-detect values with indication of potential low bias on the reported RL values; the reported results for fluoride in samples AW28086 and AW28087 are qualified as quantitatively estimated values with indication of potential low bias on the reported results.
 - 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 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

Gaston Gypsum

WMWGASG_1057

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW28002	20161206	WMWGASG_1057
AW28003	20161206	WMWGASG_1057
AW28004	20161206	WMWGASG_1057
AW28005	20161206	WMWGASG_1057
AW28006	20161206	WMWGASG_1057
AW28007	20161206	WMWGASG_1057
AW28082	20161206	WMWGASG_1057
AW28083	20161206	WMWGASG_1057
AW28084	20161206A	WMWGASG_1057
AW28085	20161206A	WMWGASG_1057
AW28086	20161206A	WMWGASG_1057
AW28087	20161206A	WMWGASG_1057
AW28088	20161206A	WMWGASG_1057
AW28089	20161206A	WMWGASG_1057
AW28090	20161206A	WMWGASG_1057
AW28091	20161206A	WMWGASG_1057
AW28092	20161206A	WMWGASG_1057
AW28093	20161206A	WMWGASG_1057
AW28094	20161206B_20161207	WMWGASG_1057

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 with the following exceptions: The following samples were diluted due to sample concentrations from the undiluted analysis were over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AW28002	Calcium	10X
AW28004	Calcium	10X
AW28005	Calcium	10X
AW28006	Calcium	10X
AW28083	Calcium	10X
AW28083MS	Calcium	10X
AW28083MSD	Calcium	10X
AW28084	Calcium	10X
AW28085	Calcium	10X
AW28088	Calcium	10X
AW28089	Calcium	10X
AW28090	Calcium	10X
AW28093	Calcium	10X
AW28093MS	Calcium	10X

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Case Narrative



AW28093MSD	Calcium	10X
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8. The raw data results include both results corrected for dilution and results not corrected for dilution.



Metals ICPMS

Gaston Gypsum

WMWGASG_1057

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW28002	581417	WMWGASG_1057
AW28003	581417	WMWGASG_1057
AW28004	581417	WMWGASG_1057
AW28005	581417	WMWGASG_1057
AW28006	581417	WMWGASG_1057
AW28007	581417	WMWGASG_1057
AW28082	581417	WMWGASG_1057
AW28083	581417	WMWGASG_1057
AW28084	581441	WMWGASG_1057
AW28085	581441	WMWGASG_1057
AW28086	581441	WMWGASG_1057
AW28087	581441	WMWGASG_1057
AW28088	581441	WMWGASG_1057
AW28089	581441	WMWGASG_1057
AW28090	581441	WMWGASG_1057
AW28091	581441	WMWGASG_1057
AW28092	581441	WMWGASG_1057
AW28093	581441	WMWGASG_1057
AW28094	581442	WMWGASG_1057

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, and 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

Gaston Gypsum

WMWGASG_1057

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW28002	581779	WMWGASG_1057
AW28003	581779	WMWGASG_1057
AW28004	581779	WMWGASG_1057
AW28005	581779	WMWGASG_1057
AW28006	581779	WMWGASG_1057
AW28007	581779	WMWGASG_1057
AW28082	581779	WMWGASG_1057
AW28083	581780	WMWGASG_1057
AW28084	581780	WMWGASG_1057
AW28085	581780	WMWGASG_1057
AW28086	581780	WMWGASG_1057
AW28087	581780	WMWGASG_1057
AW28088	581780	WMWGASG_1057
AW28089	581780	WMWGASG_1057
AW28090	581780	WMWGASG_1057
AW28091	581780	WMWGASG_1057
AW28092	581780	WMWGASG_1057
AW28093	581781	WMWGASG_1057
AW28094	581781	WMWGASG_1057

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

Gaston Gypsum

WMWGASG_1057

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. All samples were received intact and properly preserved.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AW28002	581535	WMWGASG_1057
AW28003	581535	WMWGASG_1057
AW28004	581535	WMWGASG_1057
AW28005	581535	WMWGASG_1057
AW28006	581535	WMWGASG_1057
AW28007	581535	WMWGASG_1057
AW28082	581535	WMWGASG_1057
AW28083	581535	WMWGASG_1057
AW28084	581535	WMWGASG_1057
AW28085	581535	WMWGASG_1057
AW28086	581536	WMWGASG_1057
AW28087	581536	WMWGASG_1057
AW28088	581536	WMWGASG_1057
AW28089	581536	WMWGASG_1057
AW28090	581536	WMWGASG_1057
AW28091	581536	WMWGASG_1057
AW28092	581536	WMWGASG_1057
AW28093	581536	WMWGASG_1057
AW28094	581536	WMWGASG_1057

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.

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Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AW28007, AW28092 and AW28094 which were <2.5mg.

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW28002

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0390	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	54.3	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00350	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	187	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	4.51	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	10.9	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW28002

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.0000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	20	

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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
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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AW28002

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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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:

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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW28003

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0150	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	1.32	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.01	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	J 0.622	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:

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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW28003

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.0000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AW28003

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW28004

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0208	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	63.9	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00375	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00229	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	212	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.22	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	12.1	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW28004

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	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
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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AW28004

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW28005

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00162	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0349	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	59.4	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00422	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	198	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.03	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	J 0.043	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	1.40	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW28005

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AW28005

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	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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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW28006

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00121	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0281	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	64.3	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	207	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.26	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	4.42	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW28006

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AW28006

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec		Prec	
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	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: WMWGASGFB
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28007

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	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:

Alabama Power General Test Laboratory
 744 County 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: WMWGASGFB
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28007

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	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: WMWGASGFB
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28007

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW28082

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0108	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	8.94	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	40.7	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.29	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	3.23	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW28082

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	20	
AW28082 Mercury, Total by CVAA	mg/L	0.0000853	0.0005	0.004	0.00407	0.00402	0.00406	0.0034 to 0.0046	102	70 to 130	1.10	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AW28082

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	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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 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW28083

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0423	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	99.7	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		50	302	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.92	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	20.4	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW28083

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28083 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0852	0.0865	0.0885	0.085 to 0.115	85.2	70 to 130	1.51	20	
AW28083 Lithium, Total	mg/L	-0.0000977	0.022	0.20	0.230	0.232	0.210	0.17 to 0.23	115	70 to 130	0.866	20	
AW28083 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0908	0.0903	0.0950	0.085 to 0.115	90.8	70 to 130	0.552	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28083 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0939	0.0959	0.0953	0.085 to 0.115	93.9	70 to 130	2.09	20	
AW28083 Boron, Total	mg/L	0.00492	0.044	1.00	0.999	1.02	0.996	0.85 to 1.15	99.9	70 to 130	2.08	20	
AW28083 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0875	0.0890	0.0880	0.085 to 0.115	87.5	70 to 130	1.70	20	
AW28083 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0907	0.0883	0.0925	0.085 to 0.115	90.7	70 to 130	2.70	20	
AW28083 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0886	0.0898	0.0913	0.085 to 0.115	88.6	70 to 130	1.41	20	
AW28083 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.0997	0.101	0.113	0.085 to 0.115	99.7	70 to 130	1.34	20	
AW28083 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.136	0.135	0.0946	0.085 to 0.115	93.6	70 to 130	0.840	20	
AW28083 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0903	0.0915	0.0929	0.085 to 0.115	90.3	70 to 130	1.33	20	
AW28083 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0947	0.0960	0.0984	0.085 to 0.115	94.7	70 to 130	1.34	20	
AW28083 Calcium, Total	mg/L	-0.0390	0.22	5.00	104	104	5.09	4.25 to 5.75	88.0	70 to 130	0.00	20	
AW28083 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0876	0.0880	0.0913	0.085 to 0.115	87.6	70 to 130	0.367	20	

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Laboratory certification ID: E571114

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Comments:

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AW28083

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Laboratory certification ID: E571114

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW28084

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0393	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	50.7	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	205	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	4.68	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	12.9	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW28084

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AW28084

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW28085

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0313	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	87.2	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	310	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.33	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	7.30	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW28085

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115		91.1	70 to 130	0.920	20
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115		88.0	70 to 130	0.0455	20
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046		101	70 to 130	0.969	20
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115		98.3	70 to 130	0.177	20
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75		91.5	70 to 130	0.617	20
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115		90.4	70 to 130	1.31	20
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115		87.8	70 to 130	0.662	20
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115		90.0	70 to 130	0.687	20
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115		92.9	70 to 130	0.954	20
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115		97.3	70 to 130	0.0147	20
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115		95.1	70 to 130	0.147	20
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115		87.4	70 to 130	0.333	20
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23		118	70 to 130	1.68	20
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15		101	70 to 130	2.93	20
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115		101	70 to 130	0.318	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AW28085

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28085	Sulfate, Total	mg/L	0.000	1.0	20.00	27.5	7.32	19.0	18 to 22	101	80 to 120	0.274	20
AW28085	Fluoride, Total	mg/L	0.000	0.3	2.00	1.85	-0.049		1.8 to 2.2	92.5	80 to 120	0	20
AW28085	Chloride, Total	mg/L	0.000	0.25	10.00	13.3	3.35	9.88	9 to 11	99.7	80 to 120	0.599	20
AW28085	Solids, Dissolved	mg/L	0.00	25			303	49.0	40 to 60			1.14	5

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Expiration: June 30, 2018

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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW28086

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.0241	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	1.60	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	J 0.0361	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	34.3	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0102	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	197	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.34	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	J 0.227	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	2.95	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:

Alabama Power General Test Laboratory
 744 County 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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW28086

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	20	

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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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 (205) 664-6032 or 6171
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AW28086

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	80 to 120	0	20

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CC:

Alabama Power General Test Laboratory
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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1 Dup

Laboratory ID Number: AW28087

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	0.0240	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	1.64	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	J 0.0354	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	34.4	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0103	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	181	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.32	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	J 0.225	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	2.95	mg/L

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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1 Dup

Laboratory ID Number: AW28087

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115		91.1	70 to 130	0.920	20
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115		88.0	70 to 130	0.0455	20
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115		90.4	70 to 130	1.31	20
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115		87.8	70 to 130	0.662	20
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15		101	70 to 130	2.93	20
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115		101	70 to 130	0.318	20
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115		90.0	70 to 130	0.687	20
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115		92.9	70 to 130	0.954	20
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046		101	70 to 130	0.969	20
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115		98.3	70 to 130	0.177	20
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75		91.5	70 to 130	0.617	20
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115		97.3	70 to 130	0.0147	20
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115		95.1	70 to 130	0.147	20
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115		87.4	70 to 130	0.333	20
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23		118	70 to 130	1.68	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-1 Dup

Laboratory ID Number: AW28087

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	80 to 120	0	20

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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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW28088

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0491	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	83.8	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00388	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	173	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.32	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	8.87	mg/L

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Laboratory certification ID: E571114

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Comments:

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW28088

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	20	

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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: WMWGASG
 Sample Date: 08-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AW28088

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW28090	Solids, Dissolved	mg/L	0.00	25				199	49.0	40 to 60			1.27	5
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9		-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69		0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18		0.000	2.19	1.8 to 2.2	109	80 to 120	0	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW28089

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00168	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0170	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	J 0.0331	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	62.7	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	190	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.55	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	5.77	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: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW28089

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	

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Laboratory certification ID: E571114

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Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AW28089

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	80 to 120	0	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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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW28090

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	J 0.00159	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0173	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	J 0.0328	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	60.3	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	194	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	2.52	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	5.65	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW28090

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115		91.1	70 to 130	0.920	20
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115		88.0	70 to 130	0.0455	20
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115		90.4	70 to 130	1.31	20
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115		87.8	70 to 130	0.662	20
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15		101	70 to 130	2.93	20
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115		101	70 to 130	0.318	20
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115		90.0	70 to 130	0.687	20
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115		92.9	70 to 130	0.954	20
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046		101	70 to 130	0.969	20
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115		98.3	70 to 130	0.177	20
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75		91.5	70 to 130	0.617	20
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115		97.3	70 to 130	0.0147	20
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115		95.1	70 to 130	0.147	20
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115		87.4	70 to 130	0.333	20
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23		118	70 to 130	1.68	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: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AW28090

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	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:

CC:

Alabama Power General Test Laboratory
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 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: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW28091

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00934	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	J 0.0362	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	8.07	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	J 0.00732	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	57.3	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	3.74	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	EPA 300.0		1	0.3	1	4.50	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW28091

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115		91.1	70 to 130		0.920	20
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115		88.0	70 to 130		0.0455	20
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115		90.4	70 to 130		1.31	20
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115		87.8	70 to 130		0.662	20
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115		97.3	70 to 130		0.0147	20
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115		95.1	70 to 130		0.147	20
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115		87.4	70 to 130		0.333	20
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23		118	70 to 130		1.68	20
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115		90.0	70 to 130		0.687	20
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115		92.9	70 to 130		0.954	20
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15		101	70 to 130		2.93	20
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115		101	70 to 130		0.318	20
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046		101	70 to 130		0.969	20
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115		98.3	70 to 130		0.177	20
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75		91.5	70 to 130		0.617	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: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AW28091

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20	
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60				1.27	5
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20	
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	80 to 120	0	20	

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28092

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	11/16/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	11/16/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/16/2016	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:

Alabama Power General Test Laboratory
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 Calera, AL 35040
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28092

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28092 Mercury, Total by CVAA	mg/L	0.0000855	0.0005	0.004	0.00403	0.00406	0.00391	0.0034 to 0.0046	101	70 to 130	0.969	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	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: WMWGASGFB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AW28092

Sample	Analysis	Units MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec Rec	Rec Limit	Prec	Prec Limit
AW28094	Sulfate, Total	mg/L -0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28090	Solids, Dissolved	mg/L 0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Chloride, Total	mg/L 0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L 0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	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:

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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW28093

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	0.0367	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		10	1.0	5.0	92.9	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	258	mg/L
* Chloride, Total	SES	11/17/2016	EPA 300.0		1	0.04	0.25	2.67	mg/L
* Fluoride, Total	SES	11/17/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/17/2016	EPA 300.0		1	0.3	1	1.69	mg/L

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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
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW28093

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28093 Cobalt, Total	mg/L	0.0000155	0.0044	0.10	0.0911	0.0903	0.0913	0.085 to 0.115	91.1	70 to 130	0.920	20	
AW28093 Lead, Total	mg/L	0.0000733	0.0022	0.10	0.0880	0.0880	0.0913	0.085 to 0.115	88.0	70 to 130	0.0455	20	
AW28093 Antimony, Total	mg/L	0.000143	0.00132	0.10	0.0983	0.0981	0.0953	0.085 to 0.115	98.3	70 to 130	0.177	20	
AW28093 Calcium, Total	mg/L	-0.0378	0.22	5.00	97.5	96.9	5.03	4.25 to 5.75	91.5	70 to 130	0.617	20	
AW28093 Boron, Total	mg/L	0.00681	0.044	1.00	1.01	1.04	0.995	0.85 to 1.15	101	70 to 130	2.93	20	
AW28093 Selenium, Total	mg/L	0.0000464	0.0044	0.10	0.101	0.101	0.113	0.085 to 0.115	101	70 to 130	0.318	20	
AW28363 Mercury, Total by CVAA	mg/L	0.0000863	0.0005	0.004	0.00396	0.00398	0.00393	0.0034 to 0.0046	99.1	70 to 130	0.348	20	
AW28093 Beryllium, Total	mg/L	0.000133	0.00132	0.10	0.0900	0.0906	0.0880	0.085 to 0.115	90.0	70 to 130	0.687	20	
AW28093 Cadmium, Total	mg/L	0.00000986	0.00044	0.10	0.0929	0.0920	0.0950	0.085 to 0.115	92.9	70 to 130	0.954	20	
AW28093 Arsenic, Total	mg/L	0.0000237	0.0022	0.10	0.0973	0.0973	0.0984	0.085 to 0.115	97.3	70 to 130	0.0147	20	
AW28093 Barium, Total	mg/L	0.0000139	0.0044	0.10	0.132	0.132	0.0946	0.085 to 0.115	95.1	70 to 130	0.147	20	
AW28093 Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0874	0.0871	0.0885	0.085 to 0.115	87.4	70 to 130	0.333	20	
AW28093 Lithium, Total	mg/L	-0.0000281	0.022	0.20	0.236	0.240	0.207	0.17 to 0.23	118	70 to 130	1.68	20	
AW28093 Molybdenum, Total	mg/L	0.0000417	0.0044	0.10	0.0904	0.0916	0.0929	0.085 to 0.115	90.4	70 to 130	1.31	20	
AW28093 Thallium, Total	mg/L	0.0000581	0.00044	0.10	0.0878	0.0872	0.0925	0.085 to 0.115	87.8	70 to 130	0.662	20	

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AW28093

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	80 to 120	0	20

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW28094

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/15/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	11/14/2016	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	12/6/2016	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	12/6/2016	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	11/14/2016	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	11/17/2016	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	12/6/2016	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	11/14/2016	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	11/14/2016	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	11/14/2016	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	11/15/2016	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	11/17/2016	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	11/17/2016	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	11/17/2016	EPA 300.0		1	0.3	1	U Not Detected	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:

Alabama Power General Test Laboratory
 744 County 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: WMWGASGEB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW28094

Sample Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AW28094 Lead, Total	mg/L	0.000149	0.0022	0.10	0.0866	0.0900	0.0913	0.085 to 0.115	86.6	70 to 130	3.83	20	
AW28094 Chromium, Total	mg/L	0.0000160	0.0044	0.10	0.0876	0.0881	0.0865	0.085 to 0.115	87.6	70 to 130	0.630	20	
AW28094 Thallium, Total	mg/L	0.000135	0.00044	0.10	0.0860	0.0892	0.0924	0.085 to 0.115	86.0	70 to 130	3.63	20	
AW28094 Arsenic, Total	mg/L	0.0000205	0.0022	0.10	0.0960	0.0957	0.0973	0.085 to 0.115	96.0	70 to 130	0.403	20	
AW28094 Molybdenum, Total	mg/L	0.0000243	0.0044	0.10	0.0900	0.0898	0.0899	0.085 to 0.115	90.0	70 to 130	0.204	20	
AW28363 Mercury, Total by CVAA	mg/L	0.0000863	0.0005	0.004	0.00396	0.00398	0.00393	0.0034 to 0.0046	99.1	70 to 130	0.348	20	
AW28094 Beryllium, Total	mg/L	0.000211	0.00132	0.10	0.0891	0.0923	0.0897	0.085 to 0.115	89.1	70 to 130	3.54	20	
AW28094 Cadmium, Total	mg/L	0.00000503	0.00044	0.10	0.0955	0.0929	0.0910	0.085 to 0.115	95.5	70 to 130	2.74	20	
AW28441 Calcium, Total	mg/L	-0.0368	0.22	5.00	57.3	57.5	5.04	4.25 to 5.75	110	70 to 130	0.348	20	
AW28094 Antimony, Total	mg/L	0.000114	0.00132	0.10	0.0933	0.0947	0.0950	0.085 to 0.115	93.3	70 to 130	1.56	20	
AW28441 Lithium, Total	mg/L	-0.0000843	0.022	0.20	0.223	0.225	0.212	0.17 to 0.23	112	70 to 130	0.893	20	
AW28094 Barium, Total	mg/L	0.0000150	0.0044	0.10	0.0950	0.0943	0.0941	0.085 to 0.115	95.0	70 to 130	0.670	20	
AW28094 Cobalt, Total	mg/L	0.0000151	0.0044	0.10	0.0905	0.0894	0.0895	0.085 to 0.115	90.5	70 to 130	1.22	20	
AW28094 Selenium, Total	mg/L	0.0000260	0.0044	0.10	0.100	0.0966	0.0962	0.085 to 0.115	100	70 to 130	3.84	20	
AW28441 Boron, Total	mg/L	-0.000496	0.044	1.00	3.09	3.09	0.995	0.85 to 1.15	101	70 to 130	0.00	20	

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 09-Nov-16
 Customer ID:
 Delivery Date: 09-Nov-16

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AW28094

Sample	Analysis	Units MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec Rec	Rec Limit	Prec	Prec Limit	
AW28094	Sulfate, Total	mg/L	-0.763	1.0	20.00	19.9	-0.762	20.7	18 to 22	99.5	80 to 120	0	20
AW28090	Solids, Dissolved	mg/L	0.00	25			199	49.0	40 to 60			1.27	5
AW28094	Chloride, Total	mg/L	0.000	0.25	10.00	9.69	0.000	9.89	9 to 11	96.9	80 to 120	0	20
AW28094	Fluoride, Total	mg/L	0.000	0.3	2.00	2.18	0.000	2.19	1.8 to 2.2	109	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:

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
 Site Representative
 Collector

Results To
 Requested By
 Location

Analysis Requested
 Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	11/08/2016	08:34	3	Groundwater		AW28082
MW-3	11/08/2016	09:46	3	Groundwater		AW28083
MW-14s	11/08/2016	12:17	3	Groundwater		AW28084
MW-2	11/08/2016	13:11	3	Groundwater		AW28085
MW-1	11/08/2016	14:12	3	Groundwater		AW28086
MW-1DUP	11/08/2016	14:12	3	Sample Duplicate		AW28087
MW-13	11/08/2016	15:44	3	Groundwater		AW28088
MW-12	11/09/2016	07:20	3	Groundwater		AW28089
MW-12DUP	11/09/2016	07:20	3	Sample Duplicate		AW28090
MW-11	11/09/2016	08:45	3	Groundwater		AW28091
FB2	11/09/2016	08:55	3	Field Blank		AW28092
MW-10	11/09/2016	09:33	3	Groundwater		AW28093
EB-1	11/09/2016	09:45	3	Equipment Blank		AW28094

Relinquished By <i>Anthony Goggins</i>	Received By <i>[Signature]</i>	Date/Time 11/09/2016 11:15

SmarTroll ID
 Turbidity ID

All metals and radiological bottles have pH < 2
 Cooler Temp
 Thermometer ID
 pH Strip ID

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: 400-130963-1

TestAmerica Sample Delivery Group: Gaston Gypsum (4)

Client Project/Site: CCR Plant Gaston

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

1/22/2017 10:02:08 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 Gaston

TestAmerica Job ID: 400-130963-1
SDG: Gaston Gypsum (4)

Job ID: 400-130963-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-130963-1

RAD

Method(s) PrecSep_0: Radium-228 Prep Batch 160-283563: The following samples were prepared at a reduced aliquot due to limited volume: AW28002 MW-5 (400-130963-1), AW28002 MW-5 (400-130963-1[DU]), AW28003 MW-6 (400-130963-2), AW28004 MW-7 (400-130963-3), AW28005 MW-8 (400-130963-4), AW28006 MW-9 (400-130963-5), AW28007 FB-1 (400-130963-6), AW28082 MW-15 (400-130963-7), AW28083 MW-3 (400-130963-8), AW28084 MW-14S (400-130963-9), AW28085 MW-2 (400-130963-10), AW28086 MW-1 (400-130963-11), AW28087 MW-1 DUP (400-130963-12), AW28088 MW-13 (400-130963-13), AW28089 MW-12 (400-130963-14), AW28090 MW-12 DUP (400-130963-15), AW28091 MW-11 (400-130963-16), AW28092 FB-2 (400-130963-17), AW28093 MW-10 (400-130963-18) and AW28094 EB-1 (400-130963-19).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-283556: The following samples were prepared at a reduced aliquot due to limited volume: AW28002 MW-5 (400-130963-1), AW28002 MW-5 (400-130963-1[DU]), AW28003 MW-6 (400-130963-2), AW28004 MW-7 (400-130963-3), AW28005 MW-8 (400-130963-4), AW28006 MW-9 (400-130963-5), AW28007 FB-1 (400-130963-6), AW28082 MW-15 (400-130963-7), AW28083 MW-3 (400-130963-8), AW28084 MW-14S (400-130963-9), AW28085 MW-2 (400-130963-10), AW28086 MW-1 (400-130963-11), AW28087 MW-1 DUP (400-130963-12), AW28088 MW-13 (400-130963-13), AW28089 MW-12 (400-130963-14), AW28090 MW-12 DUP (400-130963-15), AW28091 MW-11 (400-130963-16), AW28092 FB-2 (400-130963-17), AW28093 MW-10 (400-130963-18) and AW28094 EB-1 (400-130963-19).

Method Summary

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

TestAmerica Job ID: 400-130963-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-130963-1
SDG: Gaston Gypsum (4)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-130963-1	AW28002 MW-5	Water	11/08/16 10:20	12/05/16 11:02
400-130963-2	AW28003 MW-6	Water	11/08/16 11:32	12/05/16 11:02
400-130963-3	AW28004 MW-7	Water	11/08/16 12:50	12/05/16 11:02
400-130963-4	AW28005 MW-8	Water	11/08/16 14:02	12/05/16 11:02
400-130963-5	AW28006 MW-9	Water	11/08/16 15:00	12/05/16 11:02
400-130963-6	AW28007 FB-1	Water	11/08/16 15:15	12/05/16 11:02
400-130963-7	AW28082 MW-15	Water	11/08/16 08:34	12/05/16 11:02
400-130963-8	AW28083 MW-3	Water	11/08/16 09:46	12/05/16 11:02
400-130963-9	AW28084 MW-14S	Water	11/08/16 12:17	12/05/16 11:02
400-130963-10	AW28085 MW-2	Water	11/08/16 13:11	12/05/16 11:02
400-130963-11	AW28086 MW-1	Water	11/08/16 14:12	12/05/16 11:02
400-130963-12	AW28087 MW-1 DUP	Water	11/08/16 14:12	12/05/16 11:02
400-130963-13	AW28088 MW-13	Water	11/08/16 15:44	12/05/16 11:02
400-130963-14	AW28089 MW-12	Water	11/09/16 07:20	12/05/16 11:02
400-130963-15	AW28090 MW-12 DUP	Water	11/09/16 07:20	12/05/16 11:02
400-130963-16	AW28091 MW-11	Water	11/09/16 08:45	12/05/16 11:02
400-130963-17	AW28092 FB-2	Water	11/09/16 08:55	12/05/16 11:02
400-130963-18	AW28093 MW-10	Water	11/09/16 09:33	12/05/16 11:02
400-130963-19	AW28094 EB-1	Water	11/09/16 09:45	12/05/16 11:02

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28002 MW-5

Lab Sample ID: 400-130963-1

Date Collected: 11/08/16 10:20

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119	U	0.248	0.249	1.00	0.446	pCi/L	12/12/16 10:37	01/18/17 15:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					12/12/16 10:37	01/18/17 15:06	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.551		0.356	0.360	1.00	0.545	pCi/L	12/12/16 11:09	01/17/17 15:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					12/12/16 11:09	01/17/17 15:47	1
Y Carrier	95.0		40 - 110					12/12/16 11:09	01/17/17 15:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.670		0.434	0.437	5.00	0.545	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28003 MW-6

Lab Sample ID: 400-130963-2

Date Collected: 11/08/16 11:32

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.212	U	0.237	0.238	1.00	0.381	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.15		0.428	0.441	1.00	0.582	pCi/L	12/12/16 11:09	01/17/17 15:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.9		40 - 110					12/12/16 11:09	01/17/17 15:47	1
Y Carrier	83.4		40 - 110					12/12/16 11:09	01/17/17 15:47	1

Method: Ra226_Ra228 - Combined Radium-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		0.489	0.501	5.00	0.582	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28004 MW-7

Lab Sample ID: 400-130963-3

Date Collected: 11/08/16 12:50

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.182	U	0.238	0.239	1.00	0.397	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.2		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.308	U	0.417	0.418	1.00	0.695	pCi/L	12/12/16 11:09	01/17/17 15:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.2		40 - 110					12/12/16 11:09	01/17/17 15:47	1
Y Carrier	85.6		40 - 110					12/12/16 11:09	01/17/17 15:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.490	U	0.480	0.481	5.00	0.695	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28005 MW-8

Lab Sample ID: 400-130963-4

Date Collected: 11/08/16 14:02

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0446	U	0.151	0.151	1.00	0.374	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.409	U	0.361	0.362	1.00	0.578	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	89.0		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.364	U	0.391	0.393	5.00	0.578	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28006 MW-9

Lab Sample ID: 400-130963-5

Date Collected: 11/08/16 15:00

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.267	U	0.250	0.251	1.00	0.378	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.979		0.426	0.435	1.00	0.600	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	87.5		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.25		0.494	0.503	5.00	0.600	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28007 FB-1

Lab Sample ID: 400-130963-6

Date Collected: 11/08/16 15:15

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0120	U	0.189	0.189	1.00	0.407	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.388	U	0.387	0.389	1.00	0.628	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.1		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	91.2		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.376	U	0.431	0.432	5.00	0.628	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28082 MW-15

Lab Sample ID: 400-130963-7

Date Collected: 11/08/16 08:34

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.329	U	0.295	0.297	1.00	0.454	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.579	U	0.470	0.473	1.00	0.745	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.9		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	69.2		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.908		0.555	0.558	5.00	0.745	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28083 MW-3

Lab Sample ID: 400-130963-8

Date Collected: 11/08/16 09:46

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.510		0.334	0.337	1.00	0.457	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.5		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.972		0.577	0.584	1.00	0.890	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	67.5		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	88.6		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.48		0.666	0.674	5.00	0.890	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28084 MW-14S

Lab Sample ID: 400-130963-9

Date Collected: 11/08/16 12:17

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.211	U	0.236	0.237	1.00	0.379	pCi/L	12/12/16 10:37	01/18/17 15:07	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/12/16 10:37	01/18/17 15:07	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.580	U	0.390	0.394	1.00	0.606	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	90.5		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.791		0.456	0.459	5.00	0.606	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28085 MW-2

Lab Sample ID: 400-130963-10

Date Collected: 11/08/16 13:11

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0835	U	0.224	0.224	1.00	0.417	pCi/L	12/12/16 10:37	01/18/17 15:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/12/16 10:37	01/18/17 15:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.530	U	0.432	0.435	1.00	0.687	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.8		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	87.5		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.614	U	0.486	0.489	5.00	0.687	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28086 MW-1

Lab Sample ID: 400-130963-11

Date Collected: 11/08/16 14:12

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.557		0.291	0.295	1.00	0.352	pCi/L	12/12/16 10:37	01/18/17 15:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					12/12/16 10:37	01/18/17 15:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.574		0.358	0.362	1.00	0.547	pCi/L	12/12/16 11:09	01/17/17 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					12/12/16 11:09	01/17/17 15:48	1
Y Carrier	90.1		40 - 110					12/12/16 11:09	01/17/17 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.13		0.461	0.467	5.00	0.547	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28087 MW-1 DUP

Lab Sample ID: 400-130963-12

Date Collected: 11/08/16 14:12

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.797		0.338	0.346	1.00	0.377	pCi/L	12/12/16 10:37	01/18/17 15:10	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					12/12/16 10:37	01/18/17 15:10	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.392	U	0.332	0.334	1.00	0.530	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.0		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	92.0		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.19		0.474	0.481	5.00	0.530	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28088 MW-13

Lab Sample ID: 400-130963-13

Date Collected: 11/08/16 15:44

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156	U	0.240	0.240	1.00	0.414	pCi/L	12/12/16 10:37	01/18/17 15:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		40 - 110					12/12/16 10:37	01/18/17 15:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0210	U	0.376	0.376	1.00	0.667	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.9		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	90.1		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.177	U	0.446	0.446	5.00	0.667	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28089 MW-12

Lab Sample ID: 400-130963-14

Date Collected: 11/09/16 07:20

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.460		0.304	0.307	1.00	0.424	pCi/L	12/12/16 10:37	01/18/17 15:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					12/12/16 10:37	01/18/17 15:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.758		0.388	0.394	1.00	0.568	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.7		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	79.3		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.493	0.500	5.00	0.568	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28090 MW-12 DUP

Lab Sample ID: 400-130963-15

Date Collected: 11/09/16 07:20

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.331	U	0.280	0.281	1.00	0.420	pCi/L	12/12/16 10:37	01/18/17 16:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					12/12/16 10:37	01/18/17 16:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U	0.397	0.399	1.00	0.656	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.1		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	82.6		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.663		0.486	0.488	5.00	0.656	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28091 MW-11

Lab Sample ID: 400-130963-16

Date Collected: 11/09/16 08:45

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0327	U	0.197	0.197	1.00	0.391	pCi/L	12/12/16 10:37	01/18/17 16:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					12/12/16 10:37	01/18/17 16:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.386	U	0.394	0.396	1.00	0.642	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	87.5		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.419	U	0.441	0.442	5.00	0.642	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28092 FB-2

Lab Sample ID: 400-130963-17

Date Collected: 11/09/16 08:55

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.224	U	0.264	0.265	1.00	0.433	pCi/L	12/12/16 10:37	01/18/17 16:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					12/12/16 10:37	01/18/17 16:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.160	U	0.375	0.375	1.00	0.647	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.8		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	80.0		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.384	U	0.459	0.459	5.00	0.647	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28093 MW-10

Lab Sample ID: 400-130963-18

Date Collected: 11/09/16 09:33

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.163	U	0.170	0.171	1.00	0.463	pCi/L	12/12/16 10:37	01/18/17 16:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	65.2		40 - 110					12/12/16 10:37	01/18/17 16:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.784		0.428	0.434	1.00	0.632	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	65.2		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	91.6		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.621	U	0.461	0.466	5.00	0.632	pCi/L		01/20/17 08:52	1

Client Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28094 EB-1

Lab Sample ID: 400-130963-19

Date Collected: 11/09/16 09:45

Matrix: Water

Date Received: 12/05/16 11:02

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.112	U	0.142	0.142	1.00	0.375	pCi/L	12/12/16 10:37	01/18/17 16:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/12/16 10:37	01/18/17 16:58	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0799	U	0.331	0.331	1.00	0.580	pCi/L	12/12/16 11:09	01/17/17 15:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.3		40 - 110					12/12/16 11:09	01/17/17 15:49	1
Y Carrier	86.7		40 - 110					12/12/16 11:09	01/17/17 15:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0325	U	0.360	0.360	5.00	0.580	pCi/L		01/20/17 08:52	1

Definitions/Glossary

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

TestAmerica Job ID: 400-130963-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-130963-1
SDG: Gaston Gypsum (4)

Client Sample ID: AW28002 MW-5

Lab Sample ID: 400-130963-1

Date Collected: 11/08/16 10:20

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:06	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28003 MW-6

Lab Sample ID: 400-130963-2

Date Collected: 11/08/16 11:32

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28004 MW-7

Lab Sample ID: 400-130963-3

Date Collected: 11/08/16 12:50

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:47	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28005 MW-8

Lab Sample ID: 400-130963-4

Date Collected: 11/08/16 14:02

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28006 MW-9

Lab Sample ID: 400-130963-5

Date Collected: 11/08/16 15:00

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28007 FB-1

Lab Sample ID: 400-130963-6

Date Collected: 11/08/16 15:15

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28082 MW-15

Lab Sample ID: 400-130963-7

Date Collected: 11/08/16 08:34

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28083 MW-3

Lab Sample ID: 400-130963-8

Date Collected: 11/08/16 09:46

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-130963-1
SDG: Gaston Gypsum (4)

Client Sample ID: AW28084 MW-14S

Lab Sample ID: 400-130963-9

Date Collected: 11/08/16 12:17

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 15:07	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28085 MW-2

Lab Sample ID: 400-130963-10

Date Collected: 11/08/16 13:11

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288220	01/18/17 15:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28086 MW-1

Lab Sample ID: 400-130963-11

Date Collected: 11/08/16 14:12

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288220	01/18/17 15:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:48	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28087 MW-1 DUP

Lab Sample ID: 400-130963-12

Date Collected: 11/08/16 14:12

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288220	01/18/17 15:10	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Client Sample ID: AW28088 MW-13

Lab Sample ID: 400-130963-13

Date Collected: 11/08/16 15:44

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288149	01/18/17 15:03	KLS	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28089 MW-12

Lab Sample ID: 400-130963-14

Date Collected: 11/09/16 07:20

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288149	01/18/17 15:03	KLS	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28090 MW-12 DUP

Lab Sample ID: 400-130963-15

Date Collected: 11/09/16 07:20

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 16:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28091 MW-11

Lab Sample ID: 400-130963-16

Date Collected: 11/09/16 08:45

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 16:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-130963-1
SDG: Gaston Gypsum (4)

Client Sample ID: AW28092 FB-2

Lab Sample ID: 400-130963-17

Date Collected: 11/09/16 08:55

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 16:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28093 MW-10

Lab Sample ID: 400-130963-18

Date Collected: 11/09/16 09:33

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 16:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	RTM	TAL SL

Client Sample ID: AW28094 EB-1

Lab Sample ID: 400-130963-19

Date Collected: 11/09/16 09:45

Matrix: Water

Date Received: 12/05/16 11:02

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			283556	12/12/16 10:37	AS	TAL SL
Total/NA	Analysis	9315		1	288207	01/18/17 16:58	ALD	TAL SL
Total/NA	Prep	PrecSep_0			283563	12/12/16 11:09	AS	TAL SL
Total/NA	Analysis	9320		1	287966	01/17/17 15:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	288519	01/20/17 08:52	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 Gaston

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Rad

Prep Batch: 283556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130963-1	AW28002 MW-5	Total/NA	Water	PrecSep-21	
400-130963-2	AW28003 MW-6	Total/NA	Water	PrecSep-21	
400-130963-3	AW28004 MW-7	Total/NA	Water	PrecSep-21	
400-130963-4	AW28005 MW-8	Total/NA	Water	PrecSep-21	
400-130963-5	AW28006 MW-9	Total/NA	Water	PrecSep-21	
400-130963-6	AW28007 FB-1	Total/NA	Water	PrecSep-21	
400-130963-7	AW28082 MW-15	Total/NA	Water	PrecSep-21	
400-130963-8	AW28083 MW-3	Total/NA	Water	PrecSep-21	
400-130963-9	AW28084 MW-14S	Total/NA	Water	PrecSep-21	
400-130963-10	AW28085 MW-2	Total/NA	Water	PrecSep-21	
400-130963-11	AW28086 MW-1	Total/NA	Water	PrecSep-21	
400-130963-12	AW28087 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-130963-13	AW28088 MW-13	Total/NA	Water	PrecSep-21	
400-130963-14	AW28089 MW-12	Total/NA	Water	PrecSep-21	
400-130963-15	AW28090 MW-12 DUP	Total/NA	Water	PrecSep-21	
400-130963-16	AW28091 MW-11	Total/NA	Water	PrecSep-21	
400-130963-17	AW28092 FB-2	Total/NA	Water	PrecSep-21	
400-130963-18	AW28093 MW-10	Total/NA	Water	PrecSep-21	
400-130963-19	AW28094 EB-1	Total/NA	Water	PrecSep-21	
MB 160-283556/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-283556/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-130963-1 DU	AW28002 MW-5	Total/NA	Water	PrecSep-21	

Prep Batch: 283563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-130963-1	AW28002 MW-5	Total/NA	Water	PrecSep_0	
400-130963-2	AW28003 MW-6	Total/NA	Water	PrecSep_0	
400-130963-3	AW28004 MW-7	Total/NA	Water	PrecSep_0	
400-130963-4	AW28005 MW-8	Total/NA	Water	PrecSep_0	
400-130963-5	AW28006 MW-9	Total/NA	Water	PrecSep_0	
400-130963-6	AW28007 FB-1	Total/NA	Water	PrecSep_0	
400-130963-7	AW28082 MW-15	Total/NA	Water	PrecSep_0	
400-130963-8	AW28083 MW-3	Total/NA	Water	PrecSep_0	
400-130963-9	AW28084 MW-14S	Total/NA	Water	PrecSep_0	
400-130963-10	AW28085 MW-2	Total/NA	Water	PrecSep_0	
400-130963-11	AW28086 MW-1	Total/NA	Water	PrecSep_0	
400-130963-12	AW28087 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-130963-13	AW28088 MW-13	Total/NA	Water	PrecSep_0	
400-130963-14	AW28089 MW-12	Total/NA	Water	PrecSep_0	
400-130963-15	AW28090 MW-12 DUP	Total/NA	Water	PrecSep_0	
400-130963-16	AW28091 MW-11	Total/NA	Water	PrecSep_0	
400-130963-17	AW28092 FB-2	Total/NA	Water	PrecSep_0	
400-130963-18	AW28093 MW-10	Total/NA	Water	PrecSep_0	
400-130963-19	AW28094 EB-1	Total/NA	Water	PrecSep_0	
MB 160-283563/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-283563/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-130963-1 DU	AW28002 MW-5	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-283556/1-A
Matrix: Water
Analysis Batch: 288207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283556

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1745	U	0.252	0.253	1.00	0.429	pCi/L	12/12/16 10:37	01/18/17 15:06	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					12/12/16 10:37	01/18/17 15:06	1

Lab Sample ID: LCS 160-283556/2-A
Matrix: Water
Analysis Batch: 288207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283556

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	14.8	14.48		1.82	1.00	0.393	pCi/L	98	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	78.9		40 - 110						

Lab Sample ID: 400-130963-1 DU
Matrix: Water
Analysis Batch: 288207

Client Sample ID: AW28002 MW-5
Prep Type: Total/NA
Prep Batch: 283556

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.119	U	-0.03055	U	0.185	1.00	0.403	pCi/L	0.34	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	81.2		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-283563/1-A
Matrix: Water
Analysis Batch: 287966

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 283563

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5522	U	0.427	0.430	1.00	0.676	pCi/L	12/12/16 11:09	01/17/17 15:47	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.3		40 - 110					12/12/16 11:09	01/17/17 15:47	1
Y Carrier	82.6		40 - 110					12/12/16 11:09	01/17/17 15:47	1

QC Sample Results

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston Gypsum (4)

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

Lab Sample ID: LCS 160-283563/2-A
Matrix: Water
Analysis Batch: 287966

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 283563

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.6	21.77		2.34	1.00	0.557	pCi/L	117	56 - 140
LCS LCS									
Carrier	%Yield	Qualifier	Limits						
Ba Carrier	78.9		40 - 110						
Y Carrier	95.3		40 - 110						

Lab Sample ID: 400-130963-1 DU
Matrix: Water
Analysis Batch: 287966

Client Sample ID: AW28002 MW-5
Prep Type: Total/NA
Prep Batch: 283563

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.551		0.3459	U	0.385	1.00	0.629	pCi/L	0.28	1
DU DU										
Carrier	%Yield	Qualifier	Limits							
Ba Carrier	81.2		40 - 110							
Y Carrier	95.0		40 - 110							

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

Lab Sample ID: 400-130963-1 DU
Matrix: Water
Analysis Batch: 288519


Client Sample ID: AW28002 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	0.670		0.3154	U	0.427	5.00	0.629	pCi/L	0.41	

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: sgcopelala@southernco.com Project Name: CCR Site: Gaston Gypsum (4)		Lab P.M.: Whitnir, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Due Date Requested: TAT Requested (days): Routine		Carrier Tracking No(s):  400-130963 COC		Lab P.M.: Whitnir, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Due Date Requested: TAT Requested (days): Routine		Carrier Tracking No(s): 400-130963			
Sample Information Sample: Ben Rothschild / Anthony Goggins Phone: Lab P.M.: Whitnir, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Analysis Reqs 9315_Ra228, 9320_Ra228, Ra228Ra228_GFPc		Form MS/MSD (Yes or No) D		Field Filled Sample (Yes or No) Y		Form MS/MSD (Yes or No) D			
Sample Identification AW28002 AW28003 AW28004 AW28005 AW28006 AW28007 AW28082 AW28083 AW28084 AW28085 AW28086 AW28087		Sample Date 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16 11/8/16		Sample Time 1020 1132 1250 1402 1500 1515 0834 0946 1217 1311 1412 1412		Sample Type (C=Comp, G=Grab) G G G G G G G G G G G G		Matrix (W=Water, S=solid, O=oil, ET=Tissue, Acid) Water Water Water Water Water Water Water Water Water Water Water Water		Preservation Code MW-5 MW-6 MW-7 MW-8 MW-9 FB-1 (Field Blank) MW-15 MW-3 MW-14S MW-2 MW-1 MW-1 Dup (Sample Duplicate)	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Special 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/Note: Total Number of Containers: 13		Special Instructions/Note: MW-5 MW-6 MW-7 MW-8 MW-9 FB-1 (Field Blank) MW-15 MW-3 MW-14S MW-2 MW-1 MW-1 Dup (Sample Duplicate)			
Empty Kit Relinquished by: Sarah Copeland Date/Time: 12/05/2016; 0940 Company: APC		Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: 12/05/16 1102 Company: TTA		Relinquished by: Date/Time: 12/05/16 1102 Company: TTA		Custody Seals Intact: Δ Yes Δ No 19.0°C, 18.7°C, 19.4°C, 18.7°C, 19.1°C 1RS			



TestAmerica Pensacola
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 Pensacola, FL 32514
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Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab Pmt: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com		Page 2 of 2		Job #: 400-130963	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Preservation Codes:	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 S - H2SO4 G - Amsoil H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water K - EDTA L - EDA W - ph 4-5 Z - other (specify) Other:	
City: Calera		PO #:		Field Filtered Sample (Yes or No)		Special Instructions/Note:	
State, Zip: AL, 35040		WO #:		Perform MS/MSD (Yes or No)		Total Number of Containers	
Phone: 205-664-6121 (Tel)		Project #:		X		MMW-13	
Email: sgcopela@southernco.com		40007143		X		MMW-12	
CCR		SSOW#:		X		MMW-12 Dup (Sample Duplicate)	
Site: Gaston Gypsum (4)		Sample Date		X		MMW-11	
		Sample Time		X		FB-2 (Field Blank)	
		Sample Type (C=Comp, G=Grab)		X		MMW-10	
		Matrix (Water, Sediment, Organic, Inorganic)		X		EB-1 (Equipment Blank)	
		Preservation Code		X			
		Sample Date		X			
		Sample Time		X			
		Sample Type		X			
		Matrix		X			
		Sample Date		X			
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		Sample Type		X			
		Matrix		X			
		Sample Date					

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-130963-1
SDG Number: Gaston Gypsum (4)

Login Number: 130963

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0°C, 18.7°C, 19.4°C, 18.7°C, 19.1°C IR-5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Certification Summary

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

TestAmerica Job ID: 400-130963-1
 SDG: Gaston 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	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-16 *
Louisiana	NELAP	6	30976	06-30-17
Louisiana (DW)	NELAP Secondary AB	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	05-06-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-16 *
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	200023	11-30-17
Iowa	State Program	7	373	12-01-16 *
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-16 *
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17
New York	NELAP	2	11616	03-31-17 *
North Dakota	State Program	8	R207	06-30-17

* Certification renewal pending - certification considered valid.

Certification Summary

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

TestAmerica Job ID: 400-130963-1
SDG: Gaston 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
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 : WMWGASG_1067

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_1067

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>
AX00114	585212	585214	585216	WMWGASG_1067
AX00115	585212	585214	585216	WMWGASG_1067
AX00116	585212	585214	585216	WMWGASG_1067
AX00117	585212	585214	585216	WMWGASG_1067

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

General Quality Control Procedures:

- Prior to sample analysis, an instrument performance check (IPC) was analyzed and all criteria were met.
- All laboratory reagent blanks were less than the method detection limits for the requested anions, with the following exception:
 1. The blank for anion sulfate presented a negative concentration above the MDL of 0.3, at -0.462 mg/L. Two batch samples (AX00115 and AX00123) presented negative sulfate concentrations (-0.464 and -0.455 mg/L, respectively) below 10x the absolute value of the sulfate blank, and should be considered as quantitatively estimated non-detect concentrations, with the potential for low bias on the reported RL value. Sample AX00116 presented a positive sulfate concentration (3.003 mg/l) above the RL but below 10x the absolute blank value, and is considered as quantitatively estimated with indication of potential low bias on the reported result.
- 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 associated samples were analyzed without 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

Gaston Gypsum

WMWGASG_1067

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>
AX00114	20170124C_20170126B_20170124C	WMWGASG_1067
AX00115	20170124C_20170126B_20170124C	WMWGASG_1067
AX00116	20170124C_20170126B_20170124C	WMWGASG_1067
AX00117	20170124C_20170126B_20170124C	WMWGASG_1067

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 with the following exceptions: The following sample was diluted due to sample concentration from the undiluted analysis was over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX00114	Calcium	10X

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



Metals ICPMS

Gaston Gypsum

WMWGASG_1067

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>
AX00114	585062	WMWGASG_1067
AX00115	585062	WMWGASG_1067
AX00116	585062	WMWGASG_1067
AX00117	585062	WMWGASG_1067

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.

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FAX (205) 257-1654

Case Narrative

 Alabama Power



- 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

Gaston Gypsum

WMWGASG_1067

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>
AX00114	585237	WMWGASG_1067
AX00115	585237	WMWGASG_1067
AX00116	585237	WMWGASG_1067
AX00117	585237	WMWGASG_1067

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

Gaston Gypsum

WMWGASG_1067

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>
AX00114	584906	WMWGASG_1067
AX00115	584906	WMWGASG_1067
AX00116	584906	WMWGASG_1067
AX00117	584906	WMWGASG_1067

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 AX00115 and AX00117, 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: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX00114

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/24/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	0.0373	mg/L
* Beryllium, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/24/2017	EPA 200.7		1	0.02	0.1	J 0.0211	mg/L
* Calcium, Total	HRG	1/27/2017	EPA 200.7		10	1.0	5.0	55.4	mg/L
* Cadmium, Total	ABB	1/12/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	1/12/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/24/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	ABB	1/12/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	1/10/2017	SM 2540C		1		25	221	mg/L
* Chloride, Total	SES	1/11/2017	EPA 300.0		1	0.04	0.25	5.25	mg/L
* Fluoride, Total	SES	1/11/2017	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	1/11/2017	EPA 300.0		1	0.3	1	14.1	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:

Alabama Power General Test Laboratory
 744 County 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: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX00114

Sample	Analysis	Units	MB	MB			LFB			Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	
AX00123	Lithium, Total	mg/L	-0.0000169	0.022	0.20	0.232	0.228	0.224	0.17 to 0.23	116	70 to 130	1.64	20
AX00201	Selenium, Total	mg/L	0.0000905	0.0044	0.10	0.0924	0.0933	0.0967	0.085 to 0.115	92.4	70 to 130	0.959	20
AX00201	Cobalt, Total	mg/L	0.00000694	0.0044	0.10	0.0857	0.0874	0.0920	0.085 to 0.115	82.0	70 to 130	1.94	20
AX00201	Thallium, Total	mg/L	0.0000224	0.00044	0.10	0.0966	0.0984	0.0977	0.085 to 0.115	96.6	70 to 130	1.84	20
AX00123	Boron, Total	mg/L	0.00143	0.044	1.00	0.947	0.946	0.942	0.85 to 1.15	94.7	70 to 130	0.0624	20
AX00123	Calcium, Total	mg/L	-0.00565	0.22	5.00	5.04	5.02	5.04	4.25 to 5.75	101	70 to 130	0.442	20
AX00201	Barium, Total	mg/L	-0.00000198	0.0044	0.10	0.126	0.130	0.0901	0.085 to 0.115	85.3	70 to 130	2.69	20
AX00201	Arsenic, Total	mg/L	0.0000169	0.0022	0.10	0.0951	0.0971	0.0963	0.085 to 0.115	95.1	70 to 130	2.13	20
AX00201	Cadmium, Total	mg/L	0.00000861	0.00044	0.10	0.0873	0.0878	0.0933	0.085 to 0.115	87.3	70 to 130	0.544	20
AX00201	Molybdenum, Total	mg/L	0.0000112	0.0044	0.10	0.0831	0.0839	0.0870	0.085 to 0.115	83.1	70 to 130	0.905	20
AX00201	Antimony, Total	mg/L	0.0000781	0.00132	0.10	0.0833	0.0849	0.0880	0.085 to 0.115	83.3	70 to 130	1.98	20
AX00201	Beryllium, Total	mg/L	0.0000210	0.00132	0.10	0.0991	0.101	0.103	0.085 to 0.115	99.1	70 to 130	1.89	20
AX00201	Chromium, Total	mg/L	0.0000115	0.0044	0.10	0.0925	0.0951	0.0948	0.085 to 0.115	92.5	70 to 130	2.74	20
AX00201	Lead, Total	mg/L	0.0000260	0.0022	0.10	0.0976	0.0995	0.0998	0.085 to 0.115	97.6	70 to 130	1.86	20
AX00201	Mercury, Total by CVAA	mg/L	0.000108	0.0005	0.004	0.00373	0.00375	0.00374	0.0034 to 0.0046	93.2	70 to 130	0.623	20

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory
 744 County 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: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX00114

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX00117	Chloride, Total	mg/L	0.00	0.25	10.00	9.83	0.00	9.98	9 to 11	98.3	80 to 120	0.00	20
AX00117	Fluoride, Total	mg/L	0.00	0.3	2.00	2.00	0.00	2.15	1.8 to 2.2	100	80 to 120	0.00	20
AX00117	Sulfate, Total	mg/L	-0.462	1.0	20.00	19.3	-0.457	20.5	18 to 22	96.5	80 to 120	0.00	20
AX00121	Solids, Dissolved	mg/L	-1.0	25			340	53.0	40 to 60			1.16	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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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX00115

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/24/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/24/2017	EPA 200.7		1	0.02	0.1	J 0.0209	mg/L
* Calcium, Total	HRG	1/24/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	1/12/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	1/12/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/24/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	ABB	1/12/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	1/10/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	1/11/2017	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	1/11/2017	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	1/11/2017	EPA 300.0		1	0.3	1	U Not Detected	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:

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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX00115

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX00117	Lithium, Total	mg/L	-0.0000169	0.022	0.20	0.232	0.228	0.224	0.17 to 0.23		116	70 to 130		1.64	20
AX00117	Boron, Total	mg/L	0.00143	0.044	1.00	0.947	0.946	0.942	0.85 to 1.15		94.7	70 to 130		0.0624	20
AX00201	Cobalt, Total	mg/L	0.00000694	0.0044	0.10	0.0857	0.0874	0.0920	0.085 to 0.115		82.0	70 to 130		1.94	20
AX00201	Barium, Total	mg/L	-0.00000198	0.0044	0.10	0.126	0.130	0.0901	0.085 to 0.115		85.3	70 to 130		2.69	20
AX00201	Selenium, Total	mg/L	0.0000905	0.0044	0.10	0.0924	0.0933	0.0967	0.085 to 0.115		92.4	70 to 130		0.959	20
AX00117	Calcium, Total	mg/L	-0.00565	0.22	5.00	5.04	5.02	5.04	4.25 to 5.75		101	70 to 130		0.442	20
AX00201	Thallium, Total	mg/L	0.0000224	0.00044	0.10	0.0966	0.0984	0.0977	0.085 to 0.115		96.6	70 to 130		1.84	20
AX00201	Antimony, Total	mg/L	0.0000781	0.00132	0.10	0.0833	0.0849	0.0880	0.085 to 0.115		83.3	70 to 130		1.98	20
AX00201	Beryllium, Total	mg/L	0.0000210	0.00132	0.10	0.0991	0.101	0.103	0.085 to 0.115		99.1	70 to 130		1.89	20
AX00201	Chromium, Total	mg/L	0.0000115	0.0044	0.10	0.0925	0.0951	0.0948	0.085 to 0.115		92.5	70 to 130		2.74	20
AX00201	Lead, Total	mg/L	0.0000260	0.0022	0.10	0.0976	0.0995	0.0998	0.085 to 0.115		97.6	70 to 130		1.86	20
AX00201	Mercury, Total by CVAA	mg/L	0.000108	0.0005	0.004	0.00373	0.00375	0.00374	0.0034 to 0.0046		93.2	70 to 130		0.623	20
AX00201	Arsenic, Total	mg/L	0.0000169	0.0022	0.10	0.0951	0.0971	0.0963	0.085 to 0.115		95.1	70 to 130		2.13	20
AX00201	Cadmium, Total	mg/L	0.00000861	0.00044	0.10	0.0873	0.0878	0.0933	0.085 to 0.115		87.3	70 to 130		0.544	20
AX00201	Molybdenum, Total	mg/L	0.0000112	0.0044	0.10	0.0831	0.0839	0.0870	0.085 to 0.115		83.1	70 to 130		0.905	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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: WMWGASGFB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX00115

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX00117	Chloride, Total	mg/L	0.00	0.25	10.00	9.83	0.00	9.98	9 to 11	98.3	80 to 120	0.00	20
AX00117	Fluoride, Total	mg/L	0.00	0.3	2.00	2.00	0.00	2.15	1.8 to 2.2	100	80 to 120	0.00	20
AX00117	Sulfate, Total	mg/L	-0.462	1.0	20.00	19.3	-0.457	20.5	18 to 22	96.5	80 to 120	0.00	20
AX00121	Solids, Dissolved	mg/L	-1.0	25			340	53.0	40 to 60			1.16	5

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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:

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: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX00116

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/24/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	J 0.00989	mg/L
* Beryllium, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/24/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/24/2017	EPA 200.7		1	0.1	0.5	9.21	mg/L
* Cadmium, Total	ABB	1/12/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	1/12/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/24/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	ABB	1/12/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	1/10/2017	SM 2540C		1		25	47.3	mg/L
* Chloride, Total	SES	1/11/2017	EPA 300.0		1	0.04	0.25	3.11	mg/L
* Fluoride, Total	SES	1/11/2017	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	1/11/2017	EPA 300.0		1	0.3	1	3.00	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: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX00116

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX00201	Selenium, Total	mg/L	0.0000905	0.0044	0.10	0.0924	0.0933	0.0967	0.085 to 0.115	92.4	70 to 130	0.959	20	
AX00123	Lithium, Total	mg/L	-0.0000169	0.022	0.20	0.232	0.228	0.224	0.17 to 0.23	116	70 to 130	1.64	20	
AX00201	Thallium, Total	mg/L	0.0000224	0.00044	0.10	0.0966	0.0984	0.0977	0.085 to 0.115	96.6	70 to 130	1.84	20	
AX00201	Cobalt, Total	mg/L	0.00000694	0.0044	0.10	0.0857	0.0874	0.0920	0.085 to 0.115	82.0	70 to 130	1.94	20	
AX00123	Boron, Total	mg/L	0.00143	0.044	1.00	0.947	0.946	0.942	0.85 to 1.15	94.7	70 to 130	0.0624	20	
AX00123	Calcium, Total	mg/L	-0.00565	0.22	5.00	5.04	5.02	5.04	4.25 to 5.75	101	70 to 130	0.442	20	
AX00201	Barium, Total	mg/L	-0.00000198	0.0044	0.10	0.126	0.130	0.0901	0.085 to 0.115	85.3	70 to 130	2.69	20	
AX00201	Antimony, Total	mg/L	0.0000781	0.00132	0.10	0.0833	0.0849	0.0880	0.085 to 0.115	83.3	70 to 130	1.98	20	
AX00201	Beryllium, Total	mg/L	0.0000210	0.00132	0.10	0.0991	0.101	0.103	0.085 to 0.115	99.1	70 to 130	1.89	20	
AX00201	Chromium, Total	mg/L	0.0000115	0.0044	0.10	0.0925	0.0951	0.0948	0.085 to 0.115	92.5	70 to 130	2.74	20	
AX00201	Lead, Total	mg/L	0.0000260	0.0022	0.10	0.0976	0.0995	0.0998	0.085 to 0.115	97.6	70 to 130	1.86	20	
AX00201	Mercury, Total by CVAA	mg/L	0.000108	0.0005	0.004	0.00373	0.00375	0.00374	0.0034 to 0.0046	93.2	70 to 130	0.623	20	
AX00201	Arsenic, Total	mg/L	0.0000169	0.0022	0.10	0.0951	0.0971	0.0963	0.085 to 0.115	95.1	70 to 130	2.13	20	
AX00201	Cadmium, Total	mg/L	0.00000861	0.00044	0.10	0.0873	0.0878	0.0933	0.085 to 0.115	87.3	70 to 130	0.544	20	
AX00201	Molybdenum, Total	mg/L	0.0000112	0.0044	0.10	0.0831	0.0839	0.0870	0.085 to 0.115	83.1	70 to 130	0.905	20	

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Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX00116

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX00117	Chloride, Total	mg/L	0.00	0.25	10.00	9.83	0.00	9.98	9 to 11	98.3	80 to 120	0.00	20
AX00117	Fluoride, Total	mg/L	0.00	0.3	2.00	2.00	0.00	2.15	1.8 to 2.2	100	80 to 120	0.00	20
AX00117	Sulfate, Total	mg/L	-0.462	1.0	20.00	19.3	-0.457	20.5	18 to 22	96.5	80 to 120	0.00	20
AX00121	Solids, Dissolved	mg/L	-1.0	25			340	53.0	40 to 60			1.16	5

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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: WMWGASGEB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX00117

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	3/24/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	ABB	1/12/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	1/24/2017	EPA 200.7		1	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	1/24/2017	EPA 200.7		1	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	1/12/2017	EPA 200.8		5	0.0002	0.0010	U Not Detected	mg/L
* Cobalt, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	MCW	1/12/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	1/24/2017	EPA 200.7		1	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	ABB	1/12/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	1/12/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	ABB	1/12/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	1/10/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total	SES	1/11/2017	EPA 300.0		1	0.04	0.25	U Not Detected	mg/L
* Fluoride, Total	SES	1/11/2017	EPA 300.0		1	0.01	0.3	U Not Detected	mg/L
* Sulfate, Total	SES	1/11/2017	EPA 300.0		1	0.3	1	U Not Detected	mg/L

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Comments:

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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: WMWGASGEB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX00117

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX00117	Boron, Total	mg/L	0.00143	0.044	1.00	0.947	0.946	0.942	0.85 to 1.15	94.7	70 to 130	0.0624	20	
AX00201	Selenium, Total	mg/L	0.0000905	0.0044	0.10	0.0924	0.0933	0.0967	0.085 to 0.115	92.4	70 to 130	0.959	20	
AX00117	Lithium, Total	mg/L	-0.0000169	0.022	0.20	0.232	0.228	0.224	0.17 to 0.23	116	70 to 130	1.64	20	
AX00201	Cobalt, Total	mg/L	0.00000694	0.0044	0.10	0.0857	0.0874	0.0920	0.085 to 0.115	82.0	70 to 130	1.94	20	
AX00201	Barium, Total	mg/L	-0.00000198	0.0044	0.10	0.126	0.130	0.0901	0.085 to 0.115	85.3	70 to 130	2.69	20	
AX00201	Arsenic, Total	mg/L	0.0000169	0.0022	0.10	0.0951	0.0971	0.0963	0.085 to 0.115	95.1	70 to 130	2.13	20	
AX00201	Cadmium, Total	mg/L	0.00000861	0.00044	0.10	0.0873	0.0878	0.0933	0.085 to 0.115	87.3	70 to 130	0.544	20	
AX00201	Molybdenum, Total	mg/L	0.0000112	0.0044	0.10	0.0831	0.0839	0.0870	0.085 to 0.115	83.1	70 to 130	0.905	20	
AX00117	Calcium, Total	mg/L	-0.00565	0.22	5.00	5.04	5.02	5.04	4.25 to 5.75	101	70 to 130	0.442	20	
AX00201	Thallium, Total	mg/L	0.0000224	0.00044	0.10	0.0966	0.0984	0.0977	0.085 to 0.115	96.6	70 to 130	1.84	20	
AX00201	Antimony, Total	mg/L	0.0000781	0.00132	0.10	0.0833	0.0849	0.0880	0.085 to 0.115	83.3	70 to 130	1.98	20	
AX00201	Beryllium, Total	mg/L	0.0000210	0.00132	0.10	0.0991	0.101	0.103	0.085 to 0.115	99.1	70 to 130	1.89	20	
AX00201	Chromium, Total	mg/L	0.0000115	0.0044	0.10	0.0925	0.0951	0.0948	0.085 to 0.115	92.5	70 to 130	2.74	20	
AX00201	Lead, Total	mg/L	0.0000260	0.0022	0.10	0.0976	0.0995	0.0998	0.085 to 0.115	97.6	70 to 130	1.86	20	
AX00201	Mercury, Total by CVAA	mg/L	0.000108	0.0005	0.004	0.00373	0.00375	0.00374	0.0034 to 0.0046	93.2	70 to 130	0.623	20	

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 03-Jan-17
 Customer ID:
 Delivery Date: 04-Jan-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX00117

Sample	Analysis	Units	MB	MB			Sample		LFB	Rec			Prec
				Limit	Spike	LFM	Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX00117	Chloride, Total	mg/L	0.00	0.25	10.00	9.83	0.00	9.98	9 to 11	98.3	80 to 120	0.00	20
AX00117	Fluoride, Total	mg/L	0.00	0.3	2.00	2.00	0.00	2.15	1.8 to 2.2	100	80 to 120	0.00	20
AX00117	Sulfate, Total	mg/L	-0.462	1.0	20.00	19.3	-0.457	20.5	18 to 22	96.5	80 to 120	0.00	20
AX00121	Solids, Dissolved	mg/L	-1.0	25			340	53.0	40 to 60			1.16	5

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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

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: 400-132436-2

TestAmerica SDG: Gaston Gypsum New Wells (3)

Client Project/Site: CCR Plant Gaston

For:

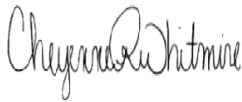
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/23/2017 6:11:26 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 Gaston

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (3)

Job ID: 400-132436-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-132436-2

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch: 160-294434. The following samples were prepped at a reduced aliquot due to limited sample volume: AX00114 MW-14S (400-132436-9) and AX00116 MW-15 (400-132436-10).

Method(s) PrecSep_0: Radium 228 Prep batch: 160-294434. Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AX00114 MW-14S (400-132436-9) and AX00116 MW-15 (400-132436-10) . A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepped instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch: 160-294424. The following samples were prepped at a reduced aliquot due to limited sample volume: AX00114 MW-14S (400-132436-9) and AX00116 MW-15 (400-132436-10).

Method(s) PrecSep-21: Radium 226 Prep batch: 160-294424. Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AX00114 MW-14S (400-132436-9) and AX00116 MW-15 (400-132436-10) . A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepped instead to demonstrate batch precision.



Method Summary

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

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (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 Gaston

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (3)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-132436-1	AX00115 FB-1	Water	01/03/17 13:20	01/10/17 15:30
400-132436-2	AX00117 EB-1	Water	01/03/17 15:50	01/10/17 15:30
400-132436-9	AX00114 MW-14S	Water	01/03/17 13:05	01/10/17 15:30
400-132436-10	AX00116 MW-15	Water	01/03/17 15:20	01/10/17 15:30

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Client Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Client Sample ID: AX00115 FB-1

Lab Sample ID: 400-132436-1

Date Collected: 01/03/17 13:20

Matrix: Water

Date Received: 01/10/17 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	0.0869	U	0.134	0.134	1.00	0.231	pCi/L	01/17/17 12:52	02/08/17 07:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					01/17/17 12:52	02/08/17 07:02	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.863		0.478	0.485	1.00	0.726	pCi/L	01/17/17 13:21	02/03/17 17:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.1		40 - 110					01/17/17 13:21	02/03/17 17:22	1
Y Carrier	89.0		40 - 110					01/17/17 13:21	02/03/17 17:22	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	0.950		0.497	0.503	5.00	0.726	pCi/L		02/09/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Client Sample ID: AX00117 EB-1

Lab Sample ID: 400-132436-2

Date Collected: 01/03/17 15:50

Matrix: Water

Date Received: 01/10/17 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	0.205	U	0.155	0.156	1.00	0.217	pCi/L	01/17/17 12:52	02/08/17 07:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					01/17/17 12:52	02/08/17 07:03	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.145	U	0.348	0.348	1.00	0.600	pCi/L	01/17/17 13:21	02/03/17 17:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		40 - 110					01/17/17 13:21	02/03/17 17:22	1
Y Carrier	87.9		40 - 110					01/17/17 13:21	02/03/17 17:22	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	0.350	U	0.381	0.381	5.00	0.600	pCi/L		02/09/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Client Sample ID: AX00114 MW-14S

Lab Sample ID: 400-132436-9

Date Collected: 01/03/17 13:05

Matrix: Water

Date Received: 01/10/17 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	0.112	U	0.0910	0.0916	1.00	0.133	pCi/L	02/24/17 13:51	03/21/17 05:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/24/17 13:51	03/21/17 05:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.300	U	0.265	0.267	1.00	0.424	pCi/L	02/24/17 14:24	03/14/17 11:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/24/17 14:24	03/14/17 11:08	1
Y Carrier	85.2		40 - 110					02/24/17 14:24	03/14/17 11:08	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.412	U	0.281	0.282	5.00	0.424	pCi/L		03/21/17 14:31	1

Client Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Client Sample ID: AX00116 MW-15

Lab Sample ID: 400-132436-10

Date Collected: 01/03/17 15:20

Matrix: Water

Date Received: 01/10/17 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	0.0763	U	0.0839	0.0842	1.00	0.134	pCi/L	02/24/17 13:51	03/21/17 05:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/24/17 13:51	03/21/17 05:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.584		0.338	0.342	1.00	0.512	pCi/L	02/24/17 14:24	03/14/17 11:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					02/24/17 14:24	03/14/17 11:12	1
Y Carrier	83.4		40 - 110					02/24/17 14:24	03/14/17 11:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.661		0.348	0.352	5.00	0.512	pCi/L		03/21/17 14:31	1

Definitions/Glossary

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

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (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 Gaston

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Client Sample ID: AX00115 FB-1

Lab Sample ID: 400-132436-1

Date Collected: 01/03/17 13:20

Matrix: Water

Date Received: 01/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287992	01/17/17 12:52	AS	TAL SL
Total/NA	Analysis	9315		1	291519	02/08/17 07:02	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287997	01/17/17 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	290910	02/03/17 17:22	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291720	02/09/17 10:03	RTM	TAL SL

Client Sample ID: AX00117 EB-1

Lab Sample ID: 400-132436-2

Date Collected: 01/03/17 15:50

Matrix: Water

Date Received: 01/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			287992	01/17/17 12:52	AS	TAL SL
Total/NA	Analysis	9315		1	291519	02/08/17 07:03	ALD	TAL SL
Total/NA	Prep	PrecSep_0			287997	01/17/17 13:21	AS	TAL SL
Total/NA	Analysis	9320		1	290910	02/03/17 17:22	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	291720	02/09/17 10:03	RTM	TAL SL

Client Sample ID: AX00114 MW-14S

Lab Sample ID: 400-132436-9

Date Collected: 01/03/17 13:05

Matrix: Water

Date Received: 01/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294424	02/24/17 13:51	BME	TAL SL
Total/NA	Analysis	9315		1	298669	03/21/17 05:46	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294434	02/24/17 14:24	BME	TAL SL
Total/NA	Analysis	9320		1	297617	03/14/17 11:08	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Client Sample ID: AX00116 MW-15

Lab Sample ID: 400-132436-10

Date Collected: 01/03/17 15:20

Matrix: Water

Date Received: 01/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			294424	02/24/17 13:51	BME	TAL SL
Total/NA	Analysis	9315		1	298669	03/21/17 05:46	MLK	TAL SL
Total/NA	Prep	PrecSep_0			294434	02/24/17 14:24	BME	TAL SL
Total/NA	Analysis	9320		1	297616	03/14/17 11:12	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	298860	03/21/17 14:31	RTM	TAL SL

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (3)

Rad

Prep Batch: 287992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132436-1	AX00115 FB-1	Total/NA	Water	PrecSep-21	
400-132436-2	AX00117 EB-1	Total/NA	Water	PrecSep-21	
MB 160-287992/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-287992/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-132436-A-5-D DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 287997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132436-1	AX00115 FB-1	Total/NA	Water	PrecSep_0	
400-132436-2	AX00117 EB-1	Total/NA	Water	PrecSep_0	
MB 160-287997/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-287997/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-132436-A-5-F DU	Duplicate	Total/NA	Water	PrecSep_0	

Prep Batch: 294424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132436-9	AX00114 MW-14S	Total/NA	Water	PrecSep-21	
400-132436-10	AX00116 MW-15	Total/NA	Water	PrecSep-21	
MB 160-294424/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-294424/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-294424/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 294434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-132436-9	AX00114 MW-14S	Total/NA	Water	PrecSep_0	
400-132436-10	AX00116 MW-15	Total/NA	Water	PrecSep_0	
MB 160-294434/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-294434/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-294434/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-287992/1-A
Matrix: Water
Analysis Batch: 291519

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287992

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06909	U	0.109	0.109	1.00	0.189	pCi/L	01/17/17 12:52	02/08/17 07:02	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110					01/17/17 12:52	02/08/17 07:02	1

Lab Sample ID: LCS 160-287992/2-A
Matrix: Water
Analysis Batch: 291519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287992

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	6.01	7.681		0.932	1.00	0.208	pCi/L	128	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	74.1		40 - 110						

Lab Sample ID: 400-132436-A-5-D DU
Matrix: Water
Analysis Batch: 291519

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 287992

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.391		0.4643		0.183	1.00	0.192	pCi/L	0.21	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	74.1		40 - 110							

Lab Sample ID: MB 160-294424/1-A
Matrix: Water
Analysis Batch: 298668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294424

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.04562	U	0.0619	0.0620	1.00	0.158	pCi/L	02/24/17 13:51	03/21/17 05:40	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					02/24/17 13:51	03/21/17 05:40	1

Lab Sample ID: LCS 160-294424/2-A
Matrix: Water
Analysis Batch: 298668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294424

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.2	12.36		1.34	1.00	0.125	pCi/L	82	68 - 137

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

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

Lab Sample ID: LCS 160-294424/2-A
Matrix: Water
Analysis Batch: 298668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294424

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.9		40 - 110

Lab Sample ID: LCSD 160-294424/3-A
Matrix: Water
Analysis Batch: 298668

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294424

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	15.2	13.29		1.41	1.00	0.133	pCi/L	88	68 - 137	0.34	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	95.3		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-287997/1-A
Matrix: Water
Analysis Batch: 290910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 287997

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.08400	U	0.322	0.322	1.00	0.562	pCi/L	01/17/17 13:21	02/03/17 17:22	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	69.5		40 - 110	01/17/17 13:21	02/03/17 17:22	1
Y Carrier	83.0		40 - 110	01/17/17 13:21	02/03/17 17:22	1

Lab Sample ID: LCS 160-287997/2-A
Matrix: Water
Analysis Batch: 290910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 287997

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.9	15.54		1.73	1.00	0.484	pCi/L	112	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	74.1		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-132436-A-5-F DU
Matrix: Water
Analysis Batch: 290910

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 287997

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.719		0.7519		0.352	1.00	0.497	pCi/L	0.04	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

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

Lab Sample ID: 400-132436-A-5-F DU
Matrix: Water
Analysis Batch: 290910

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 287997

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	74.1		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: MB 160-294434/1-A
Matrix: Water
Analysis Batch: 297617

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294434

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1199	U	0.315	0.315	1.00	0.543	pCi/L	02/24/17 14:24	03/14/17 11:06	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110	02/24/17 14:24	03/14/17 11:06	1
Y Carrier	84.1		40 - 110	02/24/17 14:24	03/14/17 11:06	1

Lab Sample ID: LCS 160-294434/2-A
Matrix: Water
Analysis Batch: 297617

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294434

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.3	18.92		2.05	1.00	0.514	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.9		40 - 110
Y Carrier	89.3		40 - 110

Lab Sample ID: LCSD 160-294434/3-A
Matrix: Water
Analysis Batch: 297617

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294434

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	18.3	17.89		1.93	1.00	0.460	pCi/L	98	56 - 140	0.26	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	88.6		40 - 110

QC Sample Results

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

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

Lab Sample ID: 400-132436-A-5 DU
Matrix: Water
Analysis Batch: 291720

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	1.11		1.216		0.397	5.00	0.497	pCi/L	0.13	

Lab Sample ID: 400-133961-A-4 DU
Matrix: Water
Analysis Batch: 298860


Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	-0.0851	U	0.1961	U	0.234	5.00	0.379	pCi/L	0.57	

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Chain of Custody Record

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

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #9 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Gaston Gypsum New Wells (3)		Lab PII: Whitmire, Chyenne R E-Mail: chyenne.whitmire@testamericainc.com Sample: Jason Rouss Phone:		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 1 of 1 Job #: 180-132436	
Due Date Requested: TAT Requested (days): Routine		Analysis Requested 9316_Ra226_9320_Ra228_Ra228Ra228_GFPo			
PO #: WO #: Project #: 40007143 SSON#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amide H - Acetic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
Sample Identification AX00114 AX00115 AX00116 AX00117		Sample Date 1/3/17 1/3/17 1/3/17 1/3/17		Sample Type (C=Comp, G=Grab) G G G G	
Matrix (Residue, Swab, Composite, etc.) Water Water Water Water		Special Instructions/Note: MW-74S FB-1 (Field Blank) MW-15 EB-1 (Equipment Blank)			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					
Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Sarah Copeland Relinquished by: Date/Time: 01/17/2017: 1300 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: Date: _____ Time: _____ Method of Shipment: _____ Received by:  Date/Time: 1/10/17 1530 Company: IA Company Received by: Date/Time: Company Received by: Date/Time: Company					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.: 17-6°C IPC					



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-132436-2
SDG Number: Gaston Gypsum New Wells (3)

Login Number: 132436

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.4°C, 17.6°C IR-6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

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

TestAmerica Job ID: 400-132436-2
 SDG: Gaston Gypsum New Wells (3)

Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40150	06-30-17
Arizona	State Program	9	AZ0710	01-11-18
Arkansas DEQ	State Program	6	88-0689	09-01-17
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-17
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
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 Gaston

TestAmerica Job ID: 400-132436-2
SDG: Gaston Gypsum New Wells (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
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica 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 : WMWGASG_1077

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_1077

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America.

Job Narrative 400-134503-2 General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 346171 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS) precision was within acceptance limits.



Metals ICP

Gaston Gypsum

WMWGASG_1077

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>
AX04435	20170403	WMWGASG_1077
AX04436	20170403	WMWGASG_1077
AX04437	20170403	WMWGASG_1077
AX04438	20170403	WMWGASG_1077
AX04439	20170403	WMWGASG_1077
AX04440	20170403	WMWGASG_1077
AX04501	20170403	WMWGASG_1077
AX04502	20170403	WMWGASG_1077
AX04503	20170403	WMWGASG_1077
AX04504	20170403	WMWGASG_1077
AX04505	20170403A	WMWGASG_1077
AX04506	20170403A	WMWGASG_1077
AX04507	20170403A	WMWGASG_1077
AX04508	20170403A	WMWGASG_1077
AX04509	20170403A	WMWGASG_1077
AX04510	20170403A	WMWGASG_1077
AX04511	20170403A	WMWGASG_1077
AX04512	20170403A	WMWGASG_1077
AX04513	20170403A	WMWGASG_1077

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met. ICV concentration for Li set to 0.2ppm.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes. CCV concentration for Li set to 0.2ppm. An additional CCV was added between samples for monitoring Lithium due to possible matrix issues.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes. An additional Rinse was added between samples for monitoring Lithium 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 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 at a x2 dilution to compensate for possible matrix issues, with the following exceptions: The following samples were diluted due to analyzed concentrations over the high standard of the calibration curve.

Sample ID	Analyte	Dilution Factor
AX04436	Calcium	x10
AX04508	Calcium	x10
AX04512	Calcium	x10

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



Metals ICPMS

Gaston Gypsum

WMWGASG_1077

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>
AX04435	588375	WMWGASG_1077
AX04436	588375	WMWGASG_1077
AX04437	588375	WMWGASG_1077
AX04438	588375	WMWGASG_1077
AX04439	588375	WMWGASG_1077
AX04440	588375	WMWGASG_1077
AX04501	588375	WMWGASG_1077
AX04502	588375	WMWGASG_1077
AX04503	588375	WMWGASG_1077
AX04504	588375	WMWGASG_1077
AX04505	588376	WMWGASG_1077
AX04506	588376	WMWGASG_1077
AX04507	588376	WMWGASG_1077
AX04508	588376	WMWGASG_1077
AX04509	588376	WMWGASG_1077
AX04510	588376	WMWGASG_1077
AX04511	588376	WMWGASG_1077
AX04512	588376	WMWGASG_1077
AX04513	588376	WMWGASG_1077

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

Gaston Gypsum

WMWGASG_1077

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>
AX04435	588263	WMWGASG_1077
AX04436	588263	WMWGASG_1077
AX04437	588263	WMWGASG_1077
AX04438	588263	WMWGASG_1077
AX04439	588263	WMWGASG_1077
AX04440	588263	WMWGASG_1077
AX04501	588263	WMWGASG_1077
AX04502	588263	WMWGASG_1077
AX04503	588263	WMWGASG_1077
AX04504	588263	WMWGASG_1077
AX04505	588264	WMWGASG_1077
AX04506	588264	WMWGASG_1077
AX04507	588264	WMWGASG_1077
AX04508	588264	WMWGASG_1077
AX04509	588264	WMWGASG_1077
AX04510	588264	WMWGASG_1077
AX04511	588264	WMWGASG_1077
AX04512	588264	WMWGASG_1077
AX04513	588264	WMWGASG_1077

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 limits 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 was below the limit of quantitation for all requested analytes.
- All calibration met criteria for requested analytes.
- All response signals were satisfactory with the following exceptions:
 1. Response signal during read time for AX4504ccv had a drop in signal. AX04504ccv was rerun and response signal had no drops during the read time for the second run. AX04504ccb and AX04521 method blank had already run before analyst saw the drop in response signal for AX04504ccv, so they were rerun to maintain sequential order of the run. Both runs for AX4504ccv, AX04504ccb, and AX05621 method blank were within acceptance criteria. The 2nd runs for all samples were used when reporting data.
 2. Response signal for AX04434msd had a drop in signal response during read time, but corresponding sample response signal had no drops in signal. Spike recovery passed for accuracy and agreed within 20% (RPD) of AX04434ms, which did not have any drops in response signal.
 3. Response signal still climbing during read time for calibration standard #3 (2.0ug/L), but calibration curve still passed all acceptance criteria.

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

Gaston Gypsum

WMWGASG_1077

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>
AX04435	588270	WMWGASG_1077
AX04436	588270	WMWGASG_1077
AX04437	588270	WMWGASG_1077
AX04438	588270	WMWGASG_1077
AX04439	588270	WMWGASG_1077
AX04440	588270	WMWGASG_1077
AX04501	588271	WMWGASG_1077
AX04502	588271	WMWGASG_1077
AX04503	588271	WMWGASG_1077
AX04504	588271	WMWGASG_1077
AX04505	588271	WMWGASG_1077
AX04506	588271	WMWGASG_1077
AX04507	588271	WMWGASG_1077
AX04508	588271	WMWGASG_1077
AX04509	588271	WMWGASG_1077
AX04510	588271	WMWGASG_1077
AX04511	588535	WMWGASG_1077
AX04512	588535	WMWGASG_1077
AX04513	588535	WMWGASG_1077

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

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

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX04440, AX04506 and AX04513, which were <2.5mg.

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX04435

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00932	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	8.53	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	55.3	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	2.7	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.1	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America Pensacola NELAP ID: E81010

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX04435

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX04435

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit		
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60		0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX04436

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0306	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		10	1.0	5	93.4	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	297	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.3	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	14	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX04436

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130		4.90	20
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130		0.137	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130		3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130		5.61	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130		8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130		3.26	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130		4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130		0.985	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130		1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130		5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130		0.901	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130		5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130		6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130		2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130		6.56	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX04436

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	5

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CC:

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

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX04437

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0262	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	48.0	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	195	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	6.1	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX04437

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX04437

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	5

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Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX04438

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0237	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	48.2	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	196	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	6.0	mg/L

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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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX04438

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX04438

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX04439

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0214	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	J 0.0323	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	69.9	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	264	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.7	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	12	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX04439

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	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

Alabama Power General Test Laboratory
 744 County 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: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX04439

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04440

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04440

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04440

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX04501

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0337	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	51.3	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	205	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	5.8	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	8.8	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX04501

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046	89.4	70 to 130	0.137	20	
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115	92.8	70 to 130	4.90	20	
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115	85.2	70 to 130	4.97	20	
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15	102	70 to 130	0.985	20	
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115	98.4	70 to 130	8.76	20	
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115	95.3	70 to 130	3.26	20	
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115	95.2	70 to 130	3.29	20	
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115	90.2	70 to 130	5.61	20	
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75	102	70 to 130	1.35	20	
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115	95.7	70 to 130	5.69	20	
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23	112	70 to 130	0.901	20	
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115	85.7	70 to 130	5.58	20	
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115	99.1	70 to 130	6.70	20	
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115	94.4	70 to 130	2.02	20	
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115	97.5	70 to 130	6.56	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX04501

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX04502

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0126	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	0.829	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	30.0	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.7	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX04502

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	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

Alabama Power General Test Laboratory
 744 County 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: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX04502

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AX04503

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0128	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	0.823	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	30.7	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.8	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AX04503

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-6 Dup

Laboratory ID Number: AX04503

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX04504

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0193	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	69.6	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00263	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	251	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.0	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	9.7	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX04504

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04504	Mercury, Total by CVAA	mg/L	0.0000157	0.0005	0.004	0.00357	0.00358	0.00398	0.0034 to 0.0046		89.4	70 to 130	0.137	20
AX04504	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0928	0.0883	0.0983	0.085 to 0.115		92.8	70 to 130	4.90	20
AX04504	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0952	0.0921	0.102	0.085 to 0.115		95.2	70 to 130	3.29	20
AX04504	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0902	0.0853	0.0964	0.085 to 0.115		90.2	70 to 130	5.61	20
AX04504	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.0984	0.0902	0.0980	0.085 to 0.115		98.4	70 to 130	8.76	20
AX04504	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.0953	0.0923	0.0964	0.085 to 0.115		95.3	70 to 130	3.26	20
AX04504	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0857	0.0810	0.0930	0.085 to 0.115		85.7	70 to 130	5.58	20
AX04504	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.0951	0.102	0.085 to 0.115		99.1	70 to 130	6.70	20
AX04504	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.0944	0.0925	0.0985	0.085 to 0.115		94.4	70 to 130	2.02	20
AX04504	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.0975	0.0913	0.0969	0.085 to 0.115		97.5	70 to 130	6.56	20
AX04504	Calcium, Total	mg/L	-0.0616	0.22	5.00	74.7	73.7	4.87	4.25 to 5.75		102	70 to 130	1.35	20
AX04504	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0957	0.0904	0.0989	0.085 to 0.115		95.7	70 to 130	5.69	20
AX04504	Lithium, Total	mg/L	-0.000231	0.022	0.200	0.223	0.221	0.205	0.17 to 0.23		112	70 to 130	0.901	20
AX04504	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.104	0.0994	0.0911	0.085 to 0.115		85.2	70 to 130	4.97	20
AX04504	Boron, Total	mg/L	-0.00333	0.044	1.00	1.02	1.01	0.951	0.85 to 1.15		102	70 to 130	0.985	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX04504

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04439	Solids, Dissolved	mg/L	-3.0	25			268	59.0	40 to 60	0.752	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX04505

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	J 0.00127	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0264	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	57.7	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00422	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	195	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	2.3	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	0.15	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.0	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX04505

Sample	Analysis	Units	MB			MS	MSD	LFB	LFB		Rec		Prec
			MB	Limit	Spike				Limit	Rec	Limit	Prec	
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	20
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20
AX04521	Cadmium, Total	mg/L	-0.0000000037	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	20
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX04505

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	5

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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: WMWGASGFB
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04506

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04506

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20	
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20	
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20	
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20	
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20	
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20	
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20	
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	20	
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20	
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20	
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20	
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	20	
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20	
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20	
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	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
 John Pugh

Customer Account: WMWGASGFB
 Sample Date: 20-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX04506

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX04507

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0235	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	45.6	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	153	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX04507

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20	
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20	
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20	
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20	
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20	
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20	
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20	
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	20	
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20	
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20	
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	20	
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20	
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20	
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20	
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX04507

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX04508

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0335	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		10	1.0	5	93.1	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	243	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.2	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX04508

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115		96.5	70 to 130	0.730	20
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115		92.1	70 to 130	0.637	20
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23		99.2	70 to 130	0.538	20
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115		97.7	70 to 130	0.685	20
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046		101	70 to 130	0.194	20
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115		88.5	70 to 130	2.54	20
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115		89.5	70 to 130	0.785	20
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115		100	70 to 130	0.825	20
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115		102	70 to 130	0.797	20
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115		101	70 to 130	0.148	20
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115		99.3	70 to 130	0.551	20
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115		101	70 to 130	0.0202	20
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15		97.7	70 to 130	0.279	20
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75		96.7	70 to 130	1.04	20
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115		99.9	70 to 130	0.0988	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX04508

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX04509

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00713	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	J 0.0295	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	13.2	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00315	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		25	76.7	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX04509

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115		92.1	70 to 130	0.637	20
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115		96.5	70 to 130	0.730	20
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115		88.5	70 to 130	2.54	20
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115		89.5	70 to 130	0.785	20
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115		100	70 to 130	0.825	20
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23		99.2	70 to 130	0.538	20
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115		97.7	70 to 130	0.685	20
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046		101	70 to 130	0.194	20
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115		102	70 to 130	0.797	20
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115		101	70 to 130	0.148	20
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115		99.3	70 to 130	0.551	20
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115		101	70 to 130	0.0202	20
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15		97.7	70 to 130	0.279	20
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75		96.7	70 to 130	1.04	20
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115		99.9	70 to 130	0.0988	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX04509

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX04510

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0396	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	80.0	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/25/2017	SM 2540C		1		50	280	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	7.7	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX04510

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20	
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20	
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20	
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20	
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	20	
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20	
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20	
AX04521	Cadmium, Total	mg/L	-0.0000000037	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20	
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20	
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20	
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	20	
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20	
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20	
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20	
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 21-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX04510

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04510	Solids, Dissolved	mg/L	-3.0	25			286	59.0	40 to 60	1.06	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX04511

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	0.0192	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	1.53	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	J 0.0280	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	35.9	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0102	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/28/2017	SM 2540C		1		25	165	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	0.34	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.3	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX04511

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20	
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20	
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20	
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20	
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20	
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20	
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20	
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	20	
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20	
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20	
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	20	
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20	
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20	
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20	
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX04511

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04531	Solids, Dissolved	mg/L	-7.0	25			287	45.0	40 to 60	2.14	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX04512

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	J 0.00110	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	0.0537	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		10	1.0	5	86.4	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	J 0.00412	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/28/2017	SM 2540C		1		25	260	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	4.8	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX04512

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115		96.5	70 to 130	0.730	20
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115		92.1	70 to 130	0.637	20
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23		99.2	70 to 130	0.538	20
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115		97.7	70 to 130	0.685	20
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046		101	70 to 130	0.194	20
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15		97.7	70 to 130	0.279	20
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75		96.7	70 to 130	1.04	20
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115		99.9	70 to 130	0.0988	20
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115		102	70 to 130	0.797	20
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115		101	70 to 130	0.148	20
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115		99.3	70 to 130	0.551	20
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115		101	70 to 130	0.0202	20
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115		88.5	70 to 130	2.54	20
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115		89.5	70 to 130	0.785	20
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115		100	70 to 130	0.825	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
 John Pugh

Customer Account: WMWGASG
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX04512

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX04531	Solids, Dissolved	mg/L	-7.0	25			287	45.0	40 to 60	2.14	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
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX04513

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/3/2017	EPA 9315/9320		1			Attached	
Metals, Cyanide, Total Phenols									
* Antimony, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Arsenic, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Beryllium, Total	JHK	2/28/2017	EPA 200.8		5	0.00060	0.0030	U Not Detected	mg/L
* Boron, Total	HRG	4/3/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	4/3/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
* Cobalt, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Chromium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/27/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	4/3/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Lead, Total	JHK	2/28/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	2/28/2017	EPA 200.8		5	0.0020	0.010	U Not Detected	mg/L
* Thallium, Total	JHK	2/28/2017	EPA 200.8		5	0.00020	0.0010	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	2/28/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	3/24/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	3/24/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	3/24/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America Pensacola NELAP ID: E81010

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer
 John Pugh

Customer Account: WMWGASGEB
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX04513

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX04521	Selenium, Total	mg/L	0.0000672	0.0044	0.10	0.0921	0.0916	0.0964	0.085 to 0.115	92.1	70 to 130	0.637	20	
AX04521	Arsenic, Total	mg/L	0.0000121	0.0022	0.10	0.0965	0.0958	0.0983	0.085 to 0.115	96.5	70 to 130	0.730	20	
AX04521	Antimony, Total	mg/L	0.0000582	0.00132	0.10	0.0885	0.0863	0.0930	0.085 to 0.115	88.5	70 to 130	2.54	20	
AX04521	Barium, Total	mg/L	0.0000124	0.0044	0.10	0.115	0.114	0.0911	0.085 to 0.115	89.5	70 to 130	0.785	20	
AX04521	Cadmium, Total	mg/L	-0.000000003	0.00044	0.10	0.100	0.0996	0.0980	0.085 to 0.115	100	70 to 130	0.825	20	
AX04521	Cobalt, Total	mg/L	0.000000268	0.0044	0.10	0.102	0.101	0.102	0.085 to 0.115	102	70 to 130	0.797	20	
AX04521	Lead, Total	mg/L	0.00000309	0.0022	0.10	0.101	0.101	0.0985	0.085 to 0.115	101	70 to 130	0.148	20	
AX04521	Molybdenum, Total	mg/L	0.00000468	0.0044	0.10	0.111	0.110	0.0969	0.085 to 0.115	99.3	70 to 130	0.551	20	
AX04521	Thallium, Total	mg/L	0.000000562	0.00044	0.10	0.101	0.101	0.0964	0.085 to 0.115	101	70 to 130	0.0202	20	
AX04513	Lithium, Total	mg/L	-0.000342	0.022	0.20	0.198	0.199	0.205	0.17 to 0.23	99.2	70 to 130	0.538	20	
AX04521	Chromium, Total	mg/L	0.00000947	0.0044	0.10	0.0977	0.0971	0.0989	0.085 to 0.115	97.7	70 to 130	0.685	20	
AX04521	Mercury, Total by CVAA	mg/L	0.0000179	0.0005	0.004	0.00403	0.00402	0.00402	0.0034 to 0.0046	101	70 to 130	0.194	20	
AX04513	Boron, Total	mg/L	-0.00344	0.044	1.00	0.977	0.979	0.986	0.85 to 1.15	97.7	70 to 130	0.279	20	
AX04513	Calcium, Total	mg/L	-0.0660	0.22	5.00	4.83	4.88	4.88	4.25 to 5.75	96.7	70 to 130	1.04	20	
AX04521	Beryllium, Total	mg/L	0.00000230	0.00132	0.10	0.0999	0.0998	0.102	0.085 to 0.115	99.9	70 to 130	0.0988	20	

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

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

* 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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Alabama Power General Test Laboratory
 744 County 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: WMWGASGEB
 Sample Date: 22-Feb-17
 Customer ID:
 Delivery Date: 22-Feb-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX04513

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LFB	Limit	Rec	Prec	Prec	Limit
							Duplicate	LFB		Rec	Limit	Prec	Limit
AX04531	Solids, Dissolved	mg/L	-7.0	25			287	45.0	40 to 60			2.14	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

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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 02/22/2017 14:30

Requested Complete Date	Routine	Results To	Dustin Brooks, John Pugh, Greg Dyer
Site Representative	Byron Corina	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gaston Gypsum

Analysis Requested	Bottle 1 (1L): Radiological, Bottle 2 (500mL): Metals, Bottle 3 (250mL): Hg, Bottle 4 (500mL): TDS, Bottle 5 (250mL): Anions
Comments	Radium Duplicate collected at MW-5 Due to instrument issues, all anions were outsourced to Test America, Pensacola. AX04511 will not have a result for Radium, sample was lost in transit and will be re-sampled.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	02/20/2017	10:28	7	Groundwater		AX04501
MW-6	02/20/2017	11:37	5	Groundwater		AX04502
MW-6 DUP	02/20/2017	11:37	5	Sample Duplicate		AX04503
MW-7	02/20/2017	13:06	5	Groundwater		AX04504
MW-8	02/20/2017	14:36	5	Groundwater		AX04505
FB-1	02/20/2017	15:05	5	Field Blank		AX04506
MW-9	02/21/2017	10:48	5	Groundwater		AX04507
MW-10	02/21/2017	12:00	5	Groundwater		AX04508
MW-11	02/21/2017	13:40	5	Groundwater		AX04509
MW-2	02/21/2017	15:08	5	Groundwater		AX04510
MW-1	02/22/2017	10:10	5	Groundwater		AX04511
MW-13	02/22/2017	11:15	5	Groundwater		AX04512
EB-1	02/22/2017	11:45	5	Equipment Blank		AX04513

Relinquished By	Received By	Date/Time
<i>Ben Rothschild</i>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2017.02.22 13:25:08 -0600</small>	02/22/2017 13:25

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	0.5 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: 400-134503-2

TestAmerica Sample Delivery Group: Gaston Gypsum (6)

Client Project/Site: CCR Plant Gaston

For:

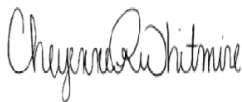
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/24/2017 10:36:17 AM

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?



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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 Gaston

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Job ID: 400-134503-2

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-134503-2

General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 346171 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS) precision was within acceptance limits.

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Detection Summary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Client Sample ID: AX04435 MW-15

Lab Sample ID: 400-134503-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		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: AX04436 MW-3

Lab Sample ID: 400-134503-2

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	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04437 MW-14S

Lab Sample ID: 400-134503-3

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	6.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04438 MW-14S DUP

Lab Sample ID: 400-134503-4

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
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04439 MW-12

Lab Sample ID: 400-134503-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04440 FB-2

Lab Sample ID: 400-134503-6

No Detections.

Client Sample ID: AX04501 MW-5

Lab Sample ID: 400-134503-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	8.8		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04502 MW-6

Lab Sample ID: 400-134503-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX04503 MW-6 DUP

Lab Sample ID: 400-134503-9

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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04504 MW-7

Lab Sample ID: 400-134503-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	9.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04506 FB-1

Lab Sample ID: 400-134503-12

No Detections.

Client Sample ID: AX04507 MW-9

Lab Sample ID: 400-134503-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04508 MW-10

Lab Sample ID: 400-134503-14

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	2.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04509 MW-11

Lab Sample ID: 400-134503-15

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	5.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

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	7.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04511 MW-1

Lab Sample ID: 400-134503-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.34		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX04512 MW-13

Lab Sample ID: 400-134503-18

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
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	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 Gaston

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Client Sample ID: AX04512 MW-13 (Continued)

Lab Sample ID: 400-134503-18

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

Client Sample ID: AX04513 EB-1

Lab Sample ID: 400-134503-19

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

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Method Summary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston 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

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Sample Summary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-134503-1	AX04435 MW-15	Water	02/20/17 13:13	03/08/17 12:34
400-134503-2	AX04436 MW-3	Water	02/20/17 15:47	03/08/17 12:34
400-134503-3	AX04437 MW-14S	Water	02/21/17 10:24	03/08/17 12:34
400-134503-4	AX04438 MW-14S DUP	Water	02/21/17 10:24	03/08/17 12:34
400-134503-5	AX04439 MW-12	Water	02/21/17 12:06	03/08/17 12:34
400-134503-6	AX04440 FB-2	Water	02/21/17 11:53	03/08/17 12:34
400-134503-7	AX04501 MW-5	Water	02/20/17 10:28	03/08/17 12:34
400-134503-8	AX04502 MW-6	Water	02/20/17 11:37	03/08/17 12:34
400-134503-9	AX04503 MW-6 DUP	Water	02/20/17 11:37	03/08/17 12:34
400-134503-10	AX04504 MW-7	Water	02/20/17 13:06	03/08/17 12:34
400-134503-11	AX04505 MW-8	Water	02/20/17 14:36	03/08/17 12:34
400-134503-12	AX04506 FB-1	Water	02/20/17 15:05	03/08/17 12:34
400-134503-13	AX04507 MW-9	Water	02/21/17 10:48	03/08/17 12:34
400-134503-14	AX04508 MW-10	Water	02/21/17 12:00	03/08/17 12:34
400-134503-15	AX04509 MW-11	Water	02/21/17 13:40	03/08/17 12:34
400-134503-16	AX04510 MW-2	Water	02/21/17 15:08	03/08/17 12:34
400-134503-17	AX04511 MW-1	Water	02/22/17 10:10	03/08/17 12:34
400-134503-18	AX04512 MW-13	Water	02/22/17 11:15	03/08/17 12:34
400-134503-19	AX04513 EB-1	Water	02/22/17 11:45	03/08/17 12:34

Client Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04435 MW-15

Lab Sample ID: 400-134503-1

Date Collected: 02/20/17 13:13

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 13:40	1
Sulfate	3.1	J	5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04436 MW-3

Lab Sample ID: 400-134503-2

Date Collected: 02/20/17 15:47

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	0.050	J	0.10	0.032	mg/L			03/14/17 13:42	1
Sulfate	14		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04437 MW-14S

Lab Sample ID: 400-134503-3

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 14:29	1
Sulfate	6.1		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04438 MW-14S DUP

Lab Sample ID: 400-134503-4

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	0.040	J	0.10	0.032	mg/L			03/14/17 15:11	1
Sulfate	6.0		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04439 MW-12

Lab Sample ID: 400-134503-5

Date Collected: 02/21/17 12:06

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	0.050	J	0.10	0.032	mg/L			03/14/17 15:13	1
Sulfate	12		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Client Sample ID: AX04440 FB-2

Lab Sample ID: 400-134503-6

Date Collected: 02/21/17 11:53

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 15:15	1
Sulfate	<1.4		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04501 MW-5

Lab Sample ID: 400-134503-7

Date Collected: 02/20/17 10:28

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 13:44	1
Sulfate	8.8		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04502 MW-6

Lab Sample ID: 400-134503-8

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.7		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 13:47	1
Sulfate	<1.4		5.0	1.4	mg/L			03/17/17 10:42	1

Client Sample ID: AX04503 MW-6 DUP

Lab Sample ID: 400-134503-9

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 13:50	1
Sulfate	<1.4		5.0	1.4	mg/L			03/17/17 10:44	1

Client Sample ID: AX04504 MW-7

Lab Sample ID: 400-134503-10

Date Collected: 02/20/17 13:06

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			03/16/17 09:39	1
Fluoride	0.090	J	0.10	0.032	mg/L			03/14/17 13:33	1
Sulfate	9.7		5.0	1.4	mg/L			03/17/17 10:45	1

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Date Collected: 02/20/17 14:36

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	0.60	mg/L			03/16/17 09:54	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Date Collected: 02/20/17 14:36

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.15		0.10	0.032	mg/L			03/14/17 13:52	1
Sulfate	2.0	J	5.0	1.4	mg/L			03/17/17 10:45	1

Client Sample ID: AX04506 FB-1

Lab Sample ID: 400-134503-12

Date Collected: 02/20/17 15:05

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			03/16/17 09:54	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 13:54	1
Sulfate	<1.4		5.0	1.4	mg/L			03/17/17 10:45	1

Client Sample ID: AX04507 MW-9

Lab Sample ID: 400-134503-13

Date Collected: 02/21/17 10:48

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 15:17	1
Sulfate	5.3		5.0	1.4	mg/L			03/17/17 11:37	1

Client Sample ID: AX04508 MW-10

Lab Sample ID: 400-134503-14

Date Collected: 02/21/17 12:00

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 15:20	1
Sulfate	2.2	J	5.0	1.4	mg/L			03/17/17 11:37	1

Client Sample ID: AX04509 MW-11

Lab Sample ID: 400-134503-15

Date Collected: 02/21/17 13:40

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 15:22	1
Sulfate	5.7		5.0	1.4	mg/L			03/17/17 11:37	1

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

Date Collected: 02/21/17 15:08

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			03/14/17 15:24	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

Date Collected: 02/21/17 15:08

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	7.7		5.0	1.4	mg/L			03/17/17 11:37	1

Client Sample ID: AX04511 MW-1

Lab Sample ID: 400-134503-17

Date Collected: 02/22/17 10:10

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	0.34		0.10	0.032	mg/L			03/15/17 15:33	1
Sulfate	3.3	J	5.0	1.4	mg/L			03/17/17 11:38	1

Client Sample ID: AX04512 MW-13

Lab Sample ID: 400-134503-18

Date Collected: 02/22/17 11:15

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.8		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	0.040	J	0.10	0.032	mg/L			03/15/17 15:41	1
Sulfate	10		5.0	1.4	mg/L			03/17/17 11:38	1

Client Sample ID: AX04513 EB-1

Lab Sample ID: 400-134503-19

Date Collected: 02/22/17 11:45

Matrix: Water

Date Received: 03/08/17 12:34

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			03/16/17 11:49	1
Fluoride	<0.032		0.10	0.032	mg/L			03/15/17 15:15	1
Sulfate	<1.4	F2	5.0	1.4	mg/L			03/17/17 11:38	1

Definitions/Glossary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston 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.
F2	MS/MSD RPD exceeds control limits

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 Gaston

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04435 MW-15

Lab Sample ID: 400-134503-1

Date Collected: 02/20/17 13:13

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:40	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04436 MW-3

Lab Sample ID: 400-134503-2

Date Collected: 02/20/17 15:47

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:42	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04437 MW-14S

Lab Sample ID: 400-134503-3

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 14:29	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04438 MW-14S DUP

Lab Sample ID: 400-134503-4

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:11	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04439 MW-12

Lab Sample ID: 400-134503-5

Date Collected: 02/21/17 12:06

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:13	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04440 FB-2

Lab Sample ID: 400-134503-6

Date Collected: 02/21/17 11:53

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04501 MW-5

Lab Sample ID: 400-134503-7

Date Collected: 02/20/17 10:28

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:44	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04502 MW-6

Lab Sample ID: 400-134503-8

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:47	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:42	BJB	TAL PEN

Client Sample ID: AX04503 MW-6 DUP

Lab Sample ID: 400-134503-9

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:50	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:44	BJB	TAL PEN

Client Sample ID: AX04504 MW-7

Lab Sample ID: 400-134503-10

Date Collected: 02/20/17 13:06

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:39	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:45	BJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Date Collected: 02/20/17 14:36

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:54	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:52	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:45	BJB	TAL PEN

Client Sample ID: AX04506 FB-1

Lab Sample ID: 400-134503-12

Date Collected: 02/20/17 15:05

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 09:54	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 13:54	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 10:45	BJB	TAL PEN

Client Sample ID: AX04507 MW-9

Lab Sample ID: 400-134503-13

Date Collected: 02/21/17 10:48

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:17	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:37	BJB	TAL PEN

Client Sample ID: AX04508 MW-10

Lab Sample ID: 400-134503-14

Date Collected: 02/21/17 12:00

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:20	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:37	BJB	TAL PEN

Client Sample ID: AX04509 MW-11

Lab Sample ID: 400-134503-15

Date Collected: 02/21/17 13:40

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:22	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:37	BJB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

Date Collected: 02/21/17 15:08

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345744	03/14/17 15:24	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:37	BJB	TAL PEN

Client Sample ID: AX04511 MW-1

Lab Sample ID: 400-134503-17

Date Collected: 02/22/17 10:10

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345904	03/15/17 15:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:38	BJB	TAL PEN

Client Sample ID: AX04512 MW-13

Lab Sample ID: 400-134503-18

Date Collected: 02/22/17 11:15

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345904	03/15/17 15:41	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:38	BJB	TAL PEN

Client Sample ID: AX04513 EB-1

Lab Sample ID: 400-134503-19

Date Collected: 02/22/17 11:45

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	346098	03/16/17 11:49	BJB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	345904	03/15/17 15:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	346171	03/17/17 11:38	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 Gaston

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

General Chemistry

Analysis Batch: 345744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-1	AX04435 MW-15	Total/NA	Water	SM 4500 F C	
400-134503-2	AX04436 MW-3	Total/NA	Water	SM 4500 F C	
400-134503-3	AX04437 MW-14S	Total/NA	Water	SM 4500 F C	
400-134503-4	AX04438 MW-14S DUP	Total/NA	Water	SM 4500 F C	
400-134503-5	AX04439 MW-12	Total/NA	Water	SM 4500 F C	
400-134503-6	AX04440 FB-2	Total/NA	Water	SM 4500 F C	
400-134503-7	AX04501 MW-5	Total/NA	Water	SM 4500 F C	
400-134503-8	AX04502 MW-6	Total/NA	Water	SM 4500 F C	
400-134503-9	AX04503 MW-6 DUP	Total/NA	Water	SM 4500 F C	
400-134503-10	AX04504 MW-7	Total/NA	Water	SM 4500 F C	
400-134503-11	AX04505 MW-8	Total/NA	Water	SM 4500 F C	
400-134503-12	AX04506 FB-1	Total/NA	Water	SM 4500 F C	
400-134503-13	AX04507 MW-9	Total/NA	Water	SM 4500 F C	
400-134503-14	AX04508 MW-10	Total/NA	Water	SM 4500 F C	
400-134503-15	AX04509 MW-11	Total/NA	Water	SM 4500 F C	
400-134503-16	AX04510 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-345744/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-345744/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-134503-10 MS	AX04504 MW-7	Total/NA	Water	SM 4500 F C	
400-134503-10 MSD	AX04504 MW-7	Total/NA	Water	SM 4500 F C	
400-134503-3 DU	AX04437 MW-14S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 345904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-17	AX04511 MW-1	Total/NA	Water	SM 4500 F C	
400-134503-18	AX04512 MW-13	Total/NA	Water	SM 4500 F C	
400-134503-19	AX04513 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-345904/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-345904/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-134503-19 MS	AX04513 EB-1	Total/NA	Water	SM 4500 F C	
400-134503-19 MSD	AX04513 EB-1	Total/NA	Water	SM 4500 F C	
400-134503-18 DU	AX04512 MW-13	Total/NA	Water	SM 4500 F C	

Analysis Batch: 346098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-1	AX04435 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-134503-2	AX04436 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-134503-3	AX04437 MW-14S	Total/NA	Water	SM 4500 Cl- E	
400-134503-4	AX04438 MW-14S DUP	Total/NA	Water	SM 4500 Cl- E	
400-134503-5	AX04439 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-134503-6	AX04440 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-134503-7	AX04501 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-134503-8	AX04502 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-134503-9	AX04503 MW-6 DUP	Total/NA	Water	SM 4500 Cl- E	
400-134503-10	AX04504 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-134503-11	AX04505 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-134503-12	AX04506 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-134503-13	AX04507 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-134503-14	AX04508 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-134503-15	AX04509 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-134503-16	AX04510 MW-2	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston Gypsum (6)

General Chemistry (Continued)

Analysis Batch: 346098 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-17	AX04511 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-134503-18	AX04512 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-134503-19	AX04513 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-346098/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-346098/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-346098/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-134503-10 MS	AX04504 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-134503-10 MSD	AX04504 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-134503-19 MS	AX04513 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-134503-19 MSD	AX04513 EB-1	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 346171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-1	AX04435 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-134503-2	AX04436 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-134503-3	AX04437 MW-14S	Total/NA	Water	SM 4500 SO4 E	
400-134503-4	AX04438 MW-14S DUP	Total/NA	Water	SM 4500 SO4 E	
400-134503-5	AX04439 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-134503-6	AX04440 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-134503-7	AX04501 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-134503-8	AX04502 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-134503-9	AX04503 MW-6 DUP	Total/NA	Water	SM 4500 SO4 E	
400-134503-10	AX04504 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-134503-11	AX04505 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-134503-12	AX04506 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-134503-13	AX04507 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-134503-14	AX04508 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-134503-15	AX04509 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-134503-16	AX04510 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-134503-17	AX04511 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-134503-18	AX04512 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-134503-19	AX04513 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-346171/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-346171/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-346171/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-134503-10 MS	AX04504 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-134503-10 MSD	AX04504 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-134503-19 MS	AX04513 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-134503-19 MSD	AX04513 EB-1	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-346098/6
Matrix: Water
Analysis Batch: 346098

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			03/16/17 08:46	1

Lab Sample ID: LCS 400-346098/7
Matrix: Water
Analysis Batch: 346098

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

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

Lab Sample ID: MRL 400-346098/3
Matrix: Water
Analysis Batch: 346098

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.16		mg/L		108	50 - 150

Lab Sample ID: 400-134503-10 MS
Matrix: Water
Analysis Batch: 346098

Client Sample ID: AX04504 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.0		10.0	15.2		mg/L		112	73 - 120

Lab Sample ID: 400-134503-10 MSD
Matrix: Water
Analysis Batch: 346098

Client Sample ID: AX04504 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	4.0		10.0	15.0		mg/L		109	73 - 120	2	8

Lab Sample ID: 400-134503-19 MS
Matrix: Water
Analysis Batch: 346098

Client Sample ID: AX04513 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60		10.0	12.0		mg/L		120	73 - 120

Lab Sample ID: 400-134503-19 MSD
Matrix: Water
Analysis Batch: 346098

Client Sample ID: AX04513 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	<0.60		10.0	11.6		mg/L		116	73 - 120	3	8

QC Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-345744/3
Matrix: Water
Analysis Batch: 345744

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			03/14/17 13:25	1

Lab Sample ID: LCS 400-345744/4
Matrix: Water
Analysis Batch: 345744

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.13		mg/L		103	90 - 110

Lab Sample ID: 400-134503-10 MS
Matrix: Water
Analysis Batch: 345744

Client Sample ID: AX04504 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.090	J	1.00	1.12		mg/L		103	75 - 125

Lab Sample ID: 400-134503-10 MSD
Matrix: Water
Analysis Batch: 345744

Client Sample ID: AX04504 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	0.090	J	1.00	1.12		mg/L		103	75 - 125	0	4

Lab Sample ID: 400-134503-3 DU
Matrix: Water
Analysis Batch: 345744

Client Sample ID: AX04437 MW-14S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032			<0.032		mg/L				NC	4

Lab Sample ID: MB 400-345904/3
Matrix: Water
Analysis Batch: 345904

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			03/15/17 15:06	1

Lab Sample ID: LCS 400-345904/4
Matrix: Water
Analysis Batch: 345904

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	3.82		mg/L		96	90 - 110

Lab Sample ID: 400-134503-19 MS
Matrix: Water
Analysis Batch: 345904

Client Sample ID: AX04513 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	EB Result	EB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	1.10		mg/L		110	75 - 125

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

Lab Sample ID: 400-134503-19 MSD
Matrix: Water
Analysis Batch: 345904

Client Sample ID: AX04513 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	1.10		mg/L		110	75 - 125	0	4

Lab Sample ID: 400-134503-18 DU
Matrix: Water
Analysis Batch: 345904

Client Sample ID: AX04512 MW-13
Prep Type: Total/NA

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

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-346171/6
Matrix: Water
Analysis Batch: 346171

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			03/17/17 10:17	1

Lab Sample ID: LCS 400-346171/7
Matrix: Water
Analysis Batch: 346171

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 400-346171/3
Matrix: Water
Analysis Batch: 346171

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	4.56	J	mg/L		91	50 - 150

Lab Sample ID: 400-134503-10 MS
Matrix: Water
Analysis Batch: 346171

Client Sample ID: AX04504 MW-7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	9.7		10.0	21.8		mg/L		121	77 - 128

Lab Sample ID: 400-134503-10 MSD
Matrix: Water
Analysis Batch: 346171

Client Sample ID: AX04504 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	9.7		10.0	22.0		mg/L		123	77 - 128	1	5

QC Sample Results

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

TestAmerica Job ID: 400-134503-2
 SDG: Gaston Gypsum (6)

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

Lab Sample ID: 400-134503-19 MS

Matrix: Water

Analysis Batch: 346171

Client Sample ID: AX04513 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	F2	10.0	10.3		mg/L		103	77 - 128

Lab Sample ID: 400-134503-19 MSD

Matrix: Water

Analysis Batch: 346171

Client Sample ID: AX04513 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	F2	10.0	11.2	F2	mg/L		112	77 - 128	8	5



TestAmerica Pensacola
 3555 McLeans Drive
 Pensacola, FL 32514
 Phone (850) 474-1001 Fax (850) 478-2671



THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

Client Information Company: Alabama Power General Test Laboratory Address: 744 County Rd B7 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcooper@alpower.com Project Name: 40007143 CCR: Site: Gaston Gypsum (6)		Sampler: Anthony Goggins/Ben Rothschild Phone: Lab File: Whitliffe, Cheyenne R E-Mail: cheyenne.whitliffe@testamericainc.com		Center Tracking No.: Page: 1 of 2 Job #: 400-134503		Analysis Requested Preservation Codes: A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NaHSO4 F-MeOH G-Amehlor H-Ascorbic Acid I-Ice J-DI Water K-EDTA L-EDA Other: M-Hexane N-None O-AsH2O2 P-Na2O4S Q-Na2SO3 R-Na2S2O3 S-H2SO4 T-TSP Duplicatlyrate U-Acetone V-MCAA W-ph 4-5 X-EDA Z-other (specify)		
Due Date Requested: TAT Requested (days): RUSH (see email)		Field Photo Sampled (Yes/No): SM 4500 P.C SM 4500 Q-E SM 4500 S4-E		Total Number of Containers: MW-15 MW-3 MW-14S MW-14S Dup (Sample Duplicate) MW-12 FB-2 (Field Blank) MW-5 MW-6 MW-6 Dup (Sample Duplicate) MW-7 MW-8 FB-1 (Field Blank)		Special Instructions/Note:		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Newick, Specific, Composite, Grab)	Preservation Code	Field Photo Sampled (Yes/No)	Total Number of Containers	Special Instructions/Note
AX04435	2/20/17	1313	G	Water		X	1	MW-15
AX04436	2/20/17	1547	G	Water		X	1	MW-3
AX04437	2/21/17	1024	G	Water		X	1	MW-14S
AX04438	2/21/17	1024	G	Water		X	1	MW-14S Dup (Sample Duplicate)
AX04439	2/21/17	1206	G	Water		X	1	MW-12
AX04440	2/21/17	1153	G	Water		X	1	FB-2 (Field Blank)
AX04501	2/20/17	1028	G	Water		X	1	MW-5
AX04502	2/20/17	1137	G	Water		X	1	MW-6
AX04503	2/20/17	1137	G	Water		X	1	MW-6 Dup (Sample Duplicate)
AX04504	2/20/17	1306	G	Water		X	1	MW-7
AX04505	2/20/17	1436	G	Water		X	1	MW-8
AX04506	2/20/17	1505	G	Water		X	1	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: Sarah Copeland Relinquished by: Sarah Copeland Relinquished by: Relinquished by:		Date: 2/16/17 1300 Date/Time: Date/Time: Date/Time:		Date: 2/16/17 1300 Date/Time: Date/Time: Date/Time:		Method of Shipment: Received by: [Signature] Date/Time: Received by: Date/Time:		Company: Company: Company:
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-134503-2
SDG Number: Gaston Gypsum (6)

Login Number: 134503

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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	1.0°C, 1.1°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	



Certification Summary

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

TestAmerica Job ID: 400-134503-2
SDG: Gaston 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

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: 400-134503-1

TestAmerica Sample Delivery Group: Gaston Gypsum (6)

Client Project/Site: CCR Plant Gaston

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/31/2017 4:20:48 PM

Cheyenne Whitmire, Project Manager II

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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 Gaston

TestAmerica Job ID: 400-134503-1
SDG: Gaston Gypsum (6)

Job ID: 400-134503-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-134503-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-296142. The following samples were reduced to 750 mL due to limited volume: AX04435 MW-15 (400-134503-1), AX04436 MW-3 (400-134503-2), AX04437 MW-14S (400-134503-3), AX04438 MW-14S DUP (400-134503-4), AX04439 MW-12 (400-134503-5), AX04440 FB-2 (400-134503-6), AX04502 MW-6 (400-134503-8), AX04503 MW-6 DUP (400-134503-9), AX04504 MW-7 (400-134503-10), AX04505 MW-8 (400-134503-11), AX04506 FB-1 (400-134503-12), AX04507 MW-9 (400-134503-13), AX04508 MW-10 (400-134503-14), AX04509 MW-11 (400-134503-15), AX04510 MW-2 (400-134503-16), AX04512 MW-13 (400-134503-18) and AX04513 EB-1 (400-134503-19).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-296128. The following samples were reduced to 750 mL due to limited volume: AX04435 MW-15 (400-134503-1), AX04436 MW-3 (400-134503-2), AX04437 MW-14S (400-134503-3), AX04438 MW-14S DUP (400-134503-4), AX04439 MW-12 (400-134503-5), AX04440 FB-2 (400-134503-6), AX04502 MW-6 (400-134503-8), AX04503 MW-6 DUP (400-134503-9), AX04504 MW-7 (400-134503-10), AX04505 MW-8 (400-134503-11), AX04506 FB-1 (400-134503-12), AX04507 MW-9 (400-134503-13), AX04508 MW-10 (400-134503-14), AX04509 MW-11 (400-134503-15), AX04510 MW-2 (400-134503-16), AX04512 MW-13 (400-134503-18) and AX04513 EB-1 (400-134503-19).

Method Summary

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

TestAmerica Job ID: 400-134503-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-134503-1
SDG: Gaston Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-134503-1	AX04435 MW-15	Water	02/20/17 13:13	03/08/17 12:34
400-134503-2	AX04436 MW-3	Water	02/20/17 15:47	03/08/17 12:34
400-134503-3	AX04437 MW-14S	Water	02/21/17 10:24	03/08/17 12:34
400-134503-4	AX04438 MW-14S DUP	Water	02/21/17 10:24	03/08/17 12:34
400-134503-5	AX04439 MW-12	Water	02/21/17 12:06	03/08/17 12:34
400-134503-6	AX04440 FB-2	Water	02/21/17 11:53	03/08/17 12:34
400-134503-7	AX04501 MW-5	Water	02/20/17 10:28	03/08/17 12:34
400-134503-8	AX04502 MW-6	Water	02/20/17 11:37	03/08/17 12:34
400-134503-9	AX04503 MW-6 DUP	Water	02/20/17 11:37	03/08/17 12:34
400-134503-10	AX04504 MW-7	Water	02/20/17 13:06	03/08/17 12:34
400-134503-11	AX04505 MW-8	Water	02/20/17 14:36	03/08/17 12:34
400-134503-12	AX04506 FB-1	Water	02/20/17 15:05	03/08/17 12:34
400-134503-13	AX04507 MW-9	Water	02/21/17 10:48	03/08/17 12:34
400-134503-14	AX04508 MW-10	Water	02/21/17 12:00	03/08/17 12:34
400-134503-15	AX04509 MW-11	Water	02/21/17 13:40	03/08/17 12:34
400-134503-16	AX04510 MW-2	Water	02/21/17 15:08	03/08/17 12:34
400-134503-18	AX04512 MW-13	Water	02/22/17 11:15	03/08/17 12:34
400-134503-19	AX04513 EB-1	Water	02/22/17 11:45	03/08/17 12:34

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04435 MW-15

Lab Sample ID: 400-134503-1

Date Collected: 02/20/17 13:13

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.117		0.0822	0.0829	1.00	0.106	pCi/L	03/06/17 10:18	03/28/17 08:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/06/17 10:18	03/28/17 08:21	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0383	U	0.294	0.294	1.00	0.516	pCi/L	03/06/17 10:46	03/21/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/06/17 10:46	03/21/17 10:49	1
Y Carrier	87.5		40 - 110					03/06/17 10:46	03/21/17 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.155	U	0.305	0.305	5.00	0.516	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04436 MW-3

Lab Sample ID: 400-134503-2

Date Collected: 02/20/17 15:47

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.423		0.137	0.142	1.00	0.105	pCi/L	03/06/17 10:18	03/28/17 08:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/06/17 10:18	03/28/17 08:21	1

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	0.314	0.315	1.00	0.508	pCi/L	03/06/17 10:46	03/21/17 10:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/06/17 10:46	03/21/17 10:49	1
Y Carrier	90.1		40 - 110					03/06/17 10:46	03/21/17 10:49	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.755		0.342	0.346	5.00	0.508	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04437 MW-14S

Lab Sample ID: 400-134503-3

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.258		0.114	0.116	1.00	0.110	pCi/L	03/06/17 10:18	03/28/17 08:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/06/17 10:18	03/28/17 08:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.488		0.311	0.314	1.00	0.478	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.746		0.331	0.335	5.00	0.478	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04438 MW-14S DUP

Lab Sample ID: 400-134503-4

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.194		0.103	0.105	1.00	0.115	pCi/L	03/06/17 10:18	03/28/17 08:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/06/17 10:18	03/28/17 08:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.566		0.308	0.313	1.00	0.458	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	88.2		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.760		0.325	0.330	5.00	0.458	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04439 MW-12

Lab Sample ID: 400-134503-5

Date Collected: 02/21/17 12:06

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0683	U	0.0582	0.0585	1.00	0.159	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U	0.277	0.277	1.00	0.475	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	84.9		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0581	U	0.283	0.283	5.00	0.475	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04440 FB-2

Lab Sample ID: 400-134503-6

Date Collected: 02/21/17 11:53

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0166	U	0.0527	0.0528	1.00	0.106	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0845	U	0.267	0.267	1.00	0.466	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	84.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.101	U	0.272	0.272	5.00	0.466	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04501 MW-5

Lab Sample ID: 400-134503-7

Date Collected: 02/20/17 10:28

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0151	U	0.0631	0.0631	1.00	0.120	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0579	U	0.173	0.173	1.00	0.303	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	87.5		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0730	U	0.184	0.184	5.00	0.303	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04502 MW-6

Lab Sample ID: 400-134503-8

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.0912	0.0917	1.00	0.137	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.423	U	0.288	0.291	1.00	0.446	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.8		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.524		0.303	0.305	5.00	0.446	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04503 MW-6 DUP

Lab Sample ID: 400-134503-9

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0783	U	0.0901	0.0904	1.00	0.146	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.181	U	0.256	0.257	1.00	0.488	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.5		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.103	U	0.272	0.272	5.00	0.488	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04504 MW-7

Lab Sample ID: 400-134503-10

Date Collected: 02/20/17 13:06

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0834	U	0.0777	0.0781	1.00	0.115	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.422	U	0.280	0.282	1.00	0.427	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.506		0.290	0.293	5.00	0.427	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Date Collected: 02/20/17 14:36

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0293	U	0.0695	0.0696	1.00	0.130	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.145	U	0.266	0.266	1.00	0.452	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.174	U	0.275	0.275	5.00	0.452	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04506 FB-1

Lab Sample ID: 400-134503-12

Date Collected: 02/20/17 15:05

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0604	U	0.0707	0.0709	1.00	0.113	pCi/L	03/06/17 10:18	03/28/17 08:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					03/06/17 10:18	03/28/17 08:23	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00765	U	0.232	0.232	1.00	0.422	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	90.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0527	U	0.243	0.243	5.00	0.422	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04507 MW-9

Lab Sample ID: 400-134503-13

Date Collected: 02/21/17 10:48

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0199	U	0.0885	0.0886	1.00	0.167	pCi/L	03/06/17 10:18	03/28/17 08:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/06/17 10:18	03/28/17 08:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.637		0.381	0.385	1.00	0.586	pCi/L	03/06/17 10:46	03/21/17 10:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/06/17 10:46	03/21/17 10:50	1
Y Carrier	87.1		40 - 110					03/06/17 10:46	03/21/17 10:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.657		0.391	0.395	5.00	0.586	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04508 MW-10

Lab Sample ID: 400-134503-14

Date Collected: 02/21/17 12:00

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162		0.102	0.103	1.00	0.138	pCi/L	03/06/17 10:18	03/28/17 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					03/06/17 10:18	03/28/17 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.846		0.382	0.390	1.00	0.564	pCi/L	03/06/17 10:46	03/21/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					03/06/17 10:46	03/21/17 10:53	1
Y Carrier	89.3		40 - 110					03/06/17 10:46	03/21/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.395	0.403	5.00	0.564	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04509 MW-11

Lab Sample ID: 400-134503-15

Date Collected: 02/21/17 13:40

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0351	U	0.0882	0.0883	1.00	0.161	pCi/L	03/06/17 10:18	03/28/17 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					03/06/17 10:18	03/28/17 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.15		0.448	0.461	1.00	0.639	pCi/L	03/06/17 10:46	03/21/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					03/06/17 10:46	03/21/17 10:53	1
Y Carrier	75.5		40 - 110					03/06/17 10:46	03/21/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.19		0.457	0.469	5.00	0.639	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

Date Collected: 02/21/17 15:08

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.142	U	0.114	0.115	1.00	0.171	pCi/L	03/06/17 10:18	03/28/17 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					03/06/17 10:18	03/28/17 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.45		0.457	0.476	1.00	0.624	pCi/L	03/06/17 10:46	03/21/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					03/06/17 10:46	03/21/17 10:53	1
Y Carrier	81.9		40 - 110					03/06/17 10:46	03/21/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.60		0.471	0.490	5.00	0.624	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04512 MW-13

Lab Sample ID: 400-134503-18

Date Collected: 02/22/17 11:15

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.150	U	0.108	0.109	1.00	0.154	pCi/L	03/06/17 10:18	03/28/17 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/06/17 10:18	03/28/17 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.633		0.399	0.403	1.00	0.622	pCi/L	03/06/17 10:46	03/21/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/06/17 10:46	03/21/17 10:53	1
Y Carrier	87.9		40 - 110					03/06/17 10:46	03/21/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.783		0.414	0.418	5.00	0.622	pCi/L		03/30/17 10:03	1

Client Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04513 EB-1

Lab Sample ID: 400-134503-19

Date Collected: 02/22/17 11:45

Matrix: Water

Date Received: 03/08/17 12:34

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0385	U	0.0680	0.0681	1.00	0.157	pCi/L	03/06/17 10:18	03/28/17 08:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/06/17 10:18	03/28/17 08:29	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.755		0.342	0.349	1.00	0.501	pCi/L	03/06/17 10:46	03/21/17 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/06/17 10:46	03/21/17 10:53	1
Y Carrier	90.5		40 - 110					03/06/17 10:46	03/21/17 10:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.717		0.349	0.356	5.00	0.501	pCi/L		03/30/17 10:03	1

Definitions/Glossary

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

TestAmerica Job ID: 400-134503-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04435 MW-15

Lab Sample ID: 400-134503-1

Date Collected: 02/20/17 13:13

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:49	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04436 MW-3

Lab Sample ID: 400-134503-2

Date Collected: 02/20/17 15:47

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:21	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:49	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04437 MW-14S

Lab Sample ID: 400-134503-3

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:22	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04438 MW-14S DUP

Lab Sample ID: 400-134503-4

Date Collected: 02/21/17 10:24

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:22	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-134503-1
SDG: Gaston Gypsum (6)

Client Sample ID: AX04439 MW-12

Lab Sample ID: 400-134503-5

Date Collected: 02/21/17 12:06

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04440 FB-2

Lab Sample ID: 400-134503-6

Date Collected: 02/21/17 11:53

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04501 MW-5

Lab Sample ID: 400-134503-7

Date Collected: 02/20/17 10:28

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04502 MW-6

Lab Sample ID: 400-134503-8

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Client Sample ID: AX04503 MW-6 DUP

Lab Sample ID: 400-134503-9

Date Collected: 02/20/17 11:37

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04504 MW-7

Lab Sample ID: 400-134503-10

Date Collected: 02/20/17 13:06

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04505 MW-8

Lab Sample ID: 400-134503-11

Date Collected: 02/20/17 14:36

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04506 FB-1

Lab Sample ID: 400-134503-12

Date Collected: 02/20/17 15:05

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300181	03/28/17 08:23	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-134503-1
SDG: Gaston Gypsum (6)

Client Sample ID: AX04507 MW-9

Lab Sample ID: 400-134503-13

Date Collected: 02/21/17 10:48

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:28	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298669	03/21/17 10:50	MLK	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04508 MW-10

Lab Sample ID: 400-134503-14

Date Collected: 02/21/17 12:00

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:29	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298858	03/21/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04509 MW-11

Lab Sample ID: 400-134503-15

Date Collected: 02/21/17 13:40

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:29	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298858	03/21/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04510 MW-2

Lab Sample ID: 400-134503-16

Date Collected: 02/21/17 15:08

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:29	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298858	03/21/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-134503-1
SDG: Gaston Gypsum (6)

Client Sample ID: AX04512 MW-13

Lab Sample ID: 400-134503-18

Date Collected: 02/22/17 11:15

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:29	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298858	03/21/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	RTM	TAL SL

Client Sample ID: AX04513 EB-1

Lab Sample ID: 400-134503-19

Date Collected: 02/22/17 11:45

Matrix: Water

Date Received: 03/08/17 12:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			296128	03/06/17 10:18	MBC	TAL SL
Total/NA	Analysis	9315		1	300182	03/28/17 08:29	MLK	TAL SL
Total/NA	Prep	PrecSep_0			296142	03/06/17 10:46	MBC	TAL SL
Total/NA	Analysis	9320		1	298858	03/21/17 10:53	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	300758	03/30/17 10:03	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 Gaston

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Rad

Prep Batch: 296128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-1	AX04435 MW-15	Total/NA	Water	PrecSep-21	
400-134503-2	AX04436 MW-3	Total/NA	Water	PrecSep-21	
400-134503-3	AX04437 MW-14S	Total/NA	Water	PrecSep-21	
400-134503-4	AX04438 MW-14S DUP	Total/NA	Water	PrecSep-21	
400-134503-5	AX04439 MW-12	Total/NA	Water	PrecSep-21	
400-134503-6	AX04440 FB-2	Total/NA	Water	PrecSep-21	
400-134503-7	AX04501 MW-5	Total/NA	Water	PrecSep-21	
400-134503-8	AX04502 MW-6	Total/NA	Water	PrecSep-21	
400-134503-9	AX04503 MW-6 DUP	Total/NA	Water	PrecSep-21	
400-134503-10	AX04504 MW-7	Total/NA	Water	PrecSep-21	
400-134503-11	AX04505 MW-8	Total/NA	Water	PrecSep-21	
400-134503-12	AX04506 FB-1	Total/NA	Water	PrecSep-21	
400-134503-13	AX04507 MW-9	Total/NA	Water	PrecSep-21	
400-134503-14	AX04508 MW-10	Total/NA	Water	PrecSep-21	
400-134503-15	AX04509 MW-11	Total/NA	Water	PrecSep-21	
400-134503-16	AX04510 MW-2	Total/NA	Water	PrecSep-21	
400-134503-18	AX04512 MW-13	Total/NA	Water	PrecSep-21	
400-134503-19	AX04513 EB-1	Total/NA	Water	PrecSep-21	
MB 160-296128/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-296128/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-134503-7 DU	AX04501 MW-5	Total/NA	Water	PrecSep-21	

Prep Batch: 296142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-1	AX04435 MW-15	Total/NA	Water	PrecSep_0	
400-134503-2	AX04436 MW-3	Total/NA	Water	PrecSep_0	
400-134503-3	AX04437 MW-14S	Total/NA	Water	PrecSep_0	
400-134503-4	AX04438 MW-14S DUP	Total/NA	Water	PrecSep_0	
400-134503-5	AX04439 MW-12	Total/NA	Water	PrecSep_0	
400-134503-6	AX04440 FB-2	Total/NA	Water	PrecSep_0	
400-134503-7	AX04501 MW-5	Total/NA	Water	PrecSep_0	
400-134503-8	AX04502 MW-6	Total/NA	Water	PrecSep_0	
400-134503-9	AX04503 MW-6 DUP	Total/NA	Water	PrecSep_0	
400-134503-10	AX04504 MW-7	Total/NA	Water	PrecSep_0	
400-134503-11	AX04505 MW-8	Total/NA	Water	PrecSep_0	
400-134503-12	AX04506 FB-1	Total/NA	Water	PrecSep_0	
400-134503-13	AX04507 MW-9	Total/NA	Water	PrecSep_0	
400-134503-14	AX04508 MW-10	Total/NA	Water	PrecSep_0	
400-134503-15	AX04509 MW-11	Total/NA	Water	PrecSep_0	
400-134503-16	AX04510 MW-2	Total/NA	Water	PrecSep_0	
400-134503-18	AX04512 MW-13	Total/NA	Water	PrecSep_0	
400-134503-19	AX04513 EB-1	Total/NA	Water	PrecSep_0	
MB 160-296142/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-296142/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-134503-7 DU	AX04501 MW-5	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-296128/1-A
Matrix: Water
Analysis Batch: 300181

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 296128

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.009992	U	0.0579	0.0579	1.00	0.114	pCi/L	03/06/17 10:18	03/28/17 08:20	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	100		40 - 110		03/06/17 10:18	03/28/17 08:20	1			

Lab Sample ID: LCS 160-296128/2-A
Matrix: Water
Analysis Batch: 300181

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 296128

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	9.551		1.01	1.00	0.0799	pCi/L	84	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	101		40 - 110						

Lab Sample ID: 400-134503-7 DU
Matrix: Water
Analysis Batch: 300181

Client Sample ID: AX04501 MW-5
Prep Type: Total/NA
Prep Batch: 296128

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0151	U	0.08128	U	0.0759	1.00	0.116	pCi/L	0.48	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	97.6		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-296142/1-A
Matrix: Water
Analysis Batch: 298669

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 296142

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.2661	U	0.226	0.227	1.00	0.361	pCi/L	03/06/17 10:46	03/21/17 10:49	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	100		40 - 110		03/06/17 10:46	03/21/17 10:49	1			
Y Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	%Yield	Qualifier	Limits							
Y Carrier	82.2		40 - 110		03/06/17 10:46	03/21/17 10:49	1			

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston Gypsum (6)

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

Lab Sample ID: LCS 160-296142/2-A
Matrix: Water
Analysis Batch: 298669

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 296142

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	13.03		1.40	1.00	0.375	pCi/L	95	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: 400-134503-7 DU
Matrix: Water
Analysis Batch: 298669

Client Sample ID: AX04501 MW-5
Prep Type: Total/NA
Prep Batch: 296142

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0579	U	0.2984		0.193	1.00	0.290	pCi/L	0.66	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	97.6		40 - 110
Y Carrier	95.3		40 - 110

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

Lab Sample ID: 400-134503-7 DU
Matrix: Water
Analysis Batch: 300758

Client Sample ID: AX04501 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	0.0730	U	0.3797		0.207	5.00	0.290	pCi/L	0.78	

Chain of Custody Record

Client Information
 Client Contact: Sarah Copeland
 Company: Alabama Power General Test Laboratory
 Address: 744 County Rd 87 GSC #8
 City: Calera
 State, Zip: AL, 35040
 Phone: 205-664-6121 (Tel)
 Email: sgcopela@southernco.com
 Project #: 40007143
 CCR
 Site: Gaston Gypsum (6)

Sampler: Anthony Goggins, Ben Rothschild
 Lab Pw: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamericainc.com
 Phone:
 Carrier Tracking No(s):
 COC No: 400-56525-24537.1
 Page: Page 1 of 2
 Job #: 400-134503

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=solid, O=wastefoil, BT=Issue, A=Air)	Preservation Code	Hidden Sample (Yes or No)	Parent MMSID (Yes or No)	Total Number of Containers	Analysis Requested		Special Instructions/Note:
									Due Date Requested:	TAT Requested (days):	
AX04435	2/20/17	1313	G	Water							MMW-15
AX04436	2/20/17	1547	G	Water							MMW-3
AX04437	2/21/17	1024	G	Water							MMW-14S
AX04438	2/21/17	1024	G	Water							MMW-14S Dup (Sample Duplicate)
AX04439	2/21/17	1206	G	Water							MMW-12
AX04440	2/21/17	1153	G	Water							FB-2 (Field Blank)
AX04501	2/20/17	1028	G	Water			Y				MMW-5
AX04502	2/20/17	1137	G	Water							MMW-6
AX04503	2/20/17	1137	G	Water							MMW-6 Dup (Sample Duplicate)
AX04504	2/20/17	1306	G	Water							MMW-7
AX04505	2/20/17	1436	G	Water							MMW-8
AX04506	2/20/17	1505	G	Water							FB-1 (Field Blank)

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

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Sarah Copeland
 Relinquished by: Sarah Copeland
 Relinquished by:
 Relinquished by:

Method of Shipment:
 Received by: [Signature]
 Date/Time: 2/27/2017, 0830
 Company: APC

Custody Seal No.: Δ Yes Δ No



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@southemco.com
 Project Name: CCR
 Site: Gaston Gypsum (6)

Sampler: Ben Rothschild
 Lab P#1: Whitmire, Cheyenne R
 E-Mail: cheyenne.whitmire@testamerica.com

COC No: 400-56525-24537.1
 Page: Page 2 of 2
 Job #: 400-134503

Due Date Requested:
 TAT Requested (days): Routine
 PO #:
 WO #:
 Project #: 40007143
 SSOW#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastefall, BT=biomass, A=air)	Field Filtered Sample (Yes or No)		Preservation Codes		Special Instructions/Note
					P	F	M	N	
AX04507	2/21/17	1048	G	Water	X				MM-9
AX04508	2/21/17	1200	G	Water	X				MM-10
AX04509	2/21/17	1340	G	Water	X				MM-11
AX04510	2/21/17	1508	G	Water	X				MM-2
AX04511	2/22/17	1010	G	Water	X				MM-1
AX04512	2/22/17	1115	G	Water	X				MM-13
AX04513	2/22/17	1145	G	Water	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: 2/27/2017, 0830
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Custody Seals Intact: _____ Custody Seal No.: _____
 Δ Yes Δ No

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

Special Instructions/QC Requirements:

Received by:  Date/Time: 2-28-17 6530
 Company: APC
 Received by: _____ Date/Time: _____
 Company: _____
 Received by: _____ Date/Time: _____
 Company: _____

Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-134503-1
SDG Number: Gaston Gypsum (6)

Login Number: 134503

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	1.0°C, 1.1°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.	False	AX04511 MW-1 Rad container was received broken.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Certification Summary

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

TestAmerica Job ID: 400-134503-1
 SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-134503-1
SDG: Gaston 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

 Alabama Power



Sample Group : WMWGASG_1079

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Certificate Of Analysis Alabama Power



To: Dustin Brooks
Greg Dyer

Customer Account: WMWGASG
Sample Date: 01-Mar-17
Customer ID:
Delivery Date: 02-Mar-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX05134

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Radiological									
Total Radium, Test America	SGC	4/17/2017	EPA 9315/9320		1			Attached	

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

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 01-Mar-17
 Customer ID:
 Delivery Date: 02-Mar-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX05134

Sample	Analysis	Units	MB	MB	MS	MSD	LFB	LFB	Rec	Rec	Prec	Prec
			Limit	Spike				Limit	Rec	Limit	Prec	Limit

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

Comments:

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 01-Mar-17
 Customer ID:
 Delivery Date: 02-Mar-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX05134

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

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

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

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: 400-134503-3

TestAmerica Sample Delivery Group: Gaston Gypsum (6)

Client Project/Site: CCR Plant Gaston

For:

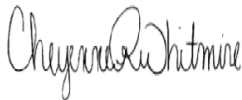
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

4/14/2017 11:55:29 AM

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 Gaston

TestAmerica Job ID: 400-134503-3
SDG: Gaston Gypsum (6)

Job ID: 400-134503-3

Laboratory: TestAmerica Pensacola

Narrative

**Job Narrative
400-134503-3**

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-298025. The following sample were reduced to 750 mL due to limited volume:
AX05134 MW-1 (400-134503-20).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-298020. The following sample were reduced to 750 mL due to limited volume:
AX05134 MW-1 (400-134503-20).

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

Method Summary

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

TestAmerica Job ID: 400-134503-3
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-134503-3
SDG: Gaston Gypsum (6)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-134503-20	AX05134 MW-1	Water	03/01/17 11:56	03/09/17 16:00

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

Client Sample Results

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

TestAmerica Job ID: 400-134503-3
 SDG: Gaston Gypsum (6)

Client Sample ID: AX05134 MW-1

Lab Sample ID: 400-134503-20

Date Collected: 03/01/17 11:56

Matrix: Water

Date Received: 03/09/17 16:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.616		0.164	0.173	1.00	0.131	pCi/L	03/16/17 13:41	04/07/17 06:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/16/17 13:41	04/07/17 06:46	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.120	U	0.227	0.227	1.00	0.388	pCi/L	03/16/17 14:07	03/30/17 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/16/17 14:07	03/30/17 14:52	1
Y Carrier	87.9		40 - 110					03/16/17 14:07	03/30/17 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	0.736		0.280	0.286	5.00	0.388	pCi/L		04/10/17 10:05	1

Definitions/Glossary

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

TestAmerica Job ID: 400-134503-3
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-134503-3
SDG: Gaston Gypsum (6)

Client Sample ID: AX05134 MW-1

Lab Sample ID: 400-134503-20

Date Collected: 03/01/17 11:56

Matrix: Water

Date Received: 03/09/17 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			298020	03/16/17 13:41	MBC	TAL SL
Total/NA	Analysis	9315		1	302124	04/07/17 06:46	MLK	TAL SL
Total/NA	Prep	PrecSep_0			298025	03/16/17 14:07	MBC	TAL SL
Total/NA	Analysis	9320		1	300765	03/30/17 14:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	302661	04/10/17 10:05	MLK	TAL SL

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-134503-3
SDG: Gaston Gypsum (6)

Rad

Prep Batch: 298020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-20	AX05134 MW-1	Total/NA	Water	PrecSep-21	
MB 160-298020/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-298020/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-134868-A-33-B DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 298025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-134503-20	AX05134 MW-1	Total/NA	Water	PrecSep_0	
MB 160-298025/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-298025/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-134868-A-33-D DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-134503-3
 SDG: Gaston Gypsum (6)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-298020/1-A
Matrix: Water
Analysis Batch: 302124

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298020

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05750	U	0.0885	0.0886	1.00	0.152	pCi/L	03/16/17 13:41	04/07/17 06:45	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					03/16/17 13:41	04/07/17 06:45	1

Lab Sample ID: LCS 160-298020/2-A
Matrix: Water
Analysis Batch: 302124

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298020

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.2	13.47		1.41	1.00	0.127	pCi/L	89	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.5		40 - 110						

Lab Sample ID: 400-134868-A-33-B DU
Matrix: Water
Analysis Batch: 302105

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 298020

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.409		0.5985		0.151	1.00	0.0772	pCi/L	0.67	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	94.4		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-298025/1-A
Matrix: Water
Analysis Batch: 300765

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 298025

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6243		0.307	0.312	1.00	0.446	pCi/L	03/16/17 14:07	03/30/17 14:52	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					03/16/17 14:07	03/30/17 14:52	1
Y Carrier	87.5		40 - 110					03/16/17 14:07	03/30/17 14:52	1

QC Sample Results

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

TestAmerica Job ID: 400-134503-3
 SDG: Gaston Gypsum (6)

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

Lab Sample ID: LCS 160-298025/2-A
Matrix: Water
Analysis Batch: 300765

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 298025

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	18.2	18.82		2.02	1.00	0.465	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.5		40 - 110
Y Carrier	86.0		40 - 110

Lab Sample ID: 400-134868-A-33-D DU
Matrix: Water
Analysis Batch: 300765

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 298025

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.220	U	0.2055	U	0.221	1.00	0.360	pCi/L	0.03	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.4		40 - 110
Y Carrier	86.7		40 - 110

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab Piv: Whitmire, Chyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone: Anthony Goggins		E-Mail: chyenne.whitmire@testamericainc.com		Page 1 fo 1	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #: 400-134503	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Preservation Codes:		M - Hexane N - None O - As/NaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
City: Calera		PO #:		Field Filled Sample (Yes or No)		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		IVO #:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Phone: 205-664-6121(Tel)		Project #:		315, Ra226, 9320, Ra228, Ra226Ra228_GrPC		MW-1 (Resample)	
Email: sgcopela@southernco.com		SSOW#:		Matrix		Special Instructions/Note:	
Project Name: CCR		Sample Date		Sample Type			
Site: Gaston Gypsum (6)		11/56		G			
Sample Identification		Sample Time		Preservation Code			
AX05134		3/1/17		Water			
Possible Hazard Identification		Sample Date		Sample Type			
<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		11/56		G			
Deliverable Requested: I, II, III, IV, Other (specify)		Date		Matrix			
Empty Kit Relinquished by:		03/10/2017; 1250		(W=water, S=solid, O=wastefoil, BT=Trisk, A=AP)			
Relinquished by: Sarah Copeland		Date		Preservation Code			
Relinquished by:		Date		G			
Relinquished by:		Date		Water			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
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Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
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Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
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Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
Custody Seal No.:		Date		Sample Date			
Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			
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Custody Seal No.:		Date		Sample Time			
Custody Seal No.:		Date		Sample Type			
Custody Seal No.:		Date		Preservation Code			
Custody Seal No.:		Date		Matrix			

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-134503-3
SDG Number: Gaston Gypsum (6)

Login Number: 134503

List Number: 1

Creator: Siddoway, Benjamin

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	1.0°C, 1.1°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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

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

TestAmerica Job ID: 400-134503-3
 SDG: Gaston 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

Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-17
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-17 *
Florida	NELAP	4	E87689	06-30-17
Illinois	NELAP	5	200023	11-30-17
Iowa	State Program	7	373	02-01-18
Kansas	NELAP	7	E-10236	10-31-17
Kentucky (DW)	State Program	4	90125	12-31-17
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-17
Louisiana (DW)	NELAP	6	LA170011	12-31-17
Maryland	State Program	3	310	09-30-17
Missouri	State Program	7	780	06-30-17
Nevada	State Program	9	MO000542017-1	07-31-17
New Jersey	NELAP	2	MO002	06-30-17 *
New York	NELAP	2	11616	03-31-17 *

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-134503-3
SDG: Gaston Gypsum (6)

Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
North Dakota	State Program	8	R207	06-30-17
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-17
Pennsylvania	NELAP	3	68-00540	02-28-18
South Carolina	State Program	4	85002001	06-30-17
Texas	NELAP	6	T104704193-16-10	07-31-17
US Fish & Wildlife	Federal		LE058448-0	10-31-17
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-17
Virginia	NELAP	3	460230	06-14-17
Washington	State Program	10	C592	08-30-17
West Virginia DEP	State Program	3	381	08-31-17 *

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

TestAmerica 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 : WMWGASG_1099

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_1099

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America.

**Job Narrative
400-138781-1
General Chemistry**

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 356861 was outside control limits, One or both samples results are less than 5 times the RL. The data are considered valid because the absolute difference is less than the RL. (400-138488-A-26 DU).

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) RPD for batch 357755 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 356378 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 356862 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

Gaston Gypsum

WMWGASG_1099

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>
AX12516	20170609CK	WMWGASG_1099
AX12517	20170609CK	WMWGASG_1099
AX12518	20170609CK	WMWGASG_1099
AX12519	20170609CK	WMWGASG_1099
AX12520	20170609CK	WMWGASG_1099
AX12521	20170609CK	WMWGASG_1099
AX12522	20170609CK	WMWGASG_1099
AX12523	20170609CK	WMWGASG_1099
AX12524	20170609CK	WMWGASG_1099
AX12525	20170609CK	WMWGASG_1099
AX12526	20170609DK	WMWGASG_1099
AX12527	20170609DK	WMWGASG_1099
AX12528	20170609DK	WMWGASG_1099
AX12529	20170609DK	WMWGASG_1099
AX12530	20170609DK	WMWGASG_1099
AX12531	20170609DK	WMWGASG_1099
AX12532	20170609DK	WMWGASG_1099
AX12533	20170609DK	WMWGASG_1099
AX12534	20170609DK	WMWGASG_1099

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, with the exception of the following: The following samples were diluted due to analyzed sample concentration over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX12523	Calcium	x10
AX12526	Calcium	x10
AX12530	Calcium	x10

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gaston Gypsum

WMWGASG_1099

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>
AX12516	595681	WMWGASG_1099
AX12517	595681	WMWGASG_1099
AX12518	595681	WMWGASG_1099
AX12519	595681	WMWGASG_1099
AX12520	595681	WMWGASG_1099
AX12521	595681	WMWGASG_1099
AX12522	595681	WMWGASG_1099
AX12523	595681	WMWGASG_1099
AX12524	595681	WMWGASG_1099
AX12525	595681	WMWGASG_1099
AX12526	595682	WMWGASG_1099
AX12527	595682	WMWGASG_1099
AX12528	595682	WMWGASG_1099
AX12529	595682	WMWGASG_1099
AX12530	595682	WMWGASG_1099
AX12531	595682	WMWGASG_1099
AX12532	595682	WMWGASG_1099
AX12533	595682	WMWGASG_1099
AX12534	595682	WMWGASG_1099

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

Gaston Gypsum

WMWGASG_1099

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>
AX12516	595884	WMWGASG_1099
AX12517	595884	WMWGASG_1099
AX12518	595884	WMWGASG_1099
AX12519	595884	WMWGASG_1099
AX12520	595884	WMWGASG_1099
AX12521	595884	WMWGASG_1099
AX12522	595884	WMWGASG_1099
AX12523	595884	WMWGASG_1099
AX12524	595884	WMWGASG_1099
AX12525	595884	WMWGASG_1099
AX12526	595885	WMWGASG_1099
AX12527	595885	WMWGASG_1099
AX12528	595885	WMWGASG_1099
AX12529	595885	WMWGASG_1099
AX12530	595885	WMWGASG_1099
AX12531	595885	WMWGASG_1099
AX12532	595885	WMWGASG_1099
AX12533	595885	WMWGASG_1099
AX12534	595885	WMWGASG_1099

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

Gaston Gypsum

WMWGASG_1099

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>
AX12516	595803	WMWGASG_1099
AX12517	595803	WMWGASG_1099
AX12518	595803	WMWGASG_1099
AX12519	595803	WMWGASG_1099
AX12520	595803	WMWGASG_1099
AX12521	595803	WMWGASG_1099
AX12522	595803	WMWGASG_1099
AX12523	595803	WMWGASG_1099
AX12524	595803	WMWGASG_1099
AX12525	595803	WMWGASG_1099
AX12526	596159	WMWGASG_1099
AX12527	596159	WMWGASG_1099
AX12528	596159	WMWGASG_1099
AX12529	596159	WMWGASG_1099
AX12530	596159	WMWGASG_1099
AX12531	596159	WMWGASG_1099
AX12532	596159	WMWGASG_1099
AX12533	596159	WMWGASG_1099
AX12534	596159	WMWGASG_1099

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, with the exception of the blank for final weights 1&2 in batch 595803, which passes equilibrium requirements.
- 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.

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



- All samples were between 2.5 mg and 200 mg residue with the exception of AX12519, AX12525 and AX12534, 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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX12516

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0374	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	50.0	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	187	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	13	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	12	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX12516

Sample	Analysis	Units	MB	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20	
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20	
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20	
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20	
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20	
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20	
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20	
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20	
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20	
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20	
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20	
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20	
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20	
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20	
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX12516

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60		0.214 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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX12517

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0365	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	49.9	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	209	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	13	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	11	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX12517

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX12517

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60		0.214 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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX12518

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0146	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	0.743	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX12518

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX12518

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60	0.214	5

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CC:

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12519

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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: WMWGASGFB
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12519

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit		
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	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: WMWGASGFB
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12519

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60	0.214	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX12520

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	J 0.00129	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0270	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	52.5	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00344	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	184	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	2.2	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	0.14	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	J 1.6	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX12520

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX12520

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60		0.214 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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX12521

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0214	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	45.8	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	158	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	5.2	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX12521

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	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: WMWGASG
 Sample Date: 30-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX12521

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX12522	Solids, Dissolved	mg/L	-2.0	25				233	54.0	40 to 60			0.214	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX12522

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0201	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	63.0	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00287	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	234	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	4.3	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	11	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX12522

Sample	Analysis	Units	MB	MB			LFB			Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	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



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX12522

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12522	Solids, Dissolved	mg/L	-2.0	25			233	54.0	40 to 60	0.214	5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX12523

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	0.0314	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7	10		1.00	5	86.6	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C	1			25	252	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E	1		0.60	2.00	3.6	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C	1		0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E	1		1.40	5.00	J 1.7	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX12523

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX12523

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12571	Solids, Dissolved	mg/L	-2.0	25			2910	54.0	40 to 60	1.19	5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX12524

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00552	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	J 0.0312	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	8.56	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00230	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	75.3	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	5.3	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	5.6	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX12524

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20	
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20	
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20	
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20	
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	20	
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20	
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20	
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20	
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20	
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20	
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20	
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20	
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20	
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20	
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20	

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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX12524

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12571	Solids, Dissolved	mg/L	-2.0	25			2910	54.0	40 to 60	1.19	5

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: WMWGASGFB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12525

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/6/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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: WMWGASGFB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12525

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AX12525	Lithium, Total	mg/L	-0.000133	0.022	0.20	0.181	0.183	0.181	0.17 to 0.23	90.7	70 to 130	0.918	20
AX12525	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.110	0.105	0.102	0.085 to 0.115	110	70 to 130	4.54	20
AX12525	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0929	0.0893	0.103	0.085 to 0.115	92.9	70 to 130	3.98	20
AX12525	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0844	0.0818	0.0999	0.085 to 0.115	84.4	70 to 130	3.22	20
AX12525	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.111	0.106	0.103	0.085 to 0.115	111	70 to 130	4.81	20
AX12525	Mercury, Total by CVAA	mg/L	0.0000315	0.0005	0.004	0.00368	0.00370	0.00374	0.0034 to 0.0046	91.9	70 to 130	0.659	20
AX12525	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.100	0.100	0.0979	0.085 to 0.115	100	70 to 130	0.0139	20
AX12525	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0906	0.0889	0.0993	0.085 to 0.115	90.6	70 to 130	1.88	20
AX12525	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0901	0.0890	0.102	0.085 to 0.115	90.1	70 to 130	1.21	20
AX12525	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0838	0.0815	0.0955	0.085 to 0.115	83.8	70 to 130	2.72	20
AX12525	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0849	0.0813	0.0952	0.085 to 0.115	84.9	70 to 130	4.34	20
AX12525	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0909	0.0889	0.0983	0.085 to 0.115	90.9	70 to 130	2.24	20
AX12525	Calcium, Total	mg/L	-0.0180	0.22	5.00	4.51	4.51	4.62	4.25 to 5.75	90.2	70 to 130	0.0523	20
AX12525	Boron, Total	mg/L	-0.00129	0.044	1.00	0.920	0.938	0.911	0.85 to 1.15	92.0	70 to 130	1.91	20
AX12525	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0788	0.0765	0.0897	0.085 to 0.115	78.8	70 to 130	2.91	20

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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: WMWGASGFB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX12525

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12571	Solids, Dissolved	mg/L	-2.0	25			2910	54.0	40 to 60	1.19	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX12526

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	0.0452	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7	10		1.00	5	84.1	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C	1			25	277	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E	1		0.60	2.00	4.0	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C	1		0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E	1		1.40	5.00	8.0	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX12526

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX12526

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	5

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 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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX12527

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	0.0154	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	1.66	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	J 0.0297	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	34.3	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00805	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	244	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	2.7	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	0.30	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.4	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX12527

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20

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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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX12527

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX12528

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	J 0.00102	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0223	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	J 0.0316	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	66.5	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	242	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	4.1	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	8.7	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX12528

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115		88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115		93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115		101	70 to 130	3.36	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115		91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23		90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115		95.1	70 to 130	5.51	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15		94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115		85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115		82.6	70 to 130	0.179	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115		86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75		89.9	70 to 130	6.14	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115		83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046		91.8	70 to 130	1.22	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115		95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115		101	70 to 130	3.63	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX12528

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX12529

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	J 0.00876	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	7.02	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	46.7	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	2.3	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.1	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX12529

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20	
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20	
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20	
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20	
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20	
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20	
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20	
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20	
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20	
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20	
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20	
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20	
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20	
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20	
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX12529

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX12533	Solids, Dissolved	mg/L	-4.00	25				286	57.0	40 to 60			0.175	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX12530

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	0.0347	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7	10		1.00	5	84.1	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7	2		0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C	1			25	287	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E	1		0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C	1		0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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
 744 County Road 87, GSC#8
 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX12530

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX12530

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX12533	Solids, Dissolved	mg/L	-4.00	25				286	57.0	40 to 60			0.175 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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX12531

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0305	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	45.4	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	220	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	4.2	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX12531

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX12531

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX12532

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0301	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	44.9	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	218	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	4.2	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX12532

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-14S Dup

Laboratory ID Number: AX12532

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX12533

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	0.0301	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	75.2	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	287	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	3.8	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX12533

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	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: WMWGASG
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX12533

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX12533	Solids, Dissolved	mg/L	-4.00	25				286	57.0	40 to 60			0.175	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: WMWGASGEB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX12534

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	6/9/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	6/9/2017	EPA 200.7		2	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	6/5/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	6/7/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	6/9/2017	EPA 200.7		2	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	6/5/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	6/5/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	6/5/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	KRC	6/8/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	6/27/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	6/27/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	6/27/2017	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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 (205) 664-6032 or 6171
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGEB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX12534

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX12534	Cadmium, Total	mg/L	0.0000101	0.00044	0.10	0.0887	0.0923	0.0983	0.085 to 0.115	88.7	70 to 130	3.90	20
AX12534	Chromium, Total	mg/L	0.0000348	0.0044	0.10	0.0933	0.0971	0.0993	0.085 to 0.115	93.3	70 to 130	4.00	20
AX12534	Thallium, Total	mg/L	0.0000143	0.00044	0.10	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	3.36	20
AX12534	Boron, Total	mg/L	-0.000789	0.044	1.00	0.941	0.945	0.956	0.85 to 1.15	94.1	70 to 130	0.407	20
AX12534	Cobalt, Total	mg/L	0.0000110	0.0044	0.10	0.0853	0.0869	0.0999	0.085 to 0.115	85.3	70 to 130	1.81	20
AX12534	Molybdenum, Total	mg/L	0.0000102	0.0044	0.10	0.0826	0.0824	0.0897	0.085 to 0.115	82.6	70 to 130	0.179	20
AX12534	Beryllium, Total	mg/L	0.0000358	0.00132	0.10	0.0914	0.0946	0.0979	0.085 to 0.115	91.4	70 to 130	3.48	20
AX12534	Lithium, Total	mg/L	-0.000122	0.022	0.20	0.181	0.190	0.196	0.17 to 0.23	90.7	70 to 130	4.43	20
AX12534	Selenium, Total	mg/L	0.0000987	0.0044	0.10	0.0951	0.100	0.102	0.085 to 0.115	95.1	70 to 130	5.51	20
AX12534	Antimony, Total	mg/L	0.0000482	0.00132	0.10	0.0830	0.0889	0.0955	0.085 to 0.115	83.0	70 to 130	6.83	20
AX12534	Mercury, Total by CVAA	mg/L	0.0000268	0.0005	0.004	0.00367	0.00372	0.00366	0.0034 to 0.0046	91.8	70 to 130	1.22	20
AX12534	Barium, Total	mg/L	0.0000232	0.0044	0.10	0.0861	0.0913	0.0952	0.085 to 0.115	86.1	70 to 130	5.89	20
AX12534	Calcium, Total	mg/L	-0.0198	0.22	5.00	4.49	4.78	4.70	4.25 to 5.75	89.9	70 to 130	6.14	20
AX12534	Arsenic, Total	mg/L	0.0000102	0.0022	0.10	0.0950	0.0966	0.103	0.085 to 0.115	95.0	70 to 130	1.72	20
AX12534	Lead, Total	mg/L	0.0000248	0.0022	0.10	0.101	0.105	0.103	0.085 to 0.115	101	70 to 130	3.63	20

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Laboratory certification ID: E571114

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Alabama Power General Test Laboratory
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGEB
 Sample Date: 31-May-17
 Customer ID:
 Delivery Date: 01-Jun-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX12534

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX12533	Solids, Dissolved	mg/L	-4.00	25			286	57.0	40 to 60	0.175	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 06/01/2017 09:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Byron Corina	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gaston Gypsum
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (500mL): TDS, Bottle 4 (250mL): Anions		
Comments	All anions were outsourced to Test America, Pensacola, FL.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/30/2017	10:25	4	Groundwater		AX12516
MW-5DUP	05/30/2017	10:25	4	Sample Duplicate		AX12517
MW-6	05/30/2017	11:21	4	Groundwater		AX12518
FB-1	05/30/2017	11:30	4	Field Blank		AX12519
MW-8	05/30/2017	14:12	4	Groundwater		AX12520
MW-9	05/30/2017	16:23	4	Groundwater		AX12521
MW-7	05/31/2017	09:08	4	Groundwater		AX12522
MW-10	05/31/2017	10:29	4	Groundwater		AX12523
MW-11	05/31/2017	12:14	4	Groundwater		AX12524
FB-2	05/31/2017	11:02	4	Field Blank		AX12525
MW-13	05/31/2017	13:44	4	Groundwater		AX12526
MW-1	05/31/2017	14:52	4	Groundwater		AX12527
MW-12	05/31/2017	13:00	4	Groundwater		AX12528

Relinquished By	Received By	Date/Time
		05/31/2017 17:10
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southemco.com, c=US Date: 2017.06.01 08:26:52 -0500</small>	06/01/2017 08:27

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
		0.4 C
		Thermometer ID
		5408-275-68-2-2
		pH Strip ID
		5521-28268-20-12

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-138781-1

TestAmerica Sample Delivery Group: Gaston Gypsum (7)

Client Project/Site: CCR Plant Gaston

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/26/2017 6:17:59 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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Case Narrative

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Job ID: 400-138781-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-138781-1

General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with batch 356861 was outside control limits. One or both samples results are less than 5 times the RL. The data are considered valid because the absolute difference is less than the RL. (400-138488-A-26 DU).

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate (MS/MSD) RPD for batch 357755 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) precision was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 356378 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 356862 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.



Detection Summary

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12516 MW-5

Lab Sample ID: 400-138781-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		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	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12517 MW-5 DUP

Lab Sample ID: 400-138781-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		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: AX12518 MW-6

Lab Sample ID: 400-138781-3

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

Client Sample ID: AX12519 FB-1

Lab Sample ID: 400-138781-4

No Detections.

Client Sample ID: AX12520 MW-8

Lab Sample ID: 400-138781-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12521 MW-9

Lab Sample ID: 400-138781-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12522 MW-7

Lab Sample ID: 400-138781-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12523 MW-10

Lab Sample ID: 400-138781-8

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	1.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12524 MW-11

Lab Sample ID: 400-138781-9

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
Sulfate	5.6		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 Gaston

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12525 FB-2

Lab Sample ID: 400-138781-10

No Detections.

Client Sample ID: AX12526 MW-13

Lab Sample ID: 400-138781-11

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	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12527 MW-1

Lab Sample ID: 400-138781-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.30		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12528 MW-12

Lab Sample ID: 400-138781-13

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
Fluoride	0.060	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: AX12529 MW-15

Lab Sample ID: 400-138781-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12530 MW-3

Lab Sample ID: 400-138781-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12531 MW-14S

Lab Sample ID: 400-138781-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.2		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	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12532 MW-14S DUP

Lab Sample ID: 400-138781-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.2		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	8.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12533 MW-2

Lab Sample ID: 400-138781-18

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12533 MW-2 (Continued)

Lab Sample ID: 400-138781-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	5.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX12534 EB-1

Lab Sample ID: 400-138781-19

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

- 1
- 2
- 3
- 4
- 5
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- 8
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- 10
- 11
- 12
- 13
- 14

Method Summary

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138781-1	AX12516 MW-5	Water	05/30/17 10:25	06/05/17 15:30
400-138781-2	AX12517 MW-5 DUP	Water	05/30/17 10:25	06/05/17 15:30
400-138781-3	AX12518 MW-6	Water	05/30/17 11:21	06/05/17 15:30
400-138781-4	AX12519 FB-1	Water	05/30/17 11:30	06/05/17 15:30
400-138781-5	AX12520 MW-8	Water	05/30/17 14:12	06/05/17 15:30
400-138781-6	AX12521 MW-9	Water	05/30/17 16:23	06/05/17 15:30
400-138781-7	AX12522 MW-7	Water	05/31/17 09:08	06/05/17 15:30
400-138781-8	AX12523 MW-10	Water	05/31/17 10:29	06/05/17 15:30
400-138781-9	AX12524 MW-11	Water	05/31/17 12:14	06/05/17 15:30
400-138781-10	AX12525 FB-2	Water	05/31/17 11:02	06/05/17 15:30
400-138781-11	AX12526 MW-13	Water	05/31/17 13:44	06/05/17 15:30
400-138781-12	AX12527 MW-1	Water	05/31/17 14:52	06/05/17 15:30
400-138781-13	AX12528 MW-12	Water	05/31/17 13:00	06/05/17 15:30
400-138781-14	AX12529 MW-15	Water	05/31/17 10:05	06/05/17 15:30
400-138781-15	AX12530 MW-3	Water	05/31/17 11:53	06/05/17 15:30
400-138781-16	AX12531 MW-14S	Water	05/31/17 13:21	06/05/17 15:30
400-138781-17	AX12532 MW-14S DUP	Water	05/31/17 13:21	06/05/17 15:30
400-138781-18	AX12533 MW-2	Water	05/31/17 14:55	06/05/17 15:30
400-138781-19	AX12534 EB-1	Water	05/31/17 15:40	06/05/17 15:30

Client Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12516 MW-5

Lab Sample ID: 400-138781-1

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	0.60	mg/L			06/08/17 15:56	1
Fluoride	0.040	J	0.10	0.032	mg/L			06/13/17 18:35	1
Sulfate	12		5.0	1.4	mg/L			06/10/17 13:14	1

Client Sample ID: AX12517 MW-5 DUP

Lab Sample ID: 400-138781-2

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	0.60	mg/L			06/08/17 15:56	1
Fluoride	<0.032		0.10	0.032	mg/L			06/13/17 18:37	1
Sulfate	11		5.0	1.4	mg/L			06/10/17 13:21	1

Client Sample ID: AX12518 MW-6

Lab Sample ID: 400-138781-3

Date Collected: 05/30/17 11:21

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			06/08/17 15:56	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 16:55	1
Sulfate	<1.4		5.0	1.4	mg/L			06/10/17 13:21	1

Client Sample ID: AX12519 FB-1

Lab Sample ID: 400-138781-4

Date Collected: 05/30/17 11:30

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/08/17 15:56	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 16:58	1
Sulfate	<1.4		5.0	1.4	mg/L			06/13/17 17:52	1

Client Sample ID: AX12520 MW-8

Lab Sample ID: 400-138781-5

Date Collected: 05/30/17 14:12

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		2.0	0.60	mg/L			06/08/17 15:26	1
Fluoride	0.14		0.10	0.032	mg/L			06/14/17 17:00	1
Sulfate	1.6	J	5.0	1.4	mg/L			06/13/17 17:52	1

Client Sample Results

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12521 MW-9

Date Collected: 05/30/17 16:23

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-6

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			06/08/17 15:26	1
Fluoride	0.040	J	0.10	0.032	mg/L			06/14/17 17:02	1
Sulfate	5.2		5.0	1.4	mg/L			06/13/17 17:52	1

Client Sample ID: AX12522 MW-7

Date Collected: 05/31/17 09:08

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-7

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			06/10/17 10:36	1
Fluoride	0.080	J	0.10	0.032	mg/L			06/14/17 17:04	1
Sulfate	11		5.0	1.4	mg/L			06/10/17 13:14	1

Client Sample ID: AX12523 MW-10

Date Collected: 05/31/17 10:29

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-8

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.60	mg/L			06/10/17 10:36	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 17:06	1
Sulfate	1.7	J	5.0	1.4	mg/L			06/10/17 13:14	1

Client Sample ID: AX12524 MW-11

Date Collected: 05/31/17 12:14

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-9

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		2.0	0.60	mg/L			06/10/17 10:36	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 17:09	1
Sulfate	5.6		5.0	1.4	mg/L			06/10/17 13:14	1

Client Sample ID: AX12525 FB-2

Date Collected: 05/31/17 11:02

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-10

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/10/17 10:36	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 16:49	1
Sulfate	<1.4		5.0	1.4	mg/L			06/10/17 13:20	1

Client Sample ID: AX12526 MW-13

Date Collected: 05/31/17 13:44

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-11

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			06/10/17 10:37	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12526 MW-13

Lab Sample ID: 400-138781-11

Date Collected: 05/31/17 13:44

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.040	J	0.10	0.032	mg/L			06/14/17 17:15	1
Sulfate	8.0		5.0	1.4	mg/L			06/10/17 13:21	1

Client Sample ID: AX12527 MW-1

Lab Sample ID: 400-138781-12

Date Collected: 05/31/17 14:52

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	0.60	mg/L			06/13/17 11:42	1
Fluoride	0.30		0.10	0.032	mg/L			06/14/17 17:19	1
Sulfate	3.4	J	5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12528 MW-12

Lab Sample ID: 400-138781-13

Date Collected: 05/31/17 13:00

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.1		2.0	0.60	mg/L			06/13/17 11:42	1
Fluoride	0.060	J	0.10	0.032	mg/L			06/14/17 17:21	1
Sulfate	8.7		5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12529 MW-15

Lab Sample ID: 400-138781-14

Date Collected: 05/31/17 10:05

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	0.60	mg/L			06/13/17 11:47	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 17:23	1
Sulfate	2.1	J	5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12530 MW-3

Lab Sample ID: 400-138781-15

Date Collected: 05/31/17 11:53

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			06/13/17 11:47	1
Fluoride	0.060	J	0.10	0.032	mg/L			06/14/17 17:26	1
Sulfate	15		5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12531 MW-14S

Lab Sample ID: 400-138781-16

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		2.0	0.60	mg/L			06/13/17 11:47	1
Fluoride	0.060	J	0.10	0.032	mg/L			06/14/17 17:28	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12531 MW-14S

Lab Sample ID: 400-138781-16

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	8.0		5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12532 MW-14S DUP

Lab Sample ID: 400-138781-17

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		2.0	0.60	mg/L			06/13/17 11:39	1
Fluoride	0.060	J	0.10	0.032	mg/L			06/14/17 17:30	1
Sulfate	8.0		5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12533 MW-2

Lab Sample ID: 400-138781-18

Date Collected: 05/31/17 14:55

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			06/13/17 11:39	1
Fluoride	<0.032		0.10	0.032	mg/L			06/14/17 17:33	1
Sulfate	5.3		5.0	1.4	mg/L			06/13/17 17:58	1

Client Sample ID: AX12534 EB-1

Lab Sample ID: 400-138781-19

Date Collected: 05/31/17 15:40

Matrix: Water

Date Received: 06/05/17 15:30

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/13/17 11:39	1
Fluoride	<0.032	F2	0.10	0.032	mg/L			06/20/17 17:07	1
Sulfate	<1.4		5.0	1.4	mg/L			06/13/17 17:58	1

Definitions/Glossary

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12516 MW-5

Date Collected: 05/30/17 10:25

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-1

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	356378	06/08/17 15:56	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	356861	06/13/17 18:35	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:14	JLB	TAL PEN

Client Sample ID: AX12517 MW-5 DUP

Date Collected: 05/30/17 10:25

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-2

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	356378	06/08/17 15:56	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	356861	06/13/17 18:37	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:21	JLB	TAL PEN

Client Sample ID: AX12518 MW-6

Date Collected: 05/30/17 11:21

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-3

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	356378	06/08/17 15:56	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 16:55	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:21	JLB	TAL PEN

Client Sample ID: AX12519 FB-1

Date Collected: 05/30/17 11:30

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-4

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	356378	06/08/17 15:56	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 16:58	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:52	JLB	TAL PEN

Client Sample ID: AX12520 MW-8

Date Collected: 05/30/17 14:12

Date Received: 06/05/17 15:30

Lab Sample ID: 400-138781-5

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	356378	06/08/17 15:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:00	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:52	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12521 MW-9

Lab Sample ID: 400-138781-6

Date Collected: 05/30/17 16:23

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356378	06/08/17 15:26	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:02	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:52	JLB	TAL PEN

Client Sample ID: AX12522 MW-7

Lab Sample ID: 400-138781-7

Date Collected: 05/31/17 09:08

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356520	06/10/17 10:36	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:04	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:14	JLB	TAL PEN

Client Sample ID: AX12523 MW-10

Lab Sample ID: 400-138781-8

Date Collected: 05/31/17 10:29

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356520	06/10/17 10:36	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:06	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:14	JLB	TAL PEN

Client Sample ID: AX12524 MW-11

Lab Sample ID: 400-138781-9

Date Collected: 05/31/17 12:14

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356520	06/10/17 10:36	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:09	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:14	JLB	TAL PEN

Client Sample ID: AX12525 FB-2

Lab Sample ID: 400-138781-10

Date Collected: 05/31/17 11:02

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356520	06/10/17 10:36	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 16:49	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:20	JLB	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12526 MW-13

Lab Sample ID: 400-138781-11

Date Collected: 05/31/17 13:44

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356520	06/10/17 10:37	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:15	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356536	06/10/17 13:21	JLB	TAL PEN

Client Sample ID: AX12527 MW-1

Lab Sample ID: 400-138781-12

Date Collected: 05/31/17 14:52

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:42	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:19	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12528 MW-12

Lab Sample ID: 400-138781-13

Date Collected: 05/31/17 13:00

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:42	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:21	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12529 MW-15

Lab Sample ID: 400-138781-14

Date Collected: 05/31/17 10:05

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:47	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:23	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12530 MW-3

Lab Sample ID: 400-138781-15

Date Collected: 05/31/17 11:53

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:47	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:26	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12531 MW-14S

Lab Sample ID: 400-138781-16

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:47	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:28	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12532 MW-14S DUP

Lab Sample ID: 400-138781-17

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:39	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:30	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12533 MW-2

Lab Sample ID: 400-138781-18

Date Collected: 05/31/17 14:55

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:39	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357013	06/14/17 17:33	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Client Sample ID: AX12534 EB-1

Lab Sample ID: 400-138781-19

Date Collected: 05/31/17 15:40

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	356798	06/13/17 11:39	JLB	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	357755	06/20/17 17:07	SLT	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	356862	06/13/17 17:58	JLB	TAL PEN

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

General Chemistry

Analysis Batch: 356378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-1	AX12516 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-138781-2	AX12517 MW-5 DUP	Total/NA	Water	SM 4500 Cl- E	
400-138781-3	AX12518 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-138781-4	AX12519 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-138781-5	AX12520 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-138781-6	AX12521 MW-9	Total/NA	Water	SM 4500 Cl- E	
MB 400-356378/34	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-356378/43	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-356378/31	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138437-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-138437-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 356520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-7	AX12522 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-138781-8	AX12523 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-138781-9	AX12524 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-138781-10	AX12525 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-138781-11	AX12526 MW-13	Total/NA	Water	SM 4500 Cl- E	
MB 400-356520/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-356520/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-356520/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138781-10 MS	AX12525 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-138781-10 MSD	AX12525 FB-2	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 356536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-1	AX12516 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-138781-2	AX12517 MW-5 DUP	Total/NA	Water	SM 4500 SO4 E	
400-138781-3	AX12518 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-138781-7	AX12522 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-138781-8	AX12523 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-138781-9	AX12524 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-138781-10	AX12525 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-138781-11	AX12526 MW-13	Total/NA	Water	SM 4500 SO4 E	
MB 400-356536/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-356536/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-356536/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-138781-10 MS	AX12525 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-138781-10 MSD	AX12525 FB-2	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 356798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-12	AX12527 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-138781-13	AX12528 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-138781-14	AX12529 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-138781-15	AX12530 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-138781-16	AX12531 MW-14S	Total/NA	Water	SM 4500 Cl- E	
400-138781-17	AX12532 MW-14S DUP	Total/NA	Water	SM 4500 Cl- E	
400-138781-18	AX12533 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-138781-19	AX12534 EB-1	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

General Chemistry (Continued)

Analysis Batch: 356798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-356798/28	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-356798/29	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-356798/25	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-138781-19 MS	AX12534 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-138781-19 MSD	AX12534 EB-1	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 356861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-1	AX12516 MW-5	Total/NA	Water	SM 4500 F C	
400-138781-2	AX12517 MW-5 DUP	Total/NA	Water	SM 4500 F C	
MB 400-356861/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-356861/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138488-A-20 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-138488-A-20 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-138488-A-29 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-138488-A-29 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-138488-A-26 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 356862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-4	AX12519 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-138781-5	AX12520 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-138781-6	AX12521 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-138781-12	AX12527 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-138781-13	AX12528 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-138781-14	AX12529 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-138781-15	AX12530 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-138781-16	AX12531 MW-14S	Total/NA	Water	SM 4500 SO4 E	
400-138781-17	AX12532 MW-14S DUP	Total/NA	Water	SM 4500 SO4 E	
400-138781-18	AX12533 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-138781-19	AX12534 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-356862/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-356862/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-356862/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-138781-19 MS	AX12534 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-138781-19 MSD	AX12534 EB-1	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 357013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-3	AX12518 MW-6	Total/NA	Water	SM 4500 F C	
400-138781-4	AX12519 FB-1	Total/NA	Water	SM 4500 F C	
400-138781-5	AX12520 MW-8	Total/NA	Water	SM 4500 F C	
400-138781-6	AX12521 MW-9	Total/NA	Water	SM 4500 F C	
400-138781-7	AX12522 MW-7	Total/NA	Water	SM 4500 F C	
400-138781-8	AX12523 MW-10	Total/NA	Water	SM 4500 F C	
400-138781-9	AX12524 MW-11	Total/NA	Water	SM 4500 F C	
400-138781-10	AX12525 FB-2	Total/NA	Water	SM 4500 F C	
400-138781-11	AX12526 MW-13	Total/NA	Water	SM 4500 F C	
400-138781-12	AX12527 MW-1	Total/NA	Water	SM 4500 F C	
400-138781-13	AX12528 MW-12	Total/NA	Water	SM 4500 F C	
400-138781-14	AX12529 MW-15	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-138781-1
SDG: Gaston Gypsum (7)

General Chemistry (Continued)

Analysis Batch: 357013 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-15	AX12530 MW-3	Total/NA	Water	SM 4500 F C	
400-138781-16	AX12531 MW-14S	Total/NA	Water	SM 4500 F C	
400-138781-17	AX12532 MW-14S DUP	Total/NA	Water	SM 4500 F C	
400-138781-18	AX12533 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-357013/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-357013/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138781-10 MS	AX12525 FB-2	Total/NA	Water	SM 4500 F C	
400-138781-10 MSD	AX12525 FB-2	Total/NA	Water	SM 4500 F C	
400-138781-11 DU	AX12526 MW-13	Total/NA	Water	SM 4500 F C	

Analysis Batch: 357755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138781-19	AX12534 EB-1	Total/NA	Water	SM 4500 F C	
MB 400-357755/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-357755/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-138781-19 MS	AX12534 EB-1	Total/NA	Water	SM 4500 F C	
400-138781-19 MSD	AX12534 EB-1	Total/NA	Water	SM 4500 F C	
400-138811-A-9 DU	Duplicate	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-356378/34
Matrix: Water
Analysis Batch: 356378

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			06/08/17 15:26	1

Lab Sample ID: LCS 400-356378/43
Matrix: Water
Analysis Batch: 356378

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	32.1		mg/L		107	90 - 110

Lab Sample ID: MRL 400-356378/31
Matrix: Water
Analysis Batch: 356378

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	2.20		mg/L		110	50 - 150

Lab Sample ID: 400-138437-C-1 MS
Matrix: Water
Analysis Batch: 356378

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.7	F1	10.0	16.6	F1	mg/L		129	73 - 120

Lab Sample ID: 400-138437-C-1 MSD
Matrix: Water
Analysis Batch: 356378

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	3.7	F1	10.0	16.2	F1	mg/L		124	73 - 120	3	8

Lab Sample ID: MB 400-356520/6
Matrix: Water
Analysis Batch: 356520

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			06/10/17 09:11	1

Lab Sample ID: LCS 400-356520/7
Matrix: Water
Analysis Batch: 356520

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	27.5		mg/L		92	90 - 110

Lab Sample ID: MRL 400-356520/13
Matrix: Water
Analysis Batch: 356520

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.61	J	mg/L		80	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Lab Sample ID: 400-138781-10 MS
Matrix: Water
Analysis Batch: 356520

Client Sample ID: AX12525 FB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60		10.0	11.4		mg/L		114	73 - 120

Lab Sample ID: 400-138781-10 MSD
Matrix: Water
Analysis Batch: 356520

Client Sample ID: AX12525 FB-2
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		10.0	11.1		mg/L		111	73 - 120	2	8

Lab Sample ID: MB 400-356798/28
Matrix: Water
Analysis Batch: 356798

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			06/13/17 11:42	1

Lab Sample ID: LCS 400-356798/29
Matrix: Water
Analysis Batch: 356798

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 400-356798/25
Matrix: Water
Analysis Batch: 356798

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	2.05		mg/L		102	50 - 150

Lab Sample ID: 400-138781-19 MS
Matrix: Water
Analysis Batch: 356798

Client Sample ID: AX12534 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	<0.60		10.0	11.5		mg/L		115	73 - 120

Lab Sample ID: 400-138781-19 MSD
Matrix: Water
Analysis Batch: 356798

Client Sample ID: AX12534 EB-1
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		10.0	11.2		mg/L		112	73 - 120	3	8

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-356861/3
Matrix: Water
Analysis Batch: 356861

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			06/13/17 17:47	1

Lab Sample ID: LCS 400-356861/4
Matrix: Water
Analysis Batch: 356861

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: 400-138488-A-20 MS
Matrix: Water
Analysis Batch: 356861

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	0.070	J	1.00	1.00		mg/L		93	75 - 125

Lab Sample ID: 400-138488-A-20 MSD
Matrix: Water
Analysis Batch: 356861

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	0.070	J	1.00	1.02		mg/L		95	75 - 125	2	4

Lab Sample ID: 400-138488-A-29 MS
Matrix: Water
Analysis Batch: 356861

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	0.930		mg/L		93	75 - 125

Lab Sample ID: 400-138488-A-29 MSD
Matrix: Water
Analysis Batch: 356861

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.950		mg/L		95	75 - 125	2	4

Lab Sample ID: 400-138488-A-26 DU
Matrix: Water
Analysis Batch: 356861

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.050	J	0.0400	J F5	mg/L		22	4

Lab Sample ID: MB 400-357013/3
Matrix: Water
Analysis Batch: 357013

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			06/14/17 16:41	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Lab Sample ID: LCS 400-357013/4
Matrix: Water
Analysis Batch: 357013

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.10		mg/L		103	90 - 110

Lab Sample ID: 400-138781-10 MS
Matrix: Water
Analysis Batch: 357013

Client Sample ID: AX12525 FB-2
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	0.950		mg/L		95	75 - 125

Lab Sample ID: 400-138781-10 MSD
Matrix: Water
Analysis Batch: 357013

Client Sample ID: AX12525 FB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	0.950		mg/L		95	75 - 125	0	4

Lab Sample ID: 400-138781-11 DU
Matrix: Water
Analysis Batch: 357013

Client Sample ID: AX12526 MW-13
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J		0.0400	J	mg/L				0	4

Lab Sample ID: MB 400-357755/3
Matrix: Water
Analysis Batch: 357755

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			06/20/17 16:58	1

Lab Sample ID: LCS 400-357755/4
Matrix: Water
Analysis Batch: 357755

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: 400-138781-19 MS
Matrix: Water
Analysis Batch: 357755

Client Sample ID: AX12534 EB-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032	F2	1.00	0.902		mg/L		90	75 - 125

Lab Sample ID: 400-138781-19 MSD
Matrix: Water
Analysis Batch: 357755

Client Sample ID: AX12534 EB-1
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	F2	1.00	0.975	F2	mg/L		98	75 - 125	8	4

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-138811-A-9 DU
Matrix: Water
Analysis Batch: 357755

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.37		0.368		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-356536/6
Matrix: Water
Analysis Batch: 356536

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			06/10/17 12:58	1

Lab Sample ID: LCS 400-356536/7
Matrix: Water
Analysis Batch: 356536

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-356536/3
Matrix: Water
Analysis Batch: 356536

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	4.19	J	mg/L		84	50 - 150

Lab Sample ID: 400-138781-10 MS
Matrix: Water
Analysis Batch: 356536

Client Sample ID: AX12525 FB-2
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	8.96		mg/L		90	77 - 128

Lab Sample ID: 400-138781-10 MSD
Matrix: Water
Analysis Batch: 356536

Client Sample ID: AX12525 FB-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	8.78		mg/L		88	77 - 128	2	5

Lab Sample ID: MB 400-356862/6
Matrix: Water
Analysis Batch: 356862

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			06/13/17 17:52	1

QC Sample Results

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

TestAmerica Job ID: 400-138781-1
 SDG: Gaston Gypsum (7)

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

Lab Sample ID: LCS 400-356862/7
Matrix: Water
Analysis Batch: 356862

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.4		mg/L		102	90 - 110

Lab Sample ID: MRL 400-356862/3
Matrix: Water
Analysis Batch: 356862

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	4.48	J	mg/L		90	50 - 150

Lab Sample ID: 400-138781-19 MS
Matrix: Water
Analysis Batch: 356862

Client Sample ID: AX12534 EB-1
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	8.40		mg/L		84	77 - 128

Lab Sample ID: 400-138781-19 MSD
Matrix: Water
Analysis Batch: 356862

Client Sample ID: AX12534 EB-1
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	8.65		mg/L		86	77 - 128	3	5

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Sampler: Anthony Goggins		Lab P/N: Whitmire, Cheyenne R		Center Tracking No(s):	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		City: Callera		State, Zip: AL, 35040	
Phone: 205-864-6121 (Tel)		PO #:		WO #:		Project #: 40007143	
Email: sgcopela@southemco.com		CCR		Site: Gaston Gypsum (7)		SSOW#:	
Due Date Requested:		TAT Requested (days):		Routine		Analysis Requested	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Overhead, BT=Trace, AA=)	Preservation Code:	Field Filtered Sample (Yes or No)
AX12516	5/30/17	1025	G	Water			X
AX12517	5/30/17	1025	G	Water			X
AX12518	5/30/17	1121	G	Water			X
AX12519	5/30/17	1130	G	Water			X
AX12520	5/30/17	1412	G	Water			X
AX12521	5/30/17	1623	G	Water			X
AX12522	5/31/17	0908	G	Water			X
AX12523	5/31/17	1029	G	Water			X
AX12524	5/31/17	1214	G	Water			X
AX12525	5/31/17	1102	G	Water			X
AX12526	5/31/17	1344	G	Water			X
AX12527	5/31/17	1452	G	Water			X
AX12528	5/31/17	1300	G	Water			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)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal B / Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:		Total Number of Containers:	
Empty Kit Relinquished by:		Date:		Method of Shipment:		Special Instructions/Note:	
Relinquished by: Sarah Copeland		Date/Time: 05/25/2017: 1615		Company: APC		MW-5	
Relinquished by:		Date/Time:		Company:		MW-5 Dup (Sample Duplicate)	
Relinquished by:		Date/Time:		Company:		MW-5	
Custody Seals Intact: A Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		FB-1 (Field Blank)	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-138781-1
SDG Number: Gaston Gypsum (7)

Login Number: 138781

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	23.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Gaston

TestAmerica Job ID: 400-138781-1
 SDG: Gaston 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	06-30-18
Georgia	State Program	4	N/A	06-30-17
Illinois	NELAP	5	200041	10-09-17
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-17
Kentucky (UST)	State Program	4	53	06-30-17
Kentucky (WW)	State Program	4	98030	12-31-17
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-17
Maryland	State Program	3	233	09-30-17
Massachusetts	State Program	1	M-FL094	06-30-17
Michigan	State Program	5	9912	06-30-17
New Jersey	NELAP	2	FL006	06-30-17
North Carolina (WW/SW)	State Program	4	314	12-31-17
Oklahoma	State Program	6	9810	08-31-17
Pennsylvania	NELAP	3	68-00467	01-31-18
Rhode Island	State Program	1	LAO00307	12-30-17
South Carolina	State Program	4	96026	06-30-17
Tennessee	State Program	4	TN02907	06-30-17
Texas	NELAP	6	T104704286-16-10	09-30-17
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-17

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: 400-138816-1

TestAmerica Sample Delivery Group: Gaston Gypsum (7)

Client Project/Site: CCR Plant Gaston

For:

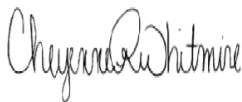
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

7/7/2017 9:19:30 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 Gaston

TestAmerica Job ID: 400-138816-1
SDG: Gaston Gypsum (7)

Job ID: 400-138816-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-138816-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-312744. The following samples were reduced due to limited volume: AX12497 MW-5 (400-138816-1), AX12498 MW-5 DUP (400-138816-2), AX12499 MW-6 (400-138816-3), AX12500 FB-1 (400-138816-4), AX12501 MW-8 (400-138816-5), AX12502 MW-9 (400-138816-6), AX12503 MW-7 (400-138816-7), AX12504 MW-10 (400-138816-8), AX12504 MW-10 (400-138816-8[DUJ]), AX12505 MW-11 (400-138816-9), AX12506 FB-2 (400-138816-10), AX12507 MW-12 (400-138816-11), AX12508 MW-13 (400-138816-12), AX12509 MW-1 (400-138816-13), AX12510 MW-15 (400-138816-14), AX12511 MW-3 (400-138816-15), AX12512 MW-14S (400-138816-16), AX12513 MW-14S DUP (400-138816-17), AX12514 MW-2 (400-138816-18) and AX12515 EB-1 (400-138816-19).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-312645. The following samples were reduced due to limited volume: AX12497 MW-5 (400-138816-1), AX12498 MW-5 DUP (400-138816-2), AX12499 MW-6 (400-138816-3), AX12500 FB-1 (400-138816-4), AX12501 MW-8 (400-138816-5), AX12502 MW-9 (400-138816-6), AX12503 MW-7 (400-138816-7), AX12504 MW-10 (400-138816-8), AX12504 MW-10 (400-138816-8[DUJ]), AX12505 MW-11 (400-138816-9), AX12506 FB-2 (400-138816-10), AX12507 MW-12 (400-138816-11), AX12508 MW-13 (400-138816-12), AX12509 MW-1 (400-138816-13), AX12510 MW-15 (400-138816-14), AX12511 MW-3 (400-138816-15), AX12512 MW-14S (400-138816-16), AX12513 MW-14S DUP (400-138816-17), AX12514 MW-2 (400-138816-18) and AX12515 EB-1 (400-138816-19).

Method Summary

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

TestAmerica Job ID: 400-138816-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-138816-1
SDG: Gaston Gypsum (7)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-138816-1	AX12497 MW-5	Water	05/30/17 10:25	06/05/17 15:30
400-138816-2	AX12498 MW-5 DUP	Water	05/30/17 10:25	06/05/17 15:30
400-138816-3	AX12499 MW-6	Water	05/30/17 11:21	06/05/17 15:30
400-138816-4	AX12500 FB-1	Water	05/30/17 11:30	06/05/17 15:30
400-138816-5	AX12501 MW-8	Water	05/30/17 14:12	06/05/17 15:30
400-138816-6	AX12502 MW-9	Water	05/30/17 16:23	06/05/17 15:30
400-138816-7	AX12503 MW-7	Water	05/31/17 09:08	06/05/17 15:30
400-138816-8	AX12504 MW-10	Water	05/31/17 10:29	06/05/17 15:30
400-138816-9	AX12505 MW-11	Water	05/31/17 12:14	06/05/17 15:30
400-138816-10	AX12506 FB-2	Water	05/31/17 11:02	06/05/17 15:30
400-138816-11	AX12507 MW-12	Water	05/31/17 13:00	06/05/17 15:30
400-138816-12	AX12508 MW-13	Water	05/31/17 13:44	06/05/17 15:30
400-138816-13	AX12509 MW-1	Water	05/31/17 14:52	06/05/17 15:30
400-138816-14	AX12510 MW-15	Water	05/31/17 10:05	06/05/17 15:30
400-138816-15	AX12511 MW-3	Water	05/31/17 11:53	06/05/17 15:30
400-138816-16	AX12512 MW-14S	Water	05/31/17 13:21	06/05/17 15:30
400-138816-17	AX12513 MW-14S DUP	Water	05/31/17 13:21	06/05/17 15:30
400-138816-18	AX12514 MW-2	Water	05/31/17 14:55	06/05/17 15:30
400-138816-19	AX12515 EB-1	Water	05/31/17 15:40	06/05/17 15:30

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12497 MW-5

Lab Sample ID: 400-138816-1

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 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	0.0735	U	0.0660	0.0663	1.00	0.0968	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.572		0.301	0.305	1.00	0.435	pCi/L	06/09/17 10:09	06/16/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					06/09/17 10:09	06/16/17 14:19	1
Y Carrier	83.0		40 - 110					06/09/17 10:09	06/16/17 14:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.646		0.308	0.312	5.00	0.435	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12498 MW-5 DUP

Lab Sample ID: 400-138816-2

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 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	0.0576	U	0.0600	0.0602	1.00	0.0921	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0350	U	0.247	0.247	1.00	0.443	pCi/L	06/09/17 10:09	06/16/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/09/17 10:09	06/16/17 14:19	1
Y Carrier	85.6		40 - 110					06/09/17 10:09	06/16/17 14:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0926	U	0.254	0.254	5.00	0.443	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12499 MW-6

Lab Sample ID: 400-138816-3

Date Collected: 05/30/17 11:21

Matrix: Water

Date Received: 06/05/17 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	0.0191	U	0.0652	0.0652	1.00	0.125	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.120	U	0.260	0.260	1.00	0.493	pCi/L	06/09/17 10:09	06/16/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					06/09/17 10:09	06/16/17 14:19	1
Y Carrier	85.2		40 - 110					06/09/17 10:09	06/16/17 14:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.100	U	0.268	0.268	5.00	0.493	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12500 FB-1

Lab Sample ID: 400-138816-4

Date Collected: 05/30/17 11:30

Matrix: Water

Date Received: 06/05/17 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	0.00329	U	0.0385	0.0385	1.00	0.0856	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.334	U	0.281	0.282	1.00	0.446	pCi/L	06/09/17 10:09	06/16/17 14:19	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/09/17 10:09	06/16/17 14:19	1
Y Carrier	86.7		40 - 110					06/09/17 10:09	06/16/17 14:19	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.338	U	0.283	0.285	5.00	0.446	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12501 MW-8

Lab Sample ID: 400-138816-5

Date Collected: 05/30/17 14:12

Matrix: Water

Date Received: 06/05/17 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	0.0752	U	0.0612	0.0616	1.00	0.0828	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.293	U	0.291	0.292	1.00	0.471	pCi/L	06/09/17 10:09	06/16/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					06/09/17 10:09	06/16/17 14:20	1
Y Carrier	81.9		40 - 110					06/09/17 10:09	06/16/17 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.368	U	0.297	0.298	5.00	0.471	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12502 MW-9

Lab Sample ID: 400-138816-6

Date Collected: 05/30/17 16:23

Matrix: Water

Date Received: 06/05/17 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	0.0427	U	0.0503	0.0504	1.00	0.0791	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.330	U	0.289	0.291	1.00	0.461	pCi/L	06/09/17 10:09	06/16/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					06/09/17 10:09	06/16/17 14:20	1
Y Carrier	82.6		40 - 110					06/09/17 10:09	06/16/17 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.373	U	0.294	0.295	5.00	0.461	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12503 MW-7

Lab Sample ID: 400-138816-7

Date Collected: 05/31/17 09:08

Matrix: Water

Date Received: 06/05/17 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	0.0955		0.0689	0.0695	1.00	0.0839	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.4		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.177	U	0.302	0.303	1.00	0.513	pCi/L	06/09/17 10:09	06/16/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.4		40 - 110					06/09/17 10:09	06/16/17 14:20	1
Y Carrier	88.6		40 - 110					06/09/17 10:09	06/16/17 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.272	U	0.310	0.310	5.00	0.513	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12504 MW-10

Lab Sample ID: 400-138816-8

Date Collected: 05/31/17 10:29

Matrix: Water

Date Received: 06/05/17 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	0.0913	U	0.0697	0.0701	1.00	0.0951	pCi/L	06/09/17 08:48	07/03/17 10:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/09/17 08:48	07/03/17 10:59	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0998	U	0.299	0.299	1.00	0.519	pCi/L	06/09/17 10:09	06/16/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					06/09/17 10:09	06/16/17 14:20	1
Y Carrier	84.9		40 - 110					06/09/17 10:09	06/16/17 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.191	U	0.307	0.307	5.00	0.519	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12505 MW-11

Lab Sample ID: 400-138816-9

Date Collected: 05/31/17 12:14

Matrix: Water

Date Received: 06/05/17 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	0.0119	U	0.0411	0.0412	1.00	0.0873	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.203	U	0.272	0.272	1.00	0.453	pCi/L	06/09/17 10:09	06/16/17 14:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.3		40 - 110					06/09/17 10:09	06/16/17 14:20	1
Y Carrier	83.7		40 - 110					06/09/17 10:09	06/16/17 14:20	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.215	U	0.275	0.275	5.00	0.453	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12506 FB-2

Lab Sample ID: 400-138816-10

Date Collected: 05/31/17 11:02

Matrix: Water

Date Received: 06/05/17 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	0.0229	U	0.0447	0.0447	1.00	0.0825	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.153	U	0.253	0.254	1.00	0.430	pCi/L	06/09/17 10:09	06/16/17 14:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					06/09/17 10:09	06/16/17 14:16	1
Y Carrier	87.9		40 - 110					06/09/17 10:09	06/16/17 14:16	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.175	U	0.257	0.258	5.00	0.430	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12507 MW-12

Lab Sample ID: 400-138816-11

Date Collected: 05/31/17 13:00

Matrix: Water

Date Received: 06/05/17 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	0.0242	U	0.0443	0.0443	1.00	0.0817	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.268	0.269	1.00	0.454	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	88.2		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.186	U	0.272	0.273	5.00	0.454	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12508 MW-13

Lab Sample ID: 400-138816-12

Date Collected: 05/31/17 13:44

Matrix: Water

Date Received: 06/05/17 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	0.124		0.0732	0.0741	1.00	0.0717	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0293	U	0.335	0.335	1.00	0.588	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	89.0		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.153	U	0.343	0.343	5.00	0.588	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12509 MW-1

Lab Sample ID: 400-138816-13

Date Collected: 05/31/17 14:52

Matrix: Water

Date Received: 06/05/17 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	0.472		0.128	0.135	1.00	0.0664	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.489		0.305	0.308	1.00	0.465	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	85.2		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.961		0.330	0.336	5.00	0.465	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12510 MW-15

Lab Sample ID: 400-138816-14

Date Collected: 05/31/17 10:05

Matrix: Water

Date Received: 06/05/17 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	0.0883	U	0.0684	0.0689	1.00	0.0907	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.194	U	0.295	0.296	1.00	0.557	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.1		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	89.3		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.105	U	0.303	0.304	5.00	0.557	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12511 MW-3

Lab Sample ID: 400-138816-15

Date Collected: 05/31/17 11:53

Matrix: Water

Date Received: 06/05/17 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	0.349		0.132	0.135	1.00	0.142	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.561		0.332	0.336	1.00	0.505	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	87.5		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.910		0.357	0.362	5.00	0.505	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12512 MW-14S

Lab Sample ID: 400-138816-16

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104		0.0737	0.0743	1.00	0.0922	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0109	U	0.347	0.347	1.00	0.611	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	87.5		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.115	U	0.355	0.355	5.00	0.611	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12513 MW-14S DUP

Lab Sample ID: 400-138816-17

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 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	0.115		0.0824	0.0830	1.00	0.108	pCi/L	06/09/17 08:48	07/03/17 11:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					06/09/17 08:48	07/03/17 11:00	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.231	U	0.353	0.353	1.00	0.592	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	86.0		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.346	U	0.362	0.363	5.00	0.592	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12514 MW-2

Lab Sample ID: 400-138816-18

Date Collected: 05/31/17 14:55

Matrix: Water

Date Received: 06/05/17 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	0.168		0.0964	0.0976	1.00	0.128	pCi/L	06/09/17 08:48	07/03/17 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/09/17 08:48	07/03/17 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0678	U	0.274	0.274	1.00	0.500	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.1		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	89.7		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0999	U	0.290	0.291	5.00	0.500	pCi/L		07/05/17 16:51	1

Client Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12515 EB-1

Lab Sample ID: 400-138816-19

Date Collected: 05/31/17 15:40

Matrix: Water

Date Received: 06/05/17 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	0.0443	U	0.0609	0.0610	1.00	0.103	pCi/L	06/09/17 08:48	07/03/17 11:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/09/17 08:48	07/03/17 11:01	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.00744	U	0.242	0.242	1.00	0.436	pCi/L	06/09/17 10:09	06/16/17 14:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/09/17 10:09	06/16/17 14:17	1
Y Carrier	88.6		40 - 110					06/09/17 10:09	06/16/17 14:17	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0369	U	0.249	0.249	5.00	0.436	pCi/L		07/05/17 16:51	1

Definitions/Glossary

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

TestAmerica Job ID: 400-138816-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12497 MW-5

Lab Sample ID: 400-138816-1

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12498 MW-5 DUP

Lab Sample ID: 400-138816-2

Date Collected: 05/30/17 10:25

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12499 MW-6

Lab Sample ID: 400-138816-3

Date Collected: 05/30/17 11:21

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12500 FB-1

Lab Sample ID: 400-138816-4

Date Collected: 05/30/17 11:30

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:19	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12501 MW-8

Lab Sample ID: 400-138816-5

Date Collected: 05/30/17 14:12

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12502 MW-9

Lab Sample ID: 400-138816-6

Date Collected: 05/30/17 16:23

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12503 MW-7

Lab Sample ID: 400-138816-7

Date Collected: 05/31/17 09:08

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12504 MW-10

Lab Sample ID: 400-138816-8

Date Collected: 05/31/17 10:29

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 10:59	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-138816-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12505 MW-11

Lab Sample ID: 400-138816-9

Date Collected: 05/31/17 12:14

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313771	06/16/17 14:20	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12506 FB-2

Lab Sample ID: 400-138816-10

Date Collected: 05/31/17 11:02

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:16	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12507 MW-12

Lab Sample ID: 400-138816-11

Date Collected: 05/31/17 13:00

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12508 MW-13

Lab Sample ID: 400-138816-12

Date Collected: 05/31/17 13:44

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-138816-1
SDG: Gaston Gypsum (7)

Client Sample ID: AX12509 MW-1

Lab Sample ID: 400-138816-13

Date Collected: 05/31/17 14:52

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12510 MW-15

Lab Sample ID: 400-138816-14

Date Collected: 05/31/17 10:05

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12511 MW-3

Lab Sample ID: 400-138816-15

Date Collected: 05/31/17 11:53

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12512 MW-14S

Lab Sample ID: 400-138816-16

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Client Sample ID: AX12513 MW-14S DUP

Lab Sample ID: 400-138816-17

Date Collected: 05/31/17 13:21

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316202	07/03/17 11:00	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12514 MW-2

Lab Sample ID: 400-138816-18

Date Collected: 05/31/17 14:55

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316201	07/03/17 11:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Client Sample ID: AX12515 EB-1

Lab Sample ID: 400-138816-19

Date Collected: 05/31/17 15:40

Matrix: Water

Date Received: 06/05/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			312645	06/09/17 08:48	LDE	TAL SL
Total/NA	Analysis	9315		1	316201	07/03/17 11:01	ALD	TAL SL
Total/NA	Prep	PrecSep_0			312744	06/09/17 10:09	LDE	TAL SL
Total/NA	Analysis	9320		1	313773	06/16/17 14:17	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	316322	07/05/17 16:51	RTM	TAL SL

Laboratory References:

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

QC Association Summary

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Rad

Prep Batch: 312645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138816-1	AX12497 MW-5	Total/NA	Water	PrecSep-21	
400-138816-2	AX12498 MW-5 DUP	Total/NA	Water	PrecSep-21	
400-138816-3	AX12499 MW-6	Total/NA	Water	PrecSep-21	
400-138816-4	AX12500 FB-1	Total/NA	Water	PrecSep-21	
400-138816-5	AX12501 MW-8	Total/NA	Water	PrecSep-21	
400-138816-6	AX12502 MW-9	Total/NA	Water	PrecSep-21	
400-138816-7	AX12503 MW-7	Total/NA	Water	PrecSep-21	
400-138816-8	AX12504 MW-10	Total/NA	Water	PrecSep-21	
400-138816-9	AX12505 MW-11	Total/NA	Water	PrecSep-21	
400-138816-10	AX12506 FB-2	Total/NA	Water	PrecSep-21	
400-138816-11	AX12507 MW-12	Total/NA	Water	PrecSep-21	
400-138816-12	AX12508 MW-13	Total/NA	Water	PrecSep-21	
400-138816-13	AX12509 MW-1	Total/NA	Water	PrecSep-21	
400-138816-14	AX12510 MW-15	Total/NA	Water	PrecSep-21	
400-138816-15	AX12511 MW-3	Total/NA	Water	PrecSep-21	
400-138816-16	AX12512 MW-14S	Total/NA	Water	PrecSep-21	
400-138816-17	AX12513 MW-14S DUP	Total/NA	Water	PrecSep-21	
400-138816-18	AX12514 MW-2	Total/NA	Water	PrecSep-21	
400-138816-19	AX12515 EB-1	Total/NA	Water	PrecSep-21	
MB 160-312645/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-312645/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-138816-8 DU	AX12504 MW-10	Total/NA	Water	PrecSep-21	

Prep Batch: 312744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-138816-1	AX12497 MW-5	Total/NA	Water	PrecSep_0	
400-138816-2	AX12498 MW-5 DUP	Total/NA	Water	PrecSep_0	
400-138816-3	AX12499 MW-6	Total/NA	Water	PrecSep_0	
400-138816-4	AX12500 FB-1	Total/NA	Water	PrecSep_0	
400-138816-5	AX12501 MW-8	Total/NA	Water	PrecSep_0	
400-138816-6	AX12502 MW-9	Total/NA	Water	PrecSep_0	
400-138816-7	AX12503 MW-7	Total/NA	Water	PrecSep_0	
400-138816-8	AX12504 MW-10	Total/NA	Water	PrecSep_0	
400-138816-9	AX12505 MW-11	Total/NA	Water	PrecSep_0	
400-138816-10	AX12506 FB-2	Total/NA	Water	PrecSep_0	
400-138816-11	AX12507 MW-12	Total/NA	Water	PrecSep_0	
400-138816-12	AX12508 MW-13	Total/NA	Water	PrecSep_0	
400-138816-13	AX12509 MW-1	Total/NA	Water	PrecSep_0	
400-138816-14	AX12510 MW-15	Total/NA	Water	PrecSep_0	
400-138816-15	AX12511 MW-3	Total/NA	Water	PrecSep_0	
400-138816-16	AX12512 MW-14S	Total/NA	Water	PrecSep_0	
400-138816-17	AX12513 MW-14S DUP	Total/NA	Water	PrecSep_0	
400-138816-18	AX12514 MW-2	Total/NA	Water	PrecSep_0	
400-138816-19	AX12515 EB-1	Total/NA	Water	PrecSep_0	
MB 160-312744/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-312744/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-138816-8 DU	AX12504 MW-10	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-312645/1-A
Matrix: Water
Analysis Batch: 316202

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312645

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.04235	U	0.0497	0.0499	1.00	0.127	pCi/L	06/09/17 08:48	07/03/17 10:58	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.0		40 - 110		06/09/17 08:48	07/03/17 10:58	1			

Lab Sample ID: LCS 160-312645/2-A
Matrix: Water
Analysis Batch: 316202

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312645

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	15.55		1.58	1.00	0.0843	pCi/L	103	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	Limits						
Ba Carrier	94.1		40 - 110						

Lab Sample ID: 400-138816-8 DU
Matrix: Water
Analysis Batch: 316202

Client Sample ID: AX12504 MW-10
Prep Type: Total/NA
Prep Batch: 312645

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.0913	U	0.1363		0.0761	1.00	0.0817	pCi/L	0.31	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.9		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-312744/1-A
Matrix: Water
Analysis Batch: 313771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 312744

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.08160	U	0.273	0.273	1.00	0.476	pCi/L	06/09/17 10:09	06/16/17 14:19	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	Limits							
Ba Carrier	95.0		40 - 110		06/09/17 10:09	06/16/17 14:19	1			
Y Carrier	%Yield	Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Y Carrier	87.5		40 - 110					06/09/17 10:09	06/16/17 14:19	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-138816-1
 SDG: Gaston Gypsum (7)

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

Lab Sample ID: LCS 160-312744/2-A
Matrix: Water
Analysis Batch: 313771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 312744

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.7	19.30		2.08	1.00	0.498	pCi/L	109	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.1		40 - 110
Y Carrier	83.7		40 - 110

Lab Sample ID: 400-138816-8 DU
Matrix: Water
Analysis Batch: 313771

Client Sample ID: AX12504 MW-10
Prep Type: Total/NA
Prep Batch: 312744

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.0998	U	0.03467	U	0.251	1.00	0.446	pCi/L	0.12	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.9		40 - 110
Y Carrier	88.6		40 - 110

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

Lab Sample ID: 400-138816-8 DU
Matrix: Water
Analysis Batch: 316322

Client Sample ID: AX12504 MW-10
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.191	U	0.1710	U	0.262	5.00	0.446	pCi/L	0.04	

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

Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Sampler: Anthony Goggins		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		Page: Page 1 of 2	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Job #: 400-138816	
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Preservation Codes:	
City: Calera		PO #:		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OAS E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2SO4 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone K - EDTA V - MCAA W - ph 4-5 L - EDA Z - other (specify)	
State, Zip: AL, 35040		WO #:		Other:	
Phone: 205-664-6121(Tel)		Project #:			
Email: sgcopella@southernco.com		SSOW#:			
Project Name: 40007143					
Site: Gaston Gypsum (7)					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Organic, BI=Biological)	Preservation Code:	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	Special Instructions/Note:
						X	D	X	D		
AX12497	5/30/17	1025	G	Water		X		X		1	MW-5
AX12498	5/30/17	1025	G	Water		X		X		1	MW-5 Dup (Sample Duplicate)
AX12499	5/30/17	1121	G	Water		X		X		1	MW-6
AX12500	5/30/17	1130	G	Water		X		X		1	FB-1 (Field Blank)
AX12501	5/30/17	1412	G	Water		X		X		1	MW-8
AX12502	5/30/17	1623	G	Water		X		X		1	MW-9
AX12503	5/31/17	0908	G	Water		X		X		1	MW-7
AX12504	5/31/17	1029	G	Water		Y	X	X		3	MW-10
AX12505	5/31/17	1214	G	Water		X		X		1	MW-11
AX12506	5/31/17	1102	G	Water		X		X		1	FB-2 (Field Blank)
AX12507	5/31/17	1300	G	Water		X		X		1	MW-12
AX12508	5/31/17	1344	G	Water		X		X		1	MW-13

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: 05/05/2017; 1700
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Custody Seals Intact: Yes No **Custody Seal No.:** _____
 Cooler Temperature(s) °C and Other Remarks: _____

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: _____

Method of Shipment: _____
 Received by: _____ Date/Time: 6/5/17 1530
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Company: AA-PW
 Company: _____
 Company: _____



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-138816-1
SDG Number: Gaston Gypsum (7)

Login Number: 138816

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 Gaston

TestAmerica Job ID: 400-138816-1
 SDG: Gaston 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	06-30-18
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	06-30-17 *
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	06-30-18
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	09-30-17 *
Missouri	State Program	7	780	06-30-17 *
Nevada	State Program	9	MO000542017-1	07-31-17 *
New Jersey	NELAP	2	MO002	06-30-18
New York	NELAP	2	11616	03-31-18

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

TestAmerica Pensacola

Accreditation/Certification Summary

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

TestAmerica Job ID: 400-138816-1
SDG: Gaston 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 06/01/2017 08:01

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Byron Corina	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gaston Gypsum
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium duplicate collected at MW-10 There is no temperature preservation requirement for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-5	05/30/2017	10:25	1	Groundwater		AX12497
MW-5DUP	05/30/2017	10:25	1	Sample Duplicate		AX12498
MW-6	05/30/2017	11:21	1	Groundwater		AX12499
FB-1	05/30/2017	11:30	1	Field Blank		AX12500
MW-8	05/30/2017	14:12	1	Groundwater		AX12501
MW-9	05/30/2017	16:23	1	Groundwater		AX12502
MW-7	05/31/2017	09:08	1	Groundwater		AX12503
MW-10	05/31/2017	10:29	3	Groundwater		AX12504
MW-11	05/31/2017	12:14	1	Groundwater		AX12505
FB-2	05/31/2017	11:02	1	Field Blank		AX12506
MW-12	05/31/2017	13:00	1	Groundwater		AX12507
MW-13	05/31/2017	13:44	1	Groundwater		AX12508
MW-1	05/31/2017	14:52	1	Groundwater		AX12509

Relinquished By	Received By	Date/Time
		05/31/2017 17:01
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2017.06.01 08:29:05 -0500</small>	06/01/2017 08:29

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
		NA
		Thermometer ID
		NA
		pH Strip ID
		5521-28268-20-12

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

Analytical Report

 Alabama Power



Sample Group : WMWGASG_1108

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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



Anions

Gaston Gypsum

WMWGASG_1108

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola for analysis. Listed below is the job narrative provided by Test America.

Job Narrative
400-140249-1
General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 360835 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 360738 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

Gaston Gypsum

WMWGASG_1108

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>
AX15643	20170719K	WMWGASG_1108
AX15644	20170719K	WMWGASG_1108
AX15645	20170719K	WMWGASG_1108
AX15646	20170719K	WMWGASG_1108
AX15647	20170719K	WMWGASG_1108
AX15648	20170719K	WMWGASG_1108
AX15649	20170719K	WMWGASG_1108
AX15650	20170719K	WMWGASG_1108
AX15651	20170719K	WMWGASG_1108
AX15652	20170719K	WMWGASG_1108
AX15653	20170719AK	WMWGASG_1108
AX15654	20170719AK	WMWGASG_1108
AX15655	20170719AK	WMWGASG_1108
AX15656	20170719AK	WMWGASG_1108
AX15657	20170719AK	WMWGASG_1108
AX15658	20170719AK	WMWGASG_1108
AX15659	20170719AK	WMWGASG_1108
AX15660	20170719AK	WMWGASG_1108
AX15661	20170719AK	WMWGASG_1108

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 for 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, with the following exception:

<u>Analyte</u>	<u>Sample ID</u>
Calcium	AX15652

The concentration of the matrix spike/matrix spike duplicate added before digestion is less than 30 percent of the sample concentration, causing inaccurate spike recovery information. The laboratory control sample indicates that the digestion and analysis were in control.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

Case Narrative



7. All samples were analyzed at a x2 dilution to compensate for possible matrix issues, with the following exceptions: The following samples were diluted due to analyzed concentrations over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX15650	Calcium	x10
AX15652MS	Calcium	x10
AX15652MSD	Calcium	x10
AX15655	Calcium	x10
AX15657	Calcium	x10

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



Metals ICPMS

Gaston Gypsum

WMWGASG_1108

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

Sample ID	Batch ID	Project ID
AX15643	598760	WMWGASG_1108
AX15644	598760	WMWGASG_1108
AX15645	598760	WMWGASG_1108
AX15646	598760	WMWGASG_1108
AX15647	598760	WMWGASG_1108
AX15648	598760	WMWGASG_1108
AX15649	598760	WMWGASG_1108
AX15650	598760	WMWGASG_1108
AX15651	598760	WMWGASG_1108
AX15652	598760	WMWGASG_1108
AX15653	598761	WMWGASG_1108
AX15654	598761	WMWGASG_1108
AX15655	598761	WMWGASG_1108
AX15656	598761	WMWGASG_1108
AX15657	598761	WMWGASG_1108
AX15658	598761	WMWGASG_1108
AX15659	598761	WMWGASG_1108
AX15660	598761	WMWGASG_1108
AX15661	598761	WMWGASG_1108

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

Gaston Gypsum

WMWGASG_1108

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

Sample ID	Batch ID	Project ID
AX15643	599361	WMWGASG_1108
AX15644	599361	WMWGASG_1108
AX15645	599361	WMWGASG_1108
AX15646	599361	WMWGASG_1108
AX15647	599361	WMWGASG_1108
AX15648	599361	WMWGASG_1108
AX15649	599361	WMWGASG_1108
AX15650	599361	WMWGASG_1108
AX15651	599361	WMWGASG_1108
AX15652	599361	WMWGASG_1108
AX15653	599386	WMWGASG_1108
AX15654	599386	WMWGASG_1108
AX15655	599386	WMWGASG_1108
AX15656	599386	WMWGASG_1108
AX15657	599386	WMWGASG_1108
AX15658	599386	WMWGASG_1108
AX15659	599386	WMWGASG_1108
AX15660	599386	WMWGASG_1108
AX15661	599386	WMWGASG_1108

4. All of the above samples were analyzed 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) was 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

Gaston Gypsum

WMWGASG_1108

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

Sample ID	Batch ID	Project ID
AX15643	598720	WMWGASG_1108
Ax15644	598720	WMWGASG_1108
AX15645	598720	WMWGASG_1108
AX15646	598720	WMWGASG_1108
AX15647	598720	WMWGASG_1108
AX15648	598720	WMWGASG_1108
AX15649	598720	WMWGASG_1108
AX15650	598720	WMWGASG_1108
AX15651	598720	WMWGASG_1108
AX15652	598720	WMWGASG_1108
AX15653	598721	WMWGASG_1108
AX15654	598721	WMWGASG_1108
AX15655	598721	WMWGASG_1108
AX15656	598721	WMWGASG_1108
AX15657	598721	WMWGASG_1108
AX15658	598721	WMWGASG_1108
AX15659	598721	WMWGASG_1108
AX15660	598721	WMWGASG_1108
AX15661	598721	WMWGASG_1108

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

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

Case Narrative



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5 mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5 mg and 200 mg residue with the exception of AX15653, AX15654 and AX15658 that did not meet the 2.5mg criteria.

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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX15643

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0361	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	56.9	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	238	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	17	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	19	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX15643

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX15643

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX15644

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0373	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	57.5	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	237	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	17	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	19	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX15644

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-5 Dup

Laboratory ID Number: AX15644

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX15652	Solids, Dissolved	mg/L	9.00	25			289	55.0	40 to 60		0.347 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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX15645

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0143	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	0.680	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	26.0	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.8	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX15645

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX15645

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX15646

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0181	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	64.6	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	229	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX15646

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX15646

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX15647

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00116	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0245	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	52.7	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00369	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	194	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	J 1.6	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	0.13	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	J 1.9	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX15647

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX15647

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX15648

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0213	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	36.4	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	138	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.7	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	J 4.4	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX15648

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	20

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX15648

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX15649

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00935	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	8.08	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	41.3	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.0	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.0	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX15649

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX15649

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00		25			289	55.0	40 to 60			0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX15650

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0287	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		10	1	5	92.6	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	283	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.6	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	11	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX15650

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX15650

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec		
			Limit	Limit			Duplicate	LFB	Limit	Limit	Prec	Limit
AX15652	Solids, Dissolved	mg/L	9.00	25			289	55.0	40 to 60		0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX15651

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	0.0245	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7	2		0.10	0.5	45.7	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C	1			25	185	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E	1		0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C	1		0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E	1		1.40	5.00	J 3.8	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX15651

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-14S

Laboratory ID Number: AX15651

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX15652	Solids, Dissolved	mg/L	9.00	25			289	55.0	40 to 60	0.347	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX15652

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	0.0274	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7	2		0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7	2		0.10	0.5	77.2	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/18/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C	1			25	287	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E	1		0.60	2.00	3.4	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C	1		0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E	1		1.40	5.00	6.4	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
 Matrix spike recovery for Calcium is out of spec.
 The spike amount was less than 30% of the sample concentration.

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX15652

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15652	Mercury, Total by CVAA	mg/L	0.00000893	0.0005	0.004	0.00384	0.00379	0.00382	0.0034 to 0.0046		96.0	70 to 130	1.48	20
AX15652	Calcium, Total	mg/L	-0.00608	0.22	5.00	80.0	83.5	4.56	4.25 to 5.75		56.7	70 to 130	4.29	20
AX15652	Boron, Total	mg/L	-0.000924	0.044	1.00	1.00	1.22	0.995	0.85 to 1.15		100	70 to 130	19.7	20
AX15652	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0929	0.101	0.101	0.085 to 0.115		92.9	70 to 130	8.04	20
AX15652	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.0956	0.102	0.109	0.085 to 0.115		95.6	70 to 130	6.65	20
AX15652	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0852	0.0931	0.0910	0.085 to 0.115		85.2	70 to 130	8.86	20
AX15652	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.0950	0.103	0.0979	0.085 to 0.115		95.0	70 to 130	7.82	20
AX15652	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.109	0.118	0.0903	0.085 to 0.115		81.3	70 to 130	8.56	20
AX15652	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.0998	0.107	0.100	0.085 to 0.115		99.8	70 to 130	7.13	20
AX15652	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0876	0.0938	0.101	0.085 to 0.115		87.6	70 to 130	6.88	20
AX15652	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0899	0.0962	0.0970	0.085 to 0.115		89.9	70 to 130	6.75	20
AX15652	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0912	0.0991	0.104	0.085 to 0.115		91.2	70 to 130	8.26	20
AX15652	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0871	0.0947	0.0948	0.085 to 0.115		87.1	70 to 130	8.30	20
AX15652	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0951	0.103	0.0995	0.085 to 0.115		95.1	70 to 130	7.83	20
AX15652	Lithium, Total	mg/L	-0.0000609	0.022	0.20	0.212	0.221	0.205	0.17 to 0.23		106	70 to 130	3.95	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
 Matrix spike recovery for Calcium is out of spec.
 The spike amount was less than 30% of the sample concentration.

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX15652

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX15652	Solids, Dissolved	mg/L	9.00	25				289	55.0	40 to 60			0.347
													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
 Matrix spike recovery for Calcium is out of spec.
 The spike amount was less than 30% of the sample concentration.

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: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15653

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	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: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15653

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115	97.1	70 to 130	2.69	20	
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115	99.2	70 to 130	3.03	20	
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115	99.4	70 to 130	2.83	20	
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046	91.6	70 to 130	0.0300	20	
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115	88.6	70 to 130	1.44	20	
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115	87.7	70 to 130	2.18	20	
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115	100	70 to 130	3.07	20	
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115	94.0	70 to 130	2.84	20	
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115	103	70 to 130	3.74	20	
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15	103	70 to 130	0.753	20	
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115	104	70 to 130	4.26	20	
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23	105	70 to 130	1.58	20	
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115	91.5	70 to 130	4.14	20	
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115	89.9	70 to 130	5.59	20	
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75	96.5	70 to 130	1.31	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: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15653

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX15660	Solids, Dissolved	mg/L	9.00	25				228	55.0	40 to 60			0.437
													5

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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: WMWGASGEB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX15654

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	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: WMWGASGEB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX15654

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.0000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115	97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115	94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115	103	70 to 130	3.74	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115	89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75	96.5	70 to 130	1.31	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115	99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115	99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046	91.6	70 to 130	0.0300	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115	88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115	87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115	100	70 to 130	3.07	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15	103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115	104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23	105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115	91.5	70 to 130	4.14	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: WMWGASGEB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX15654

Sample	Analysis	Units	MB	MB Limit	Spike	LFM	Sample Duplicate	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX15660	Solids, Dissolved	mg/L	9.00	25			228	55.0	40 to 60			0.437	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

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX15655

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0321	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		10	1	5	91.5	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	257	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.7	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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Comments: Test America, Pensacola NELAP ID: E81010

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

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX15655

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115		97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115		94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115		103	70 to 130	3.74	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115		88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115		87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115		100	70 to 130	3.07	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115		99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115		99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046		91.6	70 to 130	0.0300	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115		89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75		96.5	70 to 130	1.31	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15		103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115		104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23		105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115		91.5	70 to 130	4.14	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX15655

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX15660	Solids, Dissolved	mg/L	9.00	25			228	55.0	40 to 60	0.437	5

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

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX15656

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	0.0155	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	1.66	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	J 0.0302	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	35.5	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	J 0.00900	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	201	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.2	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	0.30	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.4	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

Alabama Power General Test Laboratory
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX15656

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB	Rec		Prec	Limit	
			MB	Limit					Limit	Prec			
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115	97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115	94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115	103	70 to 130	3.74	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115	99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115	99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046	91.6	70 to 130	0.0300	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115	88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115	87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115	100	70 to 130	3.07	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115	89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75	96.5	70 to 130	1.31	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15	103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115	104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23	105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115	91.5	70 to 130	4.14	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX15656

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX15660	Solids, Dissolved	mg/L	9.00	25				228	55.0	40 to 60			0.437 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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX15657

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0461	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		10	1	5	89.5	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	296	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.6	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	8.2	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX15657

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115		97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115		94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115		103	70 to 130	3.74	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115		88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115		87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115		100	70 to 130	3.07	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115		89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75		96.5	70 to 130	1.31	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115		99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115		99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046		91.6	70 to 130	0.0300	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15		103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115		104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23		105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115		91.5	70 to 130	4.14	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX15657

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX15660	Solids, Dissolved	mg/L	9.00	25			228	55.0	40 to 60	0.437	5

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 Calera, AL 35040
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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15658

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	U Not Detected	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15658

Sample	Analysis	Units	MB		MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115	97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115	94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115	103	70 to 130	3.74	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115	99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115	99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046	91.6	70 to 130	0.0300	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115	88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115	87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115	100	70 to 130	3.07	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15	103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115	104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23	105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115	91.5	70 to 130	4.14	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115	89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75	96.5	70 to 130	1.31	20

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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: WMWGASGFB
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX15658

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX15660	Solids, Dissolved	mg/L	9.00		25			228	55.0	40 to 60			0.437	5

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 Calera, AL 35040
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 FAX (205) 257-1654

Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX15659

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	J 0.00117	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	0.0220	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7		2	0.02	0.1	J 0.0318	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7		2	0.10	0.5	66.9	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8		5	0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7		2	0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8		5	0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8		5	0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8		5	0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C		1		25	231	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E		1	1.40	5.00	7.7	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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 Calera, AL 35040
 (205) 664-6032 or 6171
 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX15659

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115	97.1	70 to 130	2.69	20	
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115	94.0	70 to 130	2.84	20	
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115	103	70 to 130	3.74	20	
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115	99.2	70 to 130	3.03	20	
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115	99.4	70 to 130	2.83	20	
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046	91.6	70 to 130	0.0300	20	
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115	89.9	70 to 130	5.59	20	
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75	96.5	70 to 130	1.31	20	
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115	88.6	70 to 130	1.44	20	
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115	87.7	70 to 130	2.18	20	
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115	100	70 to 130	3.07	20	
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15	103	70 to 130	0.753	20	
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115	104	70 to 130	4.26	20	
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23	105	70 to 130	1.58	20	
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115	91.5	70 to 130	4.14	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX15659

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX15660	Solids, Dissolved	mg/L	9.00	25			228	55.0	40 to 60	0.437	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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AX15660

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	J 0.00114	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	0.0215	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7	2		0.02	0.1	J 0.0318	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7	2		0.10	0.5	66.7	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C	1			25	230	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E	1		0.60	2.00	3.2	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C	1		0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E	1		1.40	5.00	7.8	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AX15660

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.00000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115		97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115		94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115		103	70 to 130	3.74	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115		88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115		87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115		100	70 to 130	3.07	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115		89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75		96.5	70 to 130	1.31	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115		99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115		99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046		91.6	70 to 130	0.0300	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15		103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115		104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23		105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115		91.5	70 to 130	4.14	20

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

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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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-12 Dup

Laboratory ID Number: AX15660

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX15660	Solids, Dissolved	mg/L	9.00	25			228	55.0	40 to 60	0.437	5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX15661

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
Metals, Cyanide, Total Phenols									
* Arsenic, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Barium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	J 0.00664	mg/L
* Beryllium, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Boron, Total	HRG	7/19/2017	EPA 200.7	2		0.02	0.1	J 0.0315	mg/L
* Calcium, Total	HRG	7/19/2017	EPA 200.7	2		0.10	0.5	11.9	mg/L
* Cadmium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
* Antimony, Total	JHK	7/10/2017	EPA 200.8	5		0.00060	0.003	U Not Detected	mg/L
* Cobalt, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	J 0.00303	mg/L
* Chromium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	7/19/2017	EPA 245.1	1		0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	7/19/2017	EPA 200.7	2		0.010	0.05	U Not Detected	mg/L
* Molybdenum, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Lead, Total	JHK	7/10/2017	EPA 200.8	5		0.0010	0.005	U Not Detected	mg/L
* Selenium, Total	JHK	7/10/2017	EPA 200.8	5		0.0020	0.01	U Not Detected	mg/L
* Thallium, Total	JHK	7/10/2017	EPA 200.8	5		0.00020	0.001	U Not Detected	mg/L
General Characteristics									
* Solids, Dissolved	CES	7/10/2017	SM 2540C	1			25	80.0	mg/L
* Chloride, Total, by Test America	SGC	7/20/2017	SM 4500 Cl_E	1		0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	SGC	7/20/2017	SM 4500 F_C	1		0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	SGC	7/20/2017	SM 4500 SO4_E	1		1.40	5.00	J 4.6	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX15661

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AX15661	Arsenic, Total	mg/L	0.0000703	0.0022	0.10	0.0971	0.0997	0.104	0.085 to 0.115		97.1	70 to 130	2.69	20
AX15661	Antimony, Total	mg/L	0.0000246	0.00132	0.10	0.0940	0.0967	0.0970	0.085 to 0.115		94.0	70 to 130	2.84	20
AX15661	Beryllium, Total	mg/L	0.00000366	0.00132	0.10	0.103	0.107	0.109	0.085 to 0.115		103	70 to 130	3.74	20
AX15661	Chromium, Total	mg/L	0.0000280	0.0044	0.10	0.0992	0.102	0.0995	0.085 to 0.115		99.2	70 to 130	3.03	20
AX15661	Lead, Total	mg/L	-0.00000298	0.0022	0.10	0.0994	0.102	0.101	0.085 to 0.115		99.4	70 to 130	2.83	20
AX15661	Mercury, Total by CVAA	mg/L	0.00000408	0.0005	0.004	0.00366	0.00366	0.00384	0.0034 to 0.0046		91.6	70 to 130	0.0300	20
AX15661	Barium, Total	mg/L	0.00000536	0.0044	0.10	0.0953	0.0967	0.0903	0.085 to 0.115		88.6	70 to 130	1.44	20
AX15661	Molybdenum, Total	mg/L	0.00000824	0.0044	0.10	0.0877	0.0896	0.0910	0.085 to 0.115		87.7	70 to 130	2.18	20
AX15661	Thallium, Total	mg/L	-0.00000103	0.00044	0.10	0.100	0.104	0.0979	0.085 to 0.115		100	70 to 130	3.07	20
AX15661	Cadmium, Total	mg/L	0.00000741	0.00044	0.10	0.0899	0.0950	0.0948	0.085 to 0.115		89.9	70 to 130	5.59	20
AX15661	Calcium, Total	mg/L	-0.0126	0.22	5.00	16.7	16.5	4.86	4.25 to 5.75		96.5	70 to 130	1.31	20
AX15661	Boron, Total	mg/L	-0.000553	0.044	1.00	1.06	1.05	0.991	0.85 to 1.15		103	70 to 130	0.753	20
AX15661	Cobalt, Total	mg/L	-0.00000291	0.0044	0.10	0.107	0.111	0.100	0.085 to 0.115		104	70 to 130	4.26	20
AX15661	Lithium, Total	mg/L	-0.0000278	0.022	0.20	0.210	0.206	0.212	0.17 to 0.23		105	70 to 130	1.58	20
AX15661	Selenium, Total	mg/L	0.0000324	0.0044	0.10	0.0915	0.0953	0.101	0.085 to 0.115		91.5	70 to 130	4.14	20

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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: WMWGASG
 Sample Date: 05-Jul-17
 Customer ID:
 Delivery Date: 06-Jul-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX15661

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	
								Duplicate	LFB	Limit	Rec	Limit	Prec
AX15660	Solids, Dissolved	mg/L	9.00	25				228	55.0	40 to 60			0.437
													5

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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 07/06/2017 07:40

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Byron Corina"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Jason Rouss"/>	Location	<input type="text" value="Gaston 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-1	07/05/2017	10:27	4	Groundwater		AX15656
MW-13	07/05/2017	11:43	4	Groundwater		AX15657
FB-2	07/05/2017	12:00	4	Field Blank		AX15658
MW-12	07/05/2017	13:18	4	Groundwater		AX15659
MW-12 Dup	07/05/2017	13:18	4	Sample Duplicate		AX15660
MW-11	07/05/2017	14:28	4	Groundwater		AX15661

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: 2017.07.06 08:23:43 -05'00'</small>	07/06/2017 08:23

SmarTroll ID	<input type="text" value="4696-23443-3-2"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	<input type="text" value="4677-23343-4-2"/>	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="5881-30147-10-1"/>

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-140249-1

TestAmerica Sample Delivery Group: Gaston Gypsum (8)

Client Project/Site: CCR Plant Gaston

For:

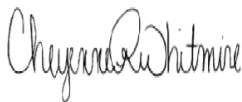
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

7/18/2017 5:36:14 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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

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Case Narrative

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Job ID: 400-140249-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-140249-1

General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 360835 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 360738 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 Gaston

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15643 MW-5

Lab Sample ID: 400-140249-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15644 MW-5 DUP

Lab Sample ID: 400-140249-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	19		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15645 MW-6

Lab Sample ID: 400-140249-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX15646 MW-7

Lab Sample ID: 400-140249-4

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
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15647 MW-8

Lab Sample ID: 400-140249-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.6	J	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	1.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15648 MW-9

Lab Sample ID: 400-140249-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	4.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15649 MW-15

Lab Sample ID: 400-140249-7

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

Client Sample ID: AX15650 MW-3

Lab Sample ID: 400-140249-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	11		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15651 MW-14S

Lab Sample ID: 400-140249-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15651 MW-14S (Continued)

Lab Sample ID: 400-140249-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15652 MW-2

Lab Sample ID: 400-140249-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.4	F1 F2	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.4		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15653 FB-1

Lab Sample ID: 400-140249-11

No Detections.

Client Sample ID: AX15654 EB-1

Lab Sample ID: 400-140249-12

No Detections.

Client Sample ID: AX15655 MW-10

Lab Sample ID: 400-140249-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX15656 MW-1

Lab Sample ID: 400-140249-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.30		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15657 MW-13

Lab Sample ID: 400-140249-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15658 FB-2

Lab Sample ID: 400-140249-16

No Detections.

Client Sample ID: AX15659 MW-12

Lab Sample ID: 400-140249-17

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
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	7.7		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15660 MW-12 DUP

Lab Sample ID: 400-140249-18

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15660 MW-12 DUP (Continued)

Lab Sample ID: 400-140249-18

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
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	7.8		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX15661 MW-11

Lab Sample ID: 400-140249-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.6	F1	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	4.6	J	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 Gaston

TestAmerica Job ID: 400-140249-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-140249-1	AX15643 MW-5	Water	07/05/17 10:00	07/07/17 08:20
400-140249-2	AX15644 MW-5 DUP	Water	07/05/17 10:00	07/07/17 08:20
400-140249-3	AX15645 MW-6	Water	07/05/17 11:05	07/07/17 08:20
400-140249-4	AX15646 MW-7	Water	07/05/17 12:13	07/07/17 08:20
400-140249-5	AX15647 MW-8	Water	07/05/17 13:26	07/07/17 08:20
400-140249-6	AX15648 MW-9	Water	07/05/17 14:49	07/07/17 08:20
400-140249-7	AX15649 MW-15	Water	07/05/17 10:15	07/07/17 08:20
400-140249-8	AX15650 MW-3	Water	07/05/17 11:52	07/07/17 08:20
400-140249-9	AX15651 MW-14S	Water	07/05/17 13:02	07/07/17 08:20
400-140249-10	AX15652 MW-2	Water	07/05/17 13:54	07/07/17 08:20
400-140249-11	AX15653 FB-1	Water	07/05/17 13:40	07/07/17 08:20
400-140249-12	AX15654 EB-1	Water	07/05/17 14:20	07/07/17 08:20
400-140249-13	AX15655 MW-10	Water	07/05/17 15:08	07/07/17 08:20
400-140249-14	AX15656 MW-1	Water	07/05/17 10:27	07/07/17 08:20
400-140249-15	AX15657 MW-13	Water	07/05/17 11:43	07/07/17 08:20
400-140249-16	AX15658 FB-2	Water	07/05/17 12:00	07/07/17 08:20
400-140249-17	AX15659 MW-12	Water	07/05/17 13:18	07/07/17 08:20
400-140249-18	AX15660 MW-12 DUP	Water	07/05/17 13:18	07/07/17 08:20
400-140249-19	AX15661 MW-11	Water	07/05/17 14:28	07/07/17 08:20

Client Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15643 MW-5

Lab Sample ID: 400-140249-1

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		2.0	0.60	mg/L			07/13/17 10:54	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 10:11	1
Sulfate	19		5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample ID: AX15644 MW-5 DUP

Lab Sample ID: 400-140249-2

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		2.0	0.60	mg/L			07/13/17 10:54	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 11:25	1
Sulfate	19		5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample ID: AX15645 MW-6

Lab Sample ID: 400-140249-3

Date Collected: 07/05/17 11:05

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		2.0	0.60	mg/L			07/13/17 10:54	1
Fluoride	<0.032		0.10	0.032	mg/L			07/18/17 14:31	1
Sulfate	<1.4		5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample ID: AX15646 MW-7

Lab Sample ID: 400-140249-4

Date Collected: 07/05/17 12:13

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			07/13/17 10:55	1
Fluoride	0.080	J	0.10	0.032	mg/L			07/17/17 11:19	1
Sulfate	8.3		5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample ID: AX15647 MW-8

Lab Sample ID: 400-140249-5

Date Collected: 07/05/17 13:26

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.6	J	2.0	0.60	mg/L			07/13/17 10:55	1
Fluoride	0.13		0.10	0.032	mg/L			07/18/17 14:38	1
Sulfate	1.9	J	5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample Results

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15648 MW-9

Lab Sample ID: 400-140249-6

Date Collected: 07/05/17 14:49

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	<0.032		0.10	0.032	mg/L			07/18/17 14:40	1
Sulfate	4.4	J	5.0	1.4	mg/L			07/17/17 08:03	1

Client Sample ID: AX15649 MW-15

Lab Sample ID: 400-140249-7

Date Collected: 07/05/17 10:15

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.0		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 10:18	1
Sulfate	2.0	J	5.0	1.4	mg/L			07/17/17 08:05	1

Client Sample ID: AX15650 MW-3

Lab Sample ID: 400-140249-8

Date Collected: 07/05/17 11:52

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.6		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	0.050	J	0.10	0.032	mg/L			07/17/17 10:08	1
Sulfate	11		5.0	1.4	mg/L			07/17/17 08:05	1

Client Sample ID: AX15651 MW-14S

Lab Sample ID: 400-140249-9

Date Collected: 07/05/17 13:02

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	0.040	J	0.10	0.032	mg/L			07/17/17 11:22	1
Sulfate	3.8	J	5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15652 MW-2

Lab Sample ID: 400-140249-10

Date Collected: 07/05/17 13:54

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.4	F1 F2	2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 10:00	1
Sulfate	6.4		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15653 FB-1

Lab Sample ID: 400-140249-11

Date Collected: 07/05/17 13:40

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			07/18/17 08:55	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15653 FB-1

Lab Sample ID: 400-140249-11

Date Collected: 07/05/17 13:40

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 11:05	1
Sulfate	<1.4		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15654 EB-1

Lab Sample ID: 400-140249-12

Date Collected: 07/05/17 14:20

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 11:30	1
Sulfate	<1.4		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15655 MW-10

Lab Sample ID: 400-140249-13

Date Collected: 07/05/17 15:08

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.7		2.0	0.60	mg/L			07/18/17 08:55	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 11:28	1
Sulfate	<1.4		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15656 MW-1

Lab Sample ID: 400-140249-14

Date Collected: 07/05/17 10:27

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		2.0	0.60	mg/L			07/18/17 08:56	1
Fluoride	0.30		0.10	0.032	mg/L			07/18/17 14:42	1
Sulfate	3.4 J		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15657 MW-13

Lab Sample ID: 400-140249-15

Date Collected: 07/05/17 11:43

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.60	mg/L			07/18/17 08:56	1
Fluoride	0.040 J		0.10	0.032	mg/L			07/18/17 14:44	1
Sulfate	8.2		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15658 FB-2

Lab Sample ID: 400-140249-16

Date Collected: 07/05/17 12:00

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			07/18/17 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 10:15	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15658 FB-2

Lab Sample ID: 400-140249-16

Date Collected: 07/05/17 12:00

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			07/17/17 09:46	1

Client Sample ID: AX15659 MW-12

Lab Sample ID: 400-140249-17

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			07/18/17 09:12	1
Fluoride	0.050	J	0.10	0.032	mg/L			07/17/17 10:06	1
Sulfate	7.7		5.0	1.4	mg/L			07/17/17 09:48	1

Client Sample ID: AX15660 MW-12 DUP

Lab Sample ID: 400-140249-18

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			07/18/17 09:12	1
Fluoride	0.050	J	0.10	0.032	mg/L			07/17/17 10:13	1
Sulfate	7.8		5.0	1.4	mg/L			07/17/17 09:48	1

Client Sample ID: AX15661 MW-11

Lab Sample ID: 400-140249-19

Date Collected: 07/05/17 14:28

Matrix: Water

Date Received: 07/07/17 08:20

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6	F1	2.0	0.60	mg/L			07/18/17 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			07/17/17 11:12	1
Sulfate	4.6	J	5.0	1.4	mg/L			07/17/17 10:03	1

Definitions/Glossary

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15643 MW-5

Date Collected: 07/05/17 10:00

Date Received: 07/07/17 08:20

Lab Sample ID: 400-140249-1

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	360355	07/13/17 10:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:11	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

Client Sample ID: AX15644 MW-5 DUP

Date Collected: 07/05/17 10:00

Date Received: 07/07/17 08:20

Lab Sample ID: 400-140249-2

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	360355	07/13/17 10:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:25	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

Client Sample ID: AX15645 MW-6

Date Collected: 07/05/17 11:05

Date Received: 07/07/17 08:20

Lab Sample ID: 400-140249-3

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	360355	07/13/17 10:54	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360921	07/18/17 14:31	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

Client Sample ID: AX15646 MW-7

Date Collected: 07/05/17 12:13

Date Received: 07/07/17 08:20

Lab Sample ID: 400-140249-4

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	360355	07/13/17 10:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:19	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

Client Sample ID: AX15647 MW-8

Date Collected: 07/05/17 13:26

Date Received: 07/07/17 08:20

Lab Sample ID: 400-140249-5

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	360355	07/13/17 10:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360921	07/18/17 14:38	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15648 MW-9

Lab Sample ID: 400-140249-6

Date Collected: 07/05/17 14:49

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360921	07/18/17 14:40	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:03	RRC	TAL PEN

Client Sample ID: AX15649 MW-15

Lab Sample ID: 400-140249-7

Date Collected: 07/05/17 10:15

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:18	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:05	RRC	TAL PEN

Client Sample ID: AX15650 MW-3

Lab Sample ID: 400-140249-8

Date Collected: 07/05/17 11:52

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:08	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360738	07/17/17 08:05	RRC	TAL PEN

Client Sample ID: AX15651 MW-14S

Lab Sample ID: 400-140249-9

Date Collected: 07/05/17 13:02

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:22	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15652 MW-2

Lab Sample ID: 400-140249-10

Date Collected: 07/05/17 13:54

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:00	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15653 FB-1

Lab Sample ID: 400-140249-11

Date Collected: 07/05/17 13:40

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:05	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15654 EB-1

Lab Sample ID: 400-140249-12

Date Collected: 07/05/17 14:20

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:30	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15655 MW-10

Lab Sample ID: 400-140249-13

Date Collected: 07/05/17 15:08

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:28	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15656 MW-1

Lab Sample ID: 400-140249-14

Date Collected: 07/05/17 10:27

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360706	07/17/17 12:12	CAC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360706	07/17/17 12:21	CAC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360921	07/18/17 14:42	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15657 MW-13

Lab Sample ID: 400-140249-15

Date Collected: 07/05/17 11:43

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 08:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360921	07/18/17 14:44	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15658 FB-2

Lab Sample ID: 400-140249-16

Date Collected: 07/05/17 12:00

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:15	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:46	RRC	TAL PEN

Client Sample ID: AX15659 MW-12

Lab Sample ID: 400-140249-17

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:06	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:48	RRC	TAL PEN

Client Sample ID: AX15660 MW-12 DUP

Lab Sample ID: 400-140249-18

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360686	07/17/17 10:13	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 09:48	RRC	TAL PEN

Client Sample ID: AX15661 MW-11

Lab Sample ID: 400-140249-19

Date Collected: 07/05/17 14:28

Matrix: Water

Date Received: 07/07/17 08:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	360835	07/18/17 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	360700	07/17/17 11:12	CAC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	360739	07/17/17 10:03	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 Gaston

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

General Chemistry

Analysis Batch: 360355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-1	AX15643 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-140249-2	AX15644 MW-5 DUP	Total/NA	Water	SM 4500 Cl- E	
400-140249-3	AX15645 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-140249-4	AX15646 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-140249-5	AX15647 MW-8	Total/NA	Water	SM 4500 Cl- E	
MB 400-360355/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-360355/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-360355/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-140249-3 MS	AX15645 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-140249-3 MSD	AX15645 MW-6	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 360686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-1	AX15643 MW-5	Total/NA	Water	SM 4500 F C	
400-140249-7	AX15649 MW-15	Total/NA	Water	SM 4500 F C	
400-140249-8	AX15650 MW-3	Total/NA	Water	SM 4500 F C	
400-140249-10	AX15652 MW-2	Total/NA	Water	SM 4500 F C	
400-140249-16	AX15658 FB-2	Total/NA	Water	SM 4500 F C	
400-140249-17	AX15659 MW-12	Total/NA	Water	SM 4500 F C	
400-140249-18	AX15660 MW-12 DUP	Total/NA	Water	SM 4500 F C	
MB 400-360686/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-360686/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-140249-10 MS	AX15652 MW-2	Total/NA	Water	SM 4500 F C	
400-140249-10 MSD	AX15652 MW-2	Total/NA	Water	SM 4500 F C	

Analysis Batch: 360700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-2	AX15644 MW-5 DUP	Total/NA	Water	SM 4500 F C	
400-140249-4	AX15646 MW-7	Total/NA	Water	SM 4500 F C	
400-140249-9	AX15651 MW-14S	Total/NA	Water	SM 4500 F C	
400-140249-11	AX15653 FB-1	Total/NA	Water	SM 4500 F C	
400-140249-12	AX15654 EB-1	Total/NA	Water	SM 4500 F C	
400-140249-13	AX15655 MW-10	Total/NA	Water	SM 4500 F C	
400-140249-19	AX15661 MW-11	Total/NA	Water	SM 4500 F C	
MB 400-360700/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-360700/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-140249-19 MS	AX15661 MW-11	Total/NA	Water	SM 4500 F C	
400-140249-19 MSD	AX15661 MW-11	Total/NA	Water	SM 4500 F C	

Analysis Batch: 360706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-14	AX15656 MW-1	Total/NA	Water	SM 4500 F C	
400-140249-14	AX15656 MW-1	Total/NA	Water	SM 4500 F C	
MB 400-360706/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-360706/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-140367-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-140367-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 360738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-1	AX15643 MW-5	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

General Chemistry (Continued)

Analysis Batch: 360738 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-2	AX15644 MW-5 DUP	Total/NA	Water	SM 4500 SO4 E	
400-140249-3	AX15645 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-140249-4	AX15646 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-140249-5	AX15647 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-140249-6	AX15648 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-140249-7	AX15649 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-140249-8	AX15650 MW-3	Total/NA	Water	SM 4500 SO4 E	
MB 400-360738/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-360738/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-360738/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-140181-E-18 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-140181-E-18 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 360739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-9	AX15651 MW-14S	Total/NA	Water	SM 4500 SO4 E	
400-140249-10	AX15652 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-140249-11	AX15653 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-140249-12	AX15654 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-140249-13	AX15655 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-140249-14	AX15656 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-140249-15	AX15657 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-140249-16	AX15658 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-140249-17	AX15659 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-140249-18	AX15660 MW-12 DUP	Total/NA	Water	SM 4500 SO4 E	
400-140249-19	AX15661 MW-11	Total/NA	Water	SM 4500 SO4 E	
MB 400-360739/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-360739/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-360739/12	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-140249-10 MS	AX15652 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-140249-10 MSD	AX15652 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-140249-19 MS	AX15661 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-140249-19 MSD	AX15661 MW-11	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 360835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-6	AX15648 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-140249-7	AX15649 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-140249-8	AX15650 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-140249-9	AX15651 MW-14S	Total/NA	Water	SM 4500 Cl- E	
400-140249-10	AX15652 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-140249-11	AX15653 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-140249-12	AX15654 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-140249-13	AX15655 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-140249-14	AX15656 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-140249-15	AX15657 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-140249-16	AX15658 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-140249-17	AX15659 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-140249-18	AX15660 MW-12 DUP	Total/NA	Water	SM 4500 Cl- E	
400-140249-19	AX15661 MW-11	Total/NA	Water	SM 4500 Cl- E	
MB 400-360835/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-140249-1
SDG: Gaston Gypsum (8)

General Chemistry (Continued)

Analysis Batch: 360835 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-360835/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-360835/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-140249-10 MS	AX15652 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-140249-10 MSD	AX15652 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-140249-19 MS	AX15661 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-140249-19 MSD	AX15661 MW-11	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 360921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140249-3	AX15645 MW-6	Total/NA	Water	SM 4500 F C	
400-140249-5	AX15647 MW-8	Total/NA	Water	SM 4500 F C	
400-140249-6	AX15648 MW-9	Total/NA	Water	SM 4500 F C	
400-140249-14	AX15656 MW-1	Total/NA	Water	SM 4500 F C	
400-140249-15	AX15657 MW-13	Total/NA	Water	SM 4500 F C	
MB 400-360921/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-360921/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-140249-3 MS	AX15645 MW-6	Total/NA	Water	SM 4500 F C	
400-140249-3 MSD	AX15645 MW-6	Total/NA	Water	SM 4500 F C	
400-140455-B-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-360355/6
Matrix: Water
Analysis Batch: 360355

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			07/13/17 10:17	1

Lab Sample ID: LCS 400-360355/7
Matrix: Water
Analysis Batch: 360355

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.7		mg/L		102	90 - 110

Lab Sample ID: MRL 400-360355/3
Matrix: Water
Analysis Batch: 360355

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.19		mg/L		109	50 - 150

Lab Sample ID: 400-140249-3 MS
Matrix: Water
Analysis Batch: 360355

Client Sample ID: AX15645 MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.8		10.0	13.9		mg/L		111	73 - 120

Lab Sample ID: 400-140249-3 MSD
Matrix: Water
Analysis Batch: 360355

Client Sample ID: AX15645 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	2.8		10.0	13.9		mg/L		111	73 - 120	0	8

Lab Sample ID: MB 400-360835/6
Matrix: Water
Analysis Batch: 360835

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			07/18/17 08:26	1

Lab Sample ID: LCS 400-360835/7
Matrix: Water
Analysis Batch: 360835

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	29.6		mg/L		99	90 - 110

Lab Sample ID: MRL 400-360835/3
Matrix: Water
Analysis Batch: 360835

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	1.62	J	mg/L		81	50 - 150

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Lab Sample ID: 400-140249-10 MS
Matrix: Water
Analysis Batch: 360835

Client Sample ID: AX15652 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.4	F1 F2	10.0	12.2		mg/L		87	73 - 120

Lab Sample ID: 400-140249-10 MSD
Matrix: Water
Analysis Batch: 360835

Client Sample ID: AX15652 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.4	F1 F2	10.0	8.89	F1 F2	mg/L		55	73 - 120	31	8

Lab Sample ID: 400-140249-19 MS
Matrix: Water
Analysis Batch: 360835

Client Sample ID: AX15661 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.6	F1	10.0	9.72	F1	mg/L		51	73 - 120

Lab Sample ID: 400-140249-19 MSD
Matrix: Water
Analysis Batch: 360835

Client Sample ID: AX15661 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.6	F1	10.0	9.60	F1	mg/L		49	73 - 120	1	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-360686/3
Matrix: Water
Analysis Batch: 360686

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			07/17/17 09:25	1

Lab Sample ID: LCS 400-360686/4
Matrix: Water
Analysis Batch: 360686

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: 400-140249-10 MS
Matrix: Water
Analysis Batch: 360686

Client Sample ID: AX15652 MW-2
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	1.02		mg/L		102	75 - 125

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-140249-10 MSD
Matrix: Water
Analysis Batch: 360686

Client Sample ID: AX15652 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.04		mg/L		104	75 - 125	2	4

Lab Sample ID: MB 400-360700/3
Matrix: Water
Analysis Batch: 360700

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			07/17/17 10:33	1

Lab Sample ID: LCS 400-360700/4
Matrix: Water
Analysis Batch: 360700

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-140249-19 MS
Matrix: Water
Analysis Batch: 360700

Client Sample ID: AX15661 MW-11
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: 400-140249-19 MSD
Matrix: Water
Analysis Batch: 360700

Client Sample ID: AX15661 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.04		mg/L		104	75 - 125	4	4

Lab Sample ID: MB 400-360706/3
Matrix: Water
Analysis Batch: 360706

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			07/17/17 11:47	1

Lab Sample ID: LCS 400-360706/4
Matrix: Water
Analysis Batch: 360706

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-140367-A-1 MS
Matrix: Water
Analysis Batch: 360706

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	0.58		1.00	1.71		mg/L		113	75 - 125

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Lab Sample ID: 400-140367-A-1 MSD
Matrix: Water
Analysis Batch: 360706

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	0.58		1.00	1.71		mg/L		113	75 - 125	0	4

Lab Sample ID: MB 400-360921/3
Matrix: Water
Analysis Batch: 360921

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			07/18/17 14:22	1

Lab Sample ID: LCS 400-360921/4
Matrix: Water
Analysis Batch: 360921

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	3.87		mg/L		97	90 - 110

Lab Sample ID: 400-140249-3 MS
Matrix: Water
Analysis Batch: 360921

Client Sample ID: AX15645 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	0.930		mg/L		93	75 - 125

Lab Sample ID: 400-140249-3 MSD
Matrix: Water
Analysis Batch: 360921

Client Sample ID: AX15645 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	0.970		mg/L		97	75 - 125	4	4

Lab Sample ID: 400-140455-B-4 DU
Matrix: Water
Analysis Batch: 360921

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.15		0.150		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-360738/6
Matrix: Water
Analysis Batch: 360738

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			07/17/17 07:10	1

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

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

Lab Sample ID: LCS 400-360738/7
Matrix: Water
Analysis Batch: 360738

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.9		mg/L		106	90 - 110

Lab Sample ID: MRL 400-360738/3
Matrix: Water
Analysis Batch: 360738

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	4.10	J	mg/L		82	50 - 150

Lab Sample ID: 400-140181-E-18 MS
Matrix: Water
Analysis Batch: 360738

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	F1	10.0	14.2	F1	mg/L		142	77 - 128

Lab Sample ID: 400-140181-E-18 MSD
Matrix: Water
Analysis Batch: 360738

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	F1	10.0	14.5	F1	mg/L		145	77 - 128	2	5

Lab Sample ID: MB 400-360739/15
Matrix: Water
Analysis Batch: 360739

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			07/17/17 09:29	1

Lab Sample ID: LCS 400-360739/16
Matrix: Water
Analysis Batch: 360739

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	16.2		mg/L		108	90 - 110

Lab Sample ID: MRL 400-360739/12
Matrix: Water
Analysis Batch: 360739

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	4.19	J	mg/L		84	50 - 150

Lab Sample ID: 400-140249-10 MS
Matrix: Water
Analysis Batch: 360739

Client Sample ID: AX15652 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	6.4		10.0	16.9		mg/L		106	77 - 128

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-140249-1
 SDG: Gaston Gypsum (8)

Lab Sample ID: 400-140249-10 MSD
Matrix: Water
Analysis Batch: 360739

Client Sample ID: AX15652 MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	6.4		10.0	17.0		mg/L		106	77 - 128	0	5

Lab Sample ID: 400-140249-19 MS
Matrix: Water
Analysis Batch: 360739

Client Sample ID: AX15661 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	4.6	J	10.0	15.0		mg/L		104	77 - 128		


Lab Sample ID: 400-140249-19 MSD
Matrix: Water
Analysis Batch: 360739

Client Sample ID: AX15661 MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	4.6	J	10.0	15.1		mg/L		105	77 - 128	1	5

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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: iscopela@southernco.com Project #: 40007143 CCR Site: Gaston Gypsum (8)		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Sampler: Ben Rothschild/ Anthony Goggins Phone:		Carner Tracking No(s): COC No: 400-56525-24537.1 Page: Page 1 of 2 Job #:					
Due Date Requested: TAT Requested (days): PO #: WO #: Project #: 40007143 SSOW#:		Analysis Requested  400-140249 COC							
Sample Identification		Field Filtered Sample (Yes or No)							
Sample Date		Perform MS/MSD (Yes or No)							
Sample Time		SM 4500 F.C							
Sample Type (C=Comp, G=grab)		SM 4500 CL.E							
Sample Matrix (Water, Soil, On-water, BT-Tissue, AAR)		SM 4500 SO4.E							
Preservation Code:		Total Number of Containers							
AX15643	7/5/17	1000	G	Water	X	X	1	MW-5	
AX15644	7/5/17	1000	G	Water	X	X	1	MW-5 Dup (Sample Duplicate)	
AX15645	7/5/17	1105	G	Water	X	X	1	MW-6	
AX15646	7/5/17	1213	G	Water	X	X	1	MW-7	
AX15647	7/5/17	1326	G	Water	X	X	1	MW-8	
AX15648	7/5/17	1449	G	Water	X	X	1	MW-9	
AX15649	7/5/17	1015	G	Water	X	X	1	MW-15	
AX15650	7/5/17	1152	G	Water	X	X	1	MW-3	
AX15651	7/5/17	1302	G	Water	X	X	1	MW-14S	
AX15652	7/5/17	1354	G	Water	Y	X	1	MW-2	
AX15653	7/5/17	1340	G	Water	X	X	1	FB-1 (Field Blank)	
AX15654	7/5/17	1420	G	Water	X	X	1	EB-1 (Equipment Blank)	
AX15655	7/5/17	1508	G	Water	X	X	1	MW-10	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Time:							
Relinquished by: Sarah Copeland		Date/Time: 07/06/2017, 1530		Method of Shipment:					
Relinquished by:		Date/Time:		Received by: <i>[Signature]</i>					
Relinquished by:		Date/Time:		Received by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.5°C IR 2					



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-140249-1
SDG Number: Gaston Gypsum (8)

Login Number: 140249

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C IR-2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Gaston

TestAmerica Job ID: 400-140249-1
 SDG: Gaston 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

* 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: 400-140364-1

TestAmerica Sample Delivery Group: Gaston Gypsum (8)

Client Project/Site: CCR Plant Gaston

For:

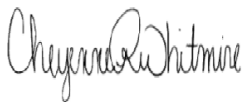
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

8/10/2017 8:46:09 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 Gaston

TestAmerica Job ID: 400-140364-1
SDG: Gaston Gypsum (8)

Job ID: 400-140364-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-140364-1

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-317606. The following samples were reduced due to limited volume: AX15662 MW-5 (400-140364-1), AX15663 MW-5 DUP (400-140364-2), AX15664 MW-6 (400-140364-3), AX15664 MW-6 (400-140364-3[DU]), AX15665 MW-7 (400-140364-4), AX15666 MW-8 (400-140364-5), AX15667 MW-9 (400-140364-6), AX15668 MW-15 (400-140364-7), AX15669 MW-3 (400-140364-8), AX15670 MW-14S (400-140364-9), AX15671 MW-2 (400-140364-10), AX15672 FB-1 (400-140364-11), AX15673 EB-1 (400-140364-12), AX15674 MW-10 (400-140364-13), AX15675 MW-1 (400-140364-14), AX15676 MW-13 (400-140364-15), AX15677 FB-2 (400-140364-16), AX15678 MW-12 (400-140364-17), AX15679 MW-12 DUP (400-140364-18) and AX15680 MW-11 (400-140364-19).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-317596. The following samples were reduced due to limited volume: AX15662 MW-5 (400-140364-1), AX15663 MW-5 DUP (400-140364-2), AX15664 MW-6 (400-140364-3), AX15664 MW-6 (400-140364-3[DU]), AX15665 MW-7 (400-140364-4), AX15666 MW-8 (400-140364-5), AX15667 MW-9 (400-140364-6), AX15668 MW-15 (400-140364-7), AX15669 MW-3 (400-140364-8), AX15670 MW-14S (400-140364-9), AX15671 MW-2 (400-140364-10), AX15672 FB-1 (400-140364-11), AX15673 EB-1 (400-140364-12), AX15674 MW-10 (400-140364-13), AX15675 MW-1 (400-140364-14), AX15676 MW-13 (400-140364-15), AX15677 FB-2 (400-140364-16), AX15678 MW-12 (400-140364-17), AX15679 MW-12 DUP (400-140364-18) and AX15680 MW-11 (400-140364-19).

Method Summary

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

TestAmerica Job ID: 400-140364-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-140364-1
SDG: Gaston Gypsum (8)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-140364-1	AX15662 MW-5	Water	07/05/17 10:00	07/10/17 15:30
400-140364-2	AX15663 MW-5 DUP	Water	07/05/17 10:00	07/10/17 15:30
400-140364-3	AX15664 MW-6	Water	07/05/17 11:05	07/10/17 15:30
400-140364-4	AX15665 MW-7	Water	07/05/17 12:13	07/10/17 15:30
400-140364-5	AX15666 MW-8	Water	07/05/17 13:26	07/10/17 15:30
400-140364-6	AX15667 MW-9	Water	07/05/17 14:49	07/10/17 15:30
400-140364-7	AX15668 MW-15	Water	07/05/17 10:15	07/10/17 15:30
400-140364-8	AX15669 MW-3	Water	07/05/17 11:52	07/10/17 15:30
400-140364-9	AX15670 MW-14S	Water	07/05/17 13:02	07/10/17 15:30
400-140364-10	AX15671 MW-2	Water	07/05/17 13:54	07/10/17 15:30
400-140364-11	AX15672 FB-1	Water	07/05/17 13:40	07/10/17 15:30
400-140364-12	AX15673 EB-1	Water	07/05/17 14:20	07/10/17 15:30
400-140364-13	AX15674 MW-10	Water	07/05/17 15:08	07/10/17 15:30
400-140364-14	AX15675 MW-1	Water	07/05/17 10:27	07/10/17 15:30
400-140364-15	AX15676 MW-13	Water	07/05/17 11:43	07/10/17 15:30
400-140364-16	AX15677 FB-2	Water	07/05/17 12:00	07/10/17 15:30
400-140364-17	AX15678 MW-12	Water	07/05/17 13:18	07/10/17 15:30
400-140364-18	AX15679 MW-12 DUP	Water	07/05/17 13:18	07/10/17 15:30
400-140364-19	AX15680 MW-11	Water	07/05/17 14:28	07/10/17 15:30

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15662 MW-5

Lab Sample ID: 400-140364-1

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/10/17 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	0.0974	U	0.0751	0.0756	1.00	0.101	pCi/L	07/17/17 07:27	08/08/17 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					07/17/17 07:27	08/08/17 08:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0631	U	0.180	0.180	1.00	0.314	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	102		40 - 110					07/17/17 08:30	07/26/17 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	0.160	U	0.195	0.195	5.00	0.314	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15663 MW-5 DUP

Lab Sample ID: 400-140364-2

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/10/17 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	0.0573	U	0.0587	0.0589	1.00	0.0900	pCi/L	07/17/17 07:27	08/08/17 08:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 07:27	08/08/17 08:16	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.226	U	0.204	0.205	1.00	0.326	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	101		40 - 110					07/17/17 08:30	07/26/17 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	0.283	U	0.212	0.213	5.00	0.326	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15664 MW-6

Lab Sample ID: 400-140364-3

Date Collected: 07/05/17 11:05

Matrix: Water

Date Received: 07/10/17 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	0.110		0.0746	0.0752	1.00	0.0986	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.266	U	0.242	0.243	1.00	0.390	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	98.7		40 - 110					07/17/17 08:30	07/26/17 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	0.376	U	0.253	0.255	5.00	0.390	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15665 MW-7

Lab Sample ID: 400-140364-4

Date Collected: 07/05/17 12:13

Matrix: Water

Date Received: 07/10/17 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	0.0376	U	0.0546	0.0547	1.00	0.0934	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.179	U	0.212	0.213	1.00	0.350	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	99.4		40 - 110					07/17/17 08:30	07/26/17 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	0.216	U	0.219	0.220	5.00	0.350	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15666 MW-8

Lab Sample ID: 400-140364-5

Date Collected: 07/05/17 13:26

Matrix: Water

Date Received: 07/10/17 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	0.124		0.0762	0.0770	1.00	0.0934	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0999	U	0.271	0.271	1.00	0.465	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	101		40 - 110					07/17/17 08:30	07/26/17 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	0.224	U	0.282	0.282	5.00	0.465	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15667 MW-9

Lab Sample ID: 400-140364-6

Date Collected: 07/05/17 14:49

Matrix: Water

Date Received: 07/10/17 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		0.0879	0.0891	1.00	0.104	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.247	U	0.246	0.247	1.00	0.400	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	97.7		40 - 110					07/17/17 08:30	07/26/17 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	0.415		0.261	0.263	5.00	0.400	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15668 MW-15

Lab Sample ID: 400-140364-7

Date Collected: 07/05/17 10:15

Matrix: Water

Date Received: 07/10/17 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	0.0700	U	0.0652	0.0655	1.00	0.0972	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.302	U	0.225	0.227	1.00	0.352	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	100		40 - 110					07/17/17 08:30	07/26/17 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	0.372		0.234	0.236	5.00	0.352	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15669 MW-3

Lab Sample ID: 400-140364-8

Date Collected: 07/05/17 11:52

Matrix: Water

Date Received: 07/10/17 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	0.0897	U	0.0787	0.0792	1.00	0.119	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0647	U	0.187	0.188	1.00	0.328	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	98.4		40 - 110					07/17/17 08:30	07/26/17 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	0.154	U	0.203	0.204	5.00	0.328	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15670 MW-14S

Lab Sample ID: 400-140364-9

Date Collected: 07/05/17 13:02

Matrix: Water

Date Received: 07/10/17 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	0.123		0.0834	0.0841	1.00	0.113	pCi/L	07/17/17 07:27	08/08/17 08:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					07/17/17 07:27	08/08/17 08:18	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0284	U	0.180	0.180	1.00	0.323	pCi/L	07/17/17 08:30	07/26/17 14:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					07/17/17 08:30	07/26/17 14:39	1
Y Carrier	101		40 - 110					07/17/17 08:30	07/26/17 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	0.152	U	0.198	0.199	5.00	0.323	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15671 MW-2

Lab Sample ID: 400-140364-10

Date Collected: 07/05/17 13:54

Matrix: Water

Date Received: 07/10/17 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	0.0793	U	0.0695	0.0699	1.00	0.103	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.162	U	0.249	0.250	1.00	0.419	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	97.1		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.241	U	0.259	0.259	5.00	0.419	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15672 FB-1

Lab Sample ID: 400-140364-11

Date Collected: 07/05/17 13:40

Matrix: Water

Date Received: 07/10/17 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	0.0818	U	0.0688	0.0692	1.00	0.0999	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0123	U	0.201	0.201	1.00	0.359	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	103		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0941	U	0.212	0.212	5.00	0.359	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15673 EB-1

Lab Sample ID: 400-140364-12

Date Collected: 07/05/17 14:20

Matrix: Water

Date Received: 07/10/17 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	0.0383	U	0.0593	0.0594	1.00	0.103	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0509	U	0.194	0.194	1.00	0.357	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	107		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0126	U	0.203	0.203	5.00	0.357	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15674 MW-10

Lab Sample ID: 400-140364-13

Date Collected: 07/05/17 15:08

Matrix: Water

Date Received: 07/10/17 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	0.101		0.0735	0.0740	1.00	0.0993	pCi/L	07/17/17 07:27	08/08/17 08:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 07:27	08/08/17 08:17	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0653	U	0.192	0.192	1.00	0.335	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	102		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.166	U	0.206	0.206	5.00	0.335	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15675 MW-1

Lab Sample ID: 400-140364-14

Date Collected: 07/05/17 10:27

Matrix: Water

Date Received: 07/10/17 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	0.780		0.172	0.186	1.00	0.117	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.319	U	0.242	0.244	1.00	0.382	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	99.7		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.297	0.307	5.00	0.382	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15676 MW-13

Lab Sample ID: 400-140364-15

Date Collected: 07/05/17 11:43

Matrix: Water

Date Received: 07/10/17 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	0.105	U	0.0800	0.0805	1.00	0.112	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.339	U	0.263	0.264	1.00	0.416	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	98.4		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.444		0.274	0.276	5.00	0.416	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15677 FB-2

Lab Sample ID: 400-140364-16

Date Collected: 07/05/17 12:00

Matrix: Water

Date Received: 07/10/17 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	0.0748	U	0.0761	0.0764	1.00	0.119	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.218	U	0.198	0.199	1.00	0.392	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	104		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.143	U	0.212	0.213	5.00	0.392	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15678 MW-12

Lab Sample ID: 400-140364-17

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/10/17 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	0.151		0.0879	0.0889	1.00	0.107	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0940	U	0.227	0.227	1.00	0.390	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	100		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.245	U	0.243	0.244	5.00	0.390	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15679 MW-12 DUP

Lab Sample ID: 400-140364-18

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/10/17 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	0.0744	U	0.0889	0.0892	1.00	0.146	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.281	U	0.229	0.230	1.00	0.362	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	102		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.355	U	0.246	0.247	5.00	0.362	pCi/L		08/08/17 17:53	1

Client Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15680 MW-11

Lab Sample ID: 400-140364-19

Date Collected: 07/05/17 14:28

Matrix: Water

Date Received: 07/10/17 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	0.0779	U	0.0743	0.0746	1.00	0.112	pCi/L	07/17/17 07:27	08/08/17 08:20	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					07/17/17 07:27	08/08/17 08:20	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.212	U	0.195	0.196	1.00	0.312	pCi/L	07/17/17 08:30	07/26/17 14:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					07/17/17 08:30	07/26/17 14:43	1
Y Carrier	104		40 - 110					07/17/17 08:30	07/26/17 14:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.289	U	0.209	0.210	5.00	0.312	pCi/L		08/08/17 17:53	1

Definitions/Glossary

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

TestAmerica Job ID: 400-140364-1
SDG: Gaston 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 Gaston

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15662 MW-5

Lab Sample ID: 400-140364-1

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15663 MW-5 DUP

Lab Sample ID: 400-140364-2

Date Collected: 07/05/17 10:00

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15664 MW-6

Lab Sample ID: 400-140364-3

Date Collected: 07/05/17 11:05

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15665 MW-7

Lab Sample ID: 400-140364-4

Date Collected: 07/05/17 12:13

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-140364-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15666 MW-8

Lab Sample ID: 400-140364-5

Date Collected: 07/05/17 13:26

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15667 MW-9

Lab Sample ID: 400-140364-6

Date Collected: 07/05/17 14:49

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15668 MW-15

Lab Sample ID: 400-140364-7

Date Collected: 07/05/17 10:15

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15669 MW-3

Lab Sample ID: 400-140364-8

Date Collected: 07/05/17 11:52

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15670 MW-14S

Lab Sample ID: 400-140364-9

Date Collected: 07/05/17 13:02

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:18	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319213	07/26/17 14:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15671 MW-2

Lab Sample ID: 400-140364-10

Date Collected: 07/05/17 13:54

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15672 FB-1

Lab Sample ID: 400-140364-11

Date Collected: 07/05/17 13:40

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15673 EB-1

Lab Sample ID: 400-140364-12

Date Collected: 07/05/17 14:20

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Client Sample ID: AX15674 MW-10

Lab Sample ID: 400-140364-13

Date Collected: 07/05/17 15:08

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321290	08/08/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15675 MW-1

Lab Sample ID: 400-140364-14

Date Collected: 07/05/17 10:27

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15676 MW-13

Lab Sample ID: 400-140364-15

Date Collected: 07/05/17 11:43

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15677 FB-2

Lab Sample ID: 400-140364-16

Date Collected: 07/05/17 12:00

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Lab Chronicle

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

TestAmerica Job ID: 400-140364-1
SDG: Gaston Gypsum (8)

Client Sample ID: AX15678 MW-12

Lab Sample ID: 400-140364-17

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15679 MW-12 DUP

Lab Sample ID: 400-140364-18

Date Collected: 07/05/17 13:18

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	RTM	TAL SL

Client Sample ID: AX15680 MW-11

Lab Sample ID: 400-140364-19

Date Collected: 07/05/17 14:28

Matrix: Water

Date Received: 07/10/17 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			317596	07/17/17 07:27	LDE	TAL SL
Total/NA	Analysis	9315		1	321289	08/08/17 08:20	ALD	TAL SL
Total/NA	Prep	PrecSep_0			317606	07/17/17 08:30	LDE	TAL SL
Total/NA	Analysis	9320		1	319211	07/26/17 14:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	321365	08/08/17 17:53	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 Gaston

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Rad

Prep Batch: 317596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140364-1	AX15662 MW-5	Total/NA	Water	PrecSep-21	
400-140364-2	AX15663 MW-5 DUP	Total/NA	Water	PrecSep-21	
400-140364-3	AX15664 MW-6	Total/NA	Water	PrecSep-21	
400-140364-4	AX15665 MW-7	Total/NA	Water	PrecSep-21	
400-140364-5	AX15666 MW-8	Total/NA	Water	PrecSep-21	
400-140364-6	AX15667 MW-9	Total/NA	Water	PrecSep-21	
400-140364-7	AX15668 MW-15	Total/NA	Water	PrecSep-21	
400-140364-8	AX15669 MW-3	Total/NA	Water	PrecSep-21	
400-140364-9	AX15670 MW-14S	Total/NA	Water	PrecSep-21	
400-140364-10	AX15671 MW-2	Total/NA	Water	PrecSep-21	
400-140364-11	AX15672 FB-1	Total/NA	Water	PrecSep-21	
400-140364-12	AX15673 EB-1	Total/NA	Water	PrecSep-21	
400-140364-13	AX15674 MW-10	Total/NA	Water	PrecSep-21	
400-140364-14	AX15675 MW-1	Total/NA	Water	PrecSep-21	
400-140364-15	AX15676 MW-13	Total/NA	Water	PrecSep-21	
400-140364-16	AX15677 FB-2	Total/NA	Water	PrecSep-21	
400-140364-17	AX15678 MW-12	Total/NA	Water	PrecSep-21	
400-140364-18	AX15679 MW-12 DUP	Total/NA	Water	PrecSep-21	
400-140364-19	AX15680 MW-11	Total/NA	Water	PrecSep-21	
MB 160-317596/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-317596/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-140364-3 DU	AX15664 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 317606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-140364-1	AX15662 MW-5	Total/NA	Water	PrecSep_0	
400-140364-2	AX15663 MW-5 DUP	Total/NA	Water	PrecSep_0	
400-140364-3	AX15664 MW-6	Total/NA	Water	PrecSep_0	
400-140364-4	AX15665 MW-7	Total/NA	Water	PrecSep_0	
400-140364-5	AX15666 MW-8	Total/NA	Water	PrecSep_0	
400-140364-6	AX15667 MW-9	Total/NA	Water	PrecSep_0	
400-140364-7	AX15668 MW-15	Total/NA	Water	PrecSep_0	
400-140364-8	AX15669 MW-3	Total/NA	Water	PrecSep_0	
400-140364-9	AX15670 MW-14S	Total/NA	Water	PrecSep_0	
400-140364-10	AX15671 MW-2	Total/NA	Water	PrecSep_0	
400-140364-11	AX15672 FB-1	Total/NA	Water	PrecSep_0	
400-140364-12	AX15673 EB-1	Total/NA	Water	PrecSep_0	
400-140364-13	AX15674 MW-10	Total/NA	Water	PrecSep_0	
400-140364-14	AX15675 MW-1	Total/NA	Water	PrecSep_0	
400-140364-15	AX15676 MW-13	Total/NA	Water	PrecSep_0	
400-140364-16	AX15677 FB-2	Total/NA	Water	PrecSep_0	
400-140364-17	AX15678 MW-12	Total/NA	Water	PrecSep_0	
400-140364-18	AX15679 MW-12 DUP	Total/NA	Water	PrecSep_0	
400-140364-19	AX15680 MW-11	Total/NA	Water	PrecSep_0	
MB 160-317606/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-317606/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-140364-3 DU	AX15664 MW-6	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-317596/1-A
Matrix: Water
Analysis Batch: 321290

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 317596

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.005651	U	0.0450	0.0450	1.00	0.102	pCi/L	07/17/17 07:27	08/08/17 08:16	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 07:27	08/08/17 08:16	1

Lab Sample ID: LCS 160-317596/2-A
Matrix: Water
Analysis Batch: 321290

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 317596

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.1	13.87		1.41	1.00	0.0716	pCi/L	92	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	107		40 - 110						

Lab Sample ID: 400-140364-3 DU
Matrix: Water
Analysis Batch: 321290

Client Sample ID: AX15664 MW-6
Prep Type: Total/NA
Prep Batch: 317596

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.110		0.1032		0.0704	1.00	0.0897	pCi/L	0.04	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	110		40 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-317606/1-A
Matrix: Water
Analysis Batch: 319213

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 317606

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2201	U	0.212	0.213	1.00	0.343	pCi/L	07/17/17 08:30	07/26/17 14:38	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					07/17/17 08:30	07/26/17 14:38	1
Y Carrier	99.0		40 - 110					07/17/17 08:30	07/26/17 14:38	1

QC Sample Results

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston Gypsum (8)

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

Lab Sample ID: LCS 160-317606/2-A
Matrix: Water
Analysis Batch: 319213

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 317606

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	17.5	16.39		1.74	1.00	0.360	pCi/L	94	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	107		40 - 110
Y Carrier	101		40 - 110

Lab Sample ID: 400-140364-3 DU
Matrix: Water
Analysis Batch: 319213

Client Sample ID: AX15664 MW-6
Prep Type: Total/NA
Prep Batch: 317606

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.266	U	0.2851	U	0.249	1.00	0.397	pCi/L	0.04	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	110		40 - 110
Y Carrier	98.1		40 - 110


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

Lab Sample ID: 400-140364-3 DU
Matrix: Water
Analysis Batch: 321365

Client Sample ID: AX15664 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	0.376	U	0.3884	U	0.259	5.00	0.397	pCi/L	0.02	

Chain of Custody Record

Client Information		Sampler: Ben Rothschild/ Anthony Goggins Lab PM: Whitmire, Cheyenne R Client Contact: Sarah Copeland E-Mail: cheyenne.whitmire@testamericainc.com Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Gaston Gypsium (8)		Carrier Tracking No(s): COC No.: 400-56525-24537.1 Page: Page 1 of 2 Job #:	
Due Date Requested: TAT Requested (days): Routine PO #: 40007143 WO #: 40007143 Project #: 40007143 SSOV#:		Analysis Requested  400-140364 COC			
Sample Identification AX15662 AX15663 AX15664 AX15665 AX15666 AX15667 AX15668 AX15669 AX15670 AX15671 AX15672 AX15673 AX15674		Sample Date 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17 7/5/17		Sample Time 1000 1000 1105 1213 1326 1449 1015 1152 1302 1354 1340 1420 1508	
Sample Type (C=Comp, G=grab) G G G G G G G G G G G G G		Matrix (Water, Seawater, Other) Water Water Water Water Water Water Water Water Water Water Water Water Water		Perform MS/MSD (Yes or No) X X Y X X X X X X X X X X	
Field Filtered Sample (Yes or No) X X X X X X X X X X X X X		Total Number of Containers 1 1 3 1 1 1 1 1 1 1 1 1 1 1		Special Instructions/Note: MW-5 MW-5 Dup (Sample Duplicate) MW-6 MW-7 MW-8 MW-9 MW-15 MW-3 MW-14S MW-2 FB-1 (Field Blank) EB-1 (Equipment Blank) MW-10	
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:					
Relinquished by: Sarah Copeland Date/Time: 07/06/2017; 1545 Company: APC					
Relinquished by:					
Relinquished by:					
Relinquished by:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:					



Chain of Custody Record

Client Information		Sampler: Jason Rouss		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Client Contact: Sarah Copeland		Phone:		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2		Job #:	
Company: Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Preservation Codes:		M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - NCA W - ph 4-5 X - EDTA Y - EDA Z - other (Specify)	
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Routine		Field Filtered Sample (Yes or No)		Total Number of containers	
City: Callera		PO #:		Perform MS/MSD (Yes or No)		9315_Ra226, 9320_Ra228, Ra226Ra228_GFP		Special Instructions/Note:	
State, Zip: AL, 35040		WO #:		Field Filtered Sample (Yes or No)		X		MW-1	
Phone: 205-664-6121(Tel)		Project #:		Sample Date		X		MW-13	
Email: iscopella@southernco.com		40007143		Sample Time		X		FB-2 (Field Blank)	
CCR		SSOW#:		Sample Type (C=Comp, G=grab)		X		MW-12	
Site: Gaston Gypsum (8)				Preservation Code:		X		MW-12 Dup (Sample Duplicate)	
				Matrix (Water, Sewage, Soil, On-wastefill, etc.)		X		MW-11	
				Sample Date		7/5/17			
				Sample Time		1027			
				Sample Type (C=Comp, G=grab)		G			
				Sample Date		7/5/17			
				Sample Time		1143			
				Sample Type (C=Comp, G=grab)		G			
				Sample Date		7/5/17			
				Sample Time		1200			
				Sample Type (C=Comp, G=grab)		G			
				Sample Date		7/5/17			
				Sample Time		1318			
				Sample Type (C=Comp, G=grab)		G			
				Sample Date		7/5/17			
				Sample Time		1318			
				Sample Type (C=Comp, G=grab)		G			
				Sample Date		7/5/17			
				Sample Time		1428			
				Sample Type (C=Comp, G=grab)		G			

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: 07/06/2017, 1545
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Custody Seals Intact: Yes No Custody Seal No.: _____

Special Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: _____
 Received by: _____ Date/Time: 7/10/17 1530
 Received by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Cooler Temperature(s) °C and Other Remarks: _____



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-140364-1
SDG Number: Gaston Gypsum (8)

Login Number: 140364
List Number: 1
Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Accreditation/Certification Summary

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

TestAmerica Job ID: 400-140364-1
 SDG: Gaston 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	06-30-18
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	08-31-17
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	07-31-18
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 Gaston

TestAmerica Job ID: 400-140364-1
SDG: Gaston 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	T104704193-17-11	07-31-18
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

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 : WMWGASG_1114

Project/Site : Gaston Gypsum
Wilsonville, AL 35186

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

Gaston Gypsum

WMWGASG_1114

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All anions were outsourced to Test America, Pensacola, for analysis. Listed below is the job narrative provided by Test America.

Job Narrative
400-143177-1
General Chemistry

Method(s) SM 4500 F C: The matrix spike (MS) recoveries for analytical batch 368864 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 368718 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range:
AX21097 MW-5 (400-143177-13) and AX21098 MW-5 DUP (400-143177-14). Elevated reporting limits (RLs) are provided.



Metals ICP

Gaston Gypsum

WMWGASG_1114

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>
AX20941	20170921bD2K	WMWGASG_1114
AX20942	20170921bD2K & 20170922DK	WMWGASG_1114
AX20943	20170921bD2K	WMWGASG_1114
AX20944	20170921bD2K	WMWGASG_1114
AX20945	20170921bD2K & 20170922DK	WMWGASG_1114
AX20946	20170921bD2K	WMWGASG_1114
AX21091	20170921bD2K	WMWGASG_1114
AX21092	20170921bD2K & 20170922DK	WMWGASG_1114
AX21093	20170921bD2K	WMWGASG_1114
AX21094	20170921bD2K	WMWGASG_1114
AX21095	20170921bE2K & 20170922EK	WMWGASG_1114
AX21096	20170921bE2K	WMWGASG_1114
AX21097	20170921bE2K	WMWGASG_1114
AX21098	20170921bE2K	WMWGASG_1114
AX21099	20170921bE2K	WMWGASG_1114
AX21100	20170921bE2K	WMWGASG_1114
AX21101	20170921bE2K	WMWGASG_1114
AX21102	20170921bE2K	WMWGASG_1114
AX21103	20170921bE2K	WMWGASG_1114

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.
7. The following samples were revised to reflect current Calcium MDL and RL project limits: AX20942, AX20945, AX21092 & AX21095. No results or qualifiers were effected.



General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

Case Narrative



7. All samples were analyzed at a x2 dilution to compensate for potential matrix effects. However, the following samples were further diluted due to analyzed sample concentration over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AX21095	Calcium	x10
AX20942	Calcium	x10
AX20945	Calcium	x10
AX21092	Calcium	x10

8. The raw data results include results corrected for dilution.



TDS

Gaston Gypsum

WMWGASG_1114

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>
AX20941	602495	WMWGASG_1114
AX20942	602495	WMWGASG_1114
AX20943	602495	WMWGASG_1114
AX20944	602495	WMWGASG_1114
AX20945	602495	WMWGASG_1114
AX20946	602495	WMWGASG_1114
AX21091	602495	WMWGASG_1114
AX21092	602496	WMWGASG_1114
AX21093	602496	WMWGASG_1114
AX21094	602496	WMWGASG_1114
AX21095	602496	WMWGASG_1114
AX21096	602496	WMWGASG_1114
AX21097	602496	WMWGASG_1114
AX21098	602496	WMWGASG_1114
AX21099	602496	WMWGASG_1114
AX21100	602496	WMWGASG_1114
AX21101	602496	WMWGASG_1114
AX21102	602469	WMWGASG_1114
AX21103	602469	WMWGASG_1114

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 AX20946, AX21096 and AX21100 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: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX20941

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	7.44	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	34.7	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.5	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.2	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

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX20941

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-15

Laboratory ID Number: AX20941

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21091	Solids, Dissolved	mg/L	4.00	25				196	52.0	40 to 60			0.00	5

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Certificate Of Analysis  Alabama Power

Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX20942

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	9/22/2017	EPA 200.7		10	1.0	5.0	86.1	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	284	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	17	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
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

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



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX20942

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-3

Laboratory ID Number: AX20942

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21091	Solids, Dissolved	mg/L	4.00	25			196	52.0	40 to 60	0.00	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14s

Laboratory ID Number: AX20943

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	48.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	202	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	4.5	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	6.8	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14s

Laboratory ID Number: AX20943

Sample	Analysis	Units	MB		Spike	MS	MSD	LFB	LFB		Rec		Prec	
			Limit	Limit					Limit	Rec	Limit	Prec		Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15		97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75		98.9	70 to 130	0.212	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14s

Laboratory ID Number: AX20943

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21091	Solids, Dissolved	mg/L	4.00	25			196	52.0	40 to 60	0.00	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14sDUP

Laboratory ID Number: AX20944

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	48.4	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	211	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	4.6	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	6.8	mg/L

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Expiration: June 30, 2018

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Alabama Power General Test Laboratory
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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14sDUP

Laboratory ID Number: AX20944

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-14sDUP

Laboratory ID Number: AX20944

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21091	Solids, Dissolved	mg/L	4.00	25			196	52.0	40 to 60	0.00	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

Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX20945

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	9/22/2017	EPA 200.7		10	1.0	5.0	77.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	280	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	4.4	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	6.1	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
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

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

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX20945

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum - MW-2

Laboratory ID Number: AX20945

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21091	Solids, Dissolved	mg/L	4.00	25			196	52.0	40 to 60	0.00	5

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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
 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: WMWGASGFB
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX20946

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	9/12/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	J 0.69	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX20946

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 05-Sep-17
 Customer ID:
 Delivery Date: 06-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX20946

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21091	Solids, Dissolved	mg/L	4.00	25				196	52.0	40 to 60			0.00	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX21091

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 0.0345	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	36.7	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	196	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.9	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	0.37	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	J 3.6	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX21091

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-1

Laboratory ID Number: AX21091

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21091	Solids, Dissolved	mg/L	4.00	25				196	52.0	40 to 60			0.00	5

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Certificate Of Analysis  **Alabama Power**

Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX21092

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	9/22/2017	EPA 200.7		10	1.0	5.0	93.2	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	294	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	4.5	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.050	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	8.3	mg/L

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX21092

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-13

Laboratory ID Number: AX21092

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21101	Solids, Dissolved	mg/L	4.00	25			226	52.0	40 to 60	0.222	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX21093

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 0.0338	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	72.9	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	225	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.5	mg/L
* Fluoride, Total, by Test America	BAB	9/21/2017	SM 4500 F_C		1	0.032	0.10	J 0.060	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	7.0	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX21093

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-12

Laboratory ID Number: AX21093

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21101	Solids, Dissolved	mg/L	4.00	25				226	52.0	40 to 60			0.222	5

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Certificate Of Analysis  **Alabama Power**



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX21094

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 0.0408	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	9.20	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	105	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	6.5	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	6.2	mg/L

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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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX21094

Sample	Analysis	Units	MB	MB				LFB		Rec			Prec
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21094	Boron, Total	mg/L	0.00117	0.044	1.00	1.01	1.03	0.983	0.85 to 1.15	97.3	70 to 130	1.88	20
AX21094	Calcium, Total	mg/L	-0.00544	0.22	5.00	14.1	14.1	5.05	4.25 to 5.75	98.9	70 to 130	0.212	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-11

Laboratory ID Number: AX21094

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21101	Solids, Dissolved	mg/L	4.00	25			226	52.0	40 to 60	0.222	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**

Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX21095

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	9/22/2017	EPA 200.7		10	1.0	5.0	99.0	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	259	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.9	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	J 1.7	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010
 REVISED COPY: The Calcium MDL and RL were incorrect for project limits.

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

Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX21095

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

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Expiration: June 30, 2018

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Batch QC Summary



Revised Copy



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-10

Laboratory ID Number: AX21095

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21101	Solids, Dissolved	mg/L	4.00	25			226	52.0	40 to 60	0.222	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: WMWGASGEB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX21096

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	9/12/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	J 0.79	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGEB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX21096

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGEB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Equipment Blank

Laboratory ID Number: AX21096

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21101	Solids, Dissolved	mg/L	4.00	25			226	52.0	40 to 60	0.222	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX21097

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 0.0220	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	66.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	269	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	17	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		2	2.80	10	33	mg/L

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX21097

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5

Laboratory ID Number: AX21097

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21101	Solids, Dissolved	mg/L	4.00	25				226	52.0	40 to 60			0.222	5

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 FAX (205) 257-1654

Certificate Of Analysis Alabama Power



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5DUP

Laboratory ID Number: AX21098

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 0.0208	mg/L
* Calcium, Total	HRG	9/21/2017	EPA 200.7		2	0.10	0.5	66.8	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	255	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	17	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		2	2.80	10	34	mg/L

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5DUP

Laboratory ID Number: AX21098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-5DUP

Laboratory ID Number: AX21098

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21101	Solids, Dissolved	mg/L	4.00	25			226	52.0	40 to 60	0.222	5

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Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX21099

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	0.825	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	3.0	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX21099

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-6

Laboratory ID Number: AX21099

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21101	Solids, Dissolved	mg/L	4.00	25				226	52.0	40 to 60			0.222	5

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CC:

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 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX21100

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	9/12/2017	SM 2540C		1		25	U Not Detected	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	U <0.60	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	U <1.4	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: WMWGASGFB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX21100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

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Expiration: June 30, 2018

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Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASGFB
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum Field Blank

Laboratory ID Number: AX21100

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
								Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21101	Solids, Dissolved	mg/L	4.00	25				226	52.0	40 to 60			0.222	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
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 (205) 664-6032 or 6171
 FAX (205) 257-1654

Certificate Of Analysis



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX21101

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	70.5	mg/L
General Characteristics									
* Solids, Dissolved	CES	9/12/2017	SM 2540C		1		25	225	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	4.0	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	8.6	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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX21101

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20

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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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-7

Laboratory ID Number: AX21101

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LFB	Rec	Prec	Prec	Limit	
				Limit				Duplicate	LFB	Limit	Rec	Limit	Prec	Limit
AX21101	Solids, Dissolved	mg/L	4.00	25				226	52.0	40 to 60			0.222	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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX21102

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	58.4	mg/L
General Characteristics									
* Solids, Dissolved	KRC	9/12/2017	SM 2540C		1		25	193	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.4	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	0.13	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	J 2.1	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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX21102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	LFB	LFB Limit	Rec	Rec Limit	Prec	Prec Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

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

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

* Test results for these accredited parameters meet all 2003 NELAC and 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
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-8

Laboratory ID Number: AX21102

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Limit	
AX21103	Solids, Dissolved	mg/L	-2.00	25			168	44.0	40 to 60	0.885	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

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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX21103

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	53.5	mg/L
General Characteristics									
* Solids, Dissolved	KRC	9/12/2017	SM 2540C		1		25	171	mg/L
* Chloride, Total, by Test America	RRC	9/20/2017	SM 4500 Cl_E		1	0.60	2.00	2.8	mg/L
* Fluoride, Total, by Test America	BAB	9/28/2017	SM 4500 F_C		1	0.032	0.10	J 0.040	mg/L
* Sulfate, Total, by Test America	RRC	9/19/2017	SM 4500 SO4_E		1	1.40	5.00	5.9	mg/L

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Expiration: June 30, 2018

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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: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX21103

Sample	Analysis	Units	MB	MB				LFB		Rec		Prec	
				Limit	Spike	MS	MSD	LFB	Limit	Rec	Limit	Prec	Limit
AX21103	Boron, Total	mg/L	0.00110	0.044	1.00	0.987	0.992	0.959	0.85 to 1.15	98.7	70 to 130	0.567	20
AX21103	Calcium, Total	mg/L	-0.00440	0.22	5.00	58.0	57.8	4.96	4.25 to 5.75	90.2	70 to 130	0.455	20

This Certificate states the physical and/or chemical characteristics 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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 Calera, AL 35040
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 FAX (205) 257-1654

Batch QC Summary



To: Dustin Brooks
 Greg Dyer

Customer Account: WMWGASG
 Sample Date: 07-Sep-17
 Customer ID:
 Delivery Date: 07-Sep-17

Description: Gaston Gypsum - MW-9

Laboratory ID Number: AX21103

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LFB	Rec	Prec	
			Limit	Limit			Duplicate	LFB	Limit	Prec	
AX21103	Solids, Dissolved	mg/L	-2.00	25			168	44.0	40 to 60	0.885	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

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: 400-143177-1

TestAmerica SDG: Plant Gaston Gypsum Storage Area

Client Project/Site: CCR Plant Gaston

Revision: 1

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

10/13/2017 9:27:57 AM

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 Gaston

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Job ID: 400-143177-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-143177-1

General Chemistry

Method(s) SM 4500 F C: The matrix spike (MS) recoveries for analytical batch 368864 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 368718 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AX21097 MW-5 (400-143177-13) and AX21098 MW-5 DUP (400-143177-14). Elevated reporting limits (RLs) are provided.

Detection Summary

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX20941 MW-15

Lab Sample ID: 400-143177-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20942 MW-3

Lab Sample ID: 400-143177-2

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	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	17		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20943 MW-14S

Lab Sample ID: 400-143177-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.5		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	6.8		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20944 MW-14S DUP

Lab Sample ID: 400-143177-4

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
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.8		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20945 MW-2

Lab Sample ID: 400-143177-5

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
Sulfate	6.1		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX20946 FB-1

Lab Sample ID: 400-143177-6

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

Client Sample ID: AX21091 MW-1

Lab Sample ID: 400-143177-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.37		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21092 MW-13

Lab Sample ID: 400-143177-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.5		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	8.3		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21093 MW-12

Lab Sample ID: 400-143177-9

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21093 MW-12 (Continued)

Lab Sample ID: 400-143177-9

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	0.060	J F1	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	7.0		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21094 MW-11

Lab Sample ID: 400-143177-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	6.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21095 MW-10

Lab Sample ID: 400-143177-11

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	1.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21096 EB-1

Lab Sample ID: 400-143177-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	0.79	J	2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX21097 MW-5

Lab Sample ID: 400-143177-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	33		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21098 MW-5 DUP

Lab Sample ID: 400-143177-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	17		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	34		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21099 MW-6

Lab Sample ID: 400-143177-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: AX21100 FB-2

Lab Sample ID: 400-143177-16

No Detections.

Client Sample ID: AX21101 MW-7

Lab Sample ID: 400-143177-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	8.6		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 Gaston

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21102 MW-8

Lab Sample ID: 400-143177-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.4		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: AX21103 MW-9

Lab Sample ID: 400-143177-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.9		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston 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 Gaston

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-143177-1	AX20941 MW-15	Water	09/05/17 10:31	09/13/17 09:37
400-143177-2	AX20942 MW-3	Water	09/05/17 13:20	09/13/17 09:37
400-143177-3	AX20943 MW-14S	Water	09/05/17 14:09	09/13/17 09:37
400-143177-4	AX20944 MW-14S DUP	Water	09/05/17 14:09	09/13/17 09:37
400-143177-5	AX20945 MW-2	Water	09/05/17 15:31	09/13/17 09:37
400-143177-6	AX20946 FB-1	Water	09/05/17 15:44	09/13/17 09:37
400-143177-7	AX21091 MW-1	Water	09/07/17 09:45	09/13/17 09:37
400-143177-8	AX21092 MW-13	Water	09/07/17 10:35	09/13/17 09:37
400-143177-9	AX21093 MW-12	Water	09/07/17 11:20	09/13/17 09:37
400-143177-10	AX21094 MW-11	Water	09/07/17 12:28	09/13/17 09:37
400-143177-11	AX21095 MW-10	Water	09/07/17 13:13	09/13/17 09:37
400-143177-12	AX21096 EB-1	Water	09/07/17 13:25	09/13/17 09:37
400-143177-13	AX21097 MW-5	Water	09/07/17 09:34	09/13/17 09:37
400-143177-14	AX21098 MW-5 DUP	Water	09/07/17 09:34	09/13/17 09:37
400-143177-15	AX21099 MW-6	Water	09/07/17 10:18	09/13/17 09:37
400-143177-16	AX21100 FB-2	Water	09/07/17 09:56	09/13/17 09:37
400-143177-17	AX21101 MW-7	Water	09/07/17 11:39	09/13/17 09:37
400-143177-18	AX21102 MW-8	Water	09/07/17 12:29	09/13/17 09:37
400-143177-19	AX21103 MW-9	Water	09/07/17 13:30	09/13/17 09:37

Client Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX20941 MW-15

Lab Sample ID: 400-143177-1

Date Collected: 09/05/17 10:31

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.5		2.0	0.60	mg/L			09/20/17 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			09/21/17 09:50	1
Sulfate	2.2	J	5.0	1.4	mg/L			09/19/17 11:38	1

Client Sample ID: AX20942 MW-3

Lab Sample ID: 400-143177-2

Date Collected: 09/05/17 13:20

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			09/20/17 08:09	1
Fluoride	0.060	J	0.10	0.032	mg/L			09/21/17 09:52	1
Sulfate	17		5.0	1.4	mg/L			09/19/17 12:49	1

Client Sample ID: AX20943 MW-14S

Lab Sample ID: 400-143177-3

Date Collected: 09/05/17 14:09

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		2.0	0.60	mg/L			09/20/17 08:09	1
Fluoride	0.060	J	0.10	0.032	mg/L			09/21/17 09:54	1
Sulfate	6.8		5.0	1.4	mg/L			09/19/17 12:49	1

Client Sample ID: AX20944 MW-14S DUP

Lab Sample ID: 400-143177-4

Date Collected: 09/05/17 14:09

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.6		2.0	0.60	mg/L			09/20/17 08:09	1
Fluoride	0.060	J	0.10	0.032	mg/L			09/21/17 09:56	1
Sulfate	6.8		5.0	1.4	mg/L			09/19/17 12:49	1

Client Sample ID: AX20945 MW-2

Lab Sample ID: 400-143177-5

Date Collected: 09/05/17 15:31

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		2.0	0.60	mg/L			09/20/17 08:09	1
Fluoride	<0.032		0.10	0.032	mg/L			09/21/17 10:10	1
Sulfate	6.1		5.0	1.4	mg/L			09/19/17 12:51	1

Client Sample Results

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX20946 FB-1

Lab Sample ID: 400-143177-6

Date Collected: 09/05/17 15:44

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.69	J	2.0	0.60	mg/L			09/20/17 08:09	1
Fluoride	<0.032		0.10	0.032	mg/L			09/21/17 10:12	1
Sulfate	<1.4		5.0	1.4	mg/L			09/19/17 12:51	1

Client Sample ID: AX21091 MW-1

Lab Sample ID: 400-143177-7

Date Collected: 09/07/17 09:45

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.9		2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	0.37		0.10	0.032	mg/L			09/21/17 10:19	1
Sulfate	3.6	J	5.0	1.4	mg/L			09/19/17 14:05	1

Client Sample ID: AX21092 MW-13

Lab Sample ID: 400-143177-8

Date Collected: 09/07/17 10:35

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.5		2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	0.050	J	0.10	0.032	mg/L			09/21/17 10:21	1
Sulfate	8.3		5.0	1.4	mg/L			09/19/17 14:05	1

Client Sample ID: AX21093 MW-12

Lab Sample ID: 400-143177-9

Date Collected: 09/07/17 11:20

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	0.060	J F1	0.10	0.032	mg/L			09/21/17 09:37	1
Sulfate	7.0		5.0	1.4	mg/L			09/19/17 14:05	1

Client Sample ID: AX21094 MW-11

Lab Sample ID: 400-143177-10

Date Collected: 09/07/17 12:28

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	0.040	J	0.10	0.032	mg/L			09/28/17 15:50	1
Sulfate	6.2		5.0	1.4	mg/L			09/19/17 14:06	1

Client Sample ID: AX21095 MW-10

Lab Sample ID: 400-143177-11

Date Collected: 09/07/17 13:13

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.9		2.0	0.60	mg/L			09/20/17 11:56	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21095 MW-10

Lab Sample ID: 400-143177-11

Date Collected: 09/07/17 13:13

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 15:53	1
Sulfate	1.7	J	5.0	1.4	mg/L			09/19/17 14:06	1

Client Sample ID: AX21096 EB-1

Lab Sample ID: 400-143177-12

Date Collected: 09/07/17 13:25

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.79	J	2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 15:55	1
Sulfate	<1.4		5.0	1.4	mg/L			09/19/17 14:06	1

Client Sample ID: AX21097 MW-5

Lab Sample ID: 400-143177-13

Date Collected: 09/07/17 09:34

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		2.0	0.60	mg/L			09/20/17 11:56	1
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 15:57	1
Sulfate	33		10	2.8	mg/L			09/19/17 14:27	2

Client Sample ID: AX21098 MW-5 DUP

Lab Sample ID: 400-143177-14

Date Collected: 09/07/17 09:34

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	17		2.0	0.60	mg/L			09/20/17 11:57	1
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 16:01	1
Sulfate	34		10	2.8	mg/L			09/19/17 14:27	2

Client Sample ID: AX21099 MW-6

Lab Sample ID: 400-143177-15

Date Collected: 09/07/17 10:18

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		2.0	0.60	mg/L			09/20/17 11:57	1
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 16:03	1
Sulfate	<1.4		5.0	1.4	mg/L			09/19/17 14:12	1

Client Sample ID: AX21100 FB-2

Lab Sample ID: 400-143177-16

Date Collected: 09/07/17 09:56

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			09/20/17 12:10	1
Fluoride	<0.032		0.10	0.032	mg/L			09/28/17 16:05	1

TestAmerica Pensacola

Client Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21100 FB-2

Lab Sample ID: 400-143177-16

Date Collected: 09/07/17 09:56

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/19/17 14:12	1

Client Sample ID: AX21101 MW-7

Lab Sample ID: 400-143177-17

Date Collected: 09/07/17 11:39

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.0		2.0	0.60	mg/L			09/20/17 12:10	1
Fluoride	0.090	J	0.10	0.032	mg/L			09/28/17 16:18	1
Sulfate	8.6		5.0	1.4	mg/L			09/19/17 14:05	1

Client Sample ID: AX21102 MW-8

Lab Sample ID: 400-143177-18

Date Collected: 09/07/17 12:29

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		2.0	0.60	mg/L			09/20/17 12:10	1
Fluoride	0.13		0.10	0.032	mg/L			09/28/17 16:20	1
Sulfate	2.1	J	5.0	1.4	mg/L			09/19/17 14:12	1

Client Sample ID: AX21103 MW-9

Lab Sample ID: 400-143177-19

Date Collected: 09/07/17 13:30

Matrix: Water

Date Received: 09/13/17 09:37

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		2.0	0.60	mg/L			09/20/17 12:10	1
Fluoride	0.040	J	0.10	0.032	mg/L			09/28/17 15:45	1
Sulfate	5.9		5.0	1.4	mg/L			09/19/17 14:12	1

Definitions/Glossary

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Qualifiers

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

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

Lab Chronicle

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX20941 MW-15

Lab Sample ID: 400-143177-1

Date Collected: 09/05/17 10:31

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 09:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 11:38	RRC	TAL PEN

Client Sample ID: AX20942 MW-3

Lab Sample ID: 400-143177-2

Date Collected: 09/05/17 13:20

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 09:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 12:49	RRC	TAL PEN

Client Sample ID: AX20943 MW-14S

Lab Sample ID: 400-143177-3

Date Collected: 09/05/17 14:09

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 09:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 12:49	RRC	TAL PEN

Client Sample ID: AX20944 MW-14S DUP

Lab Sample ID: 400-143177-4

Date Collected: 09/05/17 14:09

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 09:56	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 12:49	RRC	TAL PEN

Client Sample ID: AX20945 MW-2

Lab Sample ID: 400-143177-5

Date Collected: 09/05/17 15:31

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 10:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 12:51	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX20946 FB-1

Lab Sample ID: 400-143177-6

Date Collected: 09/05/17 15:44

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368718	09/20/17 08:09	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 10:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368599	09/19/17 12:51	RRC	TAL PEN

Client Sample ID: AX21091 MW-1

Lab Sample ID: 400-143177-7

Date Collected: 09/07/17 09:45

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 10:19	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:05	RRC	TAL PEN

Client Sample ID: AX21092 MW-13

Lab Sample ID: 400-143177-8

Date Collected: 09/07/17 10:35

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 10:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:05	RRC	TAL PEN

Client Sample ID: AX21093 MW-12

Lab Sample ID: 400-143177-9

Date Collected: 09/07/17 11:20

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	368864	09/21/17 09:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:05	RRC	TAL PEN

Client Sample ID: AX21094 MW-11

Lab Sample ID: 400-143177-10

Date Collected: 09/07/17 12:28

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 15:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:06	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21095 MW-10

Lab Sample ID: 400-143177-11

Date Collected: 09/07/17 13:13

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 15:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:06	RRC	TAL PEN

Client Sample ID: AX21096 EB-1

Lab Sample ID: 400-143177-12

Date Collected: 09/07/17 13:25

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 15:55	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:06	RRC	TAL PEN

Client Sample ID: AX21097 MW-5

Lab Sample ID: 400-143177-13

Date Collected: 09/07/17 09:34

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:56	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 15:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	368615	09/19/17 14:27	RRC	TAL PEN

Client Sample ID: AX21098 MW-5 DUP

Lab Sample ID: 400-143177-14

Date Collected: 09/07/17 09:34

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 16:01	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	368615	09/19/17 14:27	RRC	TAL PEN

Client Sample ID: AX21099 MW-6

Lab Sample ID: 400-143177-15

Date Collected: 09/07/17 10:18

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 11:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 16:03	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:12	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Client Sample ID: AX21100 FB-2

Lab Sample ID: 400-143177-16

Date Collected: 09/07/17 09:56

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 12:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 16:05	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:12	RRC	TAL PEN

Client Sample ID: AX21101 MW-7

Lab Sample ID: 400-143177-17

Date Collected: 09/07/17 11:39

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 12:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 16:18	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:05	RRC	TAL PEN

Client Sample ID: AX21102 MW-8

Lab Sample ID: 400-143177-18

Date Collected: 09/07/17 12:29

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 12:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 16:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:12	RRC	TAL PEN

Client Sample ID: AX21103 MW-9

Lab Sample ID: 400-143177-19

Date Collected: 09/07/17 13:30

Matrix: Water

Date Received: 09/13/17 09:37

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	368721	09/20/17 12:10	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	369984	09/28/17 15:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	368615	09/19/17 14:12	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 Gaston

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

General Chemistry

Analysis Batch: 368599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-1	AX20941 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-143177-2	AX20942 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-143177-3	AX20943 MW-14S	Total/NA	Water	SM 4500 SO4 E	
400-143177-4	AX20944 MW-14S DUP	Total/NA	Water	SM 4500 SO4 E	
400-143177-5	AX20945 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-143177-6	AX20946 FB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-368599/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-368599/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-368599/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-143177-1 MS	AX20941 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-143177-1 MSD	AX20941 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-143177-2 MS	AX20942 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-143177-2 MSD	AX20942 MW-3	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 368615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-7	AX21091 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-143177-8	AX21092 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-143177-9	AX21093 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-143177-10	AX21094 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-143177-11	AX21095 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-143177-12	AX21096 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-143177-13	AX21097 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-143177-14	AX21098 MW-5 DUP	Total/NA	Water	SM 4500 SO4 E	
400-143177-15	AX21099 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-143177-16	AX21100 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-143177-17	AX21101 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-143177-18	AX21102 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-143177-19	AX21103 MW-9	Total/NA	Water	SM 4500 SO4 E	
MB 400-368615/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-368615/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-368615/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-143177-9 MS	AX21093 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-143177-9 MSD	AX21093 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-143177-19 MS	AX21103 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-143177-19 MSD	AX21103 MW-9	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 368718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-1	AX20941 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-143177-2	AX20942 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-143177-3	AX20943 MW-14S	Total/NA	Water	SM 4500 Cl- E	
400-143177-4	AX20944 MW-14S DUP	Total/NA	Water	SM 4500 Cl- E	
400-143177-5	AX20945 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-143177-6	AX20946 FB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-368718/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-368718/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-368718/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-143063-G-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-143063-G-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-143177-1 MS	AX20941 MW-15	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

General Chemistry (Continued)

Analysis Batch: 368718 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-1 MSD	AX20941 MW-15	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 368721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-7	AX21091 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-143177-8	AX21092 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-143177-9	AX21093 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-143177-10	AX21094 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-143177-11	AX21095 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-143177-12	AX21096 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-143177-13	AX21097 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-143177-14	AX21098 MW-5 DUP	Total/NA	Water	SM 4500 Cl- E	
400-143177-15	AX21099 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-143177-16	AX21100 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-143177-17	AX21101 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-143177-18	AX21102 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-143177-19	AX21103 MW-9	Total/NA	Water	SM 4500 Cl- E	
MB 400-368721/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-368721/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-368721/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-143177-9 MS	AX21093 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-143177-9 MSD	AX21093 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-143177-19 MS	AX21103 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-143177-19 MSD	AX21103 MW-9	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 368864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-1	AX20941 MW-15	Total/NA	Water	SM 4500 F C	
400-143177-2	AX20942 MW-3	Total/NA	Water	SM 4500 F C	
400-143177-3	AX20943 MW-14S	Total/NA	Water	SM 4500 F C	
400-143177-4	AX20944 MW-14S DUP	Total/NA	Water	SM 4500 F C	
400-143177-5	AX20945 MW-2	Total/NA	Water	SM 4500 F C	
400-143177-6	AX20946 FB-1	Total/NA	Water	SM 4500 F C	
400-143177-7	AX21091 MW-1	Total/NA	Water	SM 4500 F C	
400-143177-8	AX21092 MW-13	Total/NA	Water	SM 4500 F C	
400-143177-9	AX21093 MW-12	Total/NA	Water	SM 4500 F C	
MB 400-368864/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-368864/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143177-9 MS	AX21093 MW-12	Total/NA	Water	SM 4500 F C	
400-143177-9 MSD	AX21093 MW-12	Total/NA	Water	SM 4500 F C	
400-143040-A-33 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 369984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-10	AX21094 MW-11	Total/NA	Water	SM 4500 F C	
400-143177-11	AX21095 MW-10	Total/NA	Water	SM 4500 F C	
400-143177-12	AX21096 EB-1	Total/NA	Water	SM 4500 F C	
400-143177-13	AX21097 MW-5	Total/NA	Water	SM 4500 F C	
400-143177-14	AX21098 MW-5 DUP	Total/NA	Water	SM 4500 F C	
400-143177-15	AX21099 MW-6	Total/NA	Water	SM 4500 F C	
400-143177-16	AX21100 FB-2	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola

QC Association Summary

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

TestAmerica Job ID: 400-143177-1
SDG: Plant Gaston Gypsum Storage Area

General Chemistry (Continued)

Analysis Batch: 369984 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-143177-17	AX21101 MW-7	Total/NA	Water	SM 4500 F C	
400-143177-18	AX21102 MW-8	Total/NA	Water	SM 4500 F C	
400-143177-19	AX21103 MW-9	Total/NA	Water	SM 4500 F C	
MB 400-369984/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-369984/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-143177-19 MS	AX21103 MW-9	Total/NA	Water	SM 4500 F C	
400-143177-19 MSD	AX21103 MW-9	Total/NA	Water	SM 4500 F C	



QC Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-368718/6
Matrix: Water
Analysis Batch: 368718

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			09/20/17 07:14	1

Lab Sample ID: LCS 400-368718/7
Matrix: Water
Analysis Batch: 368718

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	29.7		mg/L		99	90 - 110

Lab Sample ID: MRL 400-368718/3
Matrix: Water
Analysis Batch: 368718

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.29		mg/L		115	50 - 150

Lab Sample ID: 400-143063-G-4 MS
Matrix: Water
Analysis Batch: 368718

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	43		10.0	49.9	4	mg/L		73	73 - 120

Lab Sample ID: 400-143063-G-4 MSD
Matrix: Water
Analysis Batch: 368718

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	43		10.0	49.8	4	mg/L		72	73 - 120	0	8

Lab Sample ID: 400-143177-1 MS
Matrix: Water
Analysis Batch: 368718

Client Sample ID: AX20941 MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.5		10.0	13.7		mg/L		111	73 - 120

Lab Sample ID: 400-143177-1 MSD
Matrix: Water
Analysis Batch: 368718

Client Sample ID: AX20941 MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	2.5		10.0	13.7		mg/L		112	73 - 120	0	8

Lab Sample ID: MB 400-368721/6
Matrix: Water
Analysis Batch: 368721

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			09/20/17 09:43	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Lab Sample ID: LCS 400-368721/7
Matrix: Water
Analysis Batch: 368721

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.4		mg/L		101	90 - 110

Lab Sample ID: MRL 400-368721/3
Matrix: Water
Analysis Batch: 368721

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	2.23		mg/L		112	50 - 150

Lab Sample ID: 400-143177-9 MS
Matrix: Water
Analysis Batch: 368721

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.5		10.0	14.7		mg/L		112	73 - 120

Lab Sample ID: 400-143177-9 MSD
Matrix: Water
Analysis Batch: 368721

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.5		10.0	14.6		mg/L		112	73 - 120	0	8

Lab Sample ID: 400-143177-19 MS
Matrix: Water
Analysis Batch: 368721

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.8		10.0	13.8		mg/L		110	73 - 120

Lab Sample ID: 400-143177-19 MSD
Matrix: Water
Analysis Batch: 368721

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.8		10.0	13.8		mg/L		110	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-368864/3
Matrix: Water
Analysis Batch: 368864

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			09/21/17 09:28	1

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 400-368864/4
Matrix: Water
Analysis Batch: 368864

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-143177-9 MS
Matrix: Water
Analysis Batch: 368864

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.060	J F1	1.00	1.32	F1	mg/L		126	75 - 125

Lab Sample ID: 400-143177-9 MSD
Matrix: Water
Analysis Batch: 368864

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.060	J F1	1.00	1.27		mg/L		121	75 - 125	4	4

Lab Sample ID: 400-143040-A-33 DU
Matrix: Water
Analysis Batch: 368864

Client Sample ID: Duplicate
Prep Type: Total/NA

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

Lab Sample ID: MB 400-369984/3
Matrix: Water
Analysis Batch: 369984

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			09/28/17 15:26	1

Lab Sample ID: LCS 400-369984/6
Matrix: Water
Analysis Batch: 369984

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-143177-19 MS
Matrix: Water
Analysis Batch: 369984

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.040	J	1.00	1.00		mg/L		96	75 - 125

Lab Sample ID: 400-143177-19 MSD
Matrix: Water
Analysis Batch: 369984

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J	1.00	1.00		mg/L		96	75 - 125	0	4

TestAmerica Pensacola

QC Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-368599/6
Matrix: Water
Analysis Batch: 368599

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			09/19/17 11:20	1

Lab Sample ID: LCS 400-368599/7
Matrix: Water
Analysis Batch: 368599

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.8		mg/L		99	90 - 110

Lab Sample ID: MRL 400-368599/3
Matrix: Water
Analysis Batch: 368599

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.76	J	mg/L		95	50 - 150

Lab Sample ID: 400-143177-1 MS
Matrix: Water
Analysis Batch: 368599

Client Sample ID: AX20941 MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	2.2	J	10.0	13.1		mg/L		108	77 - 128

Lab Sample ID: 400-143177-1 MSD
Matrix: Water
Analysis Batch: 368599

Client Sample ID: AX20941 MW-15
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	2.2	J	10.0	13.0		mg/L		107	77 - 128	1	5

Lab Sample ID: 400-143177-2 MS
Matrix: Water
Analysis Batch: 368599

Client Sample ID: AX20942 MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	17		10.0	28.9		mg/L		117	77 - 128

Lab Sample ID: 400-143177-2 MSD
Matrix: Water
Analysis Batch: 368599

Client Sample ID: AX20942 MW-3
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	17		10.0	28.7		mg/L		115	77 - 128	1	5

QC Sample Results

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

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston Gypsum Storage Area

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

Lab Sample ID: MB 400-368615/6
Matrix: Water
Analysis Batch: 368615

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			09/19/17 13:47	1

Lab Sample ID: LCS 400-368615/7
Matrix: Water
Analysis Batch: 368615

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.3		mg/L		102	90 - 110

Lab Sample ID: MRL 400-368615/3
Matrix: Water
Analysis Batch: 368615

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	4.86	J	mg/L		97	50 - 150

Lab Sample ID: 400-143177-9 MS
Matrix: Water
Analysis Batch: 368615

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	7.0		10.0	18.0		mg/L		110	77 - 128

Lab Sample ID: 400-143177-9 MSD
Matrix: Water
Analysis Batch: 368615

Client Sample ID: AX21093 MW-12
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	7.0		10.0	18.1		mg/L		111	77 - 128	1	5

Lab Sample ID: 400-143177-19 MS
Matrix: Water
Analysis Batch: 368615

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.9		10.0	16.9		mg/L		110	77 - 128

Lab Sample ID: 400-143177-19 MSD
Matrix: Water
Analysis Batch: 368615

Client Sample ID: AX21103 MW-9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	5.9		10.0	16.7		mg/L		108	77 - 128	1	5

Chain of Custody Record

Client Information		Sampler Anthony Goggins/Nick Pitts		Lab PM Whitnirre, Cheryenne R		COC No 400-56525-24537 1	
Client Contact Keith Komegay		Phone		E-Mail cheryenne.whitnirre@testamericainc.com		Page Page 1 of 1	
Company Alabama Power General Test Laboratory		Due Date Requested:		Analysis Requested		Job #	
Address 744 County Rd 87 GSC #8		FAT Requested (days): Routine		400-143177 COC		Preservation Codes: M - Hexane N - None O - AsH2O2 P - Na2O4S Q - Na2SO3 R - H2SO4 S - H2SO3 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 X - EDTA Y - EDA Z - other (specify) Other:	
City Cellera		PO #		QR Code		Total Number of containers	
State, Zip AL, 35040		WO #		400-143177 COC		Special Instructions/Note:	
Phone 205-664-6004		Project #		Perform MS/MSD (Yes or No)		MW-15 MW-3 MW-14s MW-14sDUPE (Sample Duplicate) MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
Email tk.korneg@alpower.com		\$50.00		Field Filtered Sample (Yes or No)		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
Project Name CCR		Sample Date		Sample Time		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
Site Gaston Gypsum		Sample Date		Sample Time		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
Sample Identification		Sample Date		Sample Time		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20941		9/5/17		1031		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20942		9/5/17		1320		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20943		9/5/17		1409		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20944		9/5/17		1409		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20945		9/5/17		1531		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX20946		9/5/17		1544		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX21091		9/7/17		0945		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX21092		9/7/17		1035		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX21093		9/7/17		1120		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX21094		9/7/17		1228		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
AX21095		9/7/17		1313		MW-3 MW-3 MW-1 MW-13 MW-12 MW-11 MW-10	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Date: 09/12/17 1200		Company APC		Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Date/Time		Company		Special Instructions/IOC Requirements	
Empty Kit Relinquished by: Keith Komegay		Date/Time		Company		Method of Shipment	
Relinquished by: Keith Komegay		Date/Time		Company		Received by: _____ Date/Time	
Relinquished by: _____		Date/Time		Company		Received by: _____ Date/Time	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Date/Time		Company		Received by: _____ Date/Time	
Custody Seal No.:		Date/Time		Company		Received by: _____ Date/Time	



Chain of Custody Record

Client Information		Lab P/N: Whitmire, Chelyenne R		Carrier Tracking No(s):						
Client Contact: Keith Komegay		E-Mail: chelyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1						
Company: Alabama Power General Test Laboratory		Due Date Requested:		Page: Page 1 of 1						
Address: 744 County Rd 87 GSC #8		TAT Requested (days): Routine		Job #:						
City: Calera		PO #:		Preservation Codes:						
State, Zip: AL 35040		WO #:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
Phone: 205-664-6004		Project #:		M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4.5 Z - other (specify)						
Email: fkkomeg@southernco.com		SSOW#:		Total Number of Containers						
Project Name: CCR		Site: Gaston Gypsum		Special Instructions/Note:						
Sample Identification		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F, C	SM 4500 CL E	SM 4500 SO4, E
AX21096	9/7/17	1325	G	Water	Water	X	N	X	X	X
AX21097	9/7/17	0934	G	Water	Water	X	X	X	X	X
AX21098	9/7/17	0934	G	Water	Water	X	X	X	X	X
AX21099	9/7/17	1018	G	Water	Water	X	X	X	X	X
AX21100	9/7/17	0956	G	Water	Water	X	X	X	X	X
AX21101	9/7/17	1139	G	Water	Water	X	X	X	X	X
AX21102	9/7/17	1229	G	Water	Water	X	X	X	X	X
AX21103	9/7/17	1330	G	Water	Water	Y	X	X	X	X
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological										
Deliverable Requested: I, II, III, IV, Other (specify)										
Empty Kit Relinquished by:										
Relinquished by: Keith Komegay										
Relinquished by:										
Relinquished by:										
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No										
Custody Seal No.:										
Special Instructions/QC Requirements:										
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months										
Received by:										
Received by:										
Received by:										
Date: 9-13-17										
Date:										
Date:										
Company:										
Company:										
Company:										
Remarks:										



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-143177-1
SDG Number: Plant Gaston Gypsum Storage Area

Login Number: 143177

List Number: 1

Creator: Edwards, Robin S

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 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.	False	AX20945 MW-29 changed to MW-2.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <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 Gaston

TestAmerica Job ID: 400-143177-1
 SDG: Plant Gaston 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 Gaston Gypsum Pond
Field pH Data

Well	Date	Obs	Units
GN-GSA-MW-1	3/24/2016	7.7	SU
GN-GSA-MW-1	5/10/2016	7.67	SU
GN-GSA-MW-1	7/5/2016	7.68	SU
GN-GSA-MW-1	9/6/2016	7.8	SU
GN-GSA-MW-1	11/8/2016	7.74	SU
GN-GSA-MW-1	2/22/2017	7.61	SU
GN-GSA-MW-1	5/31/2017	7.7	SU
GN-GSA-MW-1	7/5/2017	7.66	SU
GN-GSA-MW-1	9/7/2017	7.7	SU
GN-GSA-MW-10	3/24/2016	6.95	SU
GN-GSA-MW-10	5/11/2016	7.07	SU
GN-GSA-MW-10	7/6/2016	7.13	SU
GN-GSA-MW-10	9/6/2016	7.1	SU
GN-GSA-MW-10	11/9/2016	7.1	SU
GN-GSA-MW-10	2/21/2017	7	SU
GN-GSA-MW-10	5/31/2017	7.01	SU
GN-GSA-MW-10	7/5/2017	7.07	SU
GN-GSA-MW-10	9/7/2017	7.01	SU
GN-GSA-MW-11	3/23/2016	6.26	SU
GN-GSA-MW-11	5/11/2016	6.04	SU
GN-GSA-MW-11	7/6/2016	6	SU
GN-GSA-MW-11	9/7/2016	6.1	SU
GN-GSA-MW-11	11/9/2016	5.85	SU
GN-GSA-MW-11	2/21/2017	5.99	SU
GN-GSA-MW-11	5/31/2017	6.03	SU
GN-GSA-MW-11	7/5/2017	6.13	SU
GN-GSA-MW-11	9/7/2017	6.17	SU
GN-GSA-MW-12	3/23/2016	7.28	SU
GN-GSA-MW-12	5/10/2016	7.19	SU
GN-GSA-MW-12	7/6/2016	7.29	SU
GN-GSA-MW-12	9/6/2016	7.29	SU
GN-GSA-MW-12	11/9/2016	7.29	SU
GN-GSA-MW-12	2/21/2017	7.1	SU
GN-GSA-MW-12	5/31/2017	7.16	SU
GN-GSA-MW-12	7/5/2017	7.08	SU
GN-GSA-MW-12	9/7/2017	7.17	SU
GN-GSA-MW-13	3/24/2016	7.14	SU
GN-GSA-MW-13	5/10/2016	7.17	SU
GN-GSA-MW-13	7/6/2016	7.19	SU
GN-GSA-MW-13	9/6/2016	7.18	SU
GN-GSA-MW-13	11/8/2016	7.18	SU
GN-GSA-MW-13	2/22/2017	7.02	SU
GN-GSA-MW-13	5/31/2017	7.07	SU
GN-GSA-MW-13	7/5/2017	7	SU
GN-GSA-MW-13	9/7/2017	7.02	SU
GN-GSA-MW-14S	7/5/2016	7.44	SU

Plant Gaston Gypsum Pond
Field pH Data

Well	Date	Obs	Units
GN-GSA-MW-14S	8/23/2016	7.47	SU
GN-GSA-MW-14S	9/7/2016	7.51	SU
GN-GSA-MW-14S	11/8/2016	7.37	SU
GN-GSA-MW-14S	1/3/2017	7.37	SU
GN-GSA-MW-14S	2/21/2017	7.41	SU
GN-GSA-MW-14S	5/31/2017	7.47	SU
GN-GSA-MW-14S	7/5/2017	7.5	SU
GN-GSA-MW-14S	9/5/2017	7.39	SU
GN-GSA-MW-15	7/6/2016	6.1	SU
GN-GSA-MW-15	8/23/2016	5.87	SU
GN-GSA-MW-15	9/7/2016	5.92	SU
GN-GSA-MW-15	11/8/2016	5.91	SU
GN-GSA-MW-15	1/3/2017	5.93	SU
GN-GSA-MW-15	2/20/2017	5.91	SU
GN-GSA-MW-15	5/31/2017	6	SU
GN-GSA-MW-15	7/5/2017	6	SU
GN-GSA-MW-15	9/5/2017	5.9	SU
GN-GSA-MW-2	3/23/2016	7.18	SU
GN-GSA-MW-2	5/10/2016	7.2	SU
GN-GSA-MW-2	7/5/2016	7.15	SU
GN-GSA-MW-2	9/6/2016	7.17	SU
GN-GSA-MW-2	11/8/2016	7.12	SU
GN-GSA-MW-2	2/21/2017	7.12	SU
GN-GSA-MW-2	5/31/2017	7.17	SU
GN-GSA-MW-2	7/5/2017	7.18	SU
GN-GSA-MW-2	9/5/2017	7.17	SU
GN-GSA-MW-3	3/23/2016	6.83	SU
GN-GSA-MW-3	5/10/2016	6.84	SU
GN-GSA-MW-3	7/6/2016	6.94	SU
GN-GSA-MW-3	9/7/2016	6.84	SU
GN-GSA-MW-3	11/8/2016	6.84	SU
GN-GSA-MW-3	2/20/2017	7.04	SU
GN-GSA-MW-3	5/31/2017	6.91	SU
GN-GSA-MW-3	7/5/2017	7.02	SU
GN-GSA-MW-3	9/5/2017	6.78	SU
GN-GSA-MW-5	3/23/2016	6.41	SU
GN-GSA-MW-5	5/11/2016	6.5	SU
GN-GSA-MW-5	7/6/2016	6.47	SU
GN-GSA-MW-5	9/6/2016	6.51	SU
GN-GSA-MW-5	11/8/2016	6.48	SU
GN-GSA-MW-5	2/20/2017	6.39	SU
GN-GSA-MW-5	5/30/2017	6.38	SU
GN-GSA-MW-5	7/5/2017	6.44	SU
GN-GSA-MW-5	9/7/2017	6.44	SU
GN-GSA-MW-6	3/23/2016	4.91	SU
GN-GSA-MW-6	5/11/2016	4.79	SU

Plant Gaston Gypsum Pond
Field pH Data

Well	Date	Obs	Units
GN-GSA-MW-6	7/6/2016	4.66	SU
GN-GSA-MW-6	9/6/2016	4.8	SU
GN-GSA-MW-6	11/8/2016	4.81	SU
GN-GSA-MW-6	2/20/2017	4.51	SU
GN-GSA-MW-6	5/30/2017	4.61	SU
GN-GSA-MW-6	7/5/2017	4.64	SU
GN-GSA-MW-6	9/7/2017	4.67	SU
GN-GSA-MW-7	3/23/2016	6.5	SU
GN-GSA-MW-7	5/11/2016	6.54	SU
GN-GSA-MW-7	7/6/2016	6.58	SU
GN-GSA-MW-7	9/6/2016	6.64	SU
GN-GSA-MW-7	11/8/2016	6.61	SU
GN-GSA-MW-7	2/20/2017	6.63	SU
GN-GSA-MW-7	5/31/2017	6.54	SU
GN-GSA-MW-7	7/5/2017	6.67	SU
GN-GSA-MW-7	9/7/2017	6.69	SU
GN-GSA-MW-8	3/24/2016	7.45	SU
GN-GSA-MW-8	5/11/2016	7.48	SU
GN-GSA-MW-8	7/6/2016	7.46	SU
GN-GSA-MW-8	9/6/2016	7.44	SU
GN-GSA-MW-8	11/8/2016	7.37	SU
GN-GSA-MW-8	2/20/2017	7.36	SU
GN-GSA-MW-8	5/30/2017	7.38	SU
GN-GSA-MW-8	7/5/2017	7.44	SU
GN-GSA-MW-8	9/7/2017	7.41	SU
GN-GSA-MW-9	3/23/2016	6.88	SU
GN-GSA-MW-9	5/11/2016	6.84	SU
GN-GSA-MW-9	7/6/2016	7.01	SU
GN-GSA-MW-9	9/7/2016	7.03	SU
GN-GSA-MW-9	11/8/2016	7.15	SU
GN-GSA-MW-9	2/21/2017	6.67	SU
GN-GSA-MW-9	5/30/2017	6.91	SU
GN-GSA-MW-9	7/5/2017	6.51	SU
GN-GSA-MW-9	9/7/2017	6.96	SU

Appendix B

Statistical Data Evaluation

Interwell Prediction Limits - Significant Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 11/6/2017, 9:01 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>
Fluoride (mg/L)	GN-GSA-MW-1	0.111	n/a	9/7/2017	0.37	Yes	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-8	0.111	n/a	9/7/2017	0.13	Yes	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-1	7.51	5.87	9/7/2017	7.7	Yes	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-6	7.51	5.87	9/7/2017	4.67	Yes	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2

Intrawell Prediction Limits - Significant Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 12/13/2017, 3:24 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>
Calcium (mg/L)	GN-GSA-MW-5	58.82	n/a	9/7/2017	66.5	Yes	8	51.05	3.445	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-10	96.7	n/a	9/7/2017	99	Yes	8	91.34	2.377	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-11	5.934	n/a	9/7/2017	6.5	Yes	8	3.99	0.8616	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-5	20.94	n/a	9/7/2017	33	Yes	8	13.33	3.375	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-5	240.5	n/a	9/7/2017	269	Yes	8	195.1	20.1	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-11	103.9	n/a	9/7/2017	105	Yes	8	71.59	14.33	0	None	No	0.0006839 Param 1 of 3

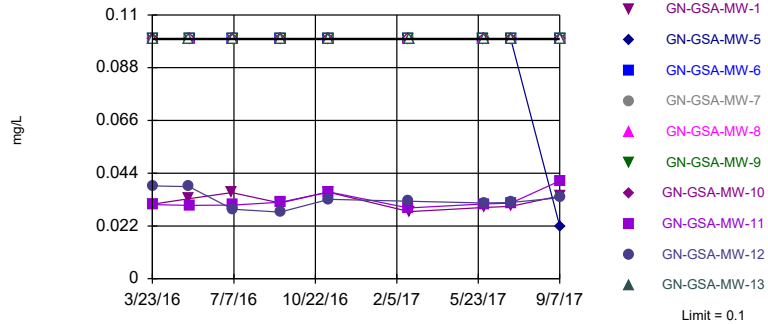
Interwell Prediction Limits - All Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 11/6/2017, 8:01 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	GN-GSA-MW-1	0.1	n/a	9/7/2017	0.0345	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-5	0.1	n/a	9/7/2017	0.022	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-6	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-7	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-8	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-9	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-10	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-11	0.1	n/a	9/7/2017	0.0408	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-12	0.1	n/a	9/7/2017	0.0338	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Boron (mg/L)	GN-GSA-MW-13	0.1	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.001346	NP (NDs) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-1	0.111	n/a	9/7/2017	0.37	Yes	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-5	0.111	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-6	0.111	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-7	0.111	n/a	9/7/2017	0.09	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-8	0.111	n/a	9/7/2017	0.13	Yes	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-9	0.111	n/a	9/7/2017	0.04	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-10	0.111	n/a	9/7/2017	0.1ND	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-11	0.111	n/a	9/7/2017	0.04	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-12	0.111	n/a	9/7/2017	0.06	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
Fluoride (mg/L)	GN-GSA-MW-13	0.111	n/a	9/7/2017	0.05	No	36	n/a	n/a	27.78	n/a	n/a	0.001346	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-1	7.51	5.87	9/7/2017	7.7	Yes	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-5	7.51	5.87	9/7/2017	6.44	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-6	7.51	5.87	9/7/2017	4.67	Yes	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-7	7.51	5.87	9/7/2017	6.69	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-8	7.51	5.87	9/7/2017	7.41	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-9	7.51	5.87	9/7/2017	6.96	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-10	7.51	5.87	9/7/2017	7.01	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-11	7.51	5.87	9/7/2017	6.17	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-12	7.51	5.87	9/7/2017	7.17	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2
pH (pH)	GN-GSA-MW-13	7.51	5.87	9/7/2017	7.02	No	36	n/a	n/a	0	n/a	n/a	0.002692	NP (normality) 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

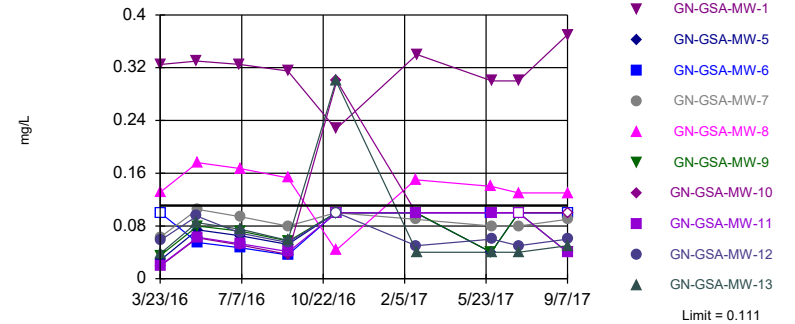


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Annual per-constituent alpha = 0.02919. Individual comparison alpha = 0.001346 (1 of 2). Comparing 10 points to limit. Assumes 1 future value.

Constituent: Boron Analysis Run 11/6/2017 7:54 AM View: PLs - Interwell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit: GN-GSA-MW-1, GN-GSA-MW-8

Prediction Limit
Interwell Non-parametric

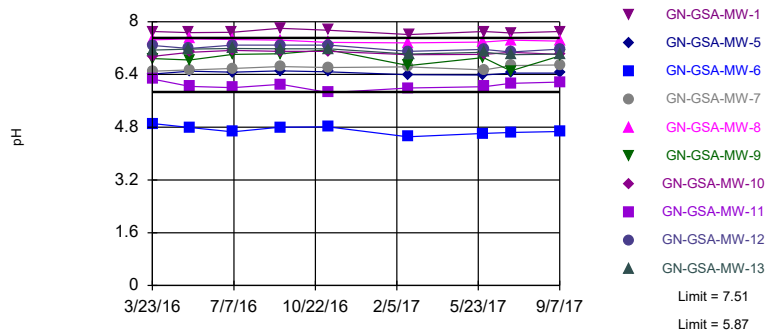


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 27.78% NDs. Annual per-constituent alpha = 0.02919. Individual comparison alpha = 0.001346 (1 of 2). Comparing 10 points to limit. Assumes 1 future value.

Constituent: Fluoride Analysis Run 11/6/2017 7:54 AM View: PLs - Interwell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limits: GN-GSA-MW-1, GN-GSA-MW-6

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 36 background values. Annual per-constituent alpha = 0.05839. Individual comparison alpha = 0.002692 (1 of 2). Comparing 10 points to limit. Assumes 1 future value.

Constituent: pH Analysis Run 11/6/2017 7:54 AM View: PLs - Interwell
Plant Gaston Client: Southern Company Data: Gaston GSA

Intrawell Prediction Limits - All Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 12/13/2017, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Calcium (mg/L)	GN-GSA-MW-2	89.24	n/a	9/5/2017	77.5	No	8	79.21	4.444	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-3	115.5	n/a	9/5/2017	86.1	No	8	97.76	7.854	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-14S	57.02	n/a	9/5/2017	48.5	No	8	49.51	3.327	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-15	11.11	n/a	9/5/2017	7.44	No	8	8.46	1.174	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-1	38.46	n/a	9/7/2017	36.7	No	8	35.61	1.264	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-5	58.82	n/a	9/7/2017	66.5	Yes	8	51.05	3.445	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-6	1.608	n/a	9/7/2017	0.825	No	8	1.037	0.2533	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-7	70.58	n/a	9/7/2017	70.5	No	8	62.76	3.464	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-8	61.85	n/a	9/7/2017	58.4	No	8	56.34	2.444	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-9	68.58	n/a	9/7/2017	53.5	No	8	49.65	8.393	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-10	96.7	n/a	9/7/2017	99	Yes	8	91.34	2.377	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-11	16.2	n/a	9/7/2017	9.2	No	8	11.02	2.294	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-12	74.45	n/a	9/7/2017	72.9	No	8	65.29	4.061	0	None	No	0.0006839 Param 1 of 3
Calcium (mg/L)	GN-GSA-MW-13	94.13	n/a	9/7/2017	93.2	No	8	81.86	5.438	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-2	4.814	n/a	9/5/2017	4.4	No	8	3.655	0.5138	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-3	3.842	n/a	9/5/2017	3.5	No	8	3.095	0.3311	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-14S	5.655	n/a	9/5/2017	4.5	No	8	4.373	0.5683	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-15	4.398	n/a	9/5/2017	1ND	No	8	3.006	0.617	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-1	3.609	n/a	9/7/2017	1ND	No	8	2.749	0.3814	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-5	17	n/a	9/7/2017	17	No	8	n/a	n/a	0	n/a	n/a	0.005912 NP (normality) 1 of 3
Chloride (mg/L)	GN-GSA-MW-6	3.787	n/a	9/7/2017	1ND	No	8	3.111	0.2996	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-7	4.512	n/a	9/7/2017	4	No	8	3.401	0.4925	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-8	2.476	n/a	9/7/2017	1ND	No	8	1.865	0.2707	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-9	2.9	n/a	9/7/2017	1ND	No	8	n/a	n/a	0	n/a	n/a	0.005912 NP (normality) 1 of 3
Chloride (mg/L)	GN-GSA-MW-10	3.784	n/a	9/7/2017	1ND	No	8	2.851	0.4133	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-11	5.934	n/a	9/7/2017	6.5	Yes	8	3.99	0.8616	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-12	5.389	n/a	9/7/2017	1ND	No	8	3.454	0.8579	0	None	No	0.0006839 Param 1 of 3
Chloride (mg/L)	GN-GSA-MW-13	4.89	n/a	9/7/2017	4.5	No	8	3.539	0.5991	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-2	11.1	n/a	9/5/2017	6.1	No	8	7.229	1.716	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-3	37.23	n/a	9/5/2017	17	No	8	20.8	7.284	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-14S	19.05	n/a	9/5/2017	6.8	No	8	10.34	3.86	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-15	5.878	n/a	9/5/2017	2.2	No	8	3.36	1.116	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-1	6.742	n/a	9/7/2017	3.6	No	8	4.161	1.144	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-5	20.94	n/a	9/7/2017	33	Yes	8	13.33	3.375	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-6	6.23	n/a	9/7/2017	2.5ND	No	8	2.405	1.695	12.5	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-7	14.78	n/a	9/7/2017	8.6	No	8	11.06	1.647	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-8	2.669	n/a	9/7/2017	2.1	No	8	1.811	0.3804	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-9	6.316	n/a	9/7/2017	5.9	No	8	5.181	0.503	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-10	2.678	n/a	9/7/2017	1.7	No	8	1.91	0.3404	12.5	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-11	16.11	n/a	9/7/2017	6.2	No	8	7.661	3.744	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-12	17.51	n/a	9/7/2017	7	No	8	9.643	3.488	0	None	No	0.0006839 Param 1 of 3
Sulfate (mg/L)	GN-GSA-MW-13	10.76	n/a	9/7/2017	8.3	No	8	8.331	1.077	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-2	314.3	n/a	9/5/2017	280	No	8	288.5	11.43	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-3	361	n/a	9/5/2017	284	No	8	309.6	22.75	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-14S	232	n/a	9/5/2017	202	No	8	203.3	12.74	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-15	60.95	n/a	9/5/2017	34.7	No	8	46.15	6.561	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-1	249	n/a	9/7/2017	196	No	8	198.8	22.27	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-5	240.5	n/a	9/7/2017	269	Yes	8	195.1	20.1	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-6	30	n/a	9/7/2017	12.5ND	No	8	n/a	n/a	62.5	n/a	n/a	0.005912 NP (NDs) 1 of 3
TDS (mg/L)	GN-GSA-MW-7	258.8	n/a	9/7/2017	225	No	8	217.6	18.24	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-8	205.7	n/a	9/7/2017	193	No	8	191.3	6.409	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-9	217.8	n/a	9/7/2017	171	No	8	167.5	22.28	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-10	2240	n/a	9/7/2017	259	No	8	n/a	n/a	0	n/a	n/a	0.005912 NP (normality) 1 of 3
TDS (mg/L)	GN-GSA-MW-11	103.9	n/a	9/7/2017	105	Yes	8	71.59	14.33	0	None	No	0.0006839 Param 1 of 3
TDS (mg/L)	GN-GSA-MW-12	282.6	n/a	9/7/2017	225	No	8	222.6	26.6	0	None	No	0.0006839 Param 1 of 3

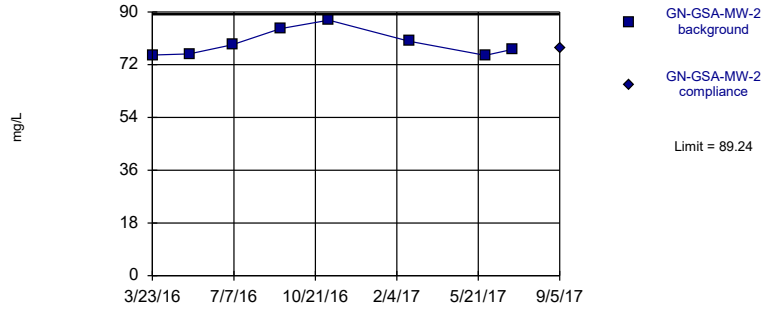
Intrawell Prediction Limits - All Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 12/13/2017, 3:24 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>
TDS (mg/L)	GN-GSA-MW-13	332.4	n/a	9/7/2017	294	No	8	251	36.09	0	None	No	0.0006839 Param 1 of 3

Within Limit

Prediction Limit
Intrawell Parametric

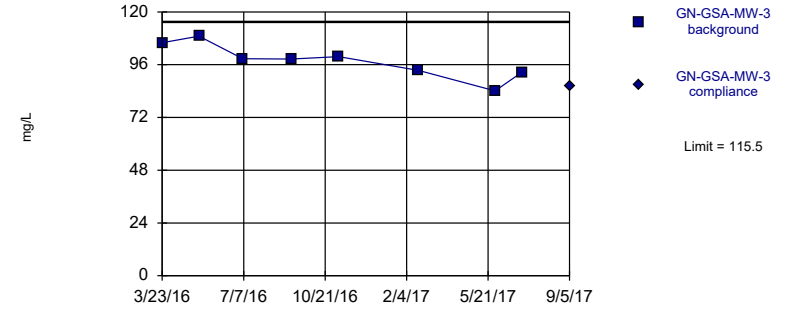


Background Data Summary: Mean=79.21, Std. Dev.=4.444, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8671, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

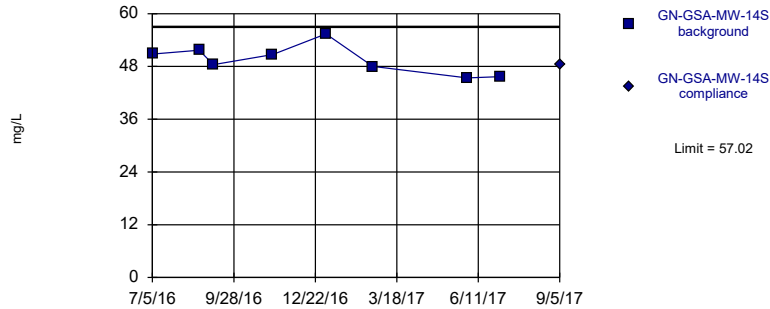


Background Data Summary: Mean=97.76, Std. Dev.=7.854, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

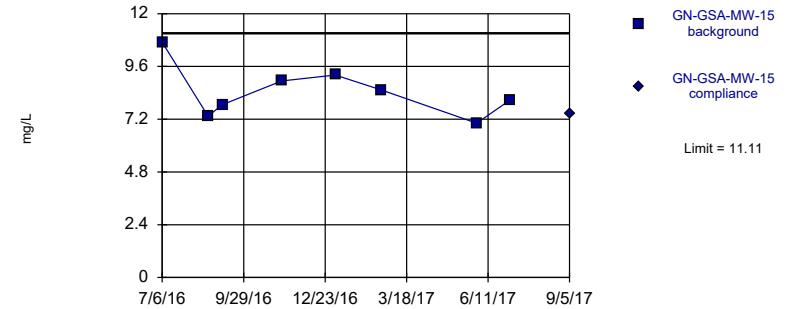


Background Data Summary: Mean=49.51, Std. Dev.=3.327, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9473, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

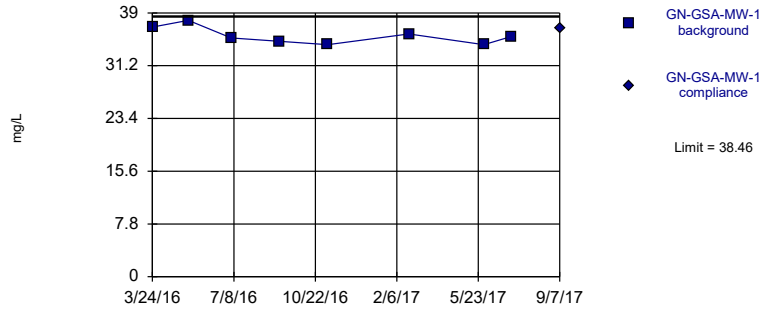


Background Data Summary: Mean=8.46, Std. Dev.=1.174, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.953, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit Intrawell Parametric

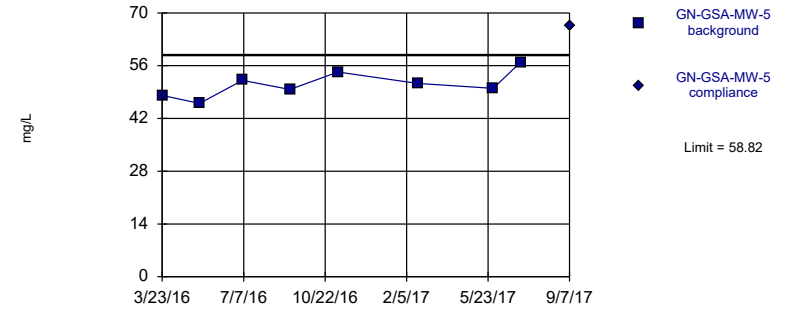


Background Data Summary: Mean=35.61, Std. Dev.=1.264, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9177, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit

Prediction Limit Intrawell Parametric

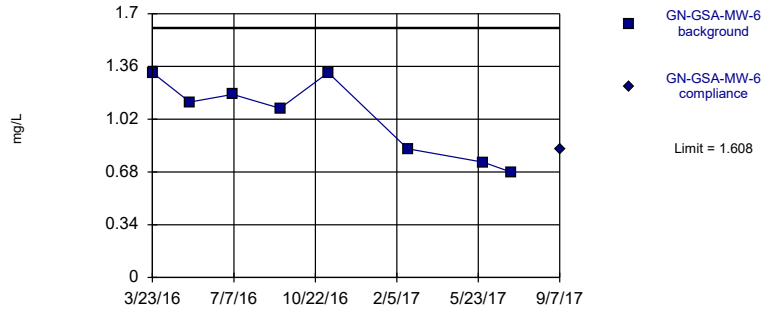


Background Data Summary: Mean=51.05, Std. Dev.=3.445, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9857, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit Intrawell Parametric

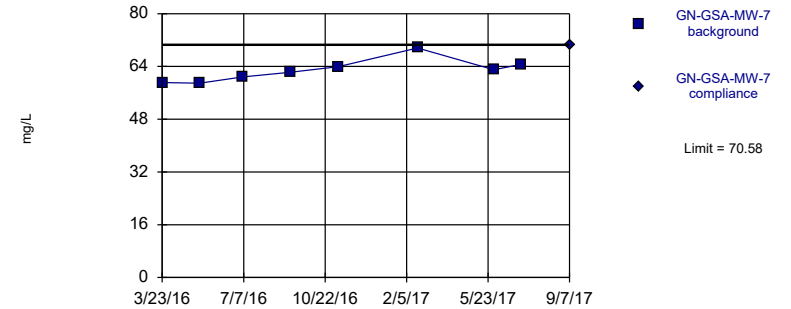


Background Data Summary: Mean=1.037, Std. Dev.=0.2533, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8928, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

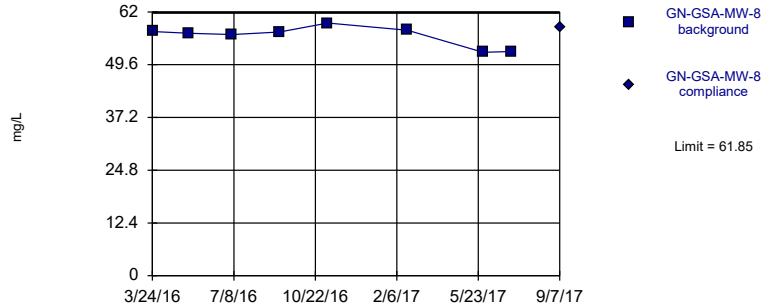
Prediction Limit Intrawell Parametric



Background Data Summary: Mean=62.76, Std. Dev.=3.464, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9224, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

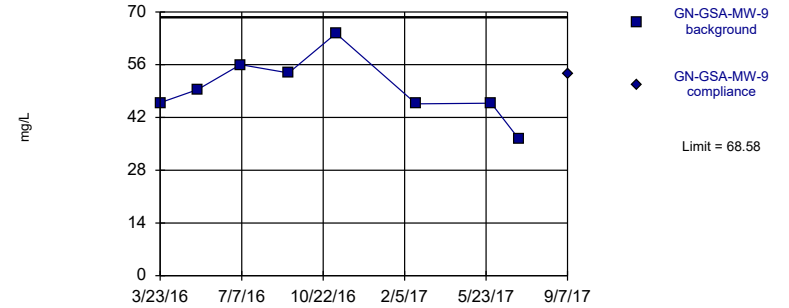
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=56.34, Std. Dev.=2.444, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8315, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

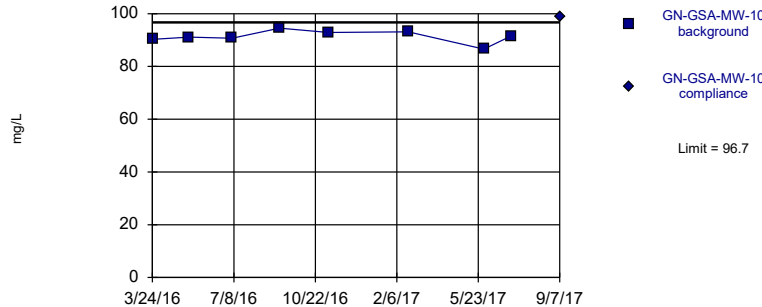
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=49.65, Std. Dev.=8.393, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9608, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

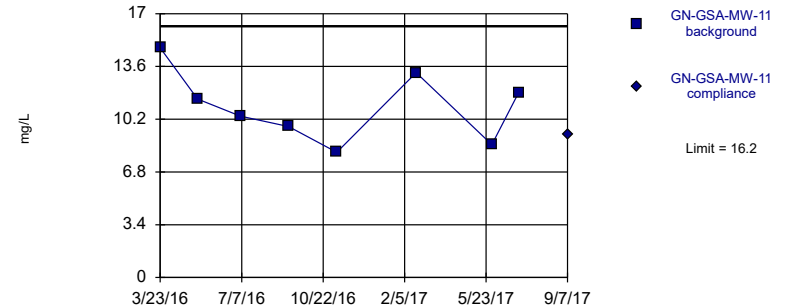
Exceeds Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=91.34, Std. Dev.=2.377, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit Prediction Limit
Intrawell Parametric

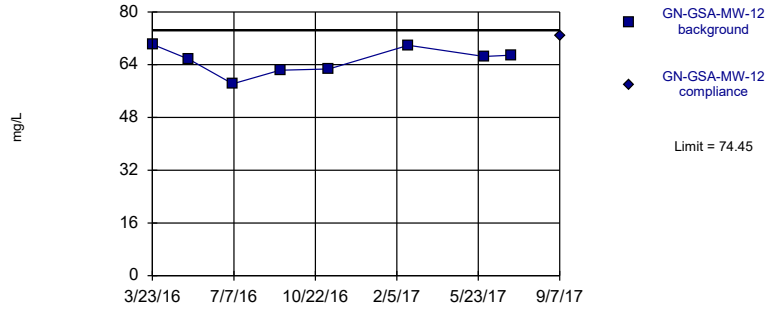


Background Data Summary: Mean=11.02, Std. Dev.=2.294, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9708, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

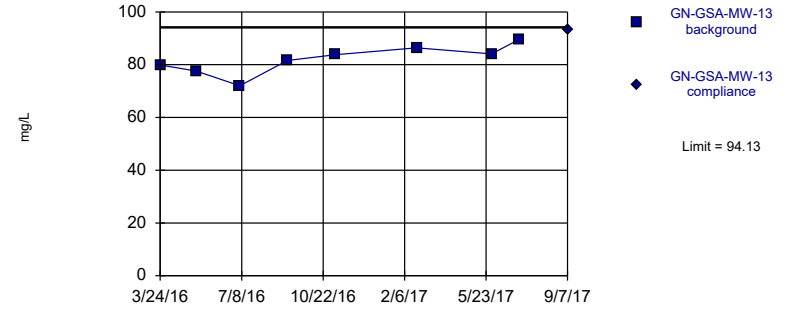


Background Data Summary: Mean=65.29, Std. Dev.=4.061, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.946, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

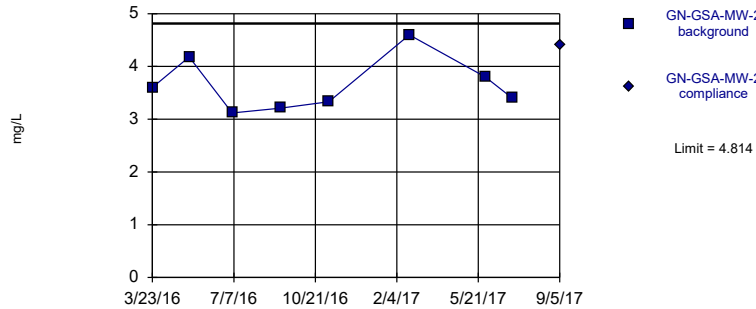


Background Data Summary: Mean=81.86, Std. Dev.=5.438, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9782, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Calcium Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

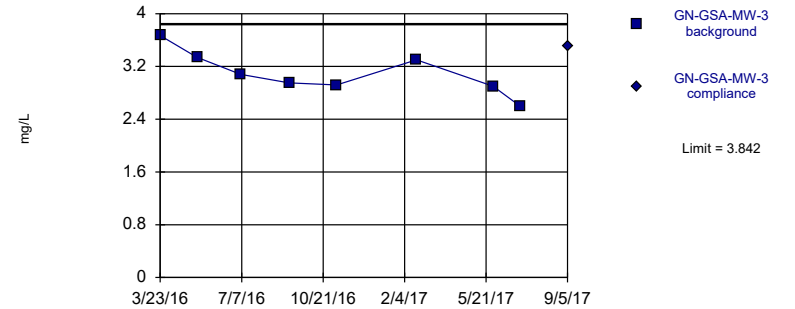


Background Data Summary: Mean=3.655, Std. Dev.=0.5138, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9087, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

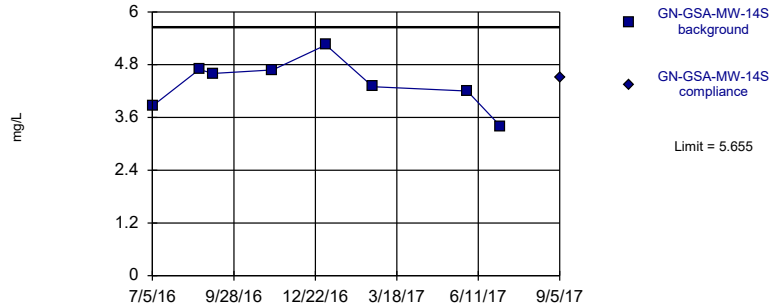


Background Data Summary: Mean=3.095, Std. Dev.=0.3311, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9642, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

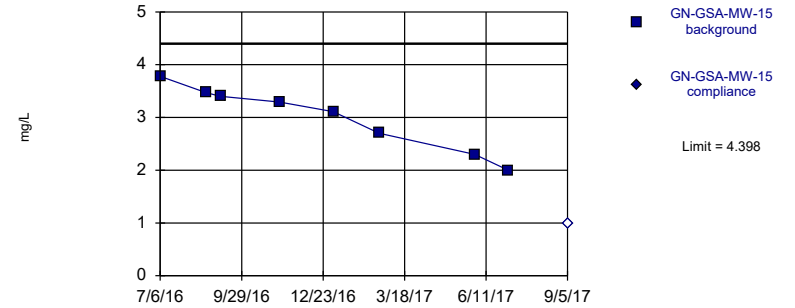


Background Data Summary: Mean=4.373, Std. Dev.=0.5683, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9725, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

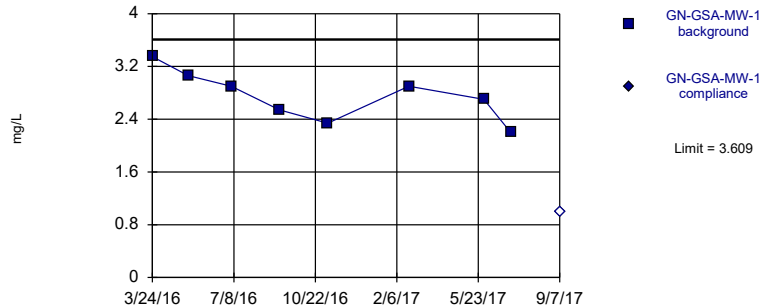


Background Data Summary: Mean=3.006, Std. Dev.=0.617, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

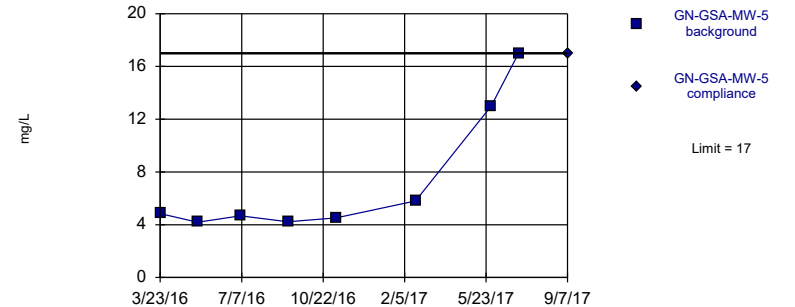


Background Data Summary: Mean=2.749, Std. Dev.=0.3814, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9776, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Non-parametric

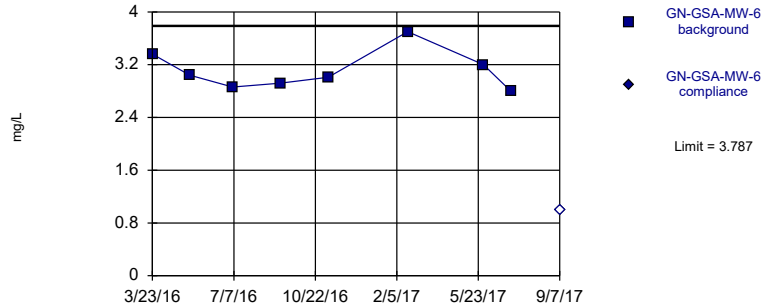


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

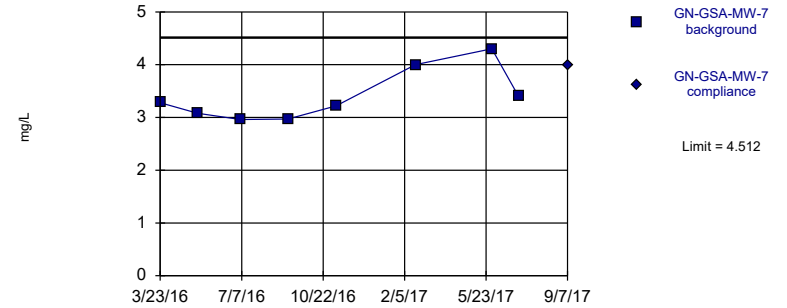


Background Data Summary: Mean=3.111, Std. Dev.=0.2996, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9033, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

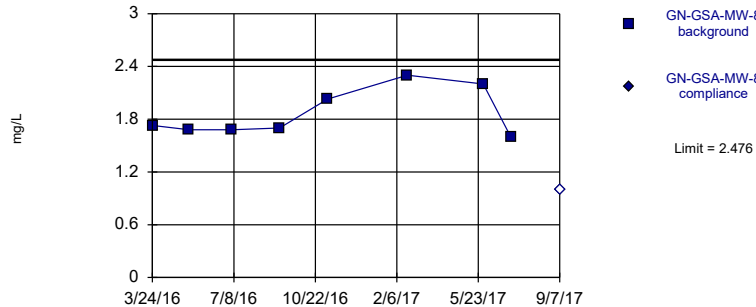


Background Data Summary: Mean=3.401, Std. Dev.=0.4925, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8426, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

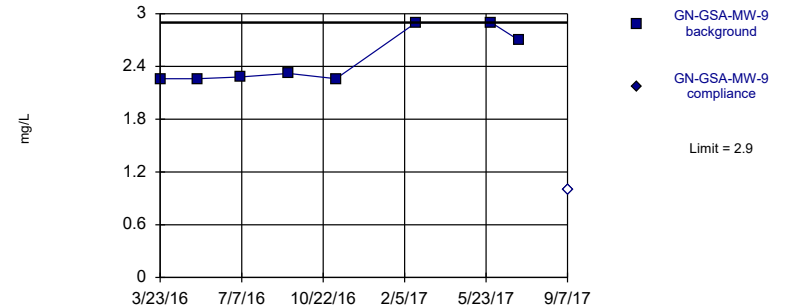


Background Data Summary: Mean=1.865, Std. Dev.=0.2707, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8261, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Non-parametric

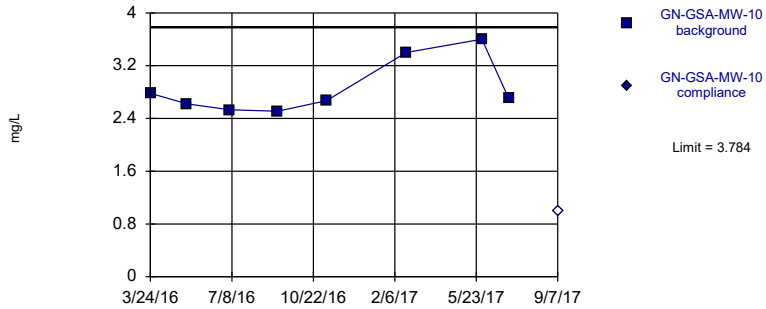


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
 Intrawell Parametric

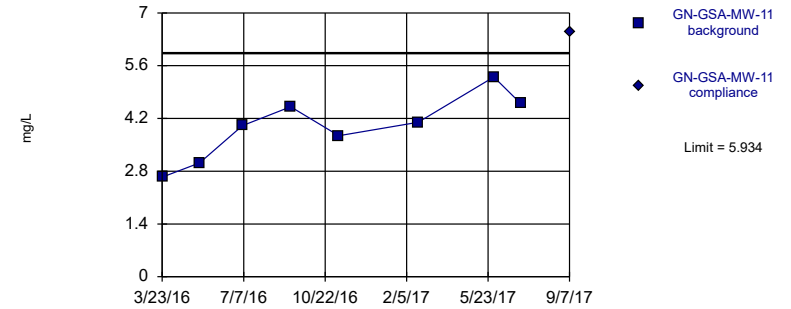


Background Data Summary: Mean=2.851, Std. Dev.=0.4133, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.778, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
 Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit

Prediction Limit
 Intrawell Parametric

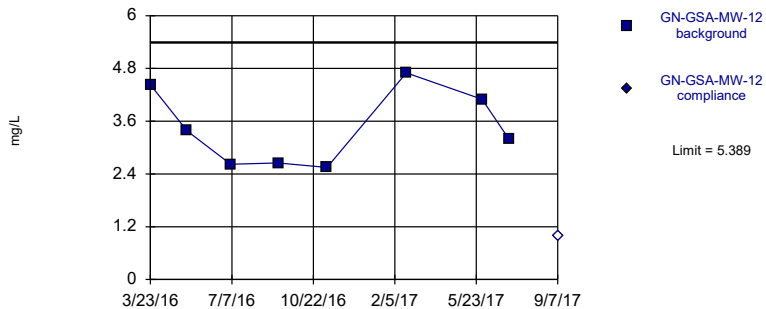


Background Data Summary: Mean=3.99, Std. Dev.=0.8616, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9733, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:22 PM View: PLs - Intrawell
 Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
 Intrawell Parametric

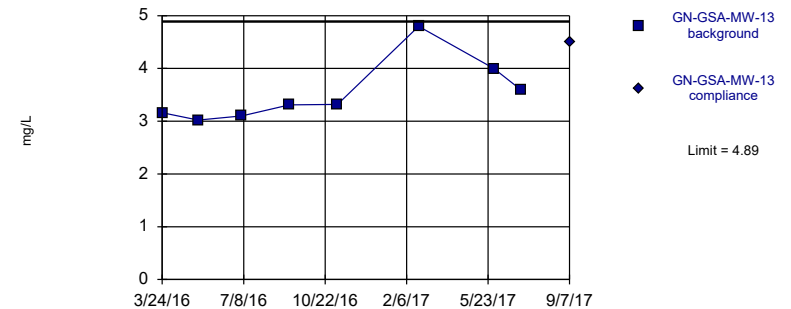


Background Data Summary: Mean=3.454, Std. Dev.=0.8579, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8862, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
 Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
 Intrawell Parametric

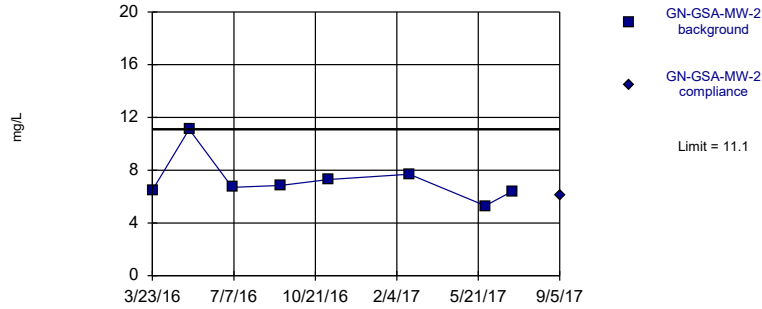


Background Data Summary: Mean=3.539, Std. Dev.=0.5991, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8245, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Chloride Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
 Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

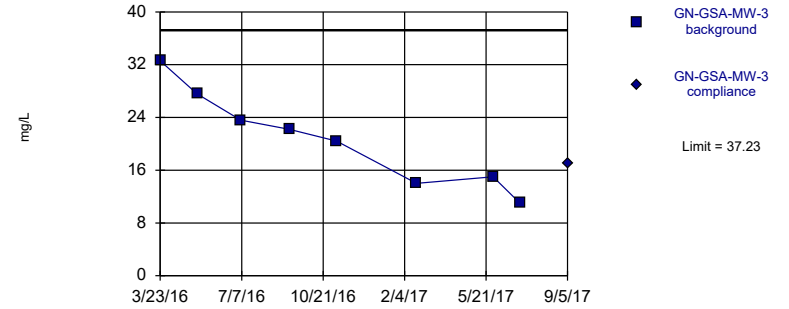


Background Data Summary: Mean=7.229, Std. Dev.=1.716, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8051, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

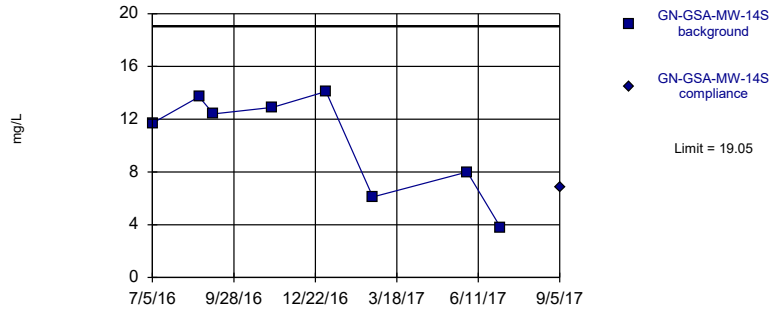


Background Data Summary: Mean=20.8, Std. Dev.=7.284, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9696, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

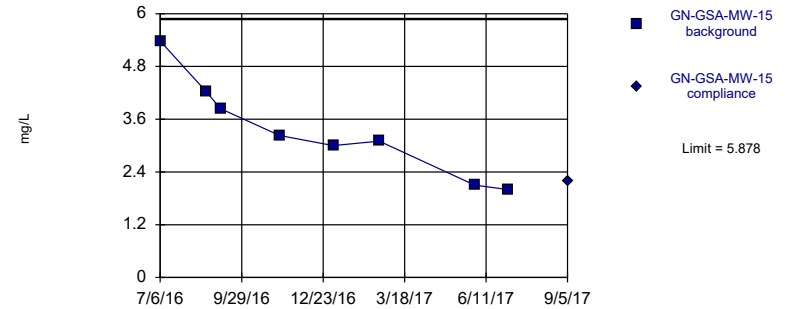


Background Data Summary: Mean=10.34, Std. Dev.=3.86, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8711, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

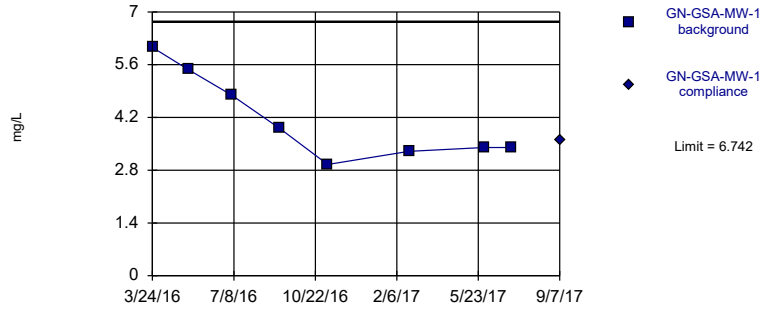


Background Data Summary: Mean=3.36, Std. Dev.=1.116, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9468, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

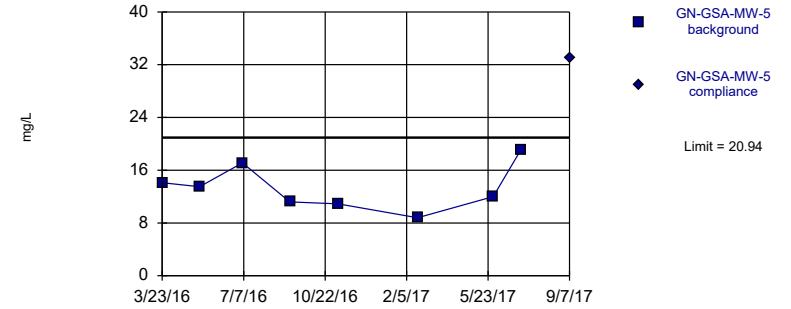


Background Data Summary: Mean=4.161, Std. Dev.=1.144, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8817, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

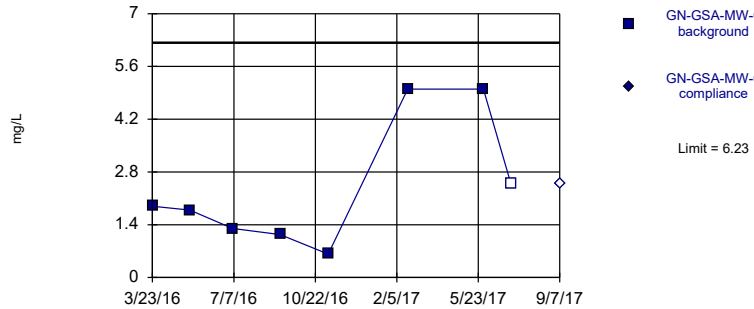


Background Data Summary: Mean=13.33, Std. Dev.=3.375, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9548, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

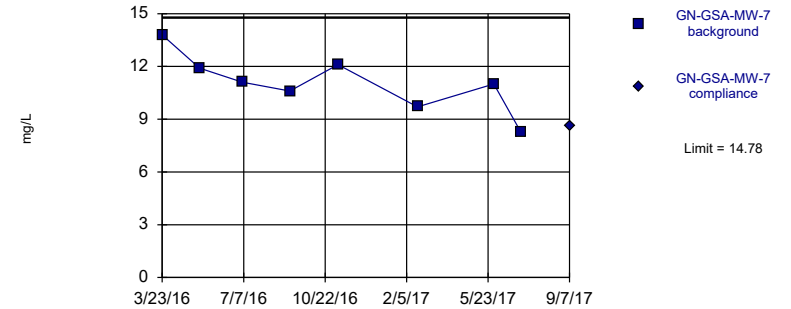


Background Data Summary: Mean=2.405, Std. Dev.=1.695, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8296, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

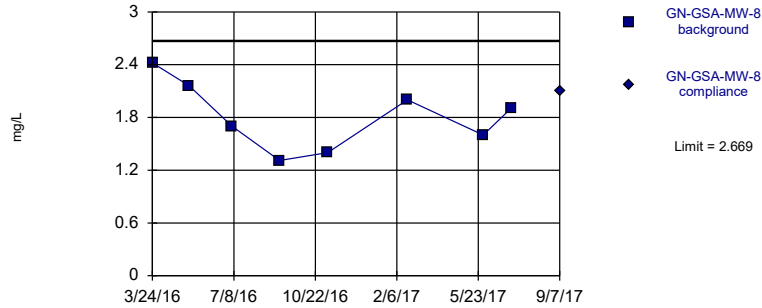


Background Data Summary: Mean=11.06, Std. Dev.=1.647, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9834, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

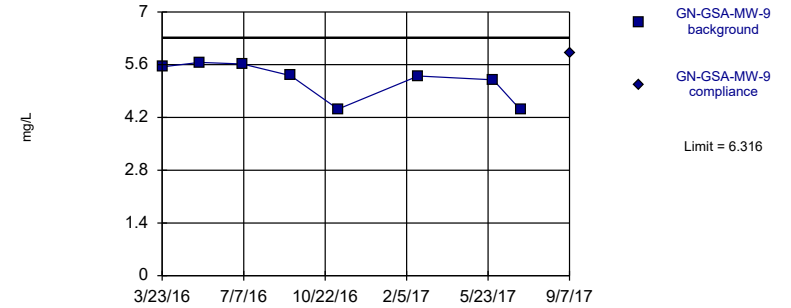


Background Data Summary: Mean=1.811, Std. Dev.=0.3804, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9737, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

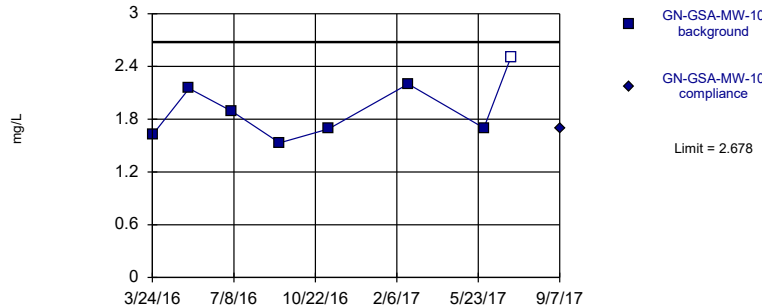


Background Data Summary: Mean=5.181, Std. Dev.=0.503, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8158, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

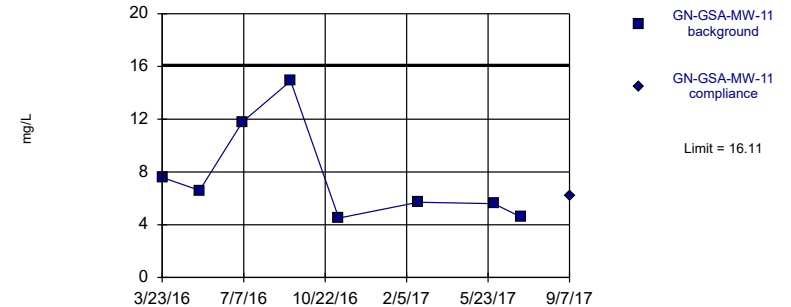


Background Data Summary: Mean=1.91, Std. Dev.=0.3404, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9147, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

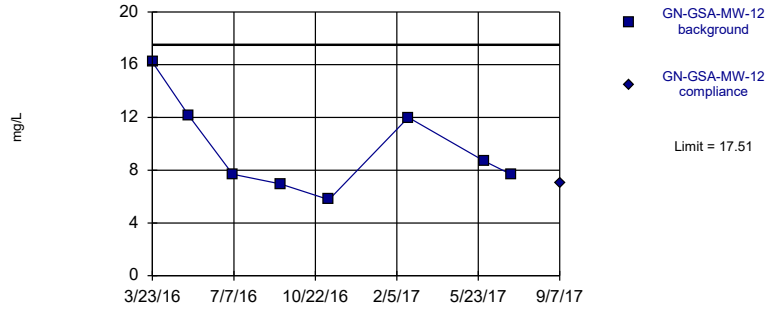


Background Data Summary: Mean=7.661, Std. Dev.=3.744, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8199, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

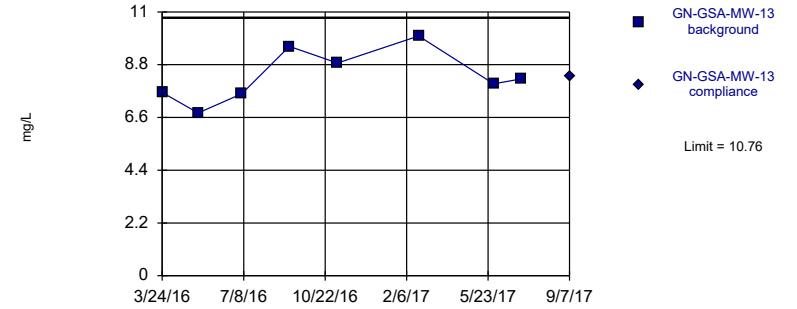


Background Data Summary: Mean=9.643, Std. Dev.=3.488, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8971, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

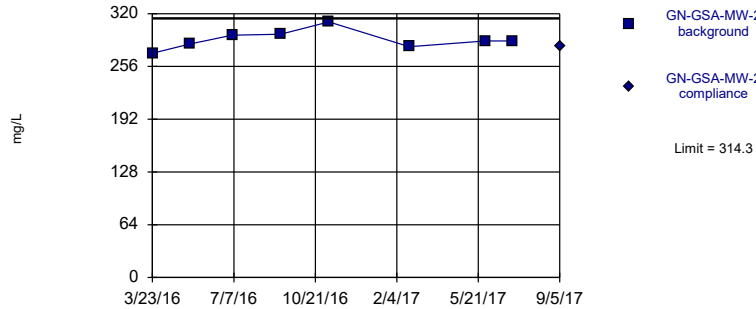


Background Data Summary: Mean=8.331, Std. Dev.=1.077, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9604, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: Sulfate Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

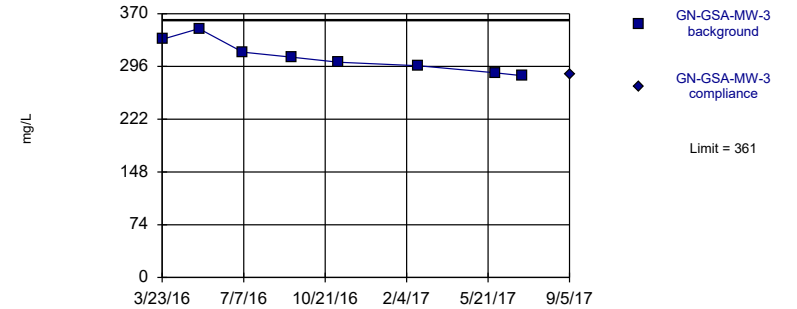


Background Data Summary: Mean=288.5, Std. Dev.=11.43, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9625, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

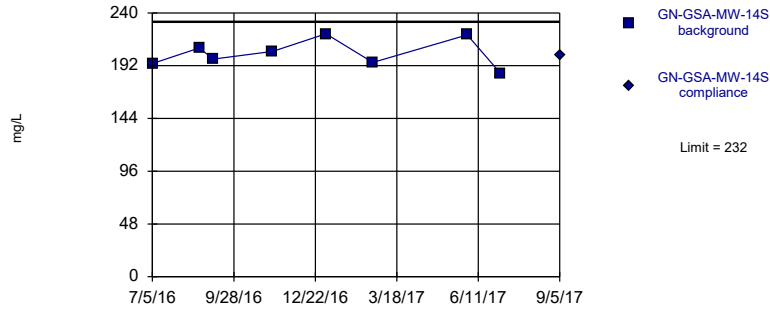


Background Data Summary: Mean=309.6, Std. Dev.=22.75, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

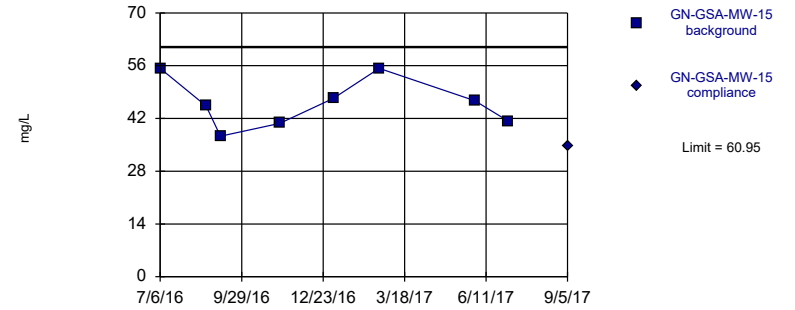


Background Data Summary: Mean=203.3, Std. Dev.=12.74, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9401, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

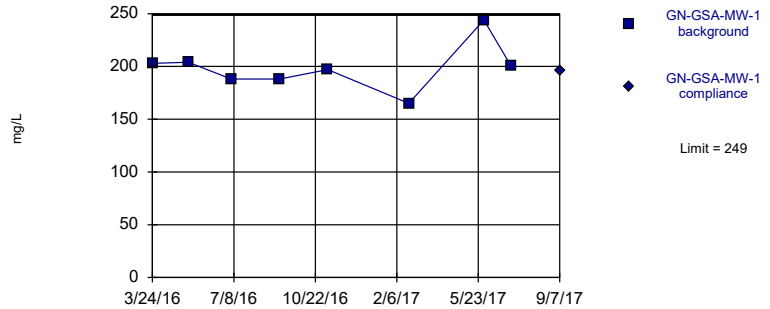


Background Data Summary: Mean=46.15, Std. Dev.=6.561, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9186, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

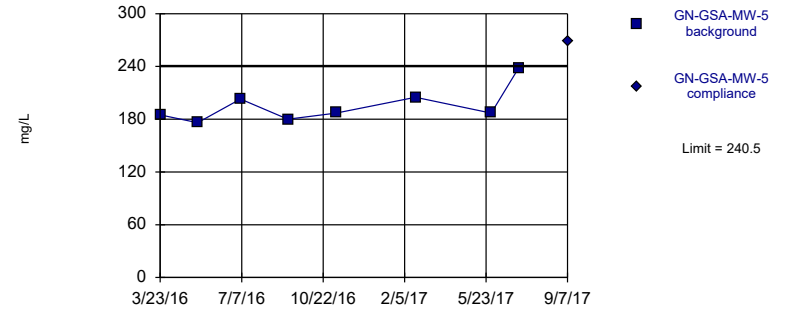


Background Data Summary: Mean=198.8, Std. Dev.=22.27, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8941, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

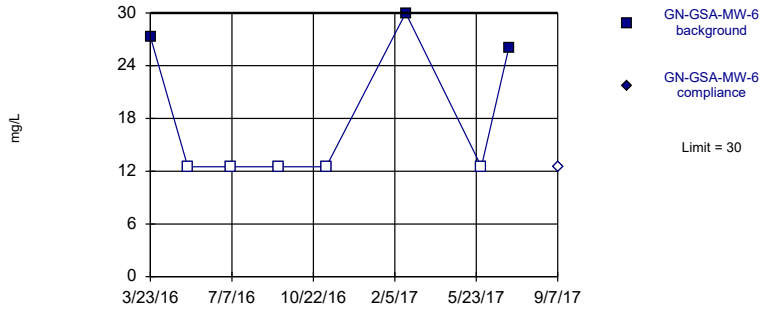


Background Data Summary: Mean=195.1, Std. Dev.=20.1, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8345, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Non-parametric

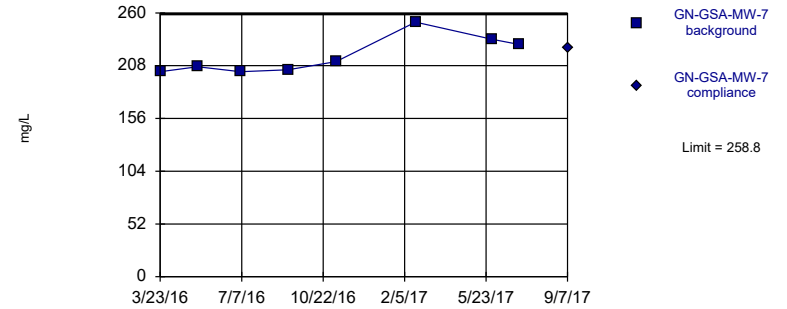


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

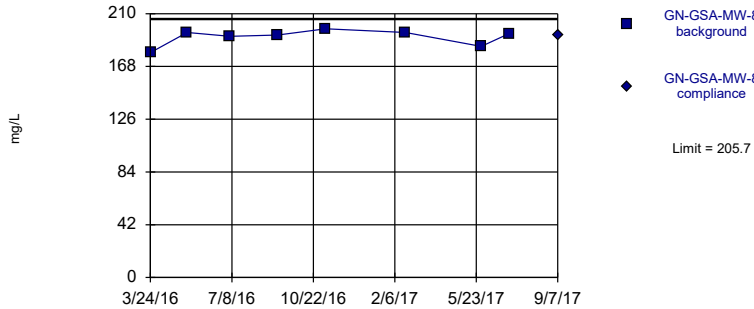


Background Data Summary: Mean=217.6, Std. Dev.=18.24, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8468, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

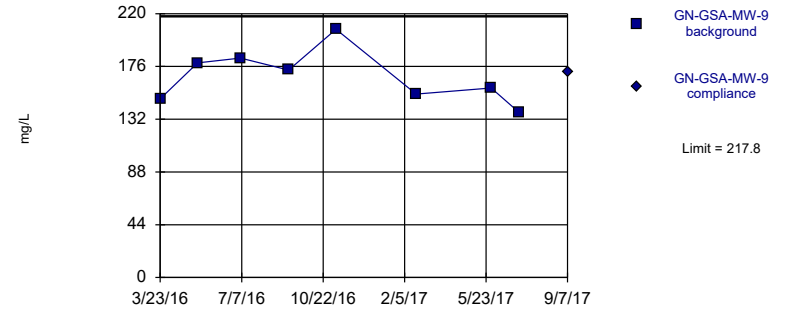


Background Data Summary: Mean=191.3, Std. Dev.=6.409, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8419, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

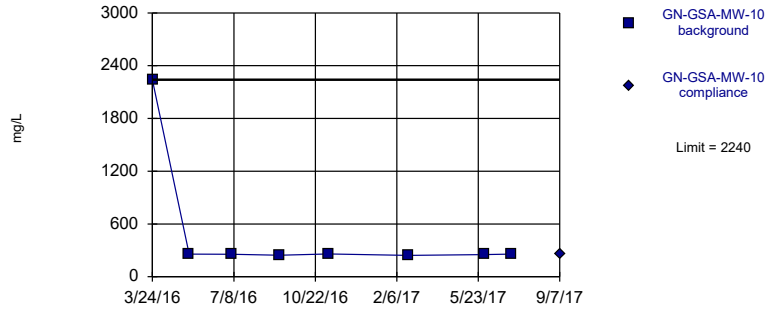


Background Data Summary: Mean=167.5, Std. Dev.=22.28, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9641, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Non-parametric

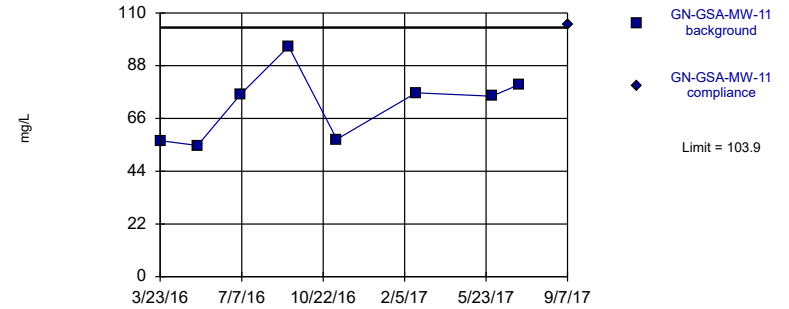


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Exceeds Limit

Prediction Limit
Intrawell Parametric

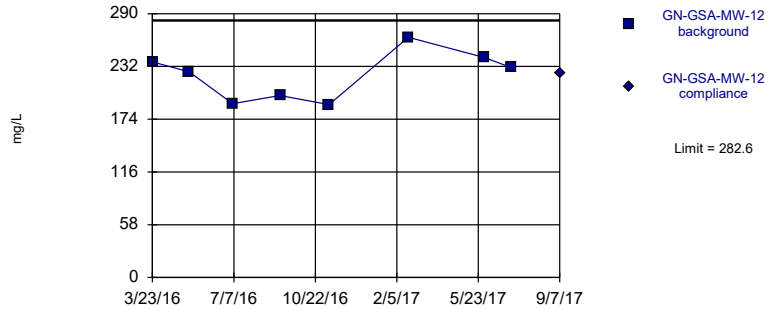


Background Data Summary: Mean=71.59, Std. Dev.=14.33, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8912, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric

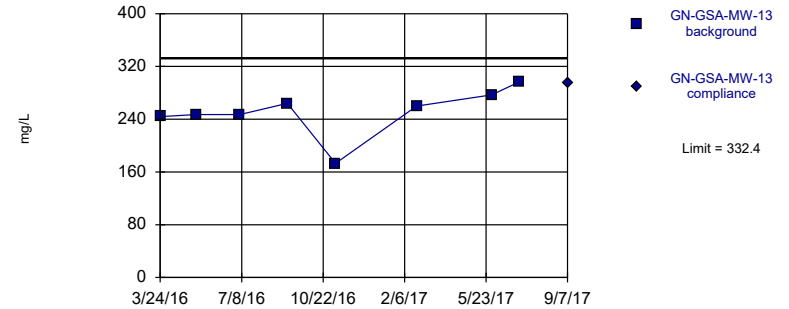


Background Data Summary: Mean=222.6, Std. Dev.=26.6, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9242, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=251, Std. Dev.=36.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8606, critical = 0.749. Kappa = 2.256 (c=7, w=11, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006839.

Constituent: TDS Analysis Run 12/13/2017 3:23 PM View: PLs - Intrawell
Plant Gaston Client: Southern Company Data: Gaston GSA

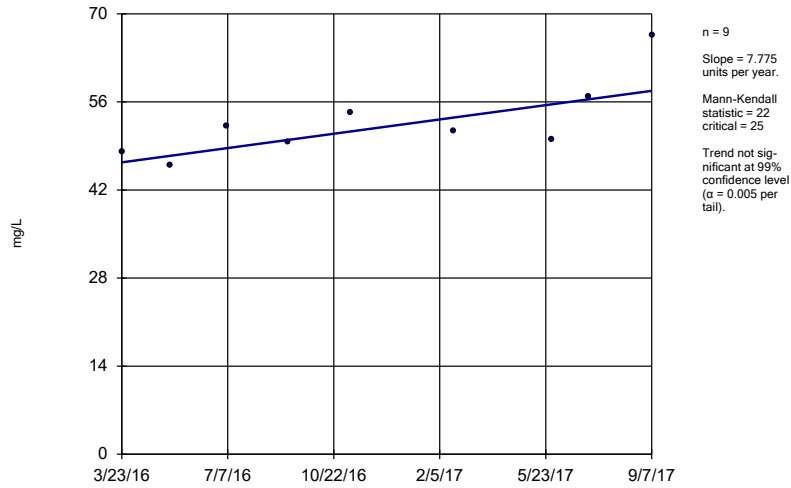
Trend Test Summary - All Results

Plant Gaston Client: Southern Company Data: Gaston GSA Printed 11/6/2017, 9:11 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	GN-GSA-MW-5	7.775	22	25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GN-GSA-MW-10	2.806	12	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GN-GSA-MW-10	0.7143	16	25	No	9	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GN-GSA-MW-11	1.864	28	25	Yes	9	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GN-GSA-MW-1	-0.009065	-2	-25	No	9	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GN-GSA-MW-8	-0.0308	-17	-25	No	9	0	n/a	n/a	0.01	NP
pH (pH)	GN-GSA-MW-1	-0.004335	-3	-25	No	9	0	n/a	n/a	0.01	NP
pH (pH)	GN-GSA-MW-6	-0.1615	-12	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GN-GSA-MW-5	1.942	4	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GN-GSA-MW-5	40.9	23	25	No	9	0	n/a	n/a	0.01	NP
TDS (mg/L)	GN-GSA-MW-11	21.89	20	25	No	9	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

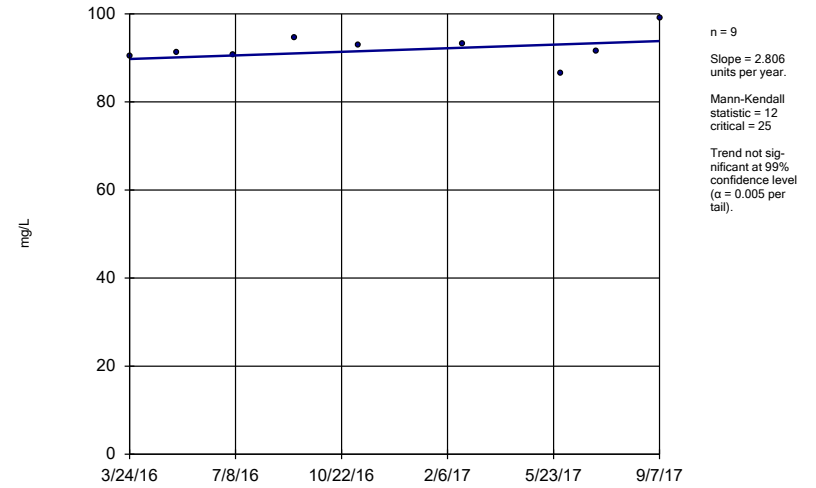
GN-GSA-MW-5



Constituent: Calcium Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

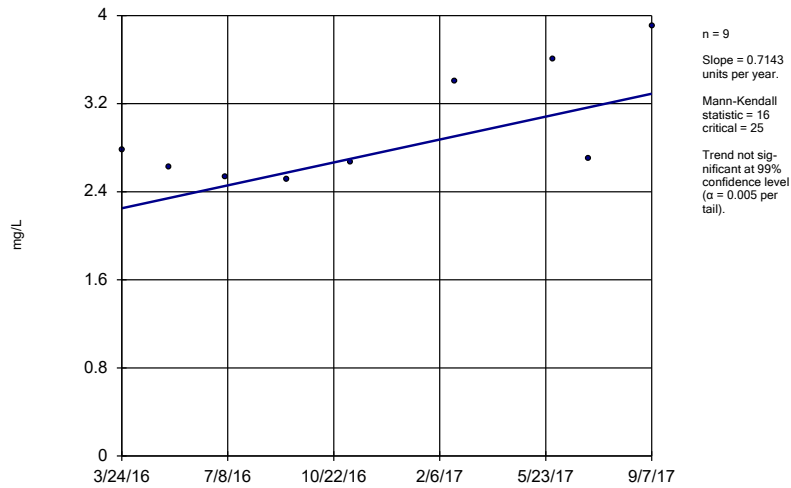
GN-GSA-MW-10



Constituent: Calcium Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

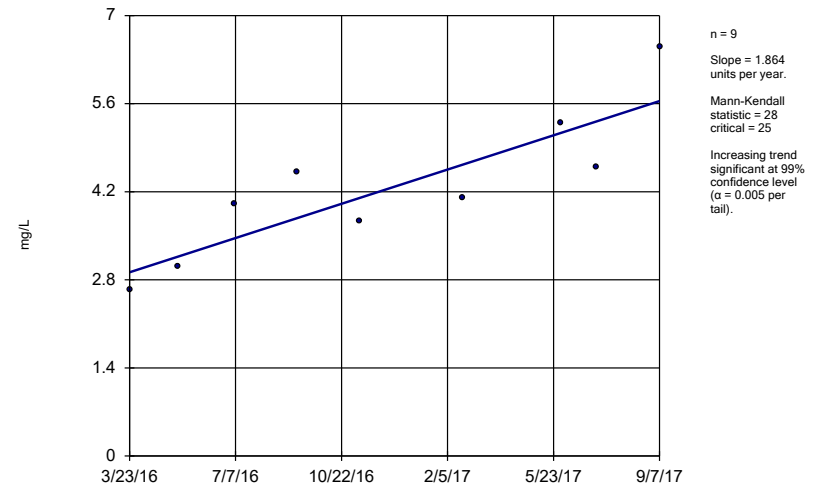
GN-GSA-MW-10



Constituent: Chloride Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

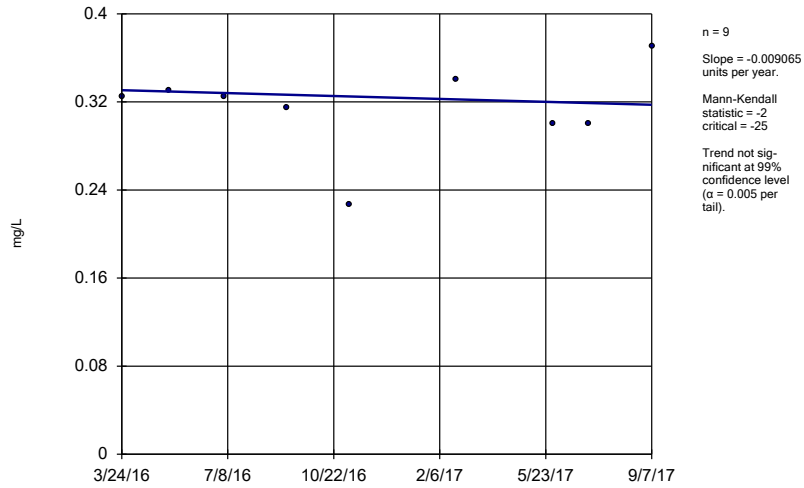
GN-GSA-MW-11



Constituent: Chloride Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

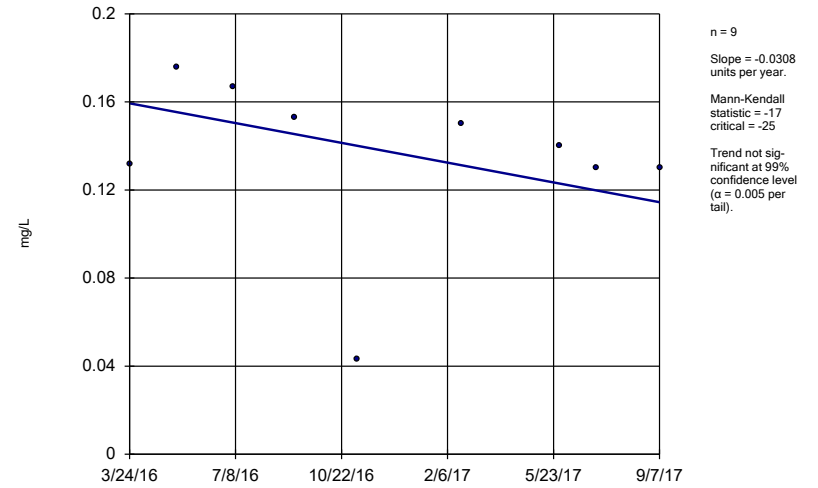
GN-GSA-MW-1



Constituent: Fluoride Analysis Run 11/6/2017 9:11 AM View: Trend Tests
 Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

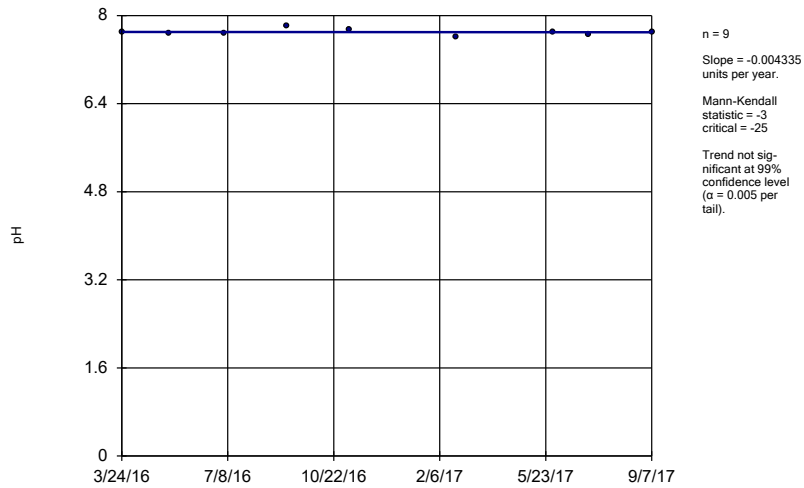
GN-GSA-MW-8



Constituent: Fluoride Analysis Run 11/6/2017 9:11 AM View: Trend Tests
 Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator

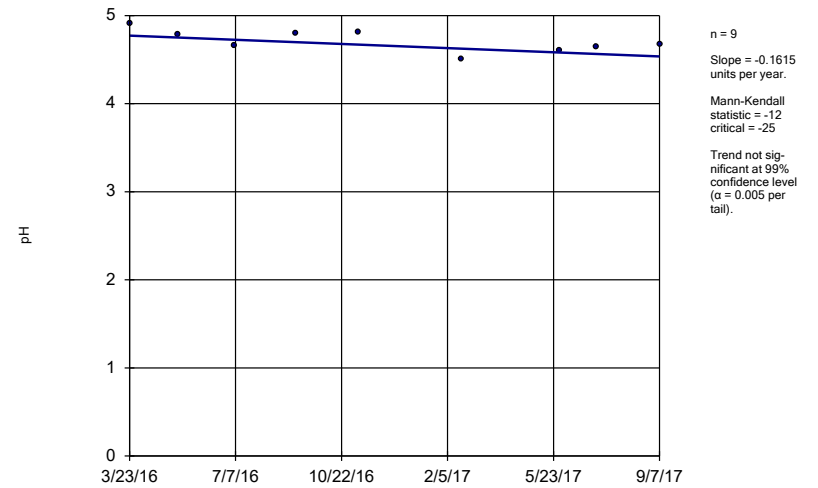
GN-GSA-MW-1



Constituent: pH Analysis Run 11/6/2017 9:11 AM View: Trend Tests
 Plant Gaston Client: Southern Company Data: Gaston GSA

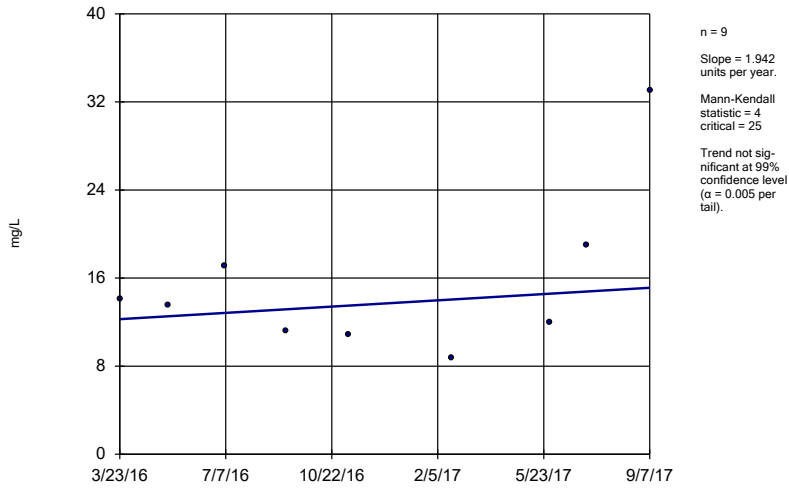
Sen's Slope Estimator

GN-GSA-MW-6



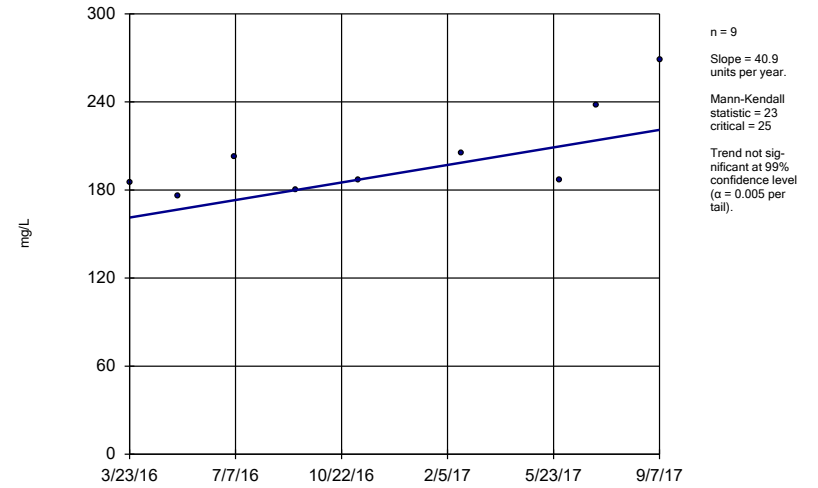
Constituent: pH Analysis Run 11/6/2017 9:11 AM View: Trend Tests
 Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator GN-GSA-MW-5



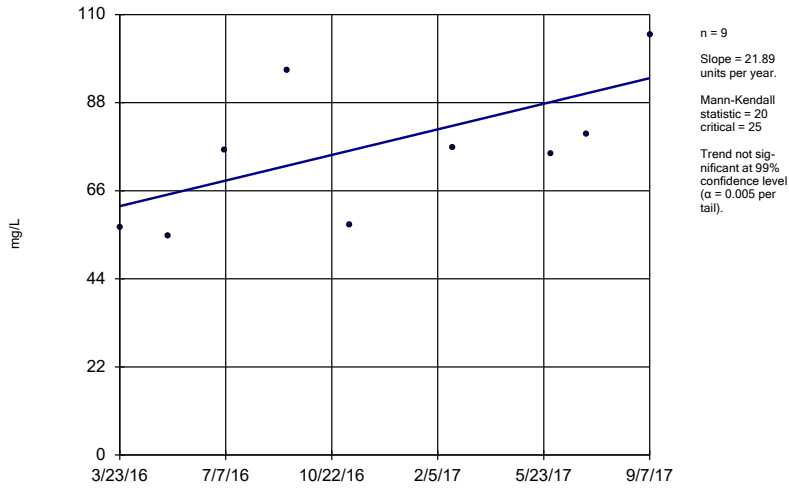
Constituent: Sulfate Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator GN-GSA-MW-5



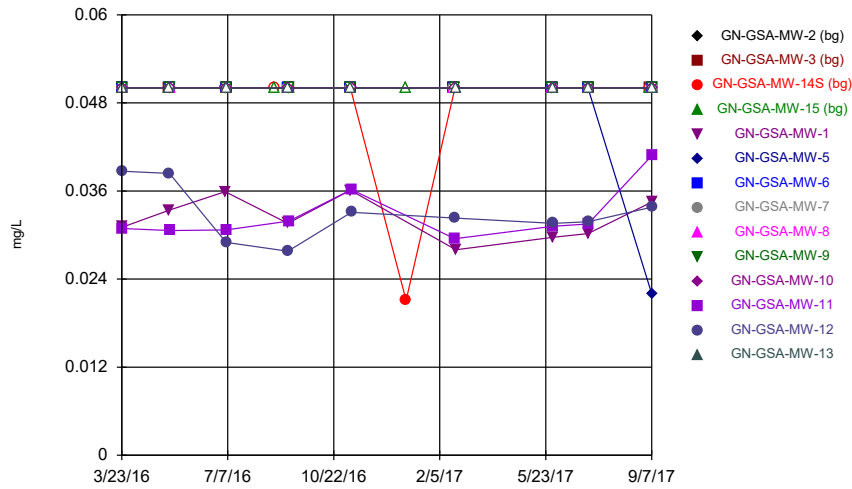
Constituent: TDS Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Sen's Slope Estimator GN-GSA-MW-11



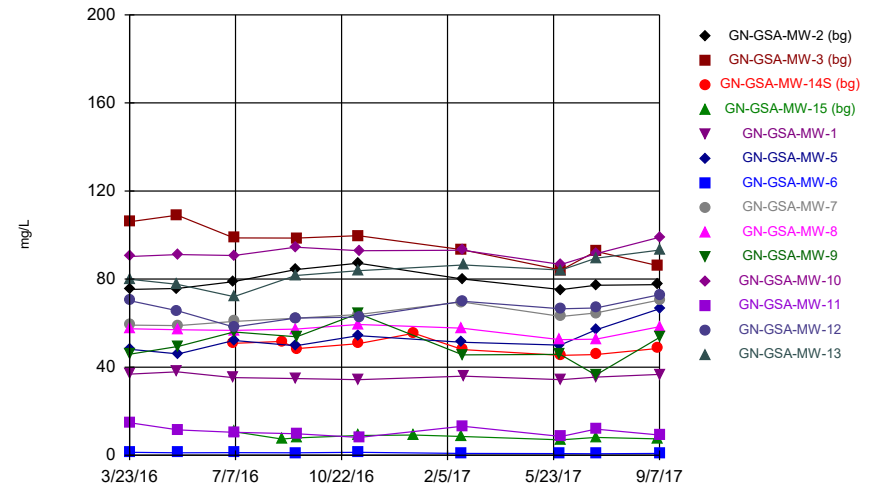
Constituent: TDS Analysis Run 11/6/2017 9:11 AM View: Trend Tests
Plant Gaston Client: Southern Company Data: Gaston GSA

Time Series



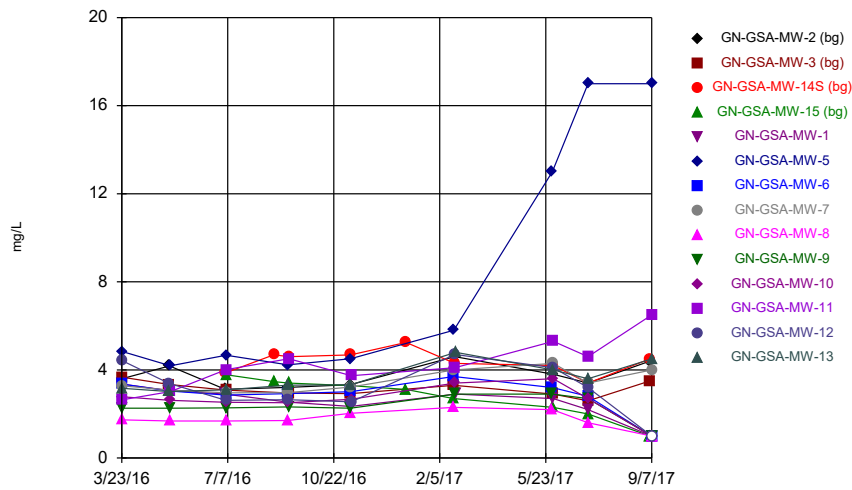
Constituent: Boron Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

Time Series



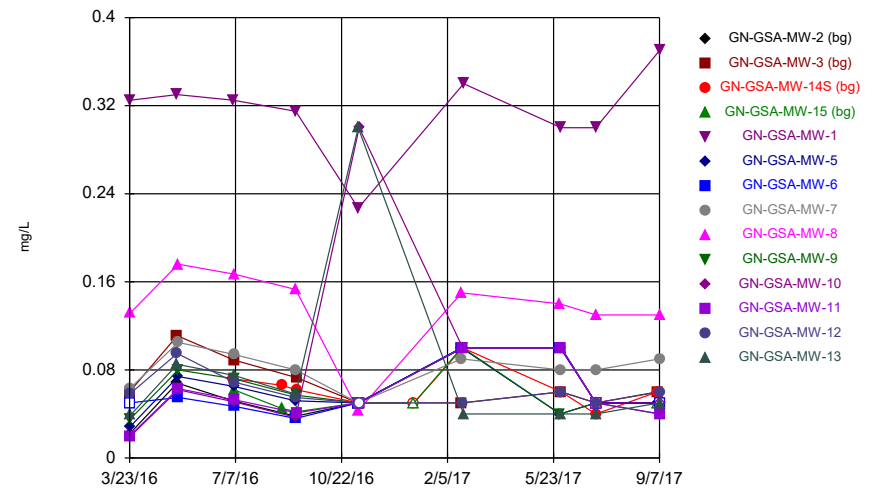
Constituent: Calcium Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

Time Series



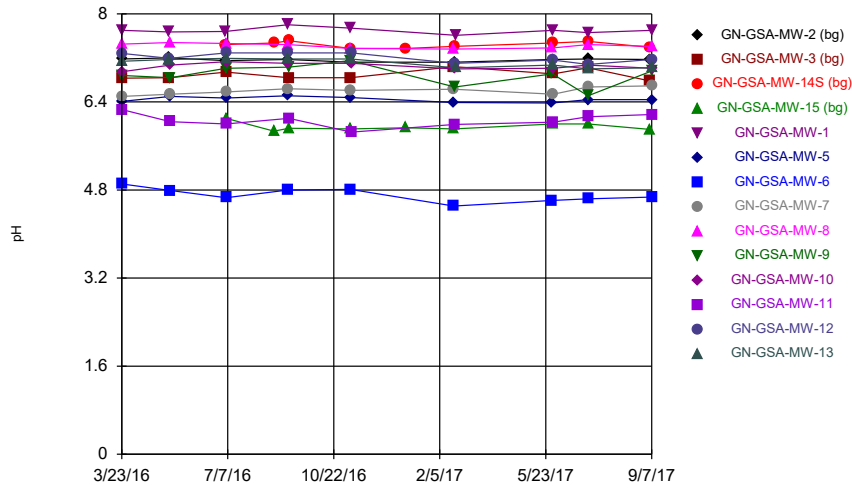
Constituent: Chloride Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

Time Series



Constituent: Fluoride Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

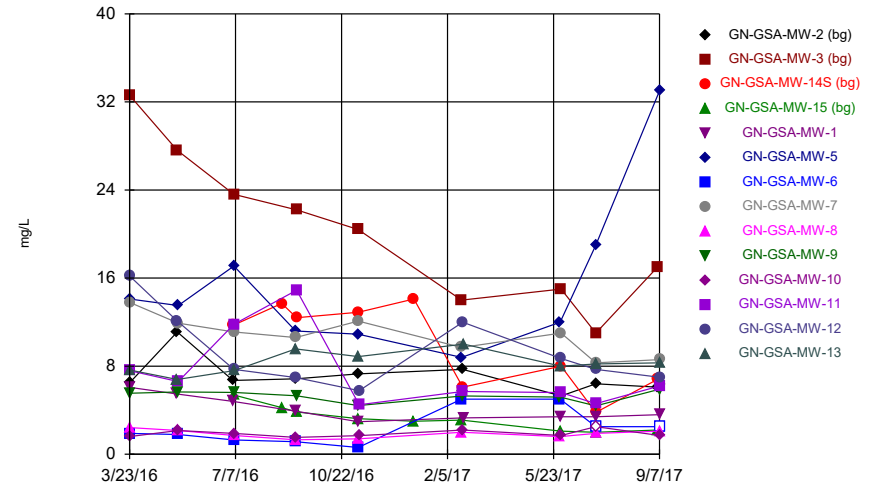
Time Series



Constituent: pH Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

Hollow symbols indicate censored values.

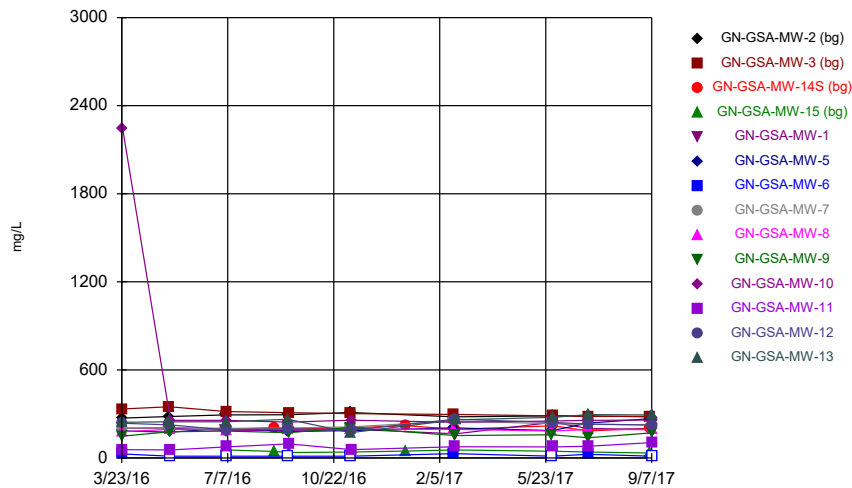
Time Series



Constituent: Sulfate Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA

Hollow symbols indicate censored values.

Time Series



Constituent: TDS Analysis Run 12/13/2017 3:25 PM View: Time Series - Appendix III
Plant Gaston Client: Southern Company Data: Gaston GSA