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

**ALABAMA POWER COMPANY**

**PLANT BARRY ASH POND**



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## ABBREVIATIONS

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

## **1.0 INTRODUCTION**

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 C.F.R. Part 257 Subpart D) and the State of Alabama's ADEM Admin. Code Chapter 335-13-15, this 2018 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the 2018 initial assessment and two semi-annual groundwater monitoring activities at the Plant Barry Ash Pond and to satisfy the requirements of §257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Initial assessment monitoring, semi-annual monitoring, and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements §257.90 through §257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

## **2.0 SITE LOCATION AND DESCRIPTION**

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

The Ash Pond is located east-southeast of the main plant, between the Mobile River and Plant Barry barge canal. **Figure 1, Site Location Map**, depicts the location of the Plant and Ash Pond with respect to the surrounding area.

## **3.0 SITE GEOLOGY AND HYDROGEOLOGY**

### **3.1 Physical Setting**

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is comprised of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Local site elevations near the Ash Pond range from approximately 50 to 0 feet above mean seal level (MSL). The embankment elevations that form the perimeter of the Ash Pond reside between 26 and 20 feet MSL.

### **3.2 Geology and Hydrogeology**

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

1979). Siliciclastic sediments of the Miocene Series are often micaceous and pyritic, and contain wood fragments, shell debris, and heavy minerals (Chandler et al., 1985). Alluvial, low terrace, and coastal deposits reflect estuarine, deltaic, lagoonal, and shoreface deposition in lowland areas from late Pleistocene to Holocene time. These deposits consist of fine to coarse sand, which can be rich in heavy detrital minerals (Hsu, 1960), silt, sandy clay, clay, and shell fragments (Chandler et al., 1985). **Figure 2, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Around the site, the uppermost stratigraphic layer varies from approximately 5 to 20 feet and is defined as fill material composed of sandy and silty lean clays that were placed during the construction of the ash pond. Beneath the fill material, generalized near-surface stratigraphy of the site, in descending order, consists of an (Unit 1) organic-rich fat clay to lean clay, (Unit 2) sandy lean clay to clayey sand with interbedded silty sand, and (Unit 3) a poorly graded sand with lenses of sandy lean clay and gravel. The stratigraphy of the site displays vertical and horizontal heterogeneity common with alluvial, low terrace, and coastal deposits.

- Unit 1 is described as a mottled gray to dark gray and red fat clay with some interlayered sandy lean clays. Unit 1 extends from the base of fill materials to elevations of approximately -10 to -25 feet mean sea level (MSL).
- Unit 2 consists of mottled light gray, brownish yellow, and red sandy lean clay with medium plasticity and trace amounts of interlayered sand. Lenses of clayey sands and silty sands are also present within this unit. Unit 2, extends from the base of the organic clay layer to elevations of approximately -30 to -40 feet MSL to the south and pinches out further north, grading laterally into sand of Unit 3.
- Unit 3 comprises the uppermost aquifer for groundwater monitoring purposes at the site and is described as a pale brown or light gray poorly graded sand with silt content. Fine gravel appears in the lower portion of Unit 3. Lenses of sandy clay and clayey sand are present in the upper portions of Unit 3 but are not prevalent.

### **3.3 Uppermost Aquifer**

The uppermost aquifer beneath the site corresponds to Unit 3 sands -- which are part of the Watercourse Aquifer system. At the site, Watercourse Aquifer generally consists of fine to medium grained sands with discrete gravelly, coarse sand and gravel. Clay nodules, lenses, and stringers are present within Unit 3, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 45 and 70 feet

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below ground surface (BGS). Groundwater recharge to the Watercourse Aquifer is largely accomplished via infiltration of precipitation and subsequent percolation down to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. However, locally semi-confined to confined conditions may be present when a sufficient aquitard separates the aquifers or sand units.

#### **4.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY**

Pursuant to §257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The PE-certified groundwater monitoring system for the Plant Barry Ash Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers”, ASTM Subcommittee D18.21, as a guideline. As required by §257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following also describes monitoring-related activities performed during the preceding year.

##### **4.1 Groundwater Monitoring System**

The groundwater monitoring network is comprised of 16 monitoring wells. Monitoring well locations are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Barry Ash Pond.

Monitoring well locations MW-2 through MW-4 serve as upgradient locations for the Ash Pond. Upgradient wells are screened within the same uppermost aquifer as downgradient locations and are representative of background groundwater quality at the site. Monitoring well locations MW-1 and MW-5 through MW-16 are utilized as downgradient locations for the Ash Pond. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

**Table 1. Groundwater Monitoring Well Network Details**

Well Name	Installation Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Top of Screen Elevation	Bottom of Screen Elevation	Purpose
BY-AP-MW-1	10/7/2015	362905.452	1811513.200	22.91	25.80	-10.304	-20.304	Downgradient
BY-AP-MW-2	10/7/2015	363375.014	1811104.860	21.10	23.89	-31.515	-41.515	Upgradient
BY-AP-MW-3	10/7/2015	364009.973	1810627.965	23.60	26.61	-46.581	-56.581	Upgradient
BY-AP-MW-4	10/7/2015	364620.885	1810128.368	24.05	26.97	-47.942	-57.942	Upgradient
BY-AP-MW-5	10/7/2015	365528.959	1809431.284	25.97	28.93	-30.023	-40.023	Downgradient
BY-AP-MW-6	10/7/2015	365906.041	1810555.372	23.78	26.69	-51.821	-61.821	Downgradient
BY-AP-MW-7	10/7/2015	366714.007	1811745.255	22.90	25.94	-53.98	-63.98	Downgradient
BY-AP-MW-8	10/7/2015	367064.508	1813172.112	25.57	28.45	-29.688	-39.688	Downgradient
BY-AP-MW-9	10/7/2015	366387.185	1814330.505	21.91	24.39	-37.082	-47.082	Downgradient
BY-AP-MW-10	10/7/2015	365296.811	1815400.957	23.61	26.89	-34.578	-44.578	Downgradient
BY-AP-MW-11	10/7/2015	364079.137	1815715.187	23.20	26.08	-37.999	-47.999	Downgradient
BY-AP-MW-12	10/7/2015	362704.953	1815677.689	21.24	23.88	-49.054	-59.054	Downgradient
BY-AP-MW-13	10/7/2015	361251.169	1815627.420	21.29	24.22	-39.29	-49.29	Downgradient
BY-AP-MW-14	10/1/2013	360520.621	1814694.666	8.89	11.74	-36.284	-46.284	Downgradient
BY-AP-MW-15	10/7/2015	360594.416	1813618.877	21.23	23.89	-48.791	-58.791	Downgradient
BY-AP-MW-16	10/7/2015	361610.794	1812571.016	22.05	25.01	-32.706	-42.706	Downgradient

Notes: 1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.

2. Elevations are in feet relative to the North American Vertical Datum of 1988.



#### 4.2 Monitoring Well Installation and Maintenance

Monitoring well installation and maintenance activities include the installation of 9 monitoring wells between 7<sup>th</sup> and December 22<sup>nd</sup>, 2018. These monitoring wells were installed to characterize the nature and extent of groundwater standard exceedances identified during assessment monitoring. Additional monitoring well locations are to be drilled in 2019. At the time of publication, monitoring well locations have not been surveyed. Monitoring wells installed in 2018 include: BY-AP-MW-1V, BY-AP-MW5V, BY-AP-MW-7V, BY-AP-MW-10V, BY-AP-MW-12V, BY-AP-MW-15V, BY-AP-MW-17H, BY-AP-MW-18H, and BY-AP-MW-26H.

#### 4.3 Assessment Monitoring

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

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

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

#### 4.4 Additional Groundwater Sampling

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

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

## 5.0 SAMPLING METHODOLOGY AND ANALYSIS

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

### 5.1 Groundwater Flow Direction, Gradient, and Velocity

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

<b>Table 3</b>				
<b>Groundwater Elevations Summary 2018</b>				
<b>Well ID</b>	<b>Top of Casing Elevation</b>	<b>Groundwater Elevations</b>		
		<b>(feet MSL)</b>		
	<b>(feet MSL)</b>	<b>Jan-18</b>	<b>May-18</b>	<b>Nov-18</b>
BY-AP-MW-1	25.80	3.67	6.52	5.10
BY-AP-MW-2	23.89	2.46	5.84	4.25
BY-AP-MW-3	26.61	2.31	5.78	4.09
BY-AP-MW-4	26.97	2.04	5.62	3.84
BY-AP-MW-5	28.93	1.78	5.49	3.53
BY-AP-MW-6	26.69	1.63	5.58	3.60
BY-AP-MW-7	25.94	1.81	5.82	3.51
BY-AP-MW-8	28.45	1.32	5.56	3.17
BY-AP-MW-9	24.39	1.09	5.33	3.15
BY-AP-MW-10	26.89	1.26	5.47	3.09
BY-AP-MW-11	26.08	1.52	5.60	3.20
BY-AP-MW-12	23.88	1.19	5.23	2.86
BY-AP-MW-13	24.22	1.17	5.28	2.94
BY-AP-MW-14	11.74	0.61	4.66	2.51
BY-AP-MW-15	23.89	1.18	5.14	3.07
BY-AP-MW-16	25.01	1.93	5.40	3.70

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Slug testing provided horizontal hydraulic conductivities for the Watercourse Aquifer (Unit 3) between  $2.1 \times 10^{-2}$  cm/sec and  $6.75 \times 10^{-3}$  cm/sec with an average of  $1.0 \times 10^{-2}$  cm/sec. Long duration pump testing revealed an average hydraulic conductivity of  $3.3 \times 10^{-3}$  cm/sec. The hydraulic gradient was calculated between well pairs shown on **Table 4, Groundwater Flow Velocity Calculations – 2018**. The hydraulic conductivity value used in the calculations is  $3.3 \times 10^{-3}$  cm/sec or 9.4 ft/day. An estimated effective porosity of 25% is used in the flow rate calculations.

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

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

Where:

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

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

<b>TABLE 4: Groundwater Flow Velocity Calculations – 2018</b>								
<b>Date</b>	<b>MW-1 (feet)</b>	<b>MW-10 (feet)</b>	<b>Δh (feet)</b>	<b>Hydraulic Gradient (I) (feet/feet)</b>	<b>Average Hydraulic Conductivity (K) (feet/day)</b>	<b>Assumed Effective Porosity (n<sub>e</sub>)</b>	<b>Calculated Groundwater Flow Velocity (feet/day)</b>	<b>Calculated Groundwater Flow Velocity (feet/year)</b>
4/9/2018	6.52	5.47	1.05	$2.24 \times 10^{-4}$	9.40	0.25	0.008	2.92

As presented on Table 4 groundwater flow velocity at the site ranges from approximately 0.008 feet/day (or approximately 2.92 feet/year) across the site.

## 5.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with §257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Barry are equipped with a dedicated pump. Monitoring wells were purged and sampled using low-flow sampling procedures whereby samples are collected when field water quality parameters (pH, turbidity, conductivity, and dissolved oxygen) were measured to determine stabilization. Groundwater samples were collected when the following stabilization criteria were met:

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

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

## 5.3 Laboratory Analysis

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

## 5.4 Quality Assurance/Quality Control

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

Groundwater quality data for the most recent sampling event was validated for the most recent sampling event following guidance from the EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the EPA Region IV Data Validation Standard

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Operating Procedures (US EPA Region IV, September 2011); and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits.

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

## 6.0 STATISTICAL ANALYSIS

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

### 6.1 Statistical Methods

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

#### 6.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell and intrawell prediction limit methods, combined with resampling strategies for each method. Intrawell prediction limits, combined with a 1-of-3 verification resample plan, were used for pH to determine whether there had been an initial statistically significant increase (SSI) over background groundwater quality. Interwell prediction limits, combined with a 1-of-2 verification resample plan, were used to evaluate boron, calcium, chloride, fluoride, sulfate, and TDS. Intrawell prediction limits use historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify SSIs over background. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to identify SSIs.

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

### 6.1.2 Assessment Monitoring Statistics

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

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

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

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



<b>Table 5. Summary of Background Levels and Groundwater Protection Standards</b>			
<b>Analyte</b>	<b>Units</b>	<b>Background</b>	<b>GWPS</b>
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.04	2
Beryllium	mg/L	0.003	0.004
Boron	mg/L	0.1	4
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0127, 0.01845	0.006
Fluoride	mg/L	0.3	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.05, 0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	0.002
Total Radium-226/228	pCi/L	3	5

**Notes:**

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

## 6.2 Statistical Analysis Results

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

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

### **6.2.1 First Semi-Annual Groundwater Monitoring Event**

Statistical analysis of Appendix IV data identified the following statistically significant levels (SSLs) over GWPS at the listed wells:

- BY-AP-MW-1: Arsenic
- BY-AP-MW-5: Arsenic
- BY-AP-MW-7: Arsenic, Cobalt
- BY-AP-MW-8: Arsenic
- BY-AP-MW-9: Arsenic
- BY-AP-MW-10: Arsenic
- BY-AP-MW-11: Arsenic
- BY-AP-MW-12: Arsenic
- BY-AP-MW-13: Arsenic
- BY-AP-MW-14: Arsenic
- BY-AP-MW-15: Arsenic, Cobalt
- BY-AP-MW-16: Cobalt

### **6.2.2 Second Semi-Annual Groundwater Monitoring Event**

Statistical analysis of Appendix IV data identified the following SSLs over GWPS at the listed wells:

- BY-AP-MW-1: Arsenic
- BY-AP-MW-5: Arsenic
- BY-AP-MW-7: Arsenic
- BY-AP-MW-8: Arsenic
- BY-AP-MW-9: Arsenic
- BY-AP-MW-10: Arsenic
- BY-AP-MW-11: Arsenic
- BY-AP-MW-12: Arsenic
- BY-AP-MW-13: Arsenic
- BY-AP-MW-14: Arsenic
- BY-AP-MW-15: Arsenic, Cobalt

## **7.0 MONITORING PROGRAM STATUS**

In accordance with §257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Plant Barry Ash Pond during sampling events conducted in 2018. Alternate Source Demonstrations (ASDs) have not been completed for Appendix IV constituents exceeding the GWPS; therefore, in accordance with §257.95(g)(3) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4(i), APC will implement assessment of corrective measures as required by §257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

## **8.0 CONCLUSIONS AND FUTURE ACTIONS**

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

The certified compliance monitoring well network was resampled on a semi-annual basis, occurring in May and November 2018. The groundwater samples were analyzed for all Appendix III & IV parameters. The data from the semi-annual events were statistically evaluated relative to GWPS. Statistical evaluations of the May and November 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS.

Additional groundwater samples were collected to further characterize groundwater quality. An ASD was not prepared to address the Appendix IV SSLs. APC will characterize the nature and extent of GWPS exceedances as required by §257.95(g)(1) and ADEM Admin. Code r. 335-13-15-.06(6)(g)2 and perform an assessment of corrective measures pursuant to §257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

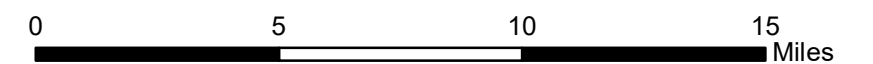
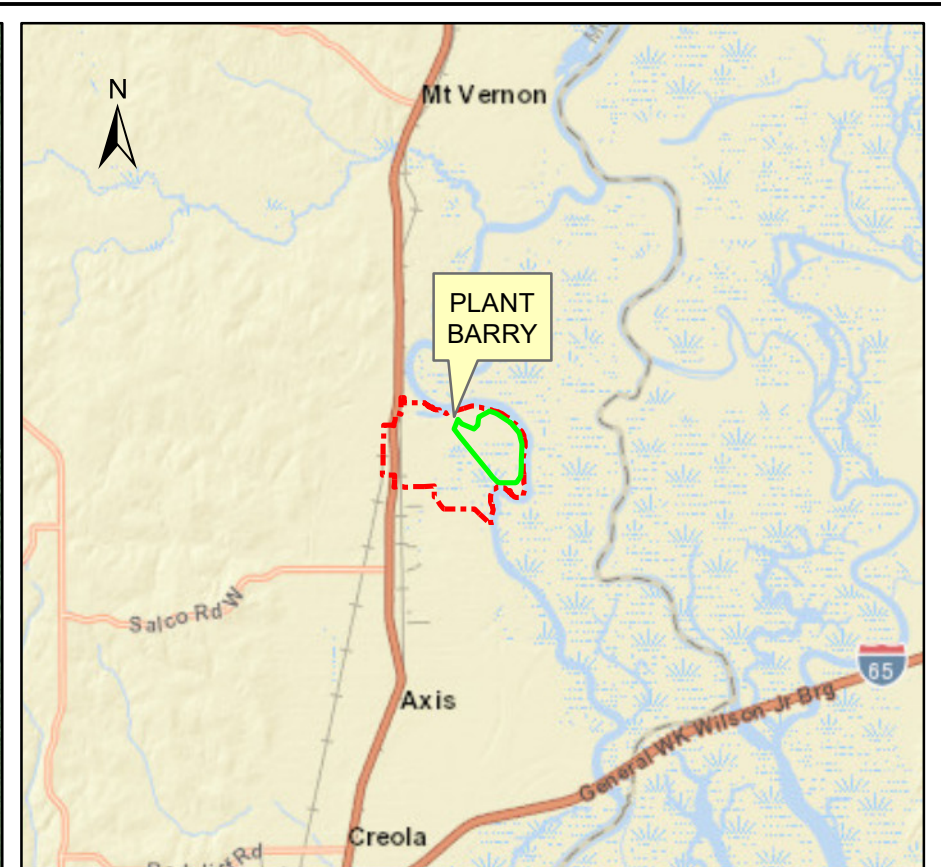
The first semi-annual assessment monitoring event is planned for March or April 2019.

## 9.0 REFERENCES

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- Walter, G.R., and Kidd, R.E., 1979, Ground-water management techniques for the control of salt-water encroachment in Gulf Coast aquifer, a summary report: Geological Survey of Alabama open-file report, p. 84

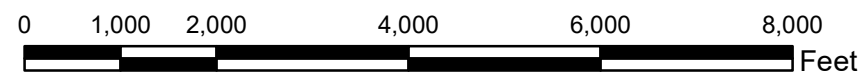
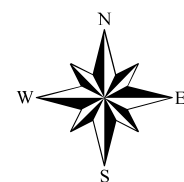
# Figures





**Legend**

- Property Boundary (Approximate)
- Ash Pond Boundary



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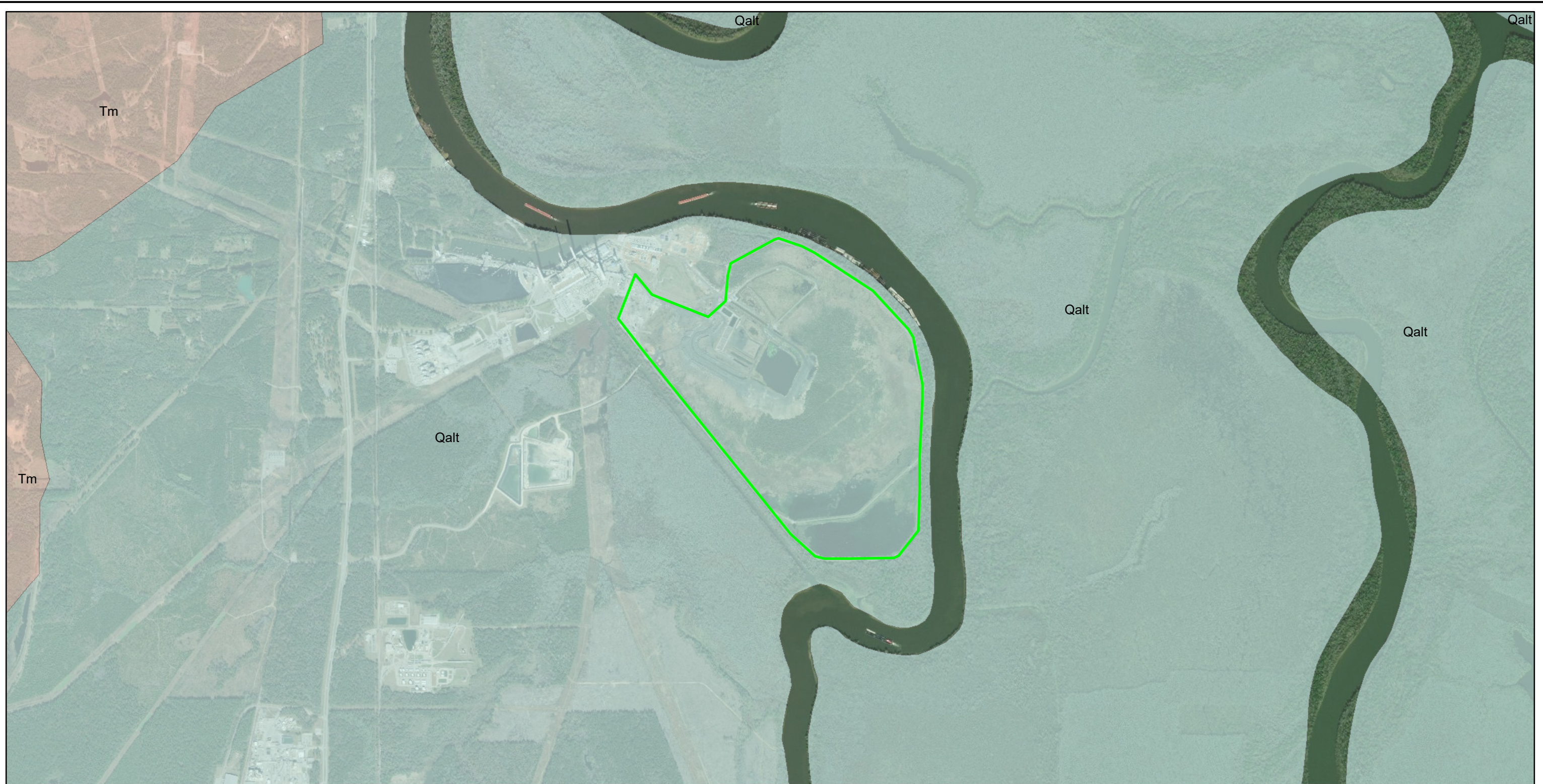
FOR

**Alabama Power Company**

FIGURE 1  
SITE LOCATION MAP  
PLANT BARRY ASH POND

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






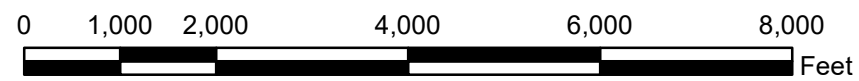
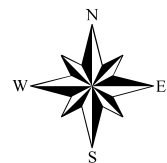
**Legend**

 Ash Pond Boundary

**Geologic Units**

 Alluvial, coastal, and low terrace deposits (Qalt)

 Miocene Series undifferentiated (Tm)



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**FOR**

**Alabama Power Company**

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

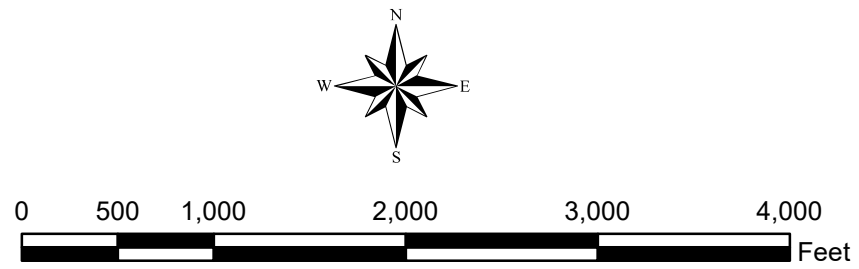
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		FIGURE 2	1		





**Legend**

- Monitoring Wells
- Property Boundary (Approximate)
- Ash Pond Boundary



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**FOR**


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

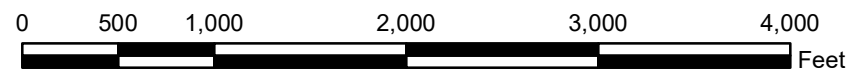
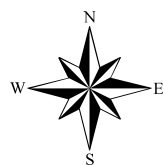
<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:12k		FIGURE 3	1		





**Legend**

-  Monitoring Well
  -  Potentiometric Surface Contour (ft NAVD88)
  -  Approximate Groundwater Flow Direction
  -  Ash Pond Boundary
- |                   |                       |
|-------------------|-----------------------|
| <b>BY-AP-MW-1</b> | Well ID               |
| 3.67              | Groundwater Elevation |



NOTE:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. MW-1 was not factored into GW elevation contours, because gw elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.

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FIGURE 4  
 POTENTIOMETRIC SURFACE MAP  
 JANUARY 2018  
 PLANT BARRY ASH POND

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SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:12k		FIGURE 4	1		

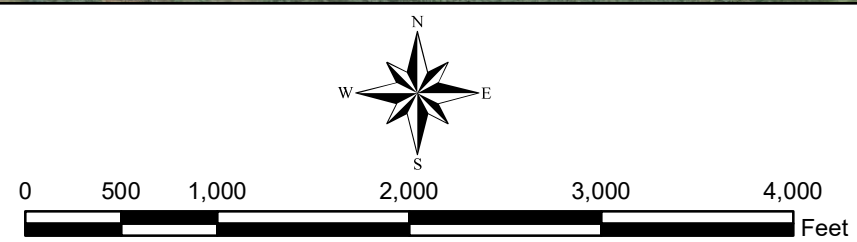




**Legend**

- Monitoring Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Ash Pond Boundary

**BY-AP-MW-1** Well ID  
6.52 Groundwater Elevation



NOTE:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. MW-1 was not factored into GW elevation contours, because gw elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.

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**FIGURE 5**  
**POTENTIOMETRIC SURFACE MAP**  
 APRIL 2018  
**PLANT BARRY ASH POND**

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

**FOR**

<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:12k		FIGURE 5	1		

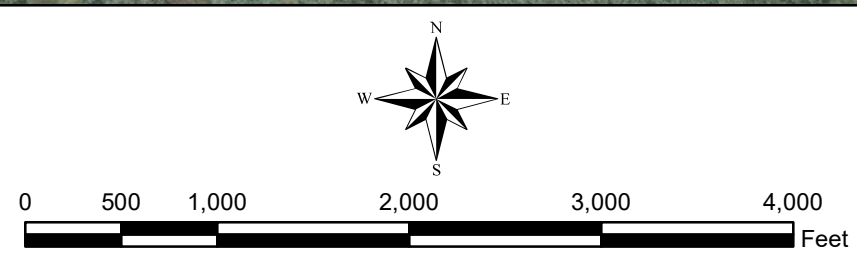




**Legend**

- Monitoring Well
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- Ash Pond Boundary

**BY-AP-MW-1** Well ID  
5.1 Groundwater Elevation



NOTE:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. MW-1 was not factored into GW elevation contours, because gw elevations observed in MW-1 indicate that screened interval is semi-confined from others in the network.

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**FIGURE 6**  
**POTENTIOMETRIC SURFACE MAP**  
 NOVEMBER 2018  
 PLANT BARRY ASH POND

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

FOR

<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:12k		FIGURE 6	1		



# Appendix A

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

## ***Field Case Narrative***



# **Plant Barry Ash Pond**

## **Assessment Event 1**

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

Rain moved in the area while pumping and sampling well MW-15. Air bubbles were present when sampling wells MW-16 and MW-1.

Field quality control procedures were performed as follows:

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

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

# Analytical Report



**Sample Group :** WMWBARAP\_1130  
**Project/Site :** Barry Ash Pond  
Bucks, AL 36512  
**For :** Southern Company Services  
42 Inverness Center Parkway  
Birmingham, AL 35242  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Sarah Copeland  
sgcopela@southernco.com  
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Sarah Copeland

Digitally signed by Sarah Copeland  
DN: cn=Sarah Copeland, o, ou,  
email=sgcopela@southernco.com,  
c=US  
Date: 2018.03.08 11:16:03 -06'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.03.09 09:29:34 -06'00'

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

## Case Narrative



Fluoride

Barry Ash Pond

WMWBARAP\_1130

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All samples were outsourced to Test America, Pensacola for analysis. There is no job narrative provided, as there were no issues reported.





Metals ICP

Barry Ash Pond

WMWBARAP\_1130

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>
AY01880	20180201K	WMWBARAP_1130
AY01881	20180201K	WMWBARAP_1130
AY01882	20180201K	WMWBARAP_1130
AY01883	20180201K	WMWBARAP_1130
AY01884	20180201K	WMWBARAP_1130
AY01885	20180201K	WMWBARAP_1130
AY01886	20180201K	WMWBARAP_1130
AY01887	20180201K	WMWBARAP_1130
AY01888	20180201K	WMWBARAP_1130
AY01889	20180201K	WMWBARAP_1130
AY01890	20180201AK	WMWBARAP_1130
AY01891	20180201AK	WMWBARAP_1130
AY01892	20180201AK	WMWBARAP_1130
AY01893	20180201AK	WMWBARAP_1130
AY01894	20180201AK	WMWBARAP_1130
AY01895	20180201AK	WMWBARAP_1130
AY01896	20180201AK	WMWBARAP_1130
AY01897	20180201AK	WMWBARAP_1130
AY01898	20180201AK	WMWBARAP_1130
AY01899	20180201AK	WMWBARAP_1130
AY01900	20180201BK	WMWBARAP_1130

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

General Quality Control Procedures:

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



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

#### Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for any potential matrix effects.
  8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Ash Pond

WMWBARAP\_1130

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>
AY01880	611066	WMWBARAP_1130
AY01881	611066	WMWBARAP_1130
AY01882	611066	WMWBARAP_1130
AY01883	611066	WMWBARAP_1130
AY01884	611066	WMWBARAP_1130
AY01885	611066	WMWBARAP_1130
AY01886	611066	WMWBARAP_1130
AY01887	611066	WMWBARAP_1130
AY01888	611066	WMWBARAP_1130
AY01889	611066	WMWBARAP_1130
AY01890	611067	WMWBARAP_1130
AY01891	611067	WMWBARAP_1130
AY01892	611067	WMWBARAP_1130
AY01893	611067	WMWBARAP_1130
AY01894	611067	WMWBARAP_1130
AY01895	611067	WMWBARAP_1130
AY01896	611067	WMWBARAP_1130
AY01897	611067	WMWBARAP_1130
AY01898	611067	WMWBARAP_1130
AY01899	611067	WMWBARAP_1130
AY01900	611068	WMWBARAP_1130

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

General Quality Control Procedures:

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



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

#### Matrix Specific Quality Control Procedures:

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

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



Mercury

Barry Ash Pond

WMWBARAP\_1130

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>
AY01880	611458	WMWBARAP_1130
AY01881	611458	WMWBARAP_1130
AY01882	611458	WMWBARAP_1130
AY01883	611458	WMWBARAP_1130
AY01884	611458	WMWBARAP_1130
AY01885	611458	WMWBARAP_1130
AY01886	611458	WMWBARAP_1130
AY01887	611458	WMWBARAP_1130
AY01888	611458	WMWBARAP_1130
AY01889	611458	WMWBARAP_1130
AY01890	611459	WMWBARAP_1130
AY01891	611459	WMWBARAP_1130
AY01892	611459	WMWBARAP_1130
AY01893	611459	WMWBARAP_1130
AY01894	611459	WMWBARAP_1130
AY01895	611459	WMWBARAP_1130
AY01896	611459	WMWBARAP_1130
AY01897	611459	WMWBARAP_1130
AY01898	611459	WMWBARAP_1130
AY01899	611459	WMWBARAP_1130
AY01900	611460	WMWBARAP_1130

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.



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

#### Matrix Specific Quality Control Procedures:

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

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

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

**Description:** Barry Ash Pond - MW-5

**Laboratory ID Number:** AY01880

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0282	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.127	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.050	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY01880

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115		91.0	70 to 130		1.08	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115		87.7	70 to 130		1.41	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115		92.9	70 to 130		0.290	20
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23		108	70 to 130		0.157	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115		98.5	70 to 130		1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115		96.7	70 to 130		1.25	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115		99.9	70 to 130		0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115		95.2	70 to 130		0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115		107	70 to 130		3.94	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115		92.2	70 to 130		1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115		95.9	70 to 130		1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046		97.8	70 to 130		0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115		99.8	70 to 130		0.415	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY01880

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

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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:** WMWBARAP  
**Sample Date:** 24-Jan-18  
**Customer ID:**  
**Delivery Date:** 25-Jan-18

**Description:** Barry Ash Pond - MW-6

**Laboratory ID Number:** AY01881

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0254	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:** Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY01881

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY01881

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

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY01882

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0536	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.129	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.040	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY01882

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	20

This Certificate states the physical and/or chemical characteristics 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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY01882

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

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

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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:** WMWBARAP  
**Sample Date:** 22-Jan-18  
**Customer ID:**  
**Delivery Date:** 25-Jan-18

**Description:** Barry Ash Pond - MW-15

**Laboratory ID Number:** AY01883

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0173	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0501	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0273	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00211	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	0.19	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY01883

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115		91.0	70 to 130	1.08	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115		87.7	70 to 130	1.41	20
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23		108	70 to 130	0.157	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115		92.9	70 to 130	0.290	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115		99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115		95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115		107	70 to 130	3.94	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115		98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115		96.7	70 to 130	1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115		92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115		95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046		97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115		99.8	70 to 130	0.415	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY01883

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

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

Description: Barry Ash Pond - MW-15 Dup

Laboratory ID Number: AY01884

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0165	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0510	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0265	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00225	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	0.19	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-15 Dup

Laboratory ID Number: AY01884

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115		91.0	70 to 130		1.08	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115		87.7	70 to 130		1.41	20
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23		108	70 to 130		0.157	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115		92.9	70 to 130		0.290	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115		99.9	70 to 130		0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115		95.2	70 to 130		0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115		107	70 to 130		3.94	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115		98.5	70 to 130		1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115		96.7	70 to 130		1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115		92.2	70 to 130		1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115		95.9	70 to 130		1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046		97.8	70 to 130		0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115		99.8	70 to 130		0.415	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-15 Dup

Laboratory ID Number: AY01884

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

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

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY01885

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0149	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0688	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00729	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.060	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY01885

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	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: WMWBARAP  
 Sample Date: 22-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY01885

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

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

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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:** WMWBARAP  
**Sample Date:** 23-Jan-18  
**Customer ID:**  
**Delivery Date:** 25-Jan-18

**Description:** Barry Ash Pond - MW-16

**Laboratory ID Number:** AY01886

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0151	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0779	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00621	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00253	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.050	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY01886

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20

This Certificate states the physical and/or chemical characteristics 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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY01886

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

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

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

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

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY01887

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0148	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0608	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00573	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.080	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY01887

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20

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

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

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

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY01887

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY01888

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0227	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0744	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00248	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00605	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.050	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY01888

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20	
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20	
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20	
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20	
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20	
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20	
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20	
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20	
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20	
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20	
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20	
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20	
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	20	

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

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

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

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY01888

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
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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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY01889

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0154	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0868	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00248	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.060	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY01889

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01889	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0910	0.0920	0.101	0.085 to 0.115	91.0	70 to 130	1.08	20
AY01889	Lithium, Total	mg/L	-0.00000777	0.022	0.20	0.216	0.216	0.195	0.17 to 0.23	108	70 to 130	0.157	20
AY01889	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0877	0.0889	0.0880	0.085 to 0.115	87.7	70 to 130	1.41	20
AY01889	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0929	0.0926	0.0963	0.085 to 0.115	92.9	70 to 130	0.290	20
AY01889	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0985	0.100	0.0988	0.085 to 0.115	98.5	70 to 130	1.62	20
AY01889	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0967	0.0980	0.0959	0.085 to 0.115	96.7	70 to 130	1.25	20
AY01889	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.179	0.181	0.0916	0.085 to 0.115	92.2	70 to 130	1.10	20
AY01889	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0959	0.0969	0.0921	0.085 to 0.115	95.9	70 to 130	1.04	20
AY01889	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00391	0.00391	0.00405	0.0034 to 0.0046	97.8	70 to 130	0.00	20
AY01889	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0998	0.0993	0.0991	0.085 to 0.115	99.8	70 to 130	0.415	20
AY01889	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.115	0.115	0.0998	0.085 to 0.115	99.9	70 to 130	0.628	20
AY01889	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0977	0.0978	0.0945	0.085 to 0.115	95.2	70 to 130	0.131	20
AY01889	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.107	0.103	0.105	0.085 to 0.115	107	70 to 130	3.94	20

This Certificate states the physical and/or chemical characteristics 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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY01889

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

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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



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01890

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01890

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	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: WMWBARAPFB  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01890

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY01891

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0362	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0673	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY01891

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115		92.4	70 to 130		2.57	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046		93.2	70 to 130		0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115		90.5	70 to 130		0.936	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115		92.4	70 to 130		2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115		98.2	70 to 130		0.339	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115		86.3	70 to 130		0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115		88.9	70 to 130		0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115		99.2	70 to 130		4.13	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115		95.3	70 to 130		2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115		97.0	70 to 130		1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115		91.0	70 to 130		1.40	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115		94.6	70 to 130		1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23		102	70 to 130		1.95	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY01891

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY01892

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0435	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.115	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.060	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY01892

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY01892

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

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Laboratory certification ID: E571114

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CC:

Alabama Power General Test Laboratory  
 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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-9 Dup

Laboratory ID Number: AY01893

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0439	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.115	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.050	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-9 Dup

Laboratory ID Number: AY01893

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20	
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20	
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20	
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20	
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20	
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20	
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20	
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20	
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	20	
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20	
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20	
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20	
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	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: WMWBARAP  
 Sample Date: 23-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-9 Dup

Laboratory ID Number: AY01893

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY01894

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0214	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0568	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0158	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.090	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY01894

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY01894

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY01895

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0293	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY01895

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY01895

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

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

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CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01896

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01896

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	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: WMWBARAPFB  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY01896

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

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY01897

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.0317	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY01897

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit
			MB	Limit						Rec	Limit	
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57 20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901 20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518 20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13 20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17 20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95 20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538 20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936 20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21 20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24 20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40 20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03 20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339 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

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY01897

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

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Laboratory certification ID: E571114

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

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY01898

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q	Results	Units
<b>Metals, Cyanide, Total Phenols</b>										
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	J	0.00158	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01		0.0229	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U	Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U	Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J	0.00592	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U	Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U	Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U	Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U	Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U	Not Detected	mg/L
<b>General Characteristics</b>										
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U	<0.032	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY01898

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115	92.4	70 to 130	2.57	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115	86.3	70 to 130	0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115	88.9	70 to 130	0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115	99.2	70 to 130	4.13	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115	92.4	70 to 130	2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115	98.2	70 to 130	0.339	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115	94.6	70 to 130	1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23	102	70 to 130	1.95	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115	95.3	70 to 130	2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115	97.0	70 to 130	1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115	91.0	70 to 130	1.40	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046	93.2	70 to 130	0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115	90.5	70 to 130	0.936	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY01898

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

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

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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:** WMWBARAP  
**Sample Date:** 24-Jan-18  
**Customer ID:**  
**Delivery Date:** 25-Jan-18

**Description:** Barry Ash Pond - MW-1

**Laboratory ID Number:** AY01899

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	0.0700	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	0.289	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	J 0.00278	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	J 0.050	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY01899

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY01899	Beryllium, Total	mg/L	0.0000192	0.00132	0.10	0.0924	0.0948	0.0921	0.085 to 0.115		92.4	70 to 130		2.57	20
AY01899	Chromium, Total	mg/L	0.0000906	0.0044	0.10	0.0952	0.0971	0.0945	0.085 to 0.115		92.4	70 to 130		2.03	20
AY01899	Molybdenum, Total	mg/L	0.0000154	0.0044	0.10	0.0982	0.0985	0.0991	0.085 to 0.115		98.2	70 to 130		0.339	20
AY01899	Arsenic, Total	mg/L	0.0000185	0.0022	0.10	0.165	0.169	0.0998	0.085 to 0.115		95.3	70 to 130		2.21	20
AY01899	Cadmium, Total	mg/L	0.00000825	0.00066	0.10	0.0970	0.0983	0.0988	0.085 to 0.115		97.0	70 to 130		1.24	20
AY01899	Lead, Total	mg/L	0.0000126	0.0022	0.10	0.0910	0.0923	0.0963	0.085 to 0.115		91.0	70 to 130		1.40	20
AY01899	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00373	0.00371	0.00406	0.0034 to 0.0046		93.2	70 to 130		0.538	20
AY01899	Thallium, Total	mg/L	-0.00000627	0.00044	0.10	0.0905	0.0914	0.101	0.085 to 0.115		90.5	70 to 130		0.936	20
AY01899	Antimony, Total	mg/L	0.0000540	0.00132	0.10	0.0863	0.0871	0.0880	0.085 to 0.115		86.3	70 to 130		0.901	20
AY01899	Barium, Total	mg/L	0.0000310	0.0044	0.10	0.378	0.380	0.0916	0.085 to 0.115		88.9	70 to 130		0.518	20
AY01899	Selenium, Total	mg/L	0.0000930	0.0044	0.10	0.0992	0.103	0.105	0.085 to 0.115		99.2	70 to 130		4.13	20
AY01899	Cobalt, Total	mg/L	0.00000461	0.0044	0.10	0.0946	0.0958	0.0959	0.085 to 0.115		94.6	70 to 130		1.17	20
AY01899	Lithium, Total	mg/L	0.0000184	0.022	0.20	0.203	0.207	0.191	0.17 to 0.23		102	70 to 130		1.95	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: WMWBARAP  
 Sample Date: 24-Jan-18  
 Customer ID:  
 Delivery Date: 25-Jan-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY01899

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

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

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY01900

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	2/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/1/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	1/30/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	2/7/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY01900

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY01900	Chromium, Total	mg/L	0.0000773	0.0044	0.10	0.0961	0.0949	0.0932	0.085 to 0.115	96.1	70 to 130	1.28	20
AY01900	Lithium, Total	mg/L	0.0000153	0.022	0.20	0.187	0.190	0.191	0.17 to 0.23	93.7	70 to 130	1.48	20
AY01900	Cadmium, Total	mg/L	0.00000675	0.00066	0.10	0.0981	0.0977	0.0975	0.085 to 0.115	98.1	70 to 130	0.408	20
AY01900	Cobalt, Total	mg/L	0.000000837	0.0044	0.10	0.0920	0.0924	0.0923	0.085 to 0.115	92.0	70 to 130	0.367	20
AY01900	Molybdenum, Total	mg/L	0.0000168	0.0044	0.10	0.0994	0.0959	0.0962	0.085 to 0.115	99.4	70 to 130	3.57	20
AY01900	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0984	0.0986	0.0988	0.085 to 0.115	98.4	70 to 130	0.131	20
AY01900	Selenium, Total	mg/L	0.0000125	0.0044	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	1.41	20
AY01900	Antimony, Total	mg/L	0.0000341	0.00132	0.10	0.0868	0.0863	0.0873	0.085 to 0.115	86.8	70 to 130	0.576	20
AY01900	Beryllium, Total	mg/L	0.0000136	0.00132	0.10	0.0937	0.0945	0.0963	0.085 to 0.115	93.7	70 to 130	0.836	20
AY01900	Lead, Total	mg/L	0.00000586	0.0022	0.10	0.0917	0.0908	0.0951	0.085 to 0.115	91.7	70 to 130	0.971	20
AY01900	Thallium, Total	mg/L	-0.00000828	0.00044	0.10	0.0907	0.0912	0.0992	0.085 to 0.115	90.7	70 to 130	0.586	20
AY01900	Barium, Total	mg/L	0.00000490	0.0044	0.10	0.0906	0.0916	0.0912	0.085 to 0.115	90.6	70 to 130	1.05	20
AY01900	Mercury, Total by CVAA	mg/L	0.00004	0.0005	0.004	0.00405	0.00406	0.00398	0.0034 to 0.0046	101	70 to 130	0.247	20

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

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

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY01900

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

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



## Definitions



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

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





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

- Field Complete
- Lab Complete

Lab ETA 01/25/2018 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (250mL): Anions		
Comments	All Fluoride analysis outsourced to Test America, Pensacola. There is no temperature preservation requirement. Date correction made for MW-13.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	01/22/2018	14:22	3	Groundwater		AY01883
MW-15 DUP	01/22/2018	14:22	3	Sample Duplicate		AY01884
MW-13	01/22/2018	15:34	3	Groundwater		AY01885
MW-16	01/23/2018	09:47	3	Groundwater		AY01886
MW-14	01/23/2018	11:14	3	Groundwater		AY01887
MW-12	01/23/2018	12:14	3	Groundwater		AY01888
MW-11	01/23/2018	13:04	3	Groundwater		AY01889
FB-1	01/23/2018	13:25	3	Field Blank		AY01890
MW-10	01/23/2018	14:03	3	Groundwater		AY01891
MW-9	01/23/2018	14:59	3	Groundwater		AY01892
MW-9 DUP	01/23/2018	14:59	3	Sample Duplicate		AY01893
MW-7	01/24/2018	09:54	3	Groundwater		AY01894
MW-4	01/24/2018	11:14	3	Groundwater		AY01895
FB-2	01/24/2018	11:50	3	Field Blank		AY01896
MW-3	01/24/2018	12:19	3	Groundwater		AY01897
MW-2	01/24/2018	13:24	3	Groundwater		AY01898
MW-1	01/24/2018	14:25	3	Groundwater		AY01899
EB-1	01/24/2018	15:00	3	Equipment Blank		AY01900

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: 2018.01.25 11:26:05 -0600</small>	01/25/2018 11:26

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp	NA
		Thermometer ID	NA
		pH Strip ID	5881-30150-10-4





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

- Field Complete
- Lab Complete

Lab ETA 01/25/2018 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Barry Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium Duplicates collected at MW-16 and MW-7. Date correction made on MW-13. There is no temperature preservation requirement for Radium.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	01/22/2018	14:22	1	Groundwater		AY01904
MW-15 DUP	01/22/2018	14:22	1	Sample Duplicate		AY01905
MW-13	01/22/2018	15:34	1	Groundwater		AY01906
MW-16	01/23/2018	09:47	3	Groundwater		AY01907
MW-14	01/23/2018	11:14	1	Groundwater		AY01908
MW-12	01/23/2018	12:14	1	Groundwater		AY01909
MW-11	01/23/2018	13:04	1	Groundwater		AY01910
FB-1	01/23/2018	13:25	1	Field Blank		AY01911
MW-10	01/23/2018	14:03	1	Groundwater		AY01912
MW-9	01/23/2018	14:59	1	Groundwater		AY01913
MW-9 DUP	01/23/2018	14:59	1	Sample Duplicate		AY01914
MW-7	01/24/2018	09:54	3	Groundwater		AY01915
MW-4	01/24/2018	11:14	1	Groundwater		AY01916
FB-2	01/24/2018	11:50	1	Field Blank		AY01917
MW-3	01/24/2018	12:19	1	Groundwater		AY01918
MW-2	01/24/2018	13:24	1	Groundwater		AY01919
MW-1	01/24/2018	14:25	1	Groundwater		AY01920
EB-1	01/24/2018	15:00	1	Equipment Blank		AY01921

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: 2018.01.25 11:20:18 -0600</small>	01/25/2018 11:20

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20010-2-2	Cooler Temp
		NA
		Thermometer ID
		NA
		pH Strip ID
		5521-28270-20-14



# 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: 400-148887-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1130

Client Project/Site: CCR Plant Barry

For:

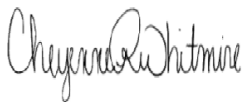
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/6/2018 3:31:22 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Detection Summary

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

## Client Sample ID: AY01883 MW-15

Lab Sample ID: 400-148887-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01884 MW-15 DUP

Lab Sample ID: 400-148887-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01885 MW-13

Lab Sample ID: 400-148887-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01886 MW-16

Lab Sample ID: 400-148887-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01887 MW-14

Lab Sample ID: 400-148887-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01888 MW-12

Lab Sample ID: 400-148887-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01889 MW-11

Lab Sample ID: 400-148887-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01890 FB-1

Lab Sample ID: 400-148887-8

No Detections.

## Client Sample ID: AY01891 MW-10

Lab Sample ID: 400-148887-9

No Detections.

## Client Sample ID: AY01892 MW-9

Lab Sample ID: 400-148887-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.060	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01893 MW-9 DUP

Lab Sample ID: 400-148887-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.050	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 Barry

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

## Client Sample ID: AY01894 MW-7

## Lab Sample ID: 400-148887-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01895 MW-4

## Lab Sample ID: 400-148887-13

No Detections.

## Client Sample ID: AY01896 FB-2

## Lab Sample ID: 400-148887-14

No Detections.

## Client Sample ID: AY01897 MW-3

## Lab Sample ID: 400-148887-15

No Detections.

## Client Sample ID: AY01898 MW-2

## Lab Sample ID: 400-148887-16

No Detections.

## Client Sample ID: AY01899 MW-1

## Lab Sample ID: 400-148887-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01900 EB-1

## Lab Sample ID: 400-148887-18

No Detections.

## Client Sample ID: AY01880 MW-5

## Lab Sample ID: 400-148887-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY01881 MW-6

## Lab Sample ID: 400-148887-20

No Detections.

## Client Sample ID: AY01882 MW-8

## Lab Sample ID: 400-148887-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
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

# Method Summary

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

---

Method	Method Description	Protocol	Laboratory
SM 4500 F C	Fluoride	SM	TAL PEN

---

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

**Laboratory References:**

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

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# Sample Summary

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-148887-1	AY01883 MW-15	Water	01/22/18 14:22	01/29/18 16:15
400-148887-2	AY01884 MW-15 DUP	Water	01/22/18 14:22	01/29/18 16:15
400-148887-3	AY01885 MW-13	Water	01/22/18 15:34	01/29/18 16:15
400-148887-4	AY01886 MW-16	Water	01/23/18 09:47	01/29/18 16:15
400-148887-5	AY01887 MW-14	Water	01/23/18 11:14	01/29/18 16:15
400-148887-6	AY01888 MW-12	Water	01/23/18 12:14	01/29/18 16:15
400-148887-7	AY01889 MW-11	Water	01/23/18 13:04	01/29/18 16:15
400-148887-8	AY01890 FB-1	Water	01/23/18 13:25	01/29/18 16:15
400-148887-9	AY01891 MW-10	Water	01/23/18 14:03	01/29/18 16:15
400-148887-10	AY01892 MW-9	Water	01/23/18 14:59	01/29/18 16:15
400-148887-11	AY01893 MW-9 DUP	Water	01/23/18 14:59	01/29/18 16:15
400-148887-12	AY01894 MW-7	Water	01/24/18 09:54	01/29/18 16:15
400-148887-13	AY01895 MW-4	Water	01/24/18 11:14	01/29/18 16:15
400-148887-14	AY01896 FB-2	Water	01/24/18 11:50	01/29/18 16:15
400-148887-15	AY01897 MW-3	Water	01/24/18 12:19	01/29/18 16:15
400-148887-16	AY01898 MW-2	Water	01/24/18 13:24	01/29/18 16:15
400-148887-17	AY01899 MW-1	Water	01/24/18 14:25	01/29/18 16:15
400-148887-18	AY01900 EB-1	Water	01/24/18 15:00	01/29/18 16:15
400-148887-19	AY01880 MW-5	Water	01/24/18 11:54	01/29/18 16:15
400-148887-20	AY01881 MW-6	Water	01/24/18 12:47	01/29/18 16:15
400-148887-21	AY01882 MW-8	Water	01/24/18 13:40	01/29/18 16:15

# Client Sample Results

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

TestAmerica Job ID: 400-148887-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01883 MW-15**

**Lab Sample ID: 400-148887-1**

Date Collected: 01/22/18 14:22

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.19		0.10	0.032	mg/L			02/05/18 08:22	1

**Client Sample ID: AY01884 MW-15 DUP**

**Lab Sample ID: 400-148887-2**

Date Collected: 01/22/18 14:22

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.19		0.10	0.032	mg/L			02/05/18 08:29	1

**Client Sample ID: AY01885 MW-13**

**Lab Sample ID: 400-148887-3**

Date Collected: 01/22/18 15:34

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L			02/05/18 08:31	1

**Client Sample ID: AY01886 MW-16**

**Lab Sample ID: 400-148887-4**

Date Collected: 01/23/18 09:47

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.10	0.032	mg/L			02/05/18 09:44	1

**Client Sample ID: AY01887 MW-14**

**Lab Sample ID: 400-148887-5**

Date Collected: 01/23/18 11:14

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L			02/05/18 09:48	1

**Client Sample ID: AY01888 MW-12**

**Lab Sample ID: 400-148887-6**

Date Collected: 01/23/18 12:14

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.10	0.032	mg/L			02/05/18 09:51	1

**Client Sample ID: AY01889 MW-11**

**Lab Sample ID: 400-148887-7**

Date Collected: 01/23/18 13:04

Matrix: Water

Date Received: 01/29/18 16:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L			02/05/18 09:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01890 FB-1**

**Lab Sample ID: 400-148887-8**

Date Collected: 01/23/18 13:25

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 09:58	1

**Client Sample ID: AY01891 MW-10**

**Lab Sample ID: 400-148887-9**

Date Collected: 01/23/18 14:03

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 10:01	1

**Client Sample ID: AY01892 MW-9**

**Lab Sample ID: 400-148887-10**

Date Collected: 01/23/18 14:59

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.060	J	0.10	0.032	mg/L	-		02/05/18 09:31	1

**Client Sample ID: AY01893 MW-9 DUP**

**Lab Sample ID: 400-148887-11**

Date Collected: 01/23/18 14:59

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.10	0.032	mg/L	-		02/05/18 12:36	1

**Client Sample ID: AY01894 MW-7**

**Lab Sample ID: 400-148887-12**

Date Collected: 01/24/18 09:54

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.090	J	0.10	0.032	mg/L	-		02/05/18 10:50	1

**Client Sample ID: AY01895 MW-4**

**Lab Sample ID: 400-148887-13**

Date Collected: 01/24/18 11:14

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 10:54	1

**Client Sample ID: AY01896 FB-2**

**Lab Sample ID: 400-148887-14**

Date Collected: 01/24/18 11:50

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L	-		02/05/18 10:57	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01897 MW-3**

**Lab Sample ID: 400-148887-15**

Date Collected: 01/24/18 12:19

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

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

**Client Sample ID: AY01898 MW-2**

**Lab Sample ID: 400-148887-16**

Date Collected: 01/24/18 13:24

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 12:20	1

**Client Sample ID: AY01899 MW-1**

**Lab Sample ID: 400-148887-17**

Date Collected: 01/24/18 14:25

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.10	0.032	mg/L			02/05/18 12:08	1

**Client Sample ID: AY01900 EB-1**

**Lab Sample ID: 400-148887-18**

Date Collected: 01/24/18 15:00

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 12:24	1

**Client Sample ID: AY01880 MW-5**

**Lab Sample ID: 400-148887-19**

Date Collected: 01/24/18 11:54

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.050	J	0.10	0.032	mg/L			02/05/18 12:27	1

**Client Sample ID: AY01881 MW-6**

**Lab Sample ID: 400-148887-20**

Date Collected: 01/24/18 12:47

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 12:30	1

**Client Sample ID: AY01882 MW-8**

**Lab Sample ID: 400-148887-21**

Date Collected: 01/24/18 13:40

Matrix: Water

Date Received: 01/29/18 16:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.040	J	0.10	0.032	mg/L			02/05/18 12:44	1

TestAmerica Pensacola

# Definitions/Glossary

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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



# Lab Chronicle

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01883 MW-15**

**Date Collected: 01/22/18 14:22**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385229	02/05/18 08:22	RRC	TAL PEN

**Client Sample ID: AY01884 MW-15 DUP**

**Date Collected: 01/22/18 14:22**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385229	02/05/18 08:29	RRC	TAL PEN

**Client Sample ID: AY01885 MW-13**

**Date Collected: 01/22/18 15:34**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385229	02/05/18 08:31	RRC	TAL PEN

**Client Sample ID: AY01886 MW-16**

**Date Collected: 01/23/18 09:47**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:44	RRC	TAL PEN

**Client Sample ID: AY01887 MW-14**

**Date Collected: 01/23/18 11:14**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:48	RRC	TAL PEN

**Client Sample ID: AY01888 MW-12**

**Date Collected: 01/23/18 12:14**

**Date Received: 01/29/18 16:15**

**Lab Sample ID: 400-148887-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:51	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01889 MW-11**

**Lab Sample ID: 400-148887-7**

**Date Collected: 01/23/18 13:04**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:54	RRC	TAL PEN

**Client Sample ID: AY01890 FB-1**

**Lab Sample ID: 400-148887-8**

**Date Collected: 01/23/18 13:25**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:58	RRC	TAL PEN

**Client Sample ID: AY01891 MW-10**

**Lab Sample ID: 400-148887-9**

**Date Collected: 01/23/18 14:03**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:01	RRC	TAL PEN

**Client Sample ID: AY01892 MW-9**

**Lab Sample ID: 400-148887-10**

**Date Collected: 01/23/18 14:59**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 09:31	RRC	TAL PEN

**Client Sample ID: AY01893 MW-9 DUP**

**Lab Sample ID: 400-148887-11**

**Date Collected: 01/23/18 14:59**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:36	RRC	TAL PEN

**Client Sample ID: AY01894 MW-7**

**Lab Sample ID: 400-148887-12**

**Date Collected: 01/24/18 09:54**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:50	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01895 MW-4**

**Lab Sample ID: 400-148887-13**

**Date Collected: 01/24/18 11:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:54	RRC	TAL PEN

**Client Sample ID: AY01896 FB-2**

**Lab Sample ID: 400-148887-14**

**Date Collected: 01/24/18 11:50**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385257	02/05/18 10:57	RRC	TAL PEN

**Client Sample ID: AY01897 MW-3**

**Lab Sample ID: 400-148887-15**

**Date Collected: 01/24/18 12:19**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

**Client Sample ID: AY01898 MW-2**

**Lab Sample ID: 400-148887-16**

**Date Collected: 01/24/18 13:24**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:20	RRC	TAL PEN

**Client Sample ID: AY01899 MW-1**

**Lab Sample ID: 400-148887-17**

**Date Collected: 01/24/18 14:25**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:08	RRC	TAL PEN

**Client Sample ID: AY01900 EB-1**

**Lab Sample ID: 400-148887-18**

**Date Collected: 01/24/18 15:00**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:24	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01880 MW-5**

**Lab Sample ID: 400-148887-19**

**Date Collected: 01/24/18 11:54**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:27	RRC	TAL PEN

**Client Sample ID: AY01881 MW-6**

**Lab Sample ID: 400-148887-20**

**Date Collected: 01/24/18 12:47**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:30	RRC	TAL PEN

**Client Sample ID: AY01882 MW-8**

**Lab Sample ID: 400-148887-21**

**Date Collected: 01/24/18 13:40**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	385289	02/05/18 12:44	RRC	TAL PEN

## Laboratory References:

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

# QC Association Summary

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

TestAmerica Job ID: 400-148887-1  
SDG: Barry Ash Pond 1130

## General Chemistry

### Analysis Batch: 385229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148887-1	AY01883 MW-15	Total/NA	Water	SM 4500 F C	
400-148887-2	AY01884 MW-15 DUP	Total/NA	Water	SM 4500 F C	
400-148887-3	AY01885 MW-13	Total/NA	Water	SM 4500 F C	
MB 400-385229/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385229/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148887-1 MS	AY01883 MW-15	Total/NA	Water	SM 4500 F C	
400-148887-1 MSD	AY01883 MW-15	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 385257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148887-4	AY01886 MW-16	Total/NA	Water	SM 4500 F C	
400-148887-5	AY01887 MW-14	Total/NA	Water	SM 4500 F C	
400-148887-6	AY01888 MW-12	Total/NA	Water	SM 4500 F C	
400-148887-7	AY01889 MW-11	Total/NA	Water	SM 4500 F C	
400-148887-8	AY01890 FB-1	Total/NA	Water	SM 4500 F C	
400-148887-9	AY01891 MW-10	Total/NA	Water	SM 4500 F C	
400-148887-10	AY01892 MW-9	Total/NA	Water	SM 4500 F C	
400-148887-12	AY01894 MW-7	Total/NA	Water	SM 4500 F C	
400-148887-13	AY01895 MW-4	Total/NA	Water	SM 4500 F C	
400-148887-14	AY01896 FB-2	Total/NA	Water	SM 4500 F C	
MB 400-385257/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385257/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148887-10 MS	AY01892 MW-9	Total/NA	Water	SM 4500 F C	
400-148887-10 MSD	AY01892 MW-9	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 385289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148887-11	AY01893 MW-9 DUP	Total/NA	Water	SM 4500 F C	
400-148887-15	AY01897 MW-3	Total/NA	Water	SM 4500 F C	
400-148887-16	AY01898 MW-2	Total/NA	Water	SM 4500 F C	
400-148887-17	AY01899 MW-1	Total/NA	Water	SM 4500 F C	
400-148887-18	AY01900 EB-1	Total/NA	Water	SM 4500 F C	
400-148887-19	AY01880 MW-5	Total/NA	Water	SM 4500 F C	
400-148887-20	AY01881 MW-6	Total/NA	Water	SM 4500 F C	
400-148887-21	AY01882 MW-8	Total/NA	Water	SM 4500 F C	
MB 400-385289/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-385289/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-148887-17 MS	AY01899 MW-1	Total/NA	Water	SM 4500 F C	
400-148887-17 MSD	AY01899 MW-1	Total/NA	Water	SM 4500 F C	
400-148887-21 MS	AY01882 MW-8	Total/NA	Water	SM 4500 F C	
400-148887-21 MSD	AY01882 MW-8	Total/NA	Water	SM 4500 F C	

# QC Sample Results

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

TestAmerica Job ID: 400-148887-1  
 SDG: Barry Ash Pond 1130

## Method: SM 4500 F C - Fluoride

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 07:18	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.02		mg/L		101	90 - 110

**Lab Sample ID: 400-148887-1 MS**  
**Matrix: Water**  
**Analysis Batch: 385229**

**Client Sample ID: AY01883 MW-15**  
**Prep Type: Total/NA**

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

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

**Client Sample ID: AY01883 MW-15**  
**Prep Type: Total/NA**

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

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 09:20	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.94		mg/L		99	90 - 110

**Lab Sample ID: 400-148887-10 MS**  
**Matrix: Water**  
**Analysis Batch: 385257**

**Client Sample ID: AY01892 MW-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.060	J	1.00	1.08		mg/L		102	75 - 125

**Lab Sample ID: 400-148887-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 385257**

**Client Sample ID: AY01892 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	0.060	J	1.00	1.06		mg/L		100	75 - 125	2	4

TestAmerica Pensacola



# QC Sample Results

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

TestAmerica Job ID: 400-148887-1  
 SDG: Barry Ash Pond 1130

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/05/18 11:58	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.94		mg/L		99	90 - 110

**Lab Sample ID: 400-148887-17 MS**  
**Matrix: Water**  
**Analysis Batch: 385289**

**Client Sample ID: AY01899 MW-1**  
**Prep Type: Total/NA**

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

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

**Client Sample ID: AY01899 MW-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	J	1.00	1.06		mg/L		101	75 - 125	0	4

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

**Client Sample ID: AY01882 MW-8**  
**Prep Type: Total/NA**

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

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

**Client Sample ID: AY01882 MW-8**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J	1.00	1.04		mg/L		100	75 - 125	0	4

### Chain of Custody Record

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com		Page: 1 of 2		Job #: 400-148887	
Company: Alabama Power General Test Laboratory		Due Date Requested:		<b>Analysis Requested</b>		Preservation Codes:	
Address: 744 County Rd 87 GSC #8		TAT Requested (days):		Routine		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
City: Calera		PO #:		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify)	
State, Zip: AL, 35040		WO #:		Perform MS/MSD (Yes or No)		Total Number of Containers	
Phone: 205-664-6121(Tel)		Project #:		SM 4500 F C		1	
Email: sgcopela@southernco.com		CCR		SM 4500 C E		1	
Project Name: CCR		SSOW#:		SM 4500 S O4 E		1	
Site: Barry Ash Pond 1130		Sample Date		Sample Time		Sample Matrix (Water, Solid, Onwater, BT=Tras, A=Air)	
Sample Identification		Sample Date		Sample Time		Sample Matrix (Water, Solid, Onwater, BT=Tras, A=Air)	
AY01883	1/22/18	1422	G	Water			
AY01884	1/22/18	1422	G	Water			
AY01885	1/22/18	1534	G	Water			
AY01886	1/23/18	0947	G	Water			
AY01887	1/23/18	1114	G	Water			
AY01888	1/23/18	1214	G	Water			
AY01889	1/23/18	1304	G	Water			
AY01890	1/23/18	1325	G	Water			
AY01891	1/23/18	1403	G	Water			
AY01892	1/23/18	1459	G	Water			
AY01893	1/23/18	1459	G	Water			
Special Instructions/Note:		MW-15		MW-15 Dup (Sample Duplicate)		MW-13	
MW-16		MW-14		MW-12		MW-11	
FB-1 (Field Blank)		MW-10		MW-9		MW-9 Dup (Sample Duplicate)	
Special Instructions/Note:		MW-15		MW-15 Dup (Sample Duplicate)		MW-13	
MW-16		MW-14		MW-12		MW-11	
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MW-16		MW-14		MW-12		MW-11	
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FB-1 (Field Blank)		MW-10		MW-9		MW-9 Dup (Sample Duplicate)	
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MW-16		MW-14		MW-12		MW-11	
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MW-16		MW-14		MW-12		MW-11	
FB-1 (Field Blank)		MW-10		MW-9		MW-9 Dup (Sample Duplicate)	
Special Instructions/Note:		MW-15		MW-15 Dup (Sample Duplicate)		MW-13	
MW-16</							



**Chain of Custody Record**

Sampler: Ben Rothschild/ Anthony Goggins  
 Lab PM: Whitmore, Cheyenne R  
 Client Contact: Sarah Copeland  
 Phone: cheyenne.whitmore@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@southemco.com  
 Project Name: Barry Ash Pond 1130  
 CCR: 40007143  
 SSON#:

Due Date Requested:  
 TAT Requested (days): Routine  
 PO #:   
 WO #:   
 Project #: 40007143  
 SSON#:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=on-site, BT=issue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SM 4500 F.C	SM 4500 C.E	SM 4500 S.O <sub>4</sub> E	Total Number of Containers	Special Instructions/Note:
						Field Filtered	MS/MSD	Perform	MS/MSD					
AY01894	1/24/18	0954	G	Water		X	X	X	X				1	MM-7
AY01895	1/24/18	1114	G	Water		X	X	X	X				1	MM-4
AY01896	1/24/18	1150	G	Water		X	X	X	X				1	FB-2 (Field Blank)
AY01897	1/24/18	1219	G	Water		X	X	X	X				1	MM-3
AY01898	1/24/18	1324	G	Water		X	X	X	X				1	MM-2
AY01899	1/24/18	1425	G	Water		X	X	X	X				1	MM-1
AY01900	1/24/18	1500	G	Water		X	X	X	X				1	EB-1 (Equipment Blank)
AY01880	1/24/18	1154	G	Water		X	X	X	X				1	MM-5
AY01881	1/24/18	1247	G	Water		X	X	X	X				1	MM-6
AY01882	1/24/18	1340	G	Water		X	X	X	X				1	MM-8

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: 1/29/2018, 1330  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Custody Seals Intact:  Yes  No (Custody Seal 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:

Method of Shipment: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
 Received by: \_\_\_\_\_ Date/Time: 1-29-18 10:15 AM  
 Cooler Temperature(s) °C and Other Remarks:



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-148887-1  
SDG Number: Barry Ash Pond 1130

**Login Number: 148887**

**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	19.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-148887-1  
 SDG: Barry Ash Pond 1130

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-148879-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1130

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/27/2018 3:35:32 PM

Cheyenne Whitmire, Project Manager II

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### LINKS

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

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

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

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# Case Narrative

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

**Job ID: 400-148879-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-148879-1

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-349165. Sample aliquots reduced due to limited sample aliquot. AY01904 MW-15 (400-148879-1), AY01905 MW-15 DUP (400-148879-2), AY01906 MW-13 (400-148879-3), AY01907 MW-16 (400-148879-4), AY01907 MW-16 (400-148879-4[DUJ]), AY01908 MW-14 (400-148879-5), AY01909 MW-12 (400-148879-6), AY01910 MW-11 (400-148879-7), AY01911 FB-1 (400-148879-8), AY01912 MW-10 (400-148879-9), AY01913 MW-9 (400-148879-10), AY01914 MW-9 DUP (400-148879-11), AY01915 MW-7 (400-148879-12), AY01915 MW-7 (400-148879-12[DUJ]), AY01916 MW-4 (400-148879-13), AY01917 FB-2 (400-148879-14), AY01918 MW-3 (400-148879-15), AY01919 MW-2 (400-148879-16), AY01920 MW-1 (400-148879-17), AY01921 EB-1 (400-148879-18), AY01901 MW-5 (400-148879-19) and AY01902 MW-6 (400-148879-20)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-349165. Samples are of varying shades of a yellow gold color: AY01904 MW-15 (400-148879-1), AY01905 MW-15 DUP (400-148879-2), AY01906 MW-13 (400-148879-3), AY01907 MW-16 (400-148879-4), AY01907 MW-16 (400-148879-4[DUJ]), AY01908 MW-14 (400-148879-5), AY01909 MW-12 (400-148879-6), AY01910 MW-11 (400-148879-7), AY01912 MW-10 (400-148879-9), AY01913 MW-9 (400-148879-10), AY01914 MW-9 DUP (400-148879-11), AY01915 MW-7 (400-148879-12), AY01915 MW-7 (400-148879-12[DUJ]), AY01920 MW-1 (400-148879-17) and AY01901 MW-5 (400-148879-19).

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-349178. Sample is a light yellow gold color: AY01903 MW-8 (400-148879-21).

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-349178. Sample aliquots reduced due to limited sample volume. AY01903 MW-8 (400-148879-21)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-349160. Sample aliquots reduced due to limited sample volume. AY01904 MW-15 (400-148879-1), AY01905 MW-15 DUP (400-148879-2), AY01906 MW-13 (400-148879-3), AY01907 MW-16 (400-148879-4), AY01907 MW-16 (400-148879-4[DUJ]), AY01908 MW-14 (400-148879-5), AY01909 MW-12 (400-148879-6), AY01910 MW-11 (400-148879-7), AY01911 FB-1 (400-148879-8), AY01912 MW-10 (400-148879-9), AY01913 MW-9 (400-148879-10), AY01914 MW-9 DUP (400-148879-11), AY01915 MW-7 (400-148879-12), AY01915 MW-7 (400-148879-12[DUJ]), AY01916 MW-4 (400-148879-13), AY01917 FB-2 (400-148879-14), AY01918 MW-3 (400-148879-15), AY01919 MW-2 (400-148879-16), AY01920 MW-1 (400-148879-17), AY01921 EB-1 (400-148879-18), AY01901 MW-5 (400-148879-19) and AY01902 MW-6 (400-148879-20)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-349160. Samples are of varying shades of a yellow gold color: AY01904 MW-15 (400-148879-1), AY01905 MW-15 DUP (400-148879-2), AY01906 MW-13 (400-148879-3), AY01907 MW-16 (400-148879-4), AY01907 MW-16 (400-148879-4[DUJ]), AY01908 MW-14 (400-148879-5), AY01909 MW-12 (400-148879-6), AY01910 MW-11 (400-148879-7), AY01912 MW-10 (400-148879-9), AY01913 MW-9 (400-148879-10), AY01914 MW-9 DUP (400-148879-11), AY01915 MW-7 (400-148879-12), AY01915 MW-7 (400-148879-12[DUJ]), AY01920 MW-1 (400-148879-17) and AY01901 MW-5 (400-148879-19).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-349176. Sample aliquots reduced due to limited sample aliquot. AY01903 MW-8 (400-148879-21)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-349176. Sample is a light yellow gold color: AY01903 MW-8 (400-148879-21).

# Method Summary

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

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

**Protocol References:**

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

**Laboratory References:**

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



# Sample Summary

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-148879-1	AY01904 MW-15	Water	01/22/18 14:22	01/29/18 16:15
400-148879-2	AY01905 MW-15 DUP	Water	01/22/18 14:22	01/29/18 16:15
400-148879-3	AY01906 MW-13	Water	01/22/18 15:34	01/29/18 16:15
400-148879-4	AY01907 MW-16	Water	01/23/18 09:47	01/29/18 16:15
400-148879-5	AY01908 MW-14	Water	01/23/18 11:14	01/29/18 16:15
400-148879-6	AY01909 MW-12	Water	01/23/18 12:14	01/29/18 16:15
400-148879-7	AY01910 MW-11	Water	01/23/18 13:04	01/29/18 16:15
400-148879-8	AY01911 FB-1	Water	01/23/18 13:25	01/29/18 16:15
400-148879-9	AY01912 MW-10	Water	01/23/18 14:03	01/29/18 16:15
400-148879-10	AY01913 MW-9	Water	01/23/18 14:59	01/29/18 16:15
400-148879-11	AY01914 MW-9 DUP	Water	01/23/18 14:59	01/29/18 16:15
400-148879-12	AY01915 MW-7	Water	01/24/18 09:54	01/29/18 16:15
400-148879-13	AY01916 MW-4	Water	01/24/18 11:14	01/29/18 16:15
400-148879-14	AY01917 FB-2	Water	01/24/18 11:50	01/29/18 16:15
400-148879-15	AY01918 MW-3	Water	01/24/18 12:19	01/29/18 16:15
400-148879-16	AY01919 MW-2	Water	01/24/18 13:24	01/29/18 16:15
400-148879-17	AY01920 MW-1	Water	01/24/18 14:25	01/29/18 16:15
400-148879-18	AY01921 EB-1	Water	01/24/18 15:00	01/29/18 16:15
400-148879-19	AY01901 MW-5	Water	01/24/18 11:54	01/29/18 16:15
400-148879-20	AY01902 MW-6	Water	01/24/18 12:47	01/29/18 16:15
400-148879-21	AY01903 MW-8	Water	01/24/18 13:40	01/29/18 16:15

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01904 MW-15**

**Lab Sample ID: 400-148879-1**

**Date Collected: 01/22/18 14:22**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.202		0.0919	0.0937	1.00	0.0998	pCi/L	02/01/18 10:38	02/23/18 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 10:38	02/23/18 10:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.566		0.317	0.321	1.00	0.480	pCi/L	02/01/18 11:49	02/08/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 11:49	02/08/18 15:38	1
Y Carrier	87.1		40 - 110					02/01/18 11:49	02/08/18 15:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.768		0.330	0.334	5.00	0.480	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01905 MW-15 DUP**

**Lab Sample ID: 400-148879-2**

Date Collected: 01/22/18 14:22

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.226		0.104	0.106	1.00	0.121	pCi/L	02/01/18 10:38	02/23/18 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 10:38	02/23/18 10:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.321	0.326	1.00	0.470	pCi/L	02/01/18 11:49	02/08/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 11:49	02/08/18 15:38	1
Y Carrier	83.7		40 - 110					02/01/18 11:49	02/08/18 15:38	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.881		0.337	0.343	5.00	0.470	pCi/L		02/26/18 17:18	1



# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01906 MW-13**

**Lab Sample ID: 400-148879-3**

**Date Collected: 01/22/18 15:34**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.216		0.0944	0.0964	1.00	0.0896	pCi/L	02/01/18 10:38	02/23/18 10:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 10:38	02/23/18 10:21	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.682		0.311	0.317	1.00	0.451	pCi/L	02/01/18 11:49	02/08/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 11:49	02/08/18 15:38	1
Y Carrier	89.7		40 - 110					02/01/18 11:49	02/08/18 15:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.898		0.325	0.331	5.00	0.451	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01907 MW-16**

**Lab Sample ID: 400-148879-4**

Date Collected: 01/23/18 09:47

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.384		0.121	0.126	1.00	0.0936	pCi/L	02/01/18 10:38	02/23/18 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 10:38	02/23/18 10:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.596		0.318	0.322	1.00	0.476	pCi/L	02/01/18 11:49	02/08/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 11:49	02/08/18 15:38	1
Y Carrier	87.9		40 - 110					02/01/18 11:49	02/08/18 15:38	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.980		0.340	0.346	5.00	0.476	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01908 MW-14**

**Lab Sample ID: 400-148879-5**

**Date Collected: 01/23/18 11:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.155		0.0850	0.0861	1.00	0.100	pCi/L	02/01/18 10:38	02/23/18 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 10:38	02/23/18 10:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.139	U	0.249	0.249	1.00	0.424	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	86.7		40 - 110					02/01/18 11:49	02/08/18 15:39	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	0.294	U	0.263	0.263	5.00	0.424	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01909 MW-12**

**Lab Sample ID: 400-148879-6**

**Date Collected: 01/23/18 12:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.319		0.104	0.108	1.00	0.0696	pCi/L	02/01/18 10:38	02/23/18 10:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 10:38	02/23/18 10:22	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.786		0.317	0.325	1.00	0.441	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	83.0		40 - 110					02/01/18 11:49	02/08/18 15:39	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	1.10		0.334	0.342	5.00	0.441	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01910 MW-11**

**Lab Sample ID: 400-148879-7**

**Date Collected: 01/23/18 13:04**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.328		0.117	0.121	1.00	0.0887	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.840		0.364	0.372	1.00	0.529	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	80.7		40 - 110					02/01/18 11:49	02/08/18 15:39	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	1.17		0.382	0.391	5.00	0.529	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01911 FB-1**

**Lab Sample ID: 400-148879-8**

**Date Collected: 01/23/18 13:25**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00160	U	0.0476	0.0476	1.00	0.103	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.305	0.306	1.00	0.507	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	88.6		40 - 110					02/01/18 11:49	02/08/18 15:39	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	0.232	U	0.309	0.310	5.00	0.507	pCi/L		02/26/18 17:18	1



# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01912 MW-10**

**Lab Sample ID: 400-148879-9**

**Date Collected: 01/23/18 14:03**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.371		0.117	0.122	1.00	0.0955	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424	U	0.304	0.307	1.00	0.477	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	89.3		40 - 110					02/01/18 11:49	02/08/18 15:39	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	0.795		0.326	0.330	5.00	0.477	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01913 MW-9**

**Lab Sample ID: 400-148879-10**

Date Collected: 01/23/18 14:59

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.367		0.115	0.119	1.00	0.0862	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.697		0.324	0.330	1.00	0.471	pCi/L	02/01/18 11:49	02/08/18 15:39	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 11:49	02/08/18 15:39	1
Y Carrier	86.4		40 - 110					02/01/18 11:49	02/08/18 15:39	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	1.06		0.344	0.351	5.00	0.471	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01914 MW-9 DUP**

**Lab Sample ID: 400-148879-11**

Date Collected: 01/23/18 14:59

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.367		0.117	0.122	1.00	0.0952	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.635		0.312	0.318	1.00	0.461	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	87.9		40 - 110					02/01/18 11:49	02/08/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.00		0.333	0.341	5.00	0.461	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01915 MW-7**

**Lab Sample ID: 400-148879-12**

Date Collected: 01/24/18 09:54

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0897	0.0910	1.00	0.107	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.524		0.294	0.298	1.00	0.440	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	87.9		40 - 110					02/01/18 11:49	02/08/18 15:40	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.691		0.307	0.312	5.00	0.440	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01916 MW-4**

**Lab Sample ID: 400-148879-13**

Date Collected: 01/24/18 11:14

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108		0.0759	0.0765	1.00	0.104	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.514		0.286	0.290	1.00	0.430	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	90.1		40 - 110					02/01/18 11:49	02/08/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.622		0.296	0.300	5.00	0.430	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01917 FB-2**

**Lab Sample ID: 400-148879-14**

**Date Collected: 01/24/18 11:50**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00778	U	0.0429	0.0429	1.00	0.0891	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.134	U	0.244	0.245	1.00	0.416	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	89.3		40 - 110					02/01/18 11:49	02/08/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.142	U	0.248	0.249	5.00	0.416	pCi/L		02/26/18 17:18	1



# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01918 MW-3**

**Lab Sample ID: 400-148879-15**

**Date Collected: 01/24/18 12:19**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112		0.0747	0.0753	1.00	0.0972	pCi/L	02/01/18 10:38	02/23/18 10:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 10:38	02/23/18 10:23	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.430	U	0.287	0.290	1.00	0.442	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	82.6		40 - 110					02/01/18 11:49	02/08/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.543		0.297	0.300	5.00	0.442	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01919 MW-2**

**Lab Sample ID: 400-148879-16**

**Date Collected: 01/24/18 13:24**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0560	U	0.0613	0.0615	1.00	0.0970	pCi/L	02/01/18 10:38	02/23/18 10:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 10:38	02/23/18 10:24	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.348	U	0.277	0.279	1.00	0.438	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	87.9		40 - 110					02/01/18 11:49	02/08/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.404	U	0.284	0.286	5.00	0.438	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01920 MW-1**

**Lab Sample ID: 400-148879-17**

Date Collected: 01/24/18 14:25

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.678		0.145	0.157	1.00	0.0921	pCi/L	02/01/18 10:38	02/23/18 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					02/01/18 10:38	02/23/18 10:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.28		0.359	0.378	1.00	0.452	pCi/L	02/01/18 11:49	02/08/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	110		40 - 110					02/01/18 11:49	02/08/18 15:40	1
Y Carrier	80.7		40 - 110					02/01/18 11:49	02/08/18 15:40	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.96		0.387	0.409	5.00	0.452	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01921 EB-1**

**Lab Sample ID: 400-148879-18**

**Date Collected: 01/24/18 15:00**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00371	U	0.0380	0.0380	1.00	0.0824	pCi/L	02/01/18 10:38	02/23/18 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					02/01/18 10:38	02/23/18 10:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.34		0.381	0.400	1.00	0.493	pCi/L	02/01/18 11:49	02/08/18 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					02/01/18 11:49	02/08/18 15:33	1
Y Carrier	81.5		40 - 110					02/01/18 11:49	02/08/18 15:33	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	1.34		0.383	0.402	5.00	0.493	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01901 MW-5**

**Lab Sample ID: 400-148879-19**

Date Collected: 01/24/18 11:54

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.419		0.126	0.131	1.00	0.113	pCi/L	02/01/18 10:38	02/23/18 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 10:38	02/23/18 10:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.32		0.396	0.414	1.00	0.527	pCi/L	02/01/18 11:49	02/08/18 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 11:49	02/08/18 15:33	1
Y Carrier	81.9		40 - 110					02/01/18 11:49	02/08/18 15:33	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	1.74		0.416	0.434	5.00	0.527	pCi/L		02/26/18 17:18	1

# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01902 MW-6**

**Lab Sample ID: 400-148879-20**

Date Collected: 01/24/18 12:47

Matrix: Water

Date Received: 01/29/18 16:15

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108		0.0750	0.0756	1.00	0.101	pCi/L	02/01/18 10:38	02/23/18 10:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 10:38	02/23/18 10:25	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.985		0.317	0.329	1.00	0.413	pCi/L	02/01/18 11:49	02/08/18 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					02/01/18 11:49	02/08/18 15:33	1
Y Carrier	88.6		40 - 110					02/01/18 11:49	02/08/18 15:33	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	1.09		0.326	0.338	5.00	0.413	pCi/L		02/26/18 17:18	1



# Client Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01903 MW-8**

**Lab Sample ID: 400-148879-21**

**Date Collected: 01/24/18 13:40**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.265		0.0978	0.101	1.00	0.0834	pCi/L	02/01/18 12:41	02/23/18 08:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 12:41	02/23/18 08:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.441	U	0.306	0.309	1.00	0.480	pCi/L	02/01/18 13:26	02/07/18 14:01	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					02/01/18 13:26	02/07/18 14:01	1
Y Carrier	87.5		40 - 110					02/01/18 13:26	02/07/18 14:01	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.706		0.321	0.325	5.00	0.480	pCi/L		02/26/18 17:18	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

## Qualifiers

### Rad

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

## Glossary

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

# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01904 MW-15**

**Lab Sample ID: 400-148879-1**

**Date Collected: 01/22/18 14:22**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:21	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:38	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01905 MW-15 DUP**

**Lab Sample ID: 400-148879-2**

**Date Collected: 01/22/18 14:22**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:21	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:38	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01906 MW-13**

**Lab Sample ID: 400-148879-3**

**Date Collected: 01/22/18 15:34**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:21	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:38	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01907 MW-16**

**Lab Sample ID: 400-148879-4**

**Date Collected: 01/23/18 09:47**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:38	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01908 MW-14**

**Lab Sample ID: 400-148879-5**

**Date Collected: 01/23/18 11:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01909 MW-12**

**Lab Sample ID: 400-148879-6**

**Date Collected: 01/23/18 12:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:22	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01910 MW-11**

**Lab Sample ID: 400-148879-7**

**Date Collected: 01/23/18 13:04**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01911 FB-1**

**Lab Sample ID: 400-148879-8**

**Date Collected: 01/23/18 13:25**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01912 MW-10**

**Lab Sample ID: 400-148879-9**

**Date Collected: 01/23/18 14:03**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01913 MW-9**

**Lab Sample ID: 400-148879-10**

**Date Collected: 01/23/18 14:59**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:39	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01914 MW-9 DUP**

**Lab Sample ID: 400-148879-11**

**Date Collected: 01/23/18 14:59**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01915 MW-7**

**Lab Sample ID: 400-148879-12**

**Date Collected: 01/24/18 09:54**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01916 MW-4**

**Lab Sample ID: 400-148879-13**

**Date Collected: 01/24/18 11:14**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01917 FB-2**

**Lab Sample ID: 400-148879-14**

**Date Collected: 01/24/18 11:50**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01918 MW-3**

**Lab Sample ID: 400-148879-15**

**Date Collected: 01/24/18 12:19**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:23	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01919 MW-2**

**Lab Sample ID: 400-148879-16**

**Date Collected: 01/24/18 13:24**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352680	02/23/18 10:24	CDR	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL



# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

**Client Sample ID: AY01920 MW-1**

**Lab Sample ID: 400-148879-17**

**Date Collected: 01/24/18 14:25**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352681	02/23/18 10:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350236	02/08/18 15:40	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01921 EB-1**

**Lab Sample ID: 400-148879-18**

**Date Collected: 01/24/18 15:00**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352681	02/23/18 10:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350254	02/08/18 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01901 MW-5**

**Lab Sample ID: 400-148879-19**

**Date Collected: 01/24/18 11:54**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352681	02/23/18 10:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350254	02/08/18 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

**Client Sample ID: AY01902 MW-6**

**Lab Sample ID: 400-148879-20**

**Date Collected: 01/24/18 12:47**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			349160	02/01/18 10:38	SJC	TAL SL
Total/NA	Analysis	9315		1	352681	02/23/18 10:25	RTM	TAL SL
Total/NA	Prep	PrecSep_0			349165	02/01/18 11:49	SJC	TAL SL
Total/NA	Analysis	9320		1	350254	02/08/18 15:33	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	353066	02/26/18 17:18	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

**Client Sample ID: AY01903 MW-8**

**Lab Sample ID: 400-148879-21**

**Date Collected: 01/24/18 13:40**

**Matrix: Water**

**Date Received: 01/29/18 16:15**

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

#### Laboratory References:

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

# QC Association Summary

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

## Rad

### Prep Batch: 349160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148879-1	AY01904 MW-15	Total/NA	Water	PrecSep-21	
400-148879-2	AY01905 MW-15 DUP	Total/NA	Water	PrecSep-21	
400-148879-3	AY01906 MW-13	Total/NA	Water	PrecSep-21	
400-148879-4	AY01907 MW-16	Total/NA	Water	PrecSep-21	
400-148879-5	AY01908 MW-14	Total/NA	Water	PrecSep-21	
400-148879-6	AY01909 MW-12	Total/NA	Water	PrecSep-21	
400-148879-7	AY01910 MW-11	Total/NA	Water	PrecSep-21	
400-148879-8	AY01911 FB-1	Total/NA	Water	PrecSep-21	
400-148879-9	AY01912 MW-10	Total/NA	Water	PrecSep-21	
400-148879-10	AY01913 MW-9	Total/NA	Water	PrecSep-21	
400-148879-11	AY01914 MW-9 DUP	Total/NA	Water	PrecSep-21	
400-148879-12	AY01915 MW-7	Total/NA	Water	PrecSep-21	
400-148879-13	AY01916 MW-4	Total/NA	Water	PrecSep-21	
400-148879-14	AY01917 FB-2	Total/NA	Water	PrecSep-21	
400-148879-15	AY01918 MW-3	Total/NA	Water	PrecSep-21	
400-148879-16	AY01919 MW-2	Total/NA	Water	PrecSep-21	
400-148879-17	AY01920 MW-1	Total/NA	Water	PrecSep-21	
400-148879-18	AY01921 EB-1	Total/NA	Water	PrecSep-21	
400-148879-19	AY01901 MW-5	Total/NA	Water	PrecSep-21	
400-148879-20	AY01902 MW-6	Total/NA	Water	PrecSep-21	
MB 160-349160/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-349160/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-148879-4 DU	AY01907 MW-16	Total/NA	Water	PrecSep-21	
400-148879-12 DU	AY01915 MW-7	Total/NA	Water	PrecSep-21	

### Prep Batch: 349165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148879-1	AY01904 MW-15	Total/NA	Water	PrecSep_0	
400-148879-2	AY01905 MW-15 DUP	Total/NA	Water	PrecSep_0	
400-148879-3	AY01906 MW-13	Total/NA	Water	PrecSep_0	
400-148879-4	AY01907 MW-16	Total/NA	Water	PrecSep_0	
400-148879-5	AY01908 MW-14	Total/NA	Water	PrecSep_0	
400-148879-6	AY01909 MW-12	Total/NA	Water	PrecSep_0	
400-148879-7	AY01910 MW-11	Total/NA	Water	PrecSep_0	
400-148879-8	AY01911 FB-1	Total/NA	Water	PrecSep_0	
400-148879-9	AY01912 MW-10	Total/NA	Water	PrecSep_0	
400-148879-10	AY01913 MW-9	Total/NA	Water	PrecSep_0	
400-148879-11	AY01914 MW-9 DUP	Total/NA	Water	PrecSep_0	
400-148879-12	AY01915 MW-7	Total/NA	Water	PrecSep_0	
400-148879-13	AY01916 MW-4	Total/NA	Water	PrecSep_0	
400-148879-14	AY01917 FB-2	Total/NA	Water	PrecSep_0	
400-148879-15	AY01918 MW-3	Total/NA	Water	PrecSep_0	
400-148879-16	AY01919 MW-2	Total/NA	Water	PrecSep_0	
400-148879-17	AY01920 MW-1	Total/NA	Water	PrecSep_0	
400-148879-18	AY01921 EB-1	Total/NA	Water	PrecSep_0	
400-148879-19	AY01901 MW-5	Total/NA	Water	PrecSep_0	
400-148879-20	AY01902 MW-6	Total/NA	Water	PrecSep_0	
MB 160-349165/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-349165/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-148879-4 DU	AY01907 MW-16	Total/NA	Water	PrecSep_0	
400-148879-12 DU	AY01915 MW-7	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

## Prep Batch: 349176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148879-21	AY01903 MW-8	Total/NA	Water	PrecSep-21	
MB 160-349176/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-349176/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-148881-A-10-B DU	Duplicate	Total/NA	Water	PrecSep-21	

## Prep Batch: 349178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-148879-21	AY01903 MW-8	Total/NA	Water	PrecSep_0	
MB 160-349178/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-349178/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-148881-A-10-D DU	Duplicate	Total/NA	Water	PrecSep_0	

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

# QC Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

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

**Lab Sample ID: MB 160-349160/1-A**  
**Matrix: Water**  
**Analysis Batch: 352680**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 349160**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02460	U	0.0293	0.0293	1.00	0.0891	pCi/L	02/01/18 10:38	02/23/18 10:21	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	106					02/01/18 10:38	02/23/18 10:21	1		

**Lab Sample ID: LCS 160-349160/2-A**  
**Matrix: Water**  
**Analysis Batch: 352680**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 349160**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.7	14.87		1.51	1.00	0.103	pCi/L	94	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		40 - 110					
	103								

**Lab Sample ID: 400-148879-4 DU**  
**Matrix: Water**  
**Analysis Batch: 352680**

**Client Sample ID: AY01907 MW-16**  
**Prep Type: Total/NA**  
**Prep Batch: 349160**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.384		0.2554		0.104	1.00	0.0938	pCi/L	0.56	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	105									

**Lab Sample ID: 400-148879-12 DU**  
**Matrix: Water**  
**Analysis Batch: 352680**

**Client Sample ID: AY01915 MW-7**  
**Prep Type: Total/NA**  
**Prep Batch: 349160**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.167		0.2414		0.101	1.00	0.0948	pCi/L	0.39	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		40 - 110						
	103									

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

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

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

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

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

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

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

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	107		40 - 110

Prepared	Analyzed	Dil Fac
02/01/18 12:41	02/23/18 08:30	1

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

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

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.7	13.88		1.41	1.00	0.0787	pCi/L	88	68 - 137

Carrier	<i>LCS</i> %Yield	<i>LCS</i> Qualifier	Limits
Ba Carrier	107		40 - 110

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

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 349176**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.716		0.7532		0.179	1.00	0.0815	pCi/L	0.10	1

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	105		40 - 110

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

**Lab Sample ID: MB 160-349165/1-A**  
**Matrix: Water**  
**Analysis Batch: 350236**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 349165**

Analyte	<i>MB</i> Result	<i>MB</i> Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5393		0.276	0.280	1.00	0.406	pCi/L	02/01/18 11:49	02/08/18 15:37	1

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	106		40 - 110
Y Carrier	90.8		40 - 110

Prepared	Analyzed	Dil Fac
02/01/18 11:49	02/08/18 15:37	1
02/01/18 11:49	02/08/18 15:37	1

**Lab Sample ID: LCS 160-349165/2-A**  
**Matrix: Water**  
**Analysis Batch: 350236**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 349165**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.4	11.69		1.35	1.00	0.447	pCi/L	102	56 - 140

TestAmerica Pensacola



# QC Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

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

**Lab Sample ID: LCS 160-349165/2-A**  
**Matrix: Water**  
**Analysis Batch: 350236**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 349165**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	87.5		40 - 110

**Lab Sample ID: 400-148879-4 DU**  
**Matrix: Water**  
**Analysis Batch: 350236**

**Client Sample ID: AY01907 MW-16**  
**Prep Type: Total/NA**  
**Prep Batch: 349165**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.596		0.4859		0.300	1.00	0.454	pCi/L	0.18	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	87.5		40 - 110

**Lab Sample ID: 400-148879-12 DU**  
**Matrix: Water**  
**Analysis Batch: 350236**

**Client Sample ID: AY01915 MW-7**  
**Prep Type: Total/NA**  
**Prep Batch: 349165**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.524		1.051		0.382	1.00	0.501	pCi/L	0.77	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	78.5		40 - 110

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

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

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

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110	02/01/18 13:26	02/07/18 14:01	1
Y Carrier	91.2		40 - 110	02/01/18 13:26	02/07/18 14:01	1

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

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

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

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

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

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

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

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

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

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 349178**

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

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

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-148879-4 DU**  
**Matrix: Water**  
**Analysis Batch: 353066**

**Client Sample ID: AY01907 MW-16**  
**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	0.980		0.7413		0.318	5.00	0.454	pCi/L	0.36	

**Lab Sample ID: 400-148879-12 DU**  
**Matrix: Water**  
**Analysis Batch: 353066**

**Client Sample ID: AY01915 MW-7**  
**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	0.691		1.292		0.395	5.00	0.501	pCi/L	0.85	

# Chain of Custody Record

<b>Client Information</b> Sampler: Ben Rofschadl Lab P#: Whitmire, Cheryenne R Phone: cheryenne.whitmire@testamericainc.com E-Mail: cheryenne.whitmire@testamericainc.com		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 1 of 2 Job #: 400-148879	
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSON#: Site: Barry Ash Pond 1130		<b>Analysis Requested</b>  400-148879 COC	
<b>Sample Identification</b> AY01904 AY01905 AY01906 AY01907 AY01908 AY01909 AY01910 AY01911 AY01912 AY01913 AY01914		<b>Sample Date</b> 1/22/18 1/22/18 1/22/18 1/23/18 1/23/18 1/23/18 1/23/18 1/23/18 1/23/18 1/23/18 1/23/18	
<b>Sample Time</b> 1422 1422 1534 0947 1114 1214 1304 1325 1403 1459 1459		<b>Sample Type (C=comp, G=grab)</b> G G G G G G G G G G G G	
<b>Matrix (W=water, S=solid, O=organic, A=air)</b> Water Water Water Water Water Water Water Water Water Water Water Water		<b>Preservation Code:</b> MW-15 MW-15 Dup (Sample Duplicate) MW-13 MW-16 MW-14 MW-12 MW-11 FB-1 (Field Blank) MW-10 MW-9 MW-9 Dup (Sample Duplicate)	
<b>Perform MS/MSD (Yes or No)</b> 9315 Ra226, 9320 Ra228, Ra226Ra228_GFP		<b>Field Filtered Sample (Yes or No)</b> D	
<b>Total Number of Containers</b> 1 1 1 2 1 1 1 1 1 1		<b>Special Instructions/Note:</b> MW-15 MW-15 Dup (Sample Duplicate) MW-13 MW-16 MW-14 MW-12 MW-11 FB-1 (Field Blank) MW-10 MW-9 MW-9 Dup (Sample Duplicate)	
<b>Possible Hazard Identification</b> <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)			
<b>Empty Kit Relinquished by:</b> Relinquished by: Sarah Copeland Date/Time: 1/29/2018, 1340 Company: APC			
<b>Relinquished by:</b> Relinquished by:  Date/Time: 1/29/18 1615 Company: 			
<b>Relinquished by:</b> Relinquished by:  Date/Time: Company:			
<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:			
<b>Cooler Temperature(s) °C and Other Remarks:</b>			





## Chain of Custody Record

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State: AL, Zip: 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project Name: CCR Site: Barry Ash Pond 1130		<b>Sampler:</b> Ben Rotfschadl/ Anthony Goggins <b>Lab PII:</b> Whitmire, Cheyenne R <b>Phone:</b> cheyenne.whitmire@testamericainc.com <b>E-Mail:</b>		<b>Carrier Tracking No(s):</b> COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 400-148879		
<b>Due Date Requested:</b> TAT Requested (days): Routine		<b>Analysis Requested</b>				
<b>PO #:</b> <b>WO #:</b> <b>Project #:</b> 40007143 <b>SSOW#:</b>		Total Number of Containers:				
<b>Sample Identification</b>		<b>Sample Date</b>		<b>Sample Time</b>		
<b>Sample Type (C=comp, G=grab)</b>		<b>Sample Time</b>		<b>Matrix (Water, Soil, Sewage, Other)</b>		
<b>Preservation Code:</b>		<b>Perform MS/MSD (Yes or No)</b>		<b>Field Filtered Sample (Yes or No)</b>		
<b>Special Instructions/Note:</b>		<b>9315_Ra226_9320_Ra228_Ra228Ra228_GFPc</b>		<b>Special Instructions/Note:</b>		
AY01915	1/24/18	0954	G	Water	2	MW-7
AY01916	1/24/18	1114	G	Water	1	MW-4
AY01917	1/24/18	1150	G	Water	1	FB-2 (Field Blank)
AY01918	1/24/18	1219	G	Water	1	MW-3
AY01919	1/24/18	1324	G	Water	1	MW-2
AY01920	1/24/18	1425	G	Water	1	MW-1
AY01921	1/24/18	1500	G	Water	1	EB-1 (Equipment Blank)
AY01901	1/24/18	1154	G	Water	1	MW-5
AY01902	1/24/18	1247	G	Water	1	MW-6
AY01903	1/24/18	1340	G	Water	1	MW-8
<b>Possible Hazard Identification</b> <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		<b>Deliverable Requested:</b> I, II, III, IV, Other (specify)		<b>Special Instructions/QC Requirements:</b>		
<b>Empty Kit Relinquished by:</b> Sarah Copeland Relinquished by: Sarah Copeland Relinquished by:		<b>Date:</b> 1/29/2018, 1340 Date/Time: 1/29/2018, 1340 Date/Time:		<b>Method of Shipment:</b>		
<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>Custody Seal No.:</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		
Received by: <i>[Signature]</i> Date/Time: 1/29/18 1615 Company: APC		Received by: <i>[Signature]</i> Date/Time:		Company:		
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: 400-148879-1  
SDG Number: Barry Ash Pond 1130

**Login Number: 148879**

**List Number: 1**

**Creator: Siddoway, Benjamin**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	False	AY01907 MW-16 and AY01915 MW-7 have 3 bottles instead of 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 Barry

TestAmerica Job ID: 400-148879-1  
 SDG: Barry Ash Pond 1130

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

## Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18

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



# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-148879-1  
SDG: Barry Ash Pond 1130

## Laboratory: TestAmerica St. Louis (Continued)

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

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

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

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-1	1/24/2018 14:04	754.1	uS/cm	Conductivity
BY-AP-MW-1	1/24/2018 14:04	22.85	ft	Depth to Water Detail
BY-AP-MW-1	1/24/2018 14:04	0.19	mg/L	DO
BY-AP-MW-1	1/24/2018 14:04	-36.4	mv	Oxidation Reduction Potention
BY-AP-MW-1	1/24/2018 14:04	5.88	pH	pH
BY-AP-MW-1	1/24/2018 14:04	20.84	C	Temperature
BY-AP-MW-1	1/24/2018 14:04	1.08	NTU	Turbidity
BY-AP-MW-1	1/24/2018 14:09	734.8	uS/cm	Conductivity
BY-AP-MW-1	1/24/2018 14:09	22.87	ft	Depth to Water Detail
BY-AP-MW-1	1/24/2018 14:09	0.17	mg/L	DO
BY-AP-MW-1	1/24/2018 14:09	-39.2	mv	Oxidation Reduction Potention
BY-AP-MW-1	1/24/2018 14:09	5.89	pH	pH
BY-AP-MW-1	1/24/2018 14:09	20.97	C	Temperature
BY-AP-MW-1	1/24/2018 14:09	1.03	NTU	Turbidity
BY-AP-MW-1	1/24/2018 14:14	785.9	uS/cm	Conductivity
BY-AP-MW-1	1/24/2018 14:14	22.89	ft	Depth to Water Detail
BY-AP-MW-1	1/24/2018 14:14	0.15	mg/L	DO
BY-AP-MW-1	1/24/2018 14:14	-40.6	mv	Oxidation Reduction Potention
BY-AP-MW-1	1/24/2018 14:14	5.9	pH	pH
BY-AP-MW-1	1/24/2018 14:14	21.04	C	Temperature
BY-AP-MW-1	1/24/2018 14:14	1.02	NTU	Turbidity
BY-AP-MW-1	1/24/2018 14:19	818.5	uS/cm	Conductivity
BY-AP-MW-1	1/24/2018 14:19	22.89	ft	Depth to Water Detail
BY-AP-MW-1	1/24/2018 14:19	0.15	mg/L	DO
BY-AP-MW-1	1/24/2018 14:19	-40.7	mv	Oxidation Reduction Potention
BY-AP-MW-1	1/24/2018 14:19	5.9	pH	pH
BY-AP-MW-1	1/24/2018 14:19	21.01	C	Temperature
BY-AP-MW-1	1/24/2018 14:19	1.04	NTU	Turbidity
BY-AP-MW-1	1/24/2018 14:24	795.1	uS/cm	Conductivity
BY-AP-MW-1	1/24/2018 14:24	22.9	ft	Depth to Water Detail
BY-AP-MW-1	1/24/2018 14:24	0.16	mg/L	DO
BY-AP-MW-1	1/24/2018 14:24	-41	mv	Oxidation Reduction Potention
BY-AP-MW-1	1/24/2018 14:24	5.9	pH	pH
BY-AP-MW-1	1/24/2018 14:24	20.97	C	Temperature
BY-AP-MW-1	1/24/2018 14:24	1.07	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-10	1/23/2018 13:47	639.6	uS/cm	Conductivity
BY-AP-MW-10	1/23/2018 13:47	26.26	ft	Depth to Water Detail
BY-AP-MW-10	1/23/2018 13:47	0.29	mg/L	DO
BY-AP-MW-10	1/23/2018 13:47	-83.4	mv	Oxidation Reduction Potention
BY-AP-MW-10	1/23/2018 13:47	6.31	pH	pH
BY-AP-MW-10	1/23/2018 13:47	21.61	C	Temperature
BY-AP-MW-10	1/23/2018 13:47	0.73	NTU	Turbidity
BY-AP-MW-10	1/23/2018 13:52	648.9	uS/cm	Conductivity
BY-AP-MW-10	1/23/2018 13:52	26.26	ft	Depth to Water Detail
BY-AP-MW-10	1/23/2018 13:52	0.25	mg/L	DO
BY-AP-MW-10	1/23/2018 13:52	-83.6	mv	Oxidation Reduction Potention
BY-AP-MW-10	1/23/2018 13:52	6.31	pH	pH
BY-AP-MW-10	1/23/2018 13:52	21.7	C	Temperature
BY-AP-MW-10	1/23/2018 13:52	0.61	NTU	Turbidity
BY-AP-MW-10	1/23/2018 13:57	646.9	uS/cm	Conductivity
BY-AP-MW-10	1/23/2018 13:57	26.26	ft	Depth to Water Detail
BY-AP-MW-10	1/23/2018 13:57	0.24	mg/L	DO
BY-AP-MW-10	1/23/2018 13:57	-84.2	mv	Oxidation Reduction Potention
BY-AP-MW-10	1/23/2018 13:57	6.32	pH	pH
BY-AP-MW-10	1/23/2018 13:57	21.65	C	Temperature
BY-AP-MW-10	1/23/2018 13:57	0.66	NTU	Turbidity
BY-AP-MW-10	1/23/2018 14:02	647.1	uS/cm	Conductivity
BY-AP-MW-10	1/23/2018 14:02	26.26	ft	Depth to Water Detail
BY-AP-MW-10	1/23/2018 14:02	0.23	mg/L	DO
BY-AP-MW-10	1/23/2018 14:02	-84.3	mv	Oxidation Reduction Potention
BY-AP-MW-10	1/23/2018 14:02	6.32	pH	pH
BY-AP-MW-10	1/23/2018 14:02	21.6	C	Temperature
BY-AP-MW-10	1/23/2018 14:02	0.5	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-11	1/23/2018 12:48	583.1	uS/cm	Conductivity
BY-AP-MW-11	1/23/2018 12:48	25.36	ft	Depth to Water Detail
BY-AP-MW-11	1/23/2018 12:48	0.45	mg/L	DO
BY-AP-MW-11	1/23/2018 12:48	-60.6	mv	Oxidation Reduction Potention
BY-AP-MW-11	1/23/2018 12:48	6.29	pH	pH
BY-AP-MW-11	1/23/2018 12:48	21.54	C	Temperature
BY-AP-MW-11	1/23/2018 12:48	4.51	NTU	Turbidity
BY-AP-MW-11	1/23/2018 12:53	574.2	uS/cm	Conductivity
BY-AP-MW-11	1/23/2018 12:53	25.36	ft	Depth to Water Detail
BY-AP-MW-11	1/23/2018 12:53	0.37	mg/L	DO
BY-AP-MW-11	1/23/2018 12:53	-59.7	mv	Oxidation Reduction Potention
BY-AP-MW-11	1/23/2018 12:53	6.28	pH	pH
BY-AP-MW-11	1/23/2018 12:53	21.51	C	Temperature
BY-AP-MW-11	1/23/2018 12:53	1.58	NTU	Turbidity
BY-AP-MW-11	1/23/2018 12:58	574.2	uS/cm	Conductivity
BY-AP-MW-11	1/23/2018 12:58	25.36	ft	Depth to Water Detail
BY-AP-MW-11	1/23/2018 12:58	0.31	mg/L	DO
BY-AP-MW-11	1/23/2018 12:58	-59.2	mv	Oxidation Reduction Potention
BY-AP-MW-11	1/23/2018 12:58	6.28	pH	pH
BY-AP-MW-11	1/23/2018 12:58	21.64	C	Temperature
BY-AP-MW-11	1/23/2018 12:58	1.25	NTU	Turbidity
BY-AP-MW-11	1/23/2018 13:03	573.5	uS/cm	Conductivity
BY-AP-MW-11	1/23/2018 13:03	25.36	ft	Depth to Water Detail
BY-AP-MW-11	1/23/2018 13:03	0.3	mg/L	DO
BY-AP-MW-11	1/23/2018 13:03	-58.7	mv	Oxidation Reduction Potention
BY-AP-MW-11	1/23/2018 13:03	6.28	pH	pH
BY-AP-MW-11	1/23/2018 13:03	21.62	C	Temperature
BY-AP-MW-11	1/23/2018 13:03	0.97	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-12	1/23/2018 11:57	579.1	uS/cm	Conductivity
BY-AP-MW-12	1/23/2018 11:57	23.39	ft	Depth to Water Detail
BY-AP-MW-12	1/23/2018 11:57	0.23	mg/L	DO
BY-AP-MW-12	1/23/2018 11:57	-51.5	mv	Oxidation Reduction Potention
BY-AP-MW-12	1/23/2018 11:57	6.17	pH	pH
BY-AP-MW-12	1/23/2018 11:57	20.89	C	Temperature
BY-AP-MW-12	1/23/2018 11:57	2.59	NTU	Turbidity
BY-AP-MW-12	1/23/2018 12:02	582.3	uS/cm	Conductivity
BY-AP-MW-12	1/23/2018 12:02	23.4	ft	Depth to Water Detail
BY-AP-MW-12	1/23/2018 12:02	0.2	mg/L	DO
BY-AP-MW-12	1/23/2018 12:02	-50.7	mv	Oxidation Reduction Potention
BY-AP-MW-12	1/23/2018 12:02	6.17	pH	pH
BY-AP-MW-12	1/23/2018 12:02	20.99	C	Temperature
BY-AP-MW-12	1/23/2018 12:02	1.42	NTU	Turbidity
BY-AP-MW-12	1/23/2018 12:07	564.2	uS/cm	Conductivity
BY-AP-MW-12	1/23/2018 12:07	23.4	ft	Depth to Water Detail
BY-AP-MW-12	1/23/2018 12:07	0.19	mg/L	DO
BY-AP-MW-12	1/23/2018 12:07	-49.9	mv	Oxidation Reduction Potention
BY-AP-MW-12	1/23/2018 12:07	6.17	pH	pH
BY-AP-MW-12	1/23/2018 12:07	21.02	C	Temperature
BY-AP-MW-12	1/23/2018 12:07	0.85	NTU	Turbidity
BY-AP-MW-12	1/23/2018 12:12	571.3	uS/cm	Conductivity
BY-AP-MW-12	1/23/2018 12:12	23.41	ft	Depth to Water Detail
BY-AP-MW-12	1/23/2018 12:12	0.18	mg/L	DO
BY-AP-MW-12	1/23/2018 12:12	-49.4	mv	Oxidation Reduction Potention
BY-AP-MW-12	1/23/2018 12:12	6.17	pH	pH
BY-AP-MW-12	1/23/2018 12:12	20.93	C	Temperature
BY-AP-MW-12	1/23/2018 12:12	0.73	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-13	1/22/2018 15:18	465.3	uS/cm	Conductivity
BY-AP-MW-13	1/22/2018 15:18	23.05	ft	Depth to Water Detail
BY-AP-MW-13	1/22/2018 15:18	0.4	mg/L	DO
BY-AP-MW-13	1/22/2018 15:18	-38.5	mv	Oxidation Reduction Potention
BY-AP-MW-13	1/22/2018 15:18	6.14	pH	pH
BY-AP-MW-13	1/22/2018 15:18	20.62	C	Temperature
BY-AP-MW-13	1/22/2018 15:18	5.97	NTU	Turbidity
BY-AP-MW-13	1/22/2018 15:23	462.1	uS/cm	Conductivity
BY-AP-MW-13	1/22/2018 15:23	23.05	ft	Depth to Water Detail
BY-AP-MW-13	1/22/2018 15:23	0.37	mg/L	DO
BY-AP-MW-13	1/22/2018 15:23	-35.8	mv	Oxidation Reduction Potention
BY-AP-MW-13	1/22/2018 15:23	6.12	pH	pH
BY-AP-MW-13	1/22/2018 15:23	20.57	C	Temperature
BY-AP-MW-13	1/22/2018 15:23	3.59	NTU	Turbidity
BY-AP-MW-13	1/22/2018 15:28	461.8	uS/cm	Conductivity
BY-AP-MW-13	1/22/2018 15:28	23.05	ft	Depth to Water Detail
BY-AP-MW-13	1/22/2018 15:28	0.35	mg/L	DO
BY-AP-MW-13	1/22/2018 15:28	-34.3	mv	Oxidation Reduction Potention
BY-AP-MW-13	1/22/2018 15:28	6.12	pH	pH
BY-AP-MW-13	1/22/2018 15:28	20.41	C	Temperature
BY-AP-MW-13	1/22/2018 15:28	3.15	NTU	Turbidity
BY-AP-MW-13	1/22/2018 15:33	450	uS/cm	Conductivity
BY-AP-MW-13	1/22/2018 15:33	23.05	ft	Depth to Water Detail
BY-AP-MW-13	1/22/2018 15:33	0.33	mg/L	DO
BY-AP-MW-13	1/22/2018 15:33	-33.2	mv	Oxidation Reduction Potention
BY-AP-MW-13	1/22/2018 15:33	6.12	pH	pH
BY-AP-MW-13	1/22/2018 15:33	20.37	C	Temperature
BY-AP-MW-13	1/22/2018 15:33	2.39	NTU	Turbidity



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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-14	1/23/2018 10:42	502.8	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 10:42	11.44	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 10:42	0.31	mg/L	DO
BY-AP-MW-14	1/23/2018 10:42	-38.2	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 10:42	6.14	pH	pH
BY-AP-MW-14	1/23/2018 10:42	19.49	C	Temperature
BY-AP-MW-14	1/23/2018 10:42	4.67	NTU	Turbidity
BY-AP-MW-14	1/23/2018 10:47	464.1	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 10:47	11.44	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 10:47	0.19	mg/L	DO
BY-AP-MW-14	1/23/2018 10:47	-37.9	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 10:47	6.14	pH	pH
BY-AP-MW-14	1/23/2018 10:47	19.6	C	Temperature
BY-AP-MW-14	1/23/2018 10:47	1.09	NTU	Turbidity
BY-AP-MW-14	1/23/2018 10:52	475.6	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 10:52	11.44	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 10:52	0.17	mg/L	DO
BY-AP-MW-14	1/23/2018 10:52	-37.1	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 10:52	6.13	pH	pH
BY-AP-MW-14	1/23/2018 10:52	19.59	C	Temperature
BY-AP-MW-14	1/23/2018 10:52	1.31	NTU	Turbidity
BY-AP-MW-14	1/23/2018 10:57	441.1	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 10:57	11.45	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 10:57	0.16	mg/L	DO
BY-AP-MW-14	1/23/2018 10:57	-36.5	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 10:57	6.13	pH	pH
BY-AP-MW-14	1/23/2018 10:57	19.73	C	Temperature
BY-AP-MW-14	1/23/2018 10:57	1.11	NTU	Turbidity
BY-AP-MW-14	1/23/2018 11:02	452.1	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 11:02	11.46	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 11:02	0.16	mg/L	DO
BY-AP-MW-14	1/23/2018 11:02	-36.1	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 11:02	6.13	pH	pH
BY-AP-MW-14	1/23/2018 11:02	19.71	C	Temperature
BY-AP-MW-14	1/23/2018 11:02	0.82	NTU	Turbidity
BY-AP-MW-14	1/23/2018 11:07	464.9	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 11:07	11.46	ft	Depth to Water Detail
BY-AP-MW-14	1/23/2018 11:07	0.16	mg/L	DO
BY-AP-MW-14	1/23/2018 11:07	-35.6	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 11:07	6.12	pH	pH
BY-AP-MW-14	1/23/2018 11:07	19.52	C	Temperature
BY-AP-MW-14	1/23/2018 11:07	0.76	NTU	Turbidity
BY-AP-MW-14	1/23/2018 11:12	457.6	uS/cm	Conductivity
BY-AP-MW-14	1/23/2018 11:12	11.46	ft	Depth to Water Detail

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<b>WELL_ID</b>	<b>READING_DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-14	1/23/2018 11:12	0.16	mg/L	DO
BY-AP-MW-14	1/23/2018 11:12	-34.9	mv	Oxidation Reduction Potention
BY-AP-MW-14	1/23/2018 11:12	6.12	pH	pH
BY-AP-MW-14	1/23/2018 11:12	19.46	C	Temperature
BY-AP-MW-14	1/23/2018 11:12	0.73	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-15	1/22/2018 14:00	494.5	uS/cm	Conductivity
BY-AP-MW-15	1/22/2018 14:00	22.71	ft	Depth to Water Detail
BY-AP-MW-15	1/22/2018 14:00	1.59	mg/L	DO
BY-AP-MW-15	1/22/2018 14:00	-131.7	mv	Oxidation Reduction Potention
BY-AP-MW-15	1/22/2018 14:00	6.78	pH	pH
BY-AP-MW-15	1/22/2018 14:00	20.84	C	Temperature
BY-AP-MW-15	1/22/2018 14:00	1.69	NTU	Turbidity
BY-AP-MW-15	1/22/2018 14:05	465.9	uS/cm	Conductivity
BY-AP-MW-15	1/22/2018 14:05	22.71	ft	Depth to Water Detail
BY-AP-MW-15	1/22/2018 14:05	1.27	mg/L	DO
BY-AP-MW-15	1/22/2018 14:05	-124.7	mv	Oxidation Reduction Potention
BY-AP-MW-15	1/22/2018 14:05	6.74	pH	pH
BY-AP-MW-15	1/22/2018 14:05	20.77	C	Temperature
BY-AP-MW-15	1/22/2018 14:05	2.26	NTU	Turbidity
BY-AP-MW-15	1/22/2018 14:10	450.5	uS/cm	Conductivity
BY-AP-MW-15	1/22/2018 14:10	22.71	ft	Depth to Water Detail
BY-AP-MW-15	1/22/2018 14:10	1.14	mg/L	DO
BY-AP-MW-15	1/22/2018 14:10	-120	mv	Oxidation Reduction Potention
BY-AP-MW-15	1/22/2018 14:10	6.72	pH	pH
BY-AP-MW-15	1/22/2018 14:10	20.73	C	Temperature
BY-AP-MW-15	1/22/2018 14:10	3.13	NTU	Turbidity
BY-AP-MW-15	1/22/2018 14:15	443.1	uS/cm	Conductivity
BY-AP-MW-15	1/22/2018 14:15	22.71	ft	Depth to Water Detail
BY-AP-MW-15	1/22/2018 14:15	1.09	mg/L	DO
BY-AP-MW-15	1/22/2018 14:15	-118.9	mv	Oxidation Reduction Potention
BY-AP-MW-15	1/22/2018 14:15	6.72	pH	pH
BY-AP-MW-15	1/22/2018 14:15	20.7	C	Temperature
BY-AP-MW-15	1/22/2018 14:15	3.16	NTU	Turbidity
BY-AP-MW-15	1/22/2018 14:20	448.3	uS/cm	Conductivity
BY-AP-MW-15	1/22/2018 14:20	22.71	ft	Depth to Water Detail
BY-AP-MW-15	1/22/2018 14:20	1.05	mg/L	DO
BY-AP-MW-15	1/22/2018 14:20	-120.4	mv	Oxidation Reduction Potention
BY-AP-MW-15	1/22/2018 14:20	6.73	pH	pH
BY-AP-MW-15	1/22/2018 14:20	20.65	C	Temperature
BY-AP-MW-15	1/22/2018 14:20	2.59	NTU	Turbidity

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WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-16	1/23/2018 9:30	534.5	uS/cm	Conductivity
BY-AP-MW-16	1/23/2018 9:30	23.21	ft	Depth to Water Detail
BY-AP-MW-16	1/23/2018 9:30	0.26	mg/L	DO
BY-AP-MW-16	1/23/2018 9:30	-35.4	mv	Oxidation Reduction Potention
BY-AP-MW-16	1/23/2018 9:30	5.85	pH	pH
BY-AP-MW-16	1/23/2018 9:30	20.53	C	Temperature
BY-AP-MW-16	1/23/2018 9:30	1.1	NTU	Turbidity
BY-AP-MW-16	1/23/2018 9:35	551.1	uS/cm	Conductivity
BY-AP-MW-16	1/23/2018 9:35	23.21	ft	Depth to Water Detail
BY-AP-MW-16	1/23/2018 9:35	0.22	mg/L	DO
BY-AP-MW-16	1/23/2018 9:35	-34.8	mv	Oxidation Reduction Potention
BY-AP-MW-16	1/23/2018 9:35	5.85	pH	pH
BY-AP-MW-16	1/23/2018 9:35	20.66	C	Temperature
BY-AP-MW-16	1/23/2018 9:35	0.89	NTU	Turbidity
BY-AP-MW-16	1/23/2018 9:40	545.4	uS/cm	Conductivity
BY-AP-MW-16	1/23/2018 9:40	23.22	ft	Depth to Water Detail
BY-AP-MW-16	1/23/2018 9:40	0.21	mg/L	DO
BY-AP-MW-16	1/23/2018 9:40	-33.9	mv	Oxidation Reduction Potention
BY-AP-MW-16	1/23/2018 9:40	5.86	pH	pH
BY-AP-MW-16	1/23/2018 9:40	20.6	C	Temperature
BY-AP-MW-16	1/23/2018 9:40	0.73	NTU	Turbidity
BY-AP-MW-16	1/23/2018 9:45	543.7	uS/cm	Conductivity
BY-AP-MW-16	1/23/2018 9:45	23.22	ft	Depth to Water Detail
BY-AP-MW-16	1/23/2018 9:45	0.2	mg/L	DO
BY-AP-MW-16	1/23/2018 9:45	-32.7	mv	Oxidation Reduction Potention
BY-AP-MW-16	1/23/2018 9:45	5.86	pH	pH
BY-AP-MW-16	1/23/2018 9:45	20.65	C	Temperature
BY-AP-MW-16	1/23/2018 9:45	0.71	NTU	Turbidity

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<b>WELL_ID</b>	<b>READING_DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-2	1/24/2018 13:07	56.4	uS/cm	Conductivity
BY-AP-MW-2	1/24/2018 13:07	21.83	ft	Depth to Water Detail
BY-AP-MW-2	1/24/2018 13:07	0.99	mg/L	DO
BY-AP-MW-2	1/24/2018 13:07	98.9	mv	Oxidation Reduction Potention
BY-AP-MW-2	1/24/2018 13:07	5.83	pH	pH
BY-AP-MW-2	1/24/2018 13:07	21.37	C	Temperature
BY-AP-MW-2	1/24/2018 13:07	0.76	NTU	Turbidity
BY-AP-MW-2	1/24/2018 13:12	56.3	uS/cm	Conductivity
BY-AP-MW-2	1/24/2018 13:12	21.83	ft	Depth to Water Detail
BY-AP-MW-2	1/24/2018 13:12	0.88	mg/L	DO
BY-AP-MW-2	1/24/2018 13:12	98.5	mv	Oxidation Reduction Potention
BY-AP-MW-2	1/24/2018 13:12	5.84	pH	pH
BY-AP-MW-2	1/24/2018 13:12	21.28	C	Temperature
BY-AP-MW-2	1/24/2018 13:12	0.78	NTU	Turbidity
BY-AP-MW-2	1/24/2018 13:17	56.5	uS/cm	Conductivity
BY-AP-MW-2	1/24/2018 13:17	21.83	ft	Depth to Water Detail
BY-AP-MW-2	1/24/2018 13:17	0.74	mg/L	DO
BY-AP-MW-2	1/24/2018 13:17	99.3	mv	Oxidation Reduction Potention
BY-AP-MW-2	1/24/2018 13:17	5.84	pH	pH
BY-AP-MW-2	1/24/2018 13:17	21.27	C	Temperature
BY-AP-MW-2	1/24/2018 13:17	1.03	NTU	Turbidity
BY-AP-MW-2	1/24/2018 13:22	56.4	uS/cm	Conductivity
BY-AP-MW-2	1/24/2018 13:22	21.83	ft	Depth to Water Detail
BY-AP-MW-2	1/24/2018 13:22	0.74	mg/L	DO
BY-AP-MW-2	1/24/2018 13:22	99.2	mv	Oxidation Reduction Potention
BY-AP-MW-2	1/24/2018 13:22	5.83	pH	pH
BY-AP-MW-2	1/24/2018 13:22	21.21	C	Temperature
BY-AP-MW-2	1/24/2018 13:22	0.98	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-3	1/24/2018 11:52	35.4	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 11:52	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 11:52	6.07	mg/L	DO
BY-AP-MW-3	1/24/2018 11:52	201	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 11:52	5.23	pH	pH
BY-AP-MW-3	1/24/2018 11:52	20.39	C	Temperature
BY-AP-MW-3	1/24/2018 11:52	0.72	NTU	Turbidity
BY-AP-MW-3	1/24/2018 11:57	36.6	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 11:57	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 11:57	5.91	mg/L	DO
BY-AP-MW-3	1/24/2018 11:57	194	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 11:57	5.22	pH	pH
BY-AP-MW-3	1/24/2018 11:57	20.44	C	Temperature
BY-AP-MW-3	1/24/2018 11:57	0.74	NTU	Turbidity
BY-AP-MW-3	1/24/2018 12:02	37.1	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 12:02	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 12:02	6.03	mg/L	DO
BY-AP-MW-3	1/24/2018 12:02	190	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 12:02	5.23	pH	pH
BY-AP-MW-3	1/24/2018 12:02	20.44	C	Temperature
BY-AP-MW-3	1/24/2018 12:02	0.74	NTU	Turbidity
BY-AP-MW-3	1/24/2018 12:07	38.3	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 12:07	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 12:07	5.93	mg/L	DO
BY-AP-MW-3	1/24/2018 12:07	187.8	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 12:07	5.22	pH	pH
BY-AP-MW-3	1/24/2018 12:07	20.53	C	Temperature
BY-AP-MW-3	1/24/2018 12:07	0.73	NTU	Turbidity
BY-AP-MW-3	1/24/2018 12:12	39.2	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 12:12	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 12:12	5.79	mg/L	DO
BY-AP-MW-3	1/24/2018 12:12	186.7	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 12:12	5.22	pH	pH
BY-AP-MW-3	1/24/2018 12:12	20.51	C	Temperature
BY-AP-MW-3	1/24/2018 12:12	0.71	NTU	Turbidity
BY-AP-MW-3	1/24/2018 12:17	39.7	uS/cm	Conductivity
BY-AP-MW-3	1/24/2018 12:17	24.71	ft	Depth to Water Detail
BY-AP-MW-3	1/24/2018 12:17	5.92	mg/L	DO
BY-AP-MW-3	1/24/2018 12:17	185	mv	Oxidation Reduction Potention
BY-AP-MW-3	1/24/2018 12:17	5.22	pH	pH
BY-AP-MW-3	1/24/2018 12:17	20.53	C	Temperature
BY-AP-MW-3	1/24/2018 12:17	0.71	NTU	Turbidity



**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-4	1/24/2018 10:58	47.6	uS/cm	Conductivity
BY-AP-MW-4	1/24/2018 10:58	25.39	ft	Depth to Water Detail
BY-AP-MW-4	1/24/2018 10:58	6.6	mg/L	DO
BY-AP-MW-4	1/24/2018 10:58	224.8	mv	Oxidation Reduction Potention
BY-AP-MW-4	1/24/2018 10:58	5.07	pH	pH
BY-AP-MW-4	1/24/2018 10:58	20.44	C	Temperature
BY-AP-MW-4	1/24/2018 10:58	1.37	NTU	Turbidity
BY-AP-MW-4	1/24/2018 11:03	48.3	uS/cm	Conductivity
BY-AP-MW-4	1/24/2018 11:03	25.39	ft	Depth to Water Detail
BY-AP-MW-4	1/24/2018 11:03	6.36	mg/L	DO
BY-AP-MW-4	1/24/2018 11:03	215.7	mv	Oxidation Reduction Potention
BY-AP-MW-4	1/24/2018 11:03	5.05	pH	pH
BY-AP-MW-4	1/24/2018 11:03	20.52	C	Temperature
BY-AP-MW-4	1/24/2018 11:03	1.18	NTU	Turbidity
BY-AP-MW-4	1/24/2018 11:08	48.7	uS/cm	Conductivity
BY-AP-MW-4	1/24/2018 11:08	25.39	ft	Depth to Water Detail
BY-AP-MW-4	1/24/2018 11:08	6.27	mg/L	DO
BY-AP-MW-4	1/24/2018 11:08	210	mv	Oxidation Reduction Potention
BY-AP-MW-4	1/24/2018 11:08	5.04	pH	pH
BY-AP-MW-4	1/24/2018 11:08	20.59	C	Temperature
BY-AP-MW-4	1/24/2018 11:08	0.85	NTU	Turbidity
BY-AP-MW-4	1/24/2018 11:13	48	uS/cm	Conductivity
BY-AP-MW-4	1/24/2018 11:13	25.39	ft	Depth to Water Detail
BY-AP-MW-4	1/24/2018 11:13	6.2	mg/L	DO
BY-AP-MW-4	1/24/2018 11:13	206.2	mv	Oxidation Reduction Potention
BY-AP-MW-4	1/24/2018 11:13	5.03	pH	pH
BY-AP-MW-4	1/24/2018 11:13	20.53	C	Temperature
BY-AP-MW-4	1/24/2018 11:13	0.84	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-5	1/24/2018 11:37	414.2	uS/cm	Conductivity
BY-AP-MW-5	1/24/2018 11:37	27.65	ft	Depth to Water Detail
BY-AP-MW-5	1/24/2018 11:37	0.08	mg/L	DO
BY-AP-MW-5	1/24/2018 11:37	-48.4	mv	Oxidation Reduction Potention
BY-AP-MW-5	1/24/2018 11:37	5.96	pH	pH
BY-AP-MW-5	1/24/2018 11:37	21.33	C	Temperature
BY-AP-MW-5	1/24/2018 11:37	1	NTU	Turbidity
BY-AP-MW-5	1/24/2018 11:42	415.2	uS/cm	Conductivity
BY-AP-MW-5	1/24/2018 11:42	27.65	ft	Depth to Water Detail
BY-AP-MW-5	1/24/2018 11:42	0.06	mg/L	DO
BY-AP-MW-5	1/24/2018 11:42	-46.2	mv	Oxidation Reduction Potention
BY-AP-MW-5	1/24/2018 11:42	5.97	pH	pH
BY-AP-MW-5	1/24/2018 11:42	21.26	C	Temperature
BY-AP-MW-5	1/24/2018 11:42	0.67	NTU	Turbidity
BY-AP-MW-5	1/24/2018 11:47	413.6	uS/cm	Conductivity
BY-AP-MW-5	1/24/2018 11:47	27.65	ft	Depth to Water Detail
BY-AP-MW-5	1/24/2018 11:47	0.06	mg/L	DO
BY-AP-MW-5	1/24/2018 11:47	-44.6	mv	Oxidation Reduction Potention
BY-AP-MW-5	1/24/2018 11:47	5.98	pH	pH
BY-AP-MW-5	1/24/2018 11:47	21.37	C	Temperature
BY-AP-MW-5	1/24/2018 11:47	0.57	NTU	Turbidity
BY-AP-MW-5	1/24/2018 11:52	408.7	uS/cm	Conductivity
BY-AP-MW-5	1/24/2018 11:52	27.65	ft	Depth to Water Detail
BY-AP-MW-5	1/24/2018 11:52	0.05	mg/L	DO
BY-AP-MW-5	1/24/2018 11:52	-42	mv	Oxidation Reduction Potention
BY-AP-MW-5	1/24/2018 11:52	5.98	pH	pH
BY-AP-MW-5	1/24/2018 11:52	21.35	C	Temperature
BY-AP-MW-5	1/24/2018 11:52	0.36	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>WELL_ID</b>	<b>READING_DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-6	1/24/2018 12:30	55.7	uS/cm	Conductivity
BY-AP-MW-6	1/24/2018 12:30	25.62	ft	Depth to Water Detail
BY-AP-MW-6	1/24/2018 12:30	0.42	mg/L	DO
BY-AP-MW-6	1/24/2018 12:30	134.1	mv	Oxidation Reduction Potention
BY-AP-MW-6	1/24/2018 12:30	5.35	pH	pH
BY-AP-MW-6	1/24/2018 12:30	20.76	C	Temperature
BY-AP-MW-6	1/24/2018 12:30	0.31	NTU	Turbidity
BY-AP-MW-6	1/24/2018 12:35	56	uS/cm	Conductivity
BY-AP-MW-6	1/24/2018 12:35	25.62	ft	Depth to Water Detail
BY-AP-MW-6	1/24/2018 12:35	0.33	mg/L	DO
BY-AP-MW-6	1/24/2018 12:35	133.9	mv	Oxidation Reduction Potention
BY-AP-MW-6	1/24/2018 12:35	5.33	pH	pH
BY-AP-MW-6	1/24/2018 12:35	20.77	C	Temperature
BY-AP-MW-6	1/24/2018 12:35	0.11	NTU	Turbidity
BY-AP-MW-6	1/24/2018 12:40	56.3	uS/cm	Conductivity
BY-AP-MW-6	1/24/2018 12:40	25.62	ft	Depth to Water Detail
BY-AP-MW-6	1/24/2018 12:40	0.29	mg/L	DO
BY-AP-MW-6	1/24/2018 12:40	133.4	mv	Oxidation Reduction Potention
BY-AP-MW-6	1/24/2018 12:40	5.32	pH	pH
BY-AP-MW-6	1/24/2018 12:40	20.84	C	Temperature
BY-AP-MW-6	1/24/2018 12:40	0.13	NTU	Turbidity
BY-AP-MW-6	1/24/2018 12:45	56.6	uS/cm	Conductivity
BY-AP-MW-6	1/24/2018 12:45	25.62	ft	Depth to Water Detail
BY-AP-MW-6	1/24/2018 12:45	0.27	mg/L	DO
BY-AP-MW-6	1/24/2018 12:45	134.8	mv	Oxidation Reduction Potention
BY-AP-MW-6	1/24/2018 12:45	5.32	pH	pH
BY-AP-MW-6	1/24/2018 12:45	20.93	C	Temperature
BY-AP-MW-6	1/24/2018 12:45	0.19	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-7	1/24/2018 9:28	258.6	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:28	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:28	1.74	mg/L	DO
BY-AP-MW-7	1/24/2018 9:28	-31.5	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:28	6.4	pH	pH
BY-AP-MW-7	1/24/2018 9:28	20.26	C	Temperature
BY-AP-MW-7	1/24/2018 9:28	10.26	NTU	Turbidity
BY-AP-MW-7	1/24/2018 9:33	251.1	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:33	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:33	1.35	mg/L	DO
BY-AP-MW-7	1/24/2018 9:33	-29.7	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:33	6.38	pH	pH
BY-AP-MW-7	1/24/2018 9:33	20.32	C	Temperature
BY-AP-MW-7	1/24/2018 9:33	8.85	NTU	Turbidity
BY-AP-MW-7	1/24/2018 9:38	246.1	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:38	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:38	1.15	mg/L	DO
BY-AP-MW-7	1/24/2018 9:38	-28.8	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:38	6.37	pH	pH
BY-AP-MW-7	1/24/2018 9:38	20.36	C	Temperature
BY-AP-MW-7	1/24/2018 9:38	6.05	NTU	Turbidity
BY-AP-MW-7	1/24/2018 9:43	243.4	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:43	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:43	1.01	mg/L	DO
BY-AP-MW-7	1/24/2018 9:43	-28.2	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:43	6.36	pH	pH
BY-AP-MW-7	1/24/2018 9:43	20.62	C	Temperature
BY-AP-MW-7	1/24/2018 9:43	4.94	NTU	Turbidity
BY-AP-MW-7	1/24/2018 9:48	240.8	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:48	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:48	0.96	mg/L	DO
BY-AP-MW-7	1/24/2018 9:48	-27.3	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:48	6.35	pH	pH
BY-AP-MW-7	1/24/2018 9:48	20.66	C	Temperature
BY-AP-MW-7	1/24/2018 9:48	4.13	NTU	Turbidity
BY-AP-MW-7	1/24/2018 9:53	238.7	uS/cm	Conductivity
BY-AP-MW-7	1/24/2018 9:53	25.03	ft	Depth to Water Detail
BY-AP-MW-7	1/24/2018 9:53	0.91	mg/L	DO
BY-AP-MW-7	1/24/2018 9:53	-26.6	mv	Oxidation Reduction Potention
BY-AP-MW-7	1/24/2018 9:53	6.35	pH	pH
BY-AP-MW-7	1/24/2018 9:53	20.57	C	Temperature
BY-AP-MW-7	1/24/2018 9:53	3.21	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-8	1/24/2018 13:23	494.9	uS/cm	Conductivity
BY-AP-MW-8	1/24/2018 13:23	27.91	ft	Depth to Water Detail
BY-AP-MW-8	1/24/2018 13:23	0.11	mg/L	DO
BY-AP-MW-8	1/24/2018 13:23	-76.7	mv	Oxidation Reduction Potention
BY-AP-MW-8	1/24/2018 13:23	6.15	pH	pH
BY-AP-MW-8	1/24/2018 13:23	19.9	C	Temperature
BY-AP-MW-8	1/24/2018 13:23	0.38	NTU	Turbidity
BY-AP-MW-8	1/24/2018 13:28	492	uS/cm	Conductivity
BY-AP-MW-8	1/24/2018 13:28	27.91	ft	Depth to Water Detail
BY-AP-MW-8	1/24/2018 13:28	0.09	mg/L	DO
BY-AP-MW-8	1/24/2018 13:28	-77.5	mv	Oxidation Reduction Potention
BY-AP-MW-8	1/24/2018 13:28	6.15	pH	pH
BY-AP-MW-8	1/24/2018 13:28	19.7	C	Temperature
BY-AP-MW-8	1/24/2018 13:28	0.18	NTU	Turbidity
BY-AP-MW-8	1/24/2018 13:33	490.8	uS/cm	Conductivity
BY-AP-MW-8	1/24/2018 13:33	27.91	ft	Depth to Water Detail
BY-AP-MW-8	1/24/2018 13:33	0.11	mg/L	DO
BY-AP-MW-8	1/24/2018 13:33	-77.2	mv	Oxidation Reduction Potention
BY-AP-MW-8	1/24/2018 13:33	6.16	pH	pH
BY-AP-MW-8	1/24/2018 13:33	19.62	C	Temperature
BY-AP-MW-8	1/24/2018 13:33	0.46	NTU	Turbidity
BY-AP-MW-8	1/24/2018 13:38	490.3	uS/cm	Conductivity
BY-AP-MW-8	1/24/2018 13:38	27.91	ft	Depth to Water Detail
BY-AP-MW-8	1/24/2018 13:38	0.09	mg/L	DO
BY-AP-MW-8	1/24/2018 13:38	-76.8	mv	Oxidation Reduction Potention
BY-AP-MW-8	1/24/2018 13:38	6.16	pH	pH
BY-AP-MW-8	1/24/2018 13:38	19.55	C	Temperature
BY-AP-MW-8	1/24/2018 13:38	0.63	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

WELL_ID	READING_DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-9	1/23/2018 14:41	576.6	uS/cm	Conductivity
BY-AP-MW-9	1/23/2018 14:41	23.83	ft	Depth to Water Detail
BY-AP-MW-9	1/23/2018 14:41	0.35	mg/L	DO
BY-AP-MW-9	1/23/2018 14:41	-92.4	mv	Oxidation Reduction Potention
BY-AP-MW-9	1/23/2018 14:41	6.31	pH	pH
BY-AP-MW-9	1/23/2018 14:41	21.65	C	Temperature
BY-AP-MW-9	1/23/2018 14:41	1.81	NTU	Turbidity
BY-AP-MW-9	1/23/2018 14:46	576.9	uS/cm	Conductivity
BY-AP-MW-9	1/23/2018 14:46	23.83	ft	Depth to Water Detail
BY-AP-MW-9	1/23/2018 14:46	0.26	mg/L	DO
BY-AP-MW-9	1/23/2018 14:46	-91.8	mv	Oxidation Reduction Potention
BY-AP-MW-9	1/23/2018 14:46	6.3	pH	pH
BY-AP-MW-9	1/23/2018 14:46	21.7	C	Temperature
BY-AP-MW-9	1/23/2018 14:46	1.05	NTU	Turbidity
BY-AP-MW-9	1/23/2018 14:51	584.6	uS/cm	Conductivity
BY-AP-MW-9	1/23/2018 14:51	23.83	ft	Depth to Water Detail
BY-AP-MW-9	1/23/2018 14:51	0.23	mg/L	DO
BY-AP-MW-9	1/23/2018 14:51	-91.1	mv	Oxidation Reduction Potention
BY-AP-MW-9	1/23/2018 14:51	6.31	pH	pH
BY-AP-MW-9	1/23/2018 14:51	21.65	C	Temperature
BY-AP-MW-9	1/23/2018 14:51	0.96	NTU	Turbidity
BY-AP-MW-9	1/23/2018 14:56	580.1	uS/cm	Conductivity
BY-AP-MW-9	1/23/2018 14:56	23.83	ft	Depth to Water Detail
BY-AP-MW-9	1/23/2018 14:56	0.22	mg/L	DO
BY-AP-MW-9	1/23/2018 14:56	-90.3	mv	Oxidation Reduction Potention
BY-AP-MW-9	1/23/2018 14:56	6.3	pH	pH
BY-AP-MW-9	1/23/2018 14:56	21.56	C	Temperature
BY-AP-MW-9	1/23/2018 14:56	0.78	NTU	Turbidity



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

## ***Field Case Narrative***



# **Plant Barry Ash Pond**

## **2018 Compliance Event 1**

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

Field quality control procedures were performed as follows:

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

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

# Analytical Report



**Sample Group :** WMWBARAP\_1148  
**Project/Site :** Barry Ash Pond  
Bucks, AL 36512  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Sarah Copeland  
sgcopela@southernco.com  
(205) 664-6121

The following data has been reviewed and approved by:

**Quality Control:** Sarah Copeland

Digitally signed by Sarah Copeland  
DN: cn=Sarah Copeland, o, ou,  
email=sgcopela@southernco.com,  
c=US  
Date: 2018.05.25 09:54:20 -05'00'

**Supervision:** T. Durant Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.05.29 15:57:34 -05'00'



Metals ICP

Barry Ash Pond

WMWBARAP\_1148

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>
AY10624	20180508CCR1	WMWBARAP_1148
AY10625	20180508CCR1	WMWBARAP_1148
AY10626	20180508CCR1	WMWBARAP_1148
AY10627	20180508CCR1	WMWBARAP_1148
AY10628	20180508CCR1	WMWBARAP_1148
AY10629	20180508CCR1	WMWBARAP_1148
AY10630	20180508CCR1	WMWBARAP_1148
AY10631	20180508CCR1	WMWBARAP_1148
AY10632	20180508CCR1	WMWBARAP_1148
AY10633	20180508CCR1	WMWBARAP_1148
AY10634	20180508CCR2	WMWBARAP_1148
AY10635	20180508CCR2	WMWBARAP_1148
AY10636	20180508CCR2	WMWBARAP_1148
AY10637	20180508CCR2	WMWBARAP_1148
AY10638	20180508CCR2	WMWBARAP_1148
AY10639	20180508CCR2	WMWBARAP_1148
AY10640	20180508CCR2	WMWBARAP_1148
AY10641	20180508CCR2	WMWBARAP_1148
AY10642	20180508CCR2	WMWBARAP_1148
AY10643	20180508CCR2	WMWBARAP_1148
AY10644	20180508CCR3	WMWBARAP_1148

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and passed.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

#### Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects.
  8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Ash Pond

WMWBARAP\_1148

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>
AY10624	619279	WMWBARAP_1148
AY10625	619279	WMWBARAP_1148
AY10626	619279	WMWBARAP_1148
AY10627	619279	WMWBARAP_1148
AY10628	619279	WMWBARAP_1148
AY10629	619279	WMWBARAP_1148
AY10630	619279	WMWBARAP_1148
AY10631	619279	WMWBARAP_1148
AY10632	619279	WMWBARAP_1148
AY10633	619279	WMWBARAP_1148
AY10634	619280	WMWBARAP_1148
AY10635	619280	WMWBARAP_1148
AY10636	619280	WMWBARAP_1148
AY10637	619280	WMWBARAP_1148
AY10638	619280	WMWBARAP_1148
AY10639	619280	WMWBARAP_1148
AY10640	619280	WMWBARAP_1148
AY10641	619280	WMWBARAP_1148
AY10642	619280	WMWBARAP_1148
AY10643	619280	WMWBARAP_1148
AY10644	619281	WMWBARAP_1148

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

General Quality Control Procedures:

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



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

#### Matrix Specific Quality Control Procedures:

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

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



Mercury

Barry Ash Pond

WMWBARAP\_1148

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>
AY10624	619103	WMWBARAP_1148
AY10625	619103	WMWBARAP_1148
AY10626	619103	WMWBARAP_1148
AY10627	619103	WMWBARAP_1148
AY10628	619103	WMWBARAP_1148
AY10629	619103	WMWBARAP_1148
AY10630	619103	WMWBARAP_1148
AY10631	619103	WMWBARAP_1148
AY10632	619103	WMWBARAP_1148
AY10633	619103	WMWBARAP_1148
AY10634	619104	WMWBARAP_1148
AY10635	619104	WMWBARAP_1148
AY10636	619104	WMWBARAP_1148
AY10637	619104	WMWBARAP_1148
AY10638	619104	WMWBARAP_1148
AY10639	619104	WMWBARAP_1148
AY10640	619104	WMWBARAP_1148
AY10641	619104	WMWBARAP_1148
AY10642	619104	WMWBARAP_1148
AY10643	619104	WMWBARAP_1148
AY10644	619105	WMWBARAP_1148

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.





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

#### Matrix Specific Quality Control Procedures:

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

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



TDS

Barry Ash Pond

WMWBARAP\_1148

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>
AY10624	619204	WMWBARAP_1148
AY10625	619204	WMWBARAP_1148
AY10626	619204	WMWBARAP_1148
AY10627	619204	WMWBARAP_1148
AY10628	619204	WMWBARAP_1148
AY10629	619205	WMWBARAP_1148
AY10630	619204	WMWBARAP_1148
AY10631	619204	WMWBARAP_1148
AY10632	619205	WMWBARAP_1148
AY10633	619352	WMWBARAP_1148
AY10634	619352	WMWBARAP_1148
AY10635	619352	WMWBARAP_1148
AY10636	619352	WMWBARAP_1148
AY10637	619352	WMWBARAP_1148
AY10638	619352	WMWBARAP_1148
AY10639	619352	WMWBARAP_1148
AY10640	619353	WMWBARAP_1148
AY10641	619353	WMWBARAP_1148
AY10642	619353	WMWBARAP_1148
AY10643	619353	WMWBARAP_1148
AY10644	619353	WMWBARAP_1148

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- A blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5mg and 200mg residue with the exception of AY10630, AY10632, and AY10644 which were below the 2.5mg residue requirement. Maximum volume of 150mL filtered.

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY10624

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0205	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	0.921	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0126	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	39.3	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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY10624

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046		98.6	70 to 130	0.622	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115		104	70 to 130	0.437	20
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23		104	70 to 130	0.0456	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115		111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115		98.5	70 to 130	1.61	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115		96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115		101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115		107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115		100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115		110	70 to 130	1.09	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15		95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115		106	70 to 130	0.154	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75		92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115		107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115		104	70 to 130	4.37	20

This Certificate states the physical and/or chemical characteristics 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:**

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

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY10624

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

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Laboratory certification ID: E571114

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CC:

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY10625

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0356	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.07	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	34.7	mg/L

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Laboratory certification ID: E571114

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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

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY10625

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	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

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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

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

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY10625

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY10626

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0381	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	1.07	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	34.0	mg/L

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY10626

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046		98.6	70 to 130	0.622	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115		104	70 to 130	0.437	20
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23		104	70 to 130	0.0456	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75		92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115		107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115		104	70 to 130	4.37	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115		96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115		101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115		107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115		100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115		110	70 to 130	1.09	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115		111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115		98.5	70 to 130	1.61	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15		95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115		106	70 to 130	0.154	20

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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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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY10626

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

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Expiration: June 30, 2018

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY10627

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	J 0.00166	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0279	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	2.82	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00693	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	42.7	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY10627

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046		98.6	70 to 130	0.622	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115		104	70 to 130	0.437	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115		111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115		98.5	70 to 130	1.61	20
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23		104	70 to 130	0.0456	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115		96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115		101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115		107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115		100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115		110	70 to 130	1.09	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15		95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115		106	70 to 130	0.154	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75		92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115		107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115		104	70 to 130	4.37	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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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY10627

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

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY10628

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0777	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.280	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	1.81	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	39.7	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00435	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	416	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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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY10628

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY10628

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

Alabama Power General Test 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: WMWBARAP  
 Sample Date: 01-May-18  
 Customer ID:  
 Delivery Date: 03-May-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY10629

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0114	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0877	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	1.57	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	14.0	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0189	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	274	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

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

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY10629

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY10629

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10630

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	U Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10630

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20

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Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10630

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

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY10631

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0181	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0575	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0683	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	7.42	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0298	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	197	mg/L

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Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY10631

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20

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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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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY10631

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY10632

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	KRC	5/8/2018	SM 2540C		1		25	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:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY10632

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike	MS				Limit	Rec	Limit	Prec	
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20	
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20	
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20	
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20	
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20	
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20	
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20	
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20	
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20	
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20	
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20	
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20	
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20	
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20	
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY10632

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY10633

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0239	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0814	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0640	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	22.2	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00271	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00351	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	310	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY10633

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AY10633	Lithium, Total	mg/L	0.0000351	0.022	0.20	0.208	0.208	0.188	0.17 to 0.23	104	70 to 130	0.0456	20
AY10633	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.185	0.186	0.101	0.085 to 0.115	104	70 to 130	0.437	20
AY10633	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.135	0.132	0.107	0.085 to 0.115	111	70 to 130	1.64	20
AY10633	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0985	0.100	0.0956	0.085 to 0.115	98.5	70 to 130	1.61	20
AY10633	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0963	0.0978	0.0959	0.085 to 0.115	96.3	70 to 130	1.56	20
AY10633	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.101	0.102	0.113	0.085 to 0.115	101	70 to 130	0.949	20
AY10633	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	2.24	20
AY10633	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.104	0.105	0.0973	0.085 to 0.115	100	70 to 130	0.582	20
AY10633	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.113	0.114	0.108	0.085 to 0.115	110	70 to 130	1.09	20
AY10633	Calcium, Total	mg/L	0.00201	0.22	5.00	26.8	27.2	4.79	4.25 to 5.75	92.0	70 to 130	1.47	20
AY10633	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.107	0.107	0.104	0.085 to 0.115	107	70 to 130	0.243	20
AY10633	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.104	0.108	0.103	0.085 to 0.115	104	70 to 130	4.37	20
AY10633	Boron, Total	mg/L	-0.00116	0.044	1.00	1.02	1.03	0.932	0.85 to 1.15	95.4	70 to 130	1.01	20
AY10633	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.106	0.106	0.105	0.085 to 0.115	106	70 to 130	0.154	20
AY10633	Mercury, Total by CVAA	mg/L	0.0000404	0.0005	0.004	0.00394	0.00397	0.00384	0.0034 to 0.0046	98.6	70 to 130	0.622	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY10633

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60	4.55	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY10634

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0175	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0806	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0393	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	13.8	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00642	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	320	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY10634

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AY10643	Lead, Total	mg/L	0.0000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY10634

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY10635

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0156	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0614	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0484	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	10.6	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00534	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	301	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

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

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY10635

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY10643	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	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

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

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY10635

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY10636

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0158	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0816	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0545	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	25.2	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00273	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	J 0.0384	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	330	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

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

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY10636

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY10643	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY10636

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-11 Dup

Laboratory ID Number: AY10637

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0157	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0795	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0544	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	25.2	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00258	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	J 0.0364	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	347	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-11 Dup

Laboratory ID Number: AY10637

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec	Prec	Limit
				Limit	Spike	MS				Limit	Rec			
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20	
AY10643	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20	
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20	
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20	
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20	
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20	
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20	
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20	
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20	
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20	
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20	
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20	
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20	
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20	
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-11 Dup

Laboratory ID Number: AY10637

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY10638

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0433	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0752	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	2.00	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	53.3	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	343	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

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

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY10638

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY10643	Lead, Total	mg/L	0.0000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY10638

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	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:**

CC:

Alabama Power General Test 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: WMWBARAP  
 Sample Date: 02-May-18  
 Customer ID:  
 Delivery Date: 03-May-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY10639

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0437	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.125	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	2.34	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	40.0	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	333	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY10639

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20	
AY10643	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20	
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20	
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20	
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20	
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20	
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20	
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20	
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20	
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20	
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20	
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20	
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20	
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20	
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY10639

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY10639	Solids, Dissolved	mg/L	4.00	25			304	51.0	40 to 60		4.55	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY10640

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0276	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	2.13	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	44.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY10640

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AY10643	Lead, Total	mg/L	0.0000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	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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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY10640

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY10641

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0315	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.154	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0603	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	14.5	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	247	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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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY10641

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY10643	Lead, Total	mg/L	0.0000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY10641

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**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

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY10642

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0572	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.149	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	1.12	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	32.3	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	306	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY10642

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY10643	Lead, Total	mg/L	0.0000898	0.0022	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.0959	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.107	0.085 to 0.115	110	70 to 130	1.25	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.101	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	5.02	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.108	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.0956	0.085 to 0.115	97.6	70 to 130	3.57	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.0973	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.193	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.113	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.00383	0.0034 to 0.0046	99.9	70 to 130	1.97	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY10642

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY10643

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	0.0218	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0630	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	J 0.0313	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	9.14	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	0.0169	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	J 0.00328	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	J 0.0108	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	133	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY10643

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit					Rec	Limit		
AY10643	Thallium, Total	mg/L	0.0000110	0.00044	0.10	0.105	0.105	0.085 to 0.115	105	70 to 130	0.0295	20
AY10643	Cadmium, Total	mg/L	0.0000108	0.00066	0.10	0.106	0.107	0.085 to 0.115	106	70 to 130	0.531	20
AY10643	Lead, Total	mg/L	0.00000898	0.0022	0.10	0.105	0.104	0.085 to 0.115	105	70 to 130	0.246	20
AY10643	Boron, Total	mg/L	-0.000971	0.044	1.00	1.00	0.965	0.85 to 1.15	97.0	70 to 130	0.137	20
AY10643	Selenium, Total	mg/L	0.0000326	0.0044	0.10	0.105	0.103	0.085 to 0.115	105	70 to 130	0.488	20
AY10643	Chromium, Total	mg/L	0.0000223	0.0044	0.10	0.0997	0.0998	0.085 to 0.115	96.4	70 to 130	0.0934	20
AY10643	Lithium, Total	mg/L	-0.00000708	0.022	0.20	0.217	0.214	0.17 to 0.23	103	70 to 130	1.37	20
AY10643	Antimony, Total	mg/L	0.0000570	0.00132	0.10	0.0975	0.0982	0.085 to 0.115	97.5	70 to 130	0.710	20
AY10643	Arsenic, Total	mg/L	0.0000150	0.0022	0.10	0.132	0.131	0.085 to 0.115	110	70 to 130	1.25	20
AY10643	Beryllium, Total	mg/L	0.0000397	0.00132	0.10	0.0984	0.101	0.085 to 0.115	98.4	70 to 130	2.19	20
AY10643	Mercury, Total by CVAA	mg/L	0.0000389	0.0005	0.004	0.00400	0.00392	0.0034 to 0.0046	99.9	70 to 130	1.97	20
AY10643	Barium, Total	mg/L	0.0000127	0.0044	0.10	0.167	0.170	0.085 to 0.115	104	70 to 130	1.36	20
AY10643	Calcium, Total	mg/L	0.000656	0.22	5.00	14.2	14.1	4.25 to 5.75	102	70 to 130	0.597	20
AY10643	Cobalt, Total	mg/L	0.00000100	0.0044	0.10	0.123	0.122	0.085 to 0.115	106	70 to 130	0.614	20
AY10643	Molybdenum, Total	mg/L	0.0000135	0.0044	0.10	0.0976	0.0942	0.085 to 0.115	97.6	70 to 130	3.57	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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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY10643

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

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

**Comments:**

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10644

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	HRG	5/8/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/14/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	5/8/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/8/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CES	5/9/2018	SM 2540C		1		25	U Not Detected	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10644

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AY10644	Molybdenum, Total	mg/L	0.0000121	0.0044	0.10	0.0942	0.0936	0.0937	0.085 to 0.115	94.2	70 to 130	0.703	20
AY10644	Thallium, Total	mg/L	0.00000875	0.00044	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.377	20
AY10644	Antimony, Total	mg/L	0.0000527	0.00132	0.10	0.0979	0.0978	0.0991	0.085 to 0.115	97.9	70 to 130	0.126	20
AY10644	Lithium, Total	mg/L	0.00000293	0.022	0.20	0.195	0.197	0.194	0.17 to 0.23	97.5	70 to 130	1.06	20
AY10644	Arsenic, Total	mg/L	0.0000111	0.0022	0.10	0.107	0.108	0.107	0.085 to 0.115	107	70 to 130	1.46	20
AY10644	Boron, Total	mg/L	-0.000992	0.044	1.00	0.953	0.961	0.962	0.85 to 1.15	95.3	70 to 130	0.750	20
AY10644	Chromium, Total	mg/L	0.0000185	0.0044	0.10	0.0976	0.0981	0.0959	0.085 to 0.115	97.6	70 to 130	0.451	20
AY10644	Beryllium, Total	mg/L	0.0000416	0.00132	0.10	0.0988	0.0981	0.0979	0.085 to 0.115	98.8	70 to 130	0.699	20
AY10644	Selenium, Total	mg/L	0.0000353	0.0044	0.10	0.103	0.106	0.102	0.085 to 0.115	103	70 to 130	3.04	20
AY10644	Calcium, Total	mg/L	0.00139	0.22	5.00	5.45	5.02	4.96	4.25 to 5.75	109	70 to 130	8.26	20
AY10644	Cobalt, Total	mg/L	0.00000762	0.0044	0.10	0.102	0.102	0.103	0.085 to 0.115	102	70 to 130	0.547	20
AY10644	Mercury, Total by CVAA	mg/L	0.0000405	0.0005	0.004	0.00398	0.00402	0.00391	0.0034 to 0.0046	99.6	70 to 130	0.897	20
AY10644	Barium, Total	mg/L	0.0000187	0.0044	0.10	0.106	0.104	0.105	0.085 to 0.115	106	70 to 130	1.84	20
AY10644	Cadmium, Total	mg/L	0.00000916	0.00066	0.10	0.107	0.107	0.106	0.085 to 0.115	107	70 to 130	0.368	20
AY10644	Lead, Total	mg/L	0.0000100	0.0022	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.202	20

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

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

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY10644

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

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:



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

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



# Chain of Custody

## Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

Field Complete  Outside Lab  
 Lab Complete

Lab ETA 05/03/2018 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Barry Ash Pond
Analysis Requested	Bottle 1 (500ml): Metals, Bottle 2 (250 ml): Hg, Bottle 3 (500ml): TDS		
Comments			

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	05/01/2018	10:03	3	Groundwater		AY10624
MW-3	05/01/2018	11:00	3	Groundwater		AY10625
MW-3 Dup	05/01/2018	11:00	3	Sample Duplicate		AY10626
MW-2	05/01/2018	12:12	3	Groundwater		AY10627
MW-1	05/01/2018	13:45	3	Groundwater		AY10628
MW-16	05/01/2018	14:48	3	Groundwater		AY10629
FB-1	05/01/2018	15:05	3	Field Blank		AY10630
MW-15	05/01/2018	16:05	3	Groundwater		AY10631
EB-1	05/01/2018	12:35	3	Equipment Blank		AY10632
MW-12	05/02/2018	10:10	3	Groundwater		AY10633
MW-13	05/02/2018	11:12	3	Groundwater		AY10634
MW-14	05/02/2018	12:10	3	Groundwater		AY10635
MW-11	05/02/2018	13:15	3	Groundwater		AY10636
MW-11 Dup	05/02/2018	13:15	3	Sample Duplicate		AY10637
MW-10	05/02/2018	14:17	3	Groundwater		AY10638
MW-9	05/02/2018	15:12	3	Groundwater		AY10639
MW-6	05/02/2018	16:08	3	Groundwater		AY10640

<b>Relinquished By</b> 	<b>Received By</b> 	<b>Date/Time</b>
<small>Digitally signed by Benjamin Tyler Rothschadl DN: cn=Benjamin Tyler Rothschadl, o=Alabama Power Environmental Affairs - Groundwater Team, ou=Alabama Power Company, email=x2broth@southernco.com, c=US Date: 2018.05.03 12:35:22 -0500</small>	<small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2018.05.03 13:09:21 -0500</small>	<span style="border: 1px solid black; padding: 2px;">05/02/2018 18:08</span>
<b>Benjamin Tyler Rothschadl</b>	<b>Sarah Copeland</b>	<span style="border: 1px solid black; padding: 2px;">05/03/2018 13:09</span>

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
		0.6 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5881-30153-10-7





# Chain of Custody

## Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

Field Complete  Outside Lab  
 Lab Complete

Lab ETA 05/03/2018 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Barry Ash Pond
Analysis Requested	Bottle 1 (1L): Radium, Bottle 2 (250ml): Anions		
Comments	Rad Dup on MW-15 and MW-12. All samples outsourced to Test America.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	05/01/2018	10:03	2	Groundwater		AY10645
MW-3	05/01/2018	11:00	2	Groundwater		AY10646
MW-3 Dup	05/01/2018	11:00	2	Sample Duplicate		AY10647
MW-2	05/01/2018	12:12	2	Groundwater		AY10648
EB-1	05/01/2018	12:35	2	Equipment Blank		AY10649
MW-1	05/01/2018	13:45	2	Groundwater		AY10650
MW-16	05/01/2018	14:48	2	Groundwater		AY10651
FB-1	05/01/2018	15:05	2	Field Blank		AY10652
MW-15	05/01/2018	16:05	4	Groundwater		AY10653
MW-12	05/02/2018	10:10	4	Groundwater		AY10654
MW-13	05/02/2018	11:12	2	Groundwater		AY10655
MW-14	05/02/2018	12:10	2	Groundwater		AY10656
MW-11	05/02/2018	13:15	2	Groundwater		AY10657
MW-11 Dup	05/02/2018	13:15	2	Sample Duplicate		AY10658
MW-10	05/02/2018	14:17	2	Groundwater		AY10659
MW-9	05/02/2018	15:12	2	Groundwater		AY10660
MW-6	05/02/2018	16:08	2	Groundwater		AY10661

Relinquished By	Received By	Date/Time
		05/02/2018 18:08
Benjamin Tyler Rothschadl <small>Digitally signed by Benjamin Tyler Rothschadl DN: cn=Benjamin Tyler Rothschadl, o=Alabama Power Environmental Affairs - Groundwater Team, ou=Alabama Power Company, email=y2broth@southernco.com, c=US Date: 2018.05.03 12:36:36 -0500</small>	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o, ou, email=sgcopela@southernco.com, c=US Date: 2018.05.03 13:07:37 -0500</small>	05/03/2018 13:07

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
		0.6 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5881-30154-10-8





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-153398-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1148

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

5/19/2018 12:35:53 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Detection Summary

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

## Client Sample ID: AY10645 MW-4

## Lab Sample ID: 400-153398-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY10646 MW-3

## Lab Sample ID: 400-153398-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY10647 MW-3 DUP

## Lab Sample ID: 400-153398-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY10648 MW-2

## Lab Sample ID: 400-153398-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY10649 EB-1

## Lab Sample ID: 400-153398-5

No Detections.

## Client Sample ID: AY10650 MW-1

## Lab Sample ID: 400-153398-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY10651 MW-16

## Lab Sample ID: 400-153398-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18		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

## Client Sample ID: AY10652 FB-1

## Lab Sample ID: 400-153398-8

No Detections.

## Client Sample ID: AY10653 MW-15

## Lab Sample ID: 400-153398-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY10654 MW-12

## Lab Sample ID: 400-153398-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.060	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 Barry

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

## Client Sample ID: AY10655 MW-13

## Lab Sample ID: 400-153398-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	47		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY10656 MW-14

## Lab Sample ID: 400-153398-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39		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	1.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY10657 MW-11

## Lab Sample ID: 400-153398-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		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

## Client Sample ID: AY10658 MW-11 DUP

## Lab Sample ID: 400-153398-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	24		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

## Client Sample ID: AY10659 MW-10

## Lab Sample ID: 400-153398-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY10660 MW-9

## Lab Sample ID: 400-153398-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	22		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY10661 MW-6

## Lab Sample ID: 400-153398-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY10662 MW-5

## Lab Sample ID: 400-153398-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY10663 MW-8

## Lab Sample ID: 400-153398-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		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 Barry

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10664 MW-7**

**Lab Sample ID: 400-153398-20**

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	0.080	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

**Client Sample ID: AY10665 FB-2**

**Lab Sample ID: 400-153398-21**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola



# Method Summary

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

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 Barry

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153398-1	AY10645 MW-4	Water	05/01/18 10:03	05/07/18 15:00
400-153398-2	AY10646 MW-3	Water	05/01/18 11:00	05/07/18 15:00
400-153398-3	AY10647 MW-3 DUP	Water	05/01/18 11:00	05/07/18 15:00
400-153398-4	AY10648 MW-2	Water	05/01/18 12:12	05/07/18 15:00
400-153398-5	AY10649 EB-1	Water	05/01/18 12:35	05/07/18 15:00
400-153398-6	AY10650 MW-1	Water	05/01/18 13:45	05/07/18 15:00
400-153398-7	AY10651 MW-16	Water	05/01/18 14:48	05/07/18 15:00
400-153398-8	AY10652 FB-1	Water	05/01/18 15:05	05/07/18 15:00
400-153398-9	AY10653 MW-15	Water	05/01/18 16:05	05/07/18 15:00
400-153398-10	AY10654 MW-12	Water	05/02/18 10:10	05/07/18 15:00
400-153398-11	AY10655 MW-13	Water	05/02/18 11:12	05/07/18 15:00
400-153398-12	AY10656 MW-14	Water	05/02/18 12:10	05/07/18 15:00
400-153398-13	AY10657 MW-11	Water	05/02/18 13:15	05/07/18 15:00
400-153398-14	AY10658 MW-11 DUP	Water	05/02/18 13:15	05/07/18 15:00
400-153398-15	AY10659 MW-10	Water	05/02/18 14:17	05/07/18 15:00
400-153398-16	AY10660 MW-9	Water	05/02/18 15:12	05/07/18 15:00
400-153398-17	AY10661 MW-6	Water	05/02/18 16:08	05/07/18 15:00
400-153398-18	AY10662 MW-5	Water	05/02/18 13:00	05/07/18 15:00
400-153398-19	AY10663 MW-8	Water	05/02/18 14:02	05/07/18 15:00
400-153398-20	AY10664 MW-7	Water	05/02/18 15:26	05/07/18 15:00
400-153398-21	AY10665 FB-2	Water	05/02/18 15:45	05/07/18 15:00

# Client Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10645 MW-4**

**Lab Sample ID: 400-153398-1**

Date Collected: 05/01/18 10:03

Matrix: Water

Date Received: 05/07/18 15:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.2		2.0	0.60	mg/L			05/15/18 08:03	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:34	1
Sulfate	1.4	J	5.0	1.4	mg/L			05/14/18 10:16	1

**Client Sample ID: AY10646 MW-3**

**Lab Sample ID: 400-153398-2**

Date Collected: 05/01/18 11:00

Matrix: Water

Date Received: 05/07/18 15:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:39	1
Sulfate	<1.4		5.0	1.4	mg/L			05/14/18 10:21	1

**Client Sample ID: AY10647 MW-3 DUP**

**Lab Sample ID: 400-153398-3**

Date Collected: 05/01/18 11:00

Matrix: Water

Date Received: 05/07/18 15:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.2		2.0	0.60	mg/L			05/15/18 08:15	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:42	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

**Client Sample ID: AY10648 MW-2**

**Lab Sample ID: 400-153398-4**

Date Collected: 05/01/18 12:12

Matrix: Water

Date Received: 05/07/18 15:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:45	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:44	1

**Client Sample ID: AY10649 EB-1**

**Lab Sample ID: 400-153398-5**

Date Collected: 05/01/18 12:35

Matrix: Water

Date Received: 05/07/18 15:00

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:49	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10650 MW-1**

**Lab Sample ID: 400-153398-6**

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/10/18 14:51	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

**Client Sample ID: AY10651 MW-16**

**Lab Sample ID: 400-153398-7**

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/10/18 14:54	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

**Client Sample ID: AY10652 FB-1**

**Lab Sample ID: 400-153398-8**

Date Collected: 05/01/18 15:05

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 14:57	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

**Client Sample ID: AY10653 MW-15**

**Lab Sample ID: 400-153398-9**

Date Collected: 05/01/18 16:05

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42		2.0	0.60	mg/L			05/15/18 08:15	1
Fluoride	0.19		0.10	0.032	mg/L			05/10/18 15:00	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:50	1

**Client Sample ID: AY10654 MW-12**

**Lab Sample ID: 400-153398-10**

Date Collected: 05/02/18 10:10

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	0.060	J	0.10	0.032	mg/L			05/10/18 15:41	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:57	1

**Client Sample ID: AY10655 MW-13**

**Lab Sample ID: 400-153398-11**

Date Collected: 05/02/18 11:12

Matrix: Water

Date Received: 05/07/18 15:00

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	47		2.0	0.60	mg/L			05/15/18 08:06	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10655 MW-13**

**Lab Sample ID: 400-153398-11**

Date Collected: 05/02/18 11:12

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.070	J	0.10	0.032	mg/L			05/10/18 15:48	1
Sulfate	4.1	J	5.0	1.4	mg/L			05/16/18 07:58	1

**Client Sample ID: AY10656 MW-14**

**Lab Sample ID: 400-153398-12**

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	0.080	J	0.10	0.032	mg/L			05/10/18 15:51	1
Sulfate	1.6	J	5.0	1.4	mg/L			05/16/18 07:58	1

**Client Sample ID: AY10657 MW-11**

**Lab Sample ID: 400-153398-13**

Date Collected: 05/02/18 13:15

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	0.60	mg/L			05/15/18 08:14	1
Fluoride	0.060	J	0.10	0.032	mg/L			05/10/18 15:53	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 08:55	1

**Client Sample ID: AY10658 MW-11 DUP**

**Lab Sample ID: 400-153398-14**

Date Collected: 05/02/18 13:15

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	0.060	J	0.10	0.032	mg/L			05/10/18 15:55	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 08:55	1

**Client Sample ID: AY10659 MW-10**

**Lab Sample ID: 400-153398-15**

Date Collected: 05/02/18 14:17

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 15:57	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:02	1

**Client Sample ID: AY10660 MW-9**

**Lab Sample ID: 400-153398-16**

Date Collected: 05/02/18 15:12

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22		2.0	0.60	mg/L			05/15/18 08:13	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/10/18 16:00	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10660 MW-9**

**Lab Sample ID: 400-153398-16**

Date Collected: 05/02/18 15:12

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry (Continued)**

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

**Client Sample ID: AY10661 MW-6**

**Lab Sample ID: 400-153398-17**

Date Collected: 05/02/18 16:08

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.5		2.0	0.60	mg/L			05/15/18 08:06	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 16:02	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 08:55	1

**Client Sample ID: AY10662 MW-5**

**Lab Sample ID: 400-153398-18**

Date Collected: 05/02/18 13:00

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	0.60	mg/L			05/16/18 11:57	1
Fluoride	0.050	J	0.10	0.032	mg/L			05/10/18 16:10	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:02	1

**Client Sample ID: AY10663 MW-8**

**Lab Sample ID: 400-153398-19**

Date Collected: 05/02/18 14:02

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	0.60	mg/L			05/16/18 11:58	1
Fluoride	0.040	J	0.10	0.032	mg/L			05/10/18 16:15	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:02	1

**Client Sample ID: AY10664 MW-7**

**Lab Sample ID: 400-153398-20**

Date Collected: 05/02/18 15:26

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	0.60	mg/L			05/16/18 11:55	1
Fluoride	0.080	J	0.10	0.032	mg/L			05/10/18 16:17	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:02	1

**Client Sample ID: AY10665 FB-2**

**Lab Sample ID: 400-153398-21**

Date Collected: 05/02/18 15:45

Matrix: Water

Date Received: 05/07/18 15:00

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/16/18 11:58	1
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 16:21	1
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 09:02	1

TestAmerica Pensacola

# Definitions/Glossary

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

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

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10645 MW-4**

**Date Collected: 05/01/18 10:03**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-1**

**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	397607	05/15/18 08:03	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:34	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397494	05/14/18 10:16	RRC	TAL PEN

**Client Sample ID: AY10646 MW-3**

**Date Collected: 05/01/18 11:00**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-2**

**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	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:39	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397494	05/14/18 10:21	RRC	TAL PEN

**Client Sample ID: AY10647 MW-3 DUP**

**Date Collected: 05/01/18 11:00**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-3**

**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	397607	05/15/18 08:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:42	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

**Client Sample ID: AY10648 MW-2**

**Date Collected: 05/01/18 12:12**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-4**

**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	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:44	RRC	TAL PEN

**Client Sample ID: AY10649 EB-1**

**Date Collected: 05/01/18 12:35**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-5**

**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	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN



# Lab Chronicle

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10650 MW-1**

**Lab Sample ID: 400-153398-6**

**Date Collected: 05/01/18 13:45**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

**Client Sample ID: AY10651 MW-16**

**Lab Sample ID: 400-153398-7**

**Date Collected: 05/01/18 14:48**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

**Client Sample ID: AY10652 FB-1**

**Lab Sample ID: 400-153398-8**

**Date Collected: 05/01/18 15:05**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 14:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

**Client Sample ID: AY10653 MW-15**

**Lab Sample ID: 400-153398-9**

**Date Collected: 05/01/18 16:05**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397179	05/10/18 15:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:50	RRC	TAL PEN

**Client Sample ID: AY10654 MW-12**

**Lab Sample ID: 400-153398-10**

**Date Collected: 05/02/18 10:10**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:57	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10655 MW-13**

**Lab Sample ID: 400-153398-11**

**Date Collected: 05/02/18 11:12**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:48	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:58	RRC	TAL PEN

**Client Sample ID: AY10656 MW-14**

**Lab Sample ID: 400-153398-12**

**Date Collected: 05/02/18 12:10**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397778	05/16/18 07:58	RRC	TAL PEN

**Client Sample ID: AY10657 MW-11**

**Lab Sample ID: 400-153398-13**

**Date Collected: 05/02/18 13:15**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 08:55	RRC	TAL PEN

**Client Sample ID: AY10658 MW-11 DUP**

**Lab Sample ID: 400-153398-14**

**Date Collected: 05/02/18 13:15**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:55	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 08:55	RRC	TAL PEN

**Client Sample ID: AY10659 MW-10**

**Lab Sample ID: 400-153398-15**

**Date Collected: 05/02/18 14:17**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 15:57	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10660 MW-9**

**Lab Sample ID: 400-153398-16**

Date Collected: 05/02/18 15:12

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

**Client Sample ID: AY10661 MW-6**

**Lab Sample ID: 400-153398-17**

Date Collected: 05/02/18 16:08

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397607	05/15/18 08:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 08:55	RRC	TAL PEN

**Client Sample ID: AY10662 MW-5**

**Lab Sample ID: 400-153398-18**

Date Collected: 05/02/18 13:00

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

**Client Sample ID: AY10663 MW-8**

**Lab Sample ID: 400-153398-19**

Date Collected: 05/02/18 14:02

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:58	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

**Client Sample ID: AY10664 MW-7**

**Lab Sample ID: 400-153398-20**

Date Collected: 05/02/18 15:26

Matrix: Water

Date Received: 05/07/18 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10665 FB-2**

**Lab Sample ID: 400-153398-21**

**Date Collected: 05/02/18 15:45**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	397833	05/16/18 11:58	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	397200	05/10/18 16:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	397780	05/16/18 09:02	RRC	TAL PEN

### Laboratory References:

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

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# QC Association Summary

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

## General Chemistry

### Analysis Batch: 397179

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-1	AY10645 MW-4	Total/NA	Water	SM 4500 F C	
400-153398-2	AY10646 MW-3	Total/NA	Water	SM 4500 F C	
400-153398-3	AY10647 MW-3 DUP	Total/NA	Water	SM 4500 F C	
400-153398-4	AY10648 MW-2	Total/NA	Water	SM 4500 F C	
400-153398-5	AY10649 EB-1	Total/NA	Water	SM 4500 F C	
400-153398-6	AY10650 MW-1	Total/NA	Water	SM 4500 F C	
400-153398-7	AY10651 MW-16	Total/NA	Water	SM 4500 F C	
400-153398-8	AY10652 FB-1	Total/NA	Water	SM 4500 F C	
400-153398-9	AY10653 MW-15	Total/NA	Water	SM 4500 F C	
MB 400-397179/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-397179/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
240-95149-A-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-153398-1 DU	AY10645 MW-4	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 397200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-10	AY10654 MW-12	Total/NA	Water	SM 4500 F C	
400-153398-11	AY10655 MW-13	Total/NA	Water	SM 4500 F C	
400-153398-12	AY10656 MW-14	Total/NA	Water	SM 4500 F C	
400-153398-13	AY10657 MW-11	Total/NA	Water	SM 4500 F C	
400-153398-14	AY10658 MW-11 DUP	Total/NA	Water	SM 4500 F C	
400-153398-15	AY10659 MW-10	Total/NA	Water	SM 4500 F C	
400-153398-16	AY10660 MW-9	Total/NA	Water	SM 4500 F C	
400-153398-17	AY10661 MW-6	Total/NA	Water	SM 4500 F C	
400-153398-18	AY10662 MW-5	Total/NA	Water	SM 4500 F C	
400-153398-19	AY10663 MW-8	Total/NA	Water	SM 4500 F C	
400-153398-20	AY10664 MW-7	Total/NA	Water	SM 4500 F C	
400-153398-21	AY10665 FB-2	Total/NA	Water	SM 4500 F C	
MB 400-397200/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-397200/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-153398-10 MS	AY10654 MW-12	Total/NA	Water	SM 4500 F C	
400-153398-10 MSD	AY10654 MW-12	Total/NA	Water	SM 4500 F C	
400-153398-18 DU	AY10662 MW-5	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 397494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-1	AY10645 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-153398-2	AY10646 MW-3	Total/NA	Water	SM 4500 SO4 E	
MB 400-397494/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-397494/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-397494/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153398-1 MS	AY10645 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-153398-1 MSD	AY10645 MW-4	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 397607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-1	AY10645 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-153398-2	AY10646 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-153398-3	AY10647 MW-3 DUP	Total/NA	Water	SM 4500 Cl- E	
400-153398-4	AY10648 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-153398-5	AY10649 EB-1	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

## General Chemistry (Continued)

### Analysis Batch: 397607 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-6	AY10650 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-153398-7	AY10651 MW-16	Total/NA	Water	SM 4500 Cl- E	
400-153398-8	AY10652 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-153398-9	AY10653 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-153398-10	AY10654 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-153398-11	AY10655 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-153398-12	AY10656 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-153398-13	AY10657 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-153398-14	AY10658 MW-11 DUP	Total/NA	Water	SM 4500 Cl- E	
400-153398-15	AY10659 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-153398-16	AY10660 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-153398-17	AY10661 MW-6	Total/NA	Water	SM 4500 Cl- E	
MB 400-397607/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-397607/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-397607/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-153398-1 MS	AY10645 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-153398-1 MSD	AY10645 MW-4	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 397778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-3	AY10647 MW-3 DUP	Total/NA	Water	SM 4500 SO4 E	
400-153398-4	AY10648 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-153398-5	AY10649 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-153398-6	AY10650 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-153398-7	AY10651 MW-16	Total/NA	Water	SM 4500 SO4 E	
400-153398-8	AY10652 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-153398-9	AY10653 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-153398-10	AY10654 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-153398-11	AY10655 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-153398-12	AY10656 MW-14	Total/NA	Water	SM 4500 SO4 E	
MB 400-397778/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-397778/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-397778/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153398-4 MS	AY10648 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-153398-4 MSD	AY10648 MW-2	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 397780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-13	AY10657 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-153398-14	AY10658 MW-11 DUP	Total/NA	Water	SM 4500 SO4 E	
400-153398-15	AY10659 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-153398-16	AY10660 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-153398-17	AY10661 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-153398-18	AY10662 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-153398-19	AY10663 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-153398-20	AY10664 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-153398-21	AY10665 FB-2	Total/NA	Water	SM 4500 SO4 E	
MB 400-397780/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-397780/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-397780/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153398-17 MS	AY10661 MW-6	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-153398-1  
SDG: Barry Ash Pond 1148

## General Chemistry (Continued)

### Analysis Batch: 397780 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-17 MSD	AY10661 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-153398-20 MS	AY10664 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-153398-20 MSD	AY10664 MW-7	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 397833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-18	AY10662 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-153398-19	AY10663 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-153398-20	AY10664 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153398-21	AY10665 FB-2	Total/NA	Water	SM 4500 Cl- E	
MB 400-397833/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-397833/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-397833/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-153398-20 MS	AY10664 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153398-20 MSD	AY10664 MW-7	Total/NA	Water	SM 4500 Cl- E	



# QC Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

## Method: SM 4500 Cl- E - Chloride, Total

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/15/18 08:03	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.6		mg/L		105	90 - 110

**Lab Sample ID: MRL 400-397607/3**  
**Matrix: Water**  
**Analysis Batch: 397607**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.58	J	mg/L		79	50 - 150

**Lab Sample ID: 400-153398-1 MS**  
**Matrix: Water**  
**Analysis Batch: 397607**

**Client Sample ID: AY10645 MW-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.2		10.0	19.3		mg/L		101	73 - 120

**Lab Sample ID: 400-153398-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 397607**

**Client Sample ID: AY10645 MW-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	9.2		10.0	19.2		mg/L		100	73 - 120	0	8

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/16/18 11:55	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.7		mg/L		106	90 - 110

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.76	J	mg/L		88	50 - 150

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

**Lab Sample ID: 400-153398-20 MS**  
**Matrix: Water**  
**Analysis Batch: 397833**

**Client Sample ID: AY10664 MW-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	13		10.0	23.4		mg/L		100	73 - 120

**Lab Sample ID: 400-153398-20 MSD**  
**Matrix: Water**  
**Analysis Batch: 397833**

**Client Sample ID: AY10664 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	13		10.0	23.4		mg/L		100	73 - 120	0	8

## Method: SM 4500 F C - Fluoride

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 13:50	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.84		mg/L		96	90 - 110

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

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

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

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

**Client Sample ID: AY10645 MW-4**  
**Prep Type: Total/NA**

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

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/10/18 15:29	1

# QC Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

## Method: SM 4500 F C - Fluoride (Continued)

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.76		mg/L		94	90 - 110

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

Client Sample ID: AY10654 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	1.00	1.06		mg/L		100	75 - 125

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

Client Sample ID: AY10654 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	1.00	1.06		mg/L		100	75 - 125	0	4

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

Client Sample ID: AY10662 MW-5  
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	J		0.0500	J	mg/L				0	4

## Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-397494/6  
 Matrix: Water  
 Analysis Batch: 397494

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			05/14/18 10:16	1

Lab Sample ID: LCS 400-397494/7  
 Matrix: Water  
 Analysis Batch: 397494

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.9		mg/L		99	90 - 110

Lab Sample ID: MRL 400-397494/3  
 Matrix: Water  
 Analysis Batch: 397494

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

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

# QC Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

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

**Lab Sample ID: 400-153398-1 MS**  
**Matrix: Water**  
**Analysis Batch: 397494**

**Client Sample ID: AY10645 MW-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.4	J	10.0	11.8		mg/L		104	77 - 128

**Lab Sample ID: 400-153398-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 397494**

**Client Sample ID: AY10645 MW-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.4	J	10.0	12.2		mg/L		108	77 - 128	3	5

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 07:44	1

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

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

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

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

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

**Lab Sample ID: 400-153398-4 MS**  
**Matrix: Water**  
**Analysis Batch: 397778**

**Client Sample ID: AY10648 MW-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	9.61		mg/L		96	77 - 128

**Lab Sample ID: 400-153398-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 397778**

**Client Sample ID: AY10648 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	<1.4		10.0	9.87		mg/L		99	77 - 128	3	5

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

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			05/16/18 08:55	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

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

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

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

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

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.36	J	mg/L		87	50 - 150

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

**Client Sample ID: AY10661 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4		10.0	10.4		mg/L		104	77 - 128

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

**Client Sample ID: AY10661 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	<1.4		10.0	10.6		mg/L		106	77 - 128	2	5

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

**Client Sample ID: AY10664 MW-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4		10.0	9.69		mg/L		97	77 - 128

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

**Client Sample ID: AY10664 MW-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	<1.4		10.0	9.64		mg/L		96	77 - 128	1	5



# Chain of Custody Record

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1									
Client Contact: Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2									
Company: Alabama Power General Test Laboratory				Job #:									
Address: 744 County Rd 87 GSC #8													
City: Calera													
State, Zip: AL, 35040													
Phone: 205-664-6121(Tel)													
Email: sgcopela@southernco.com													
Project #: 40007143													
CCR													
Site: Barry Ash Pond 1148													
<b>Due Date Requested:</b>		<b>Analysis Requested</b>											
TAT Requested (days):		Total Number of Containers											
PO #:		9315_Ra226, 9320_Ra228, Ra228, Ra228R4228, GPC											
WO #:		SM 4500 S04_E											
Project #:		SM 4500 C_E											
SSOW#:		SM 4500 F_C											
		Field Filtered Sample (Yes or No)											
		Perform MS/MSD (Yes or No)											
		Preservation Codes:											
		Special Instructions/Note:											
		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AcNaO2 D - Nitric Acid P - Na2OAS E - NaHSO4 R - Na2SO3 F - NaOH S - H2SO4 G - Amchlor T - TSP Dodecahydrate I - Ice J - DI Water K - EDTA L - EDA V - MCAA W - ph 4-5 Z - other (specify) Other:											
<b>Sample Identification</b>	<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=soil, BT=issue, A=air)</b>	<b>Preservation Code</b>	<b>Form MS/MSD (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>SM 4500 F_C</b>	<b>SM 4500 C_E</b>	<b>SM 4500 S04_E</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>Special Instructions/Note:</b>
AY10645	5/1/18	1003	G	Water		X	X	X	X	X	X	X	MW-4
AY10646	5/1/18	1100	G	Water		X	X	X	X	X	X	X	MW-3
AY10647	5/1/18	1100	G	Water		X	X	X	X	X	X	X	MW-3 Dup (Sample Duplicate)
AY10648	5/1/18	1212	G	Water		X	X	X	X	X	X	X	MW-2
AY10649	5/1/18	1235	G	Water		X	X	X	X	X	X	X	EB-1 (Equipment Blank)
AY10650	5/1/18	1345	G	Water		X	X	X	X	X	X	X	MW-1
AY10651	5/1/18	1448	G	Water		X	X	X	X	X	X	X	MW-16
AY10652	5/1/18	1505	G	Water		X	X	X	X	X	X	X	FB-1 (Field Blank)
AY10653	5/1/18	1605	G	Water		Y	X	X	X	X	X	X	MW-15
AY10654	5/2/18	1010	G	Water		Y	X	X	X	X	X	X	MW-12
AY10655	5/2/18	1112	G	Water		X	X	X	X	X	X	X	MW-13
AY10656	5/2/18	1210	G	Water		X	X	X	X	X	X	X	MW-14
AY10657	5/2/18	1315	G	Water		X	X	X	X	X	X	X	MW-11
AY10658	5/2/18	1315	G	Water		X	X	X	X	X	X	X	MW-11 Dup (Sample Duplicate)
AY10659	5/2/18	1417	G	Water		X	X	X	X	X	X	X	MW-10
AY10660	5/2/18	1512	G	Water		X	X	X	X	X	X	X	MW-9
AY10661	5/2/18	1608	G	Water		X	X	X	X	X	X	X	MW-6
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)													
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 5/8/2018, 0845 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____ 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 Method of Shipment: _____ Date/Time: 5/18/18 1500 Date/Time: 5/18/18 0900 Date/Time: 4/9/18 17 Cooler Temperature(s) °C and Other Remarks:													





### Chain of Custody Record

<b>Client Information</b> Sampler: Ben Rottschadl Phone: Sarah Copeland Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): COC No: 400-86525-24537.1 Page: Page 2 of 2 Job #:																																									
<b>Company:</b> Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southernco.com Project #: 40007143 CCR Site: Barry Ash Pond 1148																																									
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: _____ WO #: _____ Project #: _____ SOW#: _____																																									
<b>Sample Identification</b> AY10662 AY10663 AY10664 AY10665	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=Comp, G=grab)</th> <th>Matrix (Water, Solid, On-water, etc.)</th> <th>Preservation Code</th> </tr> </thead> <tbody> <tr> <td>5/2/18</td> <td>1300</td> <td>G</td> <td>Water</td> <td></td> </tr> <tr> <td>5/2/18</td> <td>1402</td> <td>G</td> <td>Water</td> <td></td> </tr> <tr> <td>5/2/18</td> <td>1526</td> <td>G</td> <td>Water</td> <td></td> </tr> <tr> <td>5/2/18</td> <td>1545</td> <td>G</td> <td>Water</td> <td></td> </tr> </tbody> </table>	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, On-water, etc.)	Preservation Code	5/2/18	1300	G	Water		5/2/18	1402	G	Water		5/2/18	1526	G	Water		5/2/18	1545	G	Water																
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MS/MSD (Yes or No)</th> <th>SM 4500 F<sub>C</sub></th> <th>SM 4500 Cl<sub>F</sub></th> <th>SM 4500 SO<sub>4</sub> E</th> <th>9315 Ra226, 9320 Ra228, Ra226Ra228, GFC</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>N</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>2</td> <td>MW-5</td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>2</td> <td>MW-8</td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>2</td> <td>MW-7</td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>2</td> <td>FB-2 (Field Blank)</td> </tr> </tbody> </table>		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F <sub>C</sub>	SM 4500 Cl <sub>F</sub>	SM 4500 SO <sub>4</sub> E	9315 Ra226, 9320 Ra228, Ra226Ra228, GFC	Total Number of Containers	Special Instructions/Note:	X	N	X	X	X	X	2	MW-5	X	X	X	X	X	X	2	MW-8	X	X	X	X	X	X	2	MW-7	X	X	X	X	X	X	2	FB-2 (Field Blank)
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F <sub>C</sub>	SM 4500 Cl <sub>F</sub>	SM 4500 SO <sub>4</sub> E	9315 Ra226, 9320 Ra228, Ra226Ra228, GFC	Total Number of Containers	Special Instructions/Note:																																		
X	N	X	X	X	X	2	MW-5																																		
X	X	X	X	X	X	2	MW-8																																		
X	X	X	X	X	X	2	MW-7																																		
X	X	X	X	X	X	2	FB-2 (Field Blank)																																		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)																																									
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Method of Shipment:																																									
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Special Instructions/QC Requirements:																																									





## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153398-1  
SDG Number: Barry Ash Pond 1148

**Login Number: 153398**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153398-1  
 SDG: Barry Ash Pond 1148

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-18

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-153398-2

TestAmerica Sample Delivery Group: Barry Ash Pond 1148

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/15/2018 6:13:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through

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[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Case Narrative

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

**Job ID: 400-153398-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-153398-2

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-365431: Insufficient volume was available to perform a sample duplicate (DUP) for the following samples: AY10645 MW-4 (400-153398-1), AY10646 MW-3 (400-153398-2), AY10647 MW-3 DUP (400-153398-3), AY10648 MW-2 (400-153398-4), AY10649 EB-1 (400-153398-5), AY10650 MW-1 (400-153398-6), AY10651 MW-16 (400-153398-7) and AY10652 FB-1 (400-153398-8) A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-365860: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AY10665 FB-2 (400-153398-21) A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to show batch precision.

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-365860: Sample aliquots reduced due to limited sample volume. AY10665 FB-2 (400-153398-21)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-365848: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AY10665 FB-2 (400-153398-21) A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to show batch precision.

# Method Summary

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

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

#### Protocol References:

None = None

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

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

#### Laboratory References:

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

# Sample Summary

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153398-1	AY10645 MW-4	Water	05/01/18 10:03	05/07/18 15:00
400-153398-2	AY10646 MW-3	Water	05/01/18 11:00	05/07/18 15:00
400-153398-3	AY10647 MW-3 DUP	Water	05/01/18 11:00	05/07/18 15:00
400-153398-4	AY10648 MW-2	Water	05/01/18 12:12	05/07/18 15:00
400-153398-5	AY10649 EB-1	Water	05/01/18 12:35	05/07/18 15:00
400-153398-6	AY10650 MW-1	Water	05/01/18 13:45	05/07/18 15:00
400-153398-7	AY10651 MW-16	Water	05/01/18 14:48	05/07/18 15:00
400-153398-8	AY10652 FB-1	Water	05/01/18 15:05	05/07/18 15:00
400-153398-9	AY10653 MW-15	Water	05/01/18 16:05	05/07/18 15:00
400-153398-10	AY10654 MW-12	Water	05/02/18 10:10	05/07/18 15:00
400-153398-11	AY10655 MW-13	Water	05/02/18 11:12	05/07/18 15:00
400-153398-12	AY10656 MW-14	Water	05/02/18 12:10	05/07/18 15:00
400-153398-13	AY10657 MW-11	Water	05/02/18 13:15	05/07/18 15:00
400-153398-14	AY10658 MW-11 DUP	Water	05/02/18 13:15	05/07/18 15:00
400-153398-15	AY10659 MW-10	Water	05/02/18 14:17	05/07/18 15:00
400-153398-16	AY10660 MW-9	Water	05/02/18 15:12	05/07/18 15:00
400-153398-17	AY10661 MW-6	Water	05/02/18 16:08	05/07/18 15:00
400-153398-18	AY10662 MW-5	Water	05/02/18 13:00	05/07/18 15:00
400-153398-19	AY10663 MW-8	Water	05/02/18 14:02	05/07/18 15:00
400-153398-20	AY10664 MW-7	Water	05/02/18 15:26	05/07/18 15:00
400-153398-21	AY10665 FB-2	Water	05/02/18 15:45	05/07/18 15:00



# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10645 MW-4**

**Lab Sample ID: 400-153398-1**

**Date Collected: 05/01/18 10:03**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.115		0.0668	0.0676	1.00	0.0826	pCi/L	05/15/18 15:30	06/09/18 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/15/18 15:30	06/09/18 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0236	U	0.209	0.209	1.00	0.384	pCi/L	05/14/18 10:48	05/29/18 17:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/14/18 10:48	05/29/18 17:05	1
Y Carrier	92.3		40 - 110					05/14/18 10:48	05/29/18 17:05	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0917	U	0.219	0.220	5.00	0.384	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10646 MW-3**

**Lab Sample ID: 400-153398-2**

**Date Collected: 05/01/18 11:00**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.144		0.0779	0.0789	1.00	0.0961	pCi/L	05/15/18 15:30	06/09/18 15:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/15/18 15:30	06/09/18 15:33	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.228	U	0.243	0.244	1.00	0.397	pCi/L	05/14/18 10:48	05/29/18 17:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/14/18 10:48	05/29/18 17:05	1
Y Carrier	94.6		40 - 110					05/14/18 10:48	05/29/18 17:05	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.372	U	0.255	0.256	5.00	0.397	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10647 MW-3 DUP**

**Lab Sample ID: 400-153398-3**

**Date Collected: 05/01/18 11:00**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0780	U	0.0647	0.0651	1.00	0.0949	pCi/L	05/15/18 15:30	06/09/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/15/18 15:30	06/09/18 15:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.117	U	0.202	0.202	1.00	0.343	pCi/L	05/14/18 10:48	05/29/18 15:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/14/18 10:48	05/29/18 15:37	1
Y Carrier	95.0		40 - 110					05/14/18 10:48	05/29/18 15:37	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.195	U	0.212	0.212	5.00	0.343	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10648 MW-2**

**Lab Sample ID: 400-153398-4**

Date Collected: 05/01/18 12:12

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0807	U	0.0674	0.0678	1.00	0.0995	pCi/L	05/15/18 15:30	06/09/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/15/18 15:30	06/09/18 15:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.376	U	0.250	0.252	1.00	0.387	pCi/L	05/14/18 10:48	05/29/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/14/18 10:48	05/29/18 15:38	1
Y Carrier	93.1		40 - 110					05/14/18 10:48	05/29/18 15:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.457		0.259	0.261	5.00	0.387	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10649 EB-1**

**Lab Sample ID: 400-153398-5**

**Date Collected: 05/01/18 12:35**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0414	U	0.0605	0.0606	1.00	0.103	pCi/L	05/15/18 15:30	06/09/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/15/18 15:30	06/09/18 15:35	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.104	U	0.203	0.203	1.00	0.347	pCi/L	05/14/18 10:48	05/29/18 15:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/14/18 10:48	05/29/18 15:38	1
Y Carrier	95.0		40 - 110					05/14/18 10:48	05/29/18 15:38	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.145	U	0.212	0.212	5.00	0.347	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10650 MW-1**

**Lab Sample ID: 400-153398-6**

Date Collected: 05/01/18 13:45

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.787		0.152	0.168	1.00	0.0973	pCi/L	05/15/18 15:30	06/09/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/15/18 15:30	06/09/18 15:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.817		0.276	0.286	1.00	0.369	pCi/L	05/14/18 10:48	05/29/18 15:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					05/14/18 10:48	05/29/18 15:40	1
Y Carrier	94.6		40 - 110					05/14/18 10:48	05/29/18 15:40	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.60		0.315	0.332	5.00	0.369	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10651 MW-16**

**Lab Sample ID: 400-153398-7**

Date Collected: 05/01/18 14:48

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.287		0.0942	0.0977	1.00	0.0855	pCi/L	05/15/18 15:30	06/09/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/15/18 15:30	06/09/18 15:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.336	U	0.223	0.225	1.00	0.343	pCi/L	05/14/18 10:48	05/29/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/14/18 10:48	05/29/18 15:41	1
Y Carrier	93.1		40 - 110					05/14/18 10:48	05/29/18 15:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.623		0.242	0.245	5.00	0.343	pCi/L		06/14/18 14:28	1



# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10652 FB-1**

**Lab Sample ID: 400-153398-8**

**Date Collected: 05/01/18 15:05**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0528	U	0.0548	0.0550	1.00	0.0856	pCi/L	05/15/18 15:30	06/09/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/15/18 15:30	06/09/18 15:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.116	U	0.245	0.246	1.00	0.419	pCi/L	05/14/18 10:48	05/29/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/14/18 10:48	05/29/18 15:41	1
Y Carrier	94.6		40 - 110					05/14/18 10:48	05/29/18 15:41	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.169	U	0.251	0.252	5.00	0.419	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10653 MW-15**

**Lab Sample ID: 400-153398-9**

Date Collected: 05/01/18 16:05

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.255		0.0998	0.102	1.00	0.0984	pCi/L	05/15/18 15:30	06/09/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					05/15/18 15:30	06/09/18 15:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.396	U	0.285	0.287	1.00	0.444	pCi/L	05/14/18 10:48	05/29/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					05/14/18 10:48	05/29/18 15:41	1
Y Carrier	93.1		40 - 110					05/14/18 10:48	05/29/18 15:41	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.651		0.302	0.305	5.00	0.444	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10654 MW-12**

**Lab Sample ID: 400-153398-10**

**Date Collected: 05/02/18 10:10**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.321		0.101	0.105	1.00	0.0801	pCi/L	05/15/18 15:30	06/09/18 15:41	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					05/15/18 15:30	06/09/18 15:41	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.784		0.278	0.287	1.00	0.371	pCi/L	05/14/18 10:48	05/29/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					05/14/18 10:48	05/29/18 15:42	1
Y Carrier	93.5		40 - 110					05/14/18 10:48	05/29/18 15:42	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.11		0.296	0.306	5.00	0.371	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10655 MW-13**

**Lab Sample ID: 400-153398-11**

Date Collected: 05/02/18 11:12

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.307		0.0949	0.0989	1.00	0.0724	pCi/L	05/15/18 15:30	06/09/18 15:48	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/15/18 15:30	06/09/18 15:48	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.445		0.235	0.238	1.00	0.348	pCi/L	05/14/18 10:48	05/29/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/14/18 10:48	05/29/18 15:42	1
Y Carrier	93.5		40 - 110					05/14/18 10:48	05/29/18 15:42	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.752		0.253	0.258	5.00	0.348	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10656 MW-14**

**Lab Sample ID: 400-153398-12**

Date Collected: 05/02/18 12:10

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.114		0.0702	0.0710	1.00	0.0908	pCi/L	05/15/18 15:30	06/09/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/15/18 15:30	06/09/18 15:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.407		0.230	0.233	1.00	0.344	pCi/L	05/14/18 10:48	05/29/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					05/14/18 10:48	05/29/18 15:42	1
Y Carrier	93.1		40 - 110					05/14/18 10:48	05/29/18 15:42	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.522		0.240	0.244	5.00	0.344	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10657 MW-11**

**Lab Sample ID: 400-153398-13**

Date Collected: 05/02/18 13:15

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.105		0.0747	0.0753	1.00	0.105	pCi/L	05/15/18 15:30	06/09/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/15/18 15:30	06/09/18 15:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.400		0.229	0.232	1.00	0.342	pCi/L	05/14/18 10:48	05/29/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/14/18 10:48	05/29/18 15:42	1
Y Carrier	97.2		40 - 110					05/14/18 10:48	05/29/18 15:42	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.505		0.241	0.244	5.00	0.342	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10658 MW-11 DUP**

**Lab Sample ID: 400-153398-14**

Date Collected: 05/02/18 13:15

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.256		0.0932	0.0960	1.00	0.0946	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.109	U	0.187	0.187	1.00	0.318	pCi/L	05/14/18 10:48	05/29/18 15:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/14/18 10:48	05/29/18 15:42	1
Y Carrier	95.3		40 - 110					05/14/18 10:48	05/29/18 15:42	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.365		0.209	0.210	5.00	0.318	pCi/L		06/14/18 14:28	1



# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10659 MW-10**

**Lab Sample ID: 400-153398-15**

Date Collected: 05/02/18 14:17

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.267		0.0912	0.0943	1.00	0.0851	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.138	U	0.218	0.219	1.00	0.368	pCi/L	05/14/18 10:48	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/14/18 10:48	05/29/18 15:43	1
Y Carrier	96.1		40 - 110					05/14/18 10:48	05/29/18 15:43	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	0.405		0.236	0.238	5.00	0.368	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10660 MW-9**

**Lab Sample ID: 400-153398-16**

Date Collected: 05/02/18 15:12

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.353		0.109	0.113	1.00	0.0907	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.630		0.270	0.276	1.00	0.382	pCi/L	05/14/18 10:48	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.4		40 - 110					05/14/18 10:48	05/29/18 15:43	1
Y Carrier	96.1		40 - 110					05/14/18 10:48	05/29/18 15:43	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	0.983		0.291	0.298	5.00	0.382	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10661 MW-6**

**Lab Sample ID: 400-153398-17**

**Date Collected: 05/02/18 16:08**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0546	U	0.0560	0.0562	1.00	0.0871	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.132	U	0.212	0.212	1.00	0.358	pCi/L	05/14/18 10:48	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/14/18 10:48	05/29/18 15:43	1
Y Carrier	94.6		40 - 110					05/14/18 10:48	05/29/18 15:43	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	0.187	U	0.219	0.219	5.00	0.358	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10662 MW-5**

**Lab Sample ID: 400-153398-18**

**Date Collected: 05/02/18 13:00**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.323		0.101	0.105	1.00	0.0835	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.257	U	0.233	0.235	1.00	0.375	pCi/L	05/14/18 10:48	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/14/18 10:48	05/29/18 15:43	1
Y Carrier	94.6		40 - 110					05/14/18 10:48	05/29/18 15:43	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	0.580		0.254	0.257	5.00	0.375	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10663 MW-8**  
**Date Collected: 05/02/18 14:02**  
**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-19**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.201		0.0788	0.0808	1.00	0.0739	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.372	U	0.248	0.250	1.00	0.385	pCi/L	05/14/18 10:48	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/14/18 10:48	05/29/18 15:43	1
Y Carrier	95.3		40 - 110					05/14/18 10:48	05/29/18 15:43	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	0.572		0.260	0.263	5.00	0.385	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10664 MW-7**

**Lab Sample ID: 400-153398-20**

Date Collected: 05/02/18 15:26

Matrix: Water

Date Received: 05/07/18 15:00

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.156		0.0723	0.0736	1.00	0.0742	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/15/18 15:30	06/09/18 17:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.380	U	0.280	0.282	1.00	0.442	pCi/L	05/15/18 15:18	05/29/18 15:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					05/15/18 15:18	05/29/18 15:43	1
Y Carrier	92.3		40 - 110					05/15/18 15:18	05/29/18 15:43	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	0.535		0.289	0.291	5.00	0.442	pCi/L		06/14/18 14:28	1

# Client Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10665 FB-2**

**Lab Sample ID: 400-153398-21**

**Date Collected: 05/02/18 15:45**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0342	U	0.0917	0.0917	1.00	0.170	pCi/L	05/15/18 13:03	06/09/18 17:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.4		40 - 110					05/15/18 13:03	06/09/18 17:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0540	U	0.365	0.365	1.00	0.653	pCi/L	05/15/18 14:00	05/25/18 16:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	71.4		40 - 110					05/15/18 14:00	05/25/18 16:45	1
Y Carrier	90.5		40 - 110					05/15/18 14:00	05/25/18 16:45	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	0.0881	U	0.376	0.376	5.00	0.653	pCi/L		06/14/18 14:28	1



# Definitions/Glossary

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

## Qualifiers

### Rad

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

## Glossary

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

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10645 MW-4**

**Date Collected: 05/01/18 10:03**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 15:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367803	05/29/18 17:05	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10646 MW-3**

**Date Collected: 05/01/18 11:00**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369710	06/09/18 15:33	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367803	05/29/18 17:05	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10647 MW-3 DUP**

**Date Collected: 05/01/18 11:00**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369711	06/09/18 15:35	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367803	05/29/18 15:37	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10648 MW-2**

**Date Collected: 05/01/18 12:12**

**Date Received: 05/07/18 15:00**

**Lab Sample ID: 400-153398-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369711	06/09/18 15:35	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367803	05/29/18 15:38	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10649 EB-1**

**Lab Sample ID: 400-153398-5**

**Date Collected: 05/01/18 12:35**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369711	06/09/18 15:35	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367803	05/29/18 15:38	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10650 MW-1**

**Lab Sample ID: 400-153398-6**

**Date Collected: 05/01/18 13:45**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:40	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10651 MW-16**

**Lab Sample ID: 400-153398-7**

**Date Collected: 05/01/18 14:48**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:41	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10652 FB-1**

**Lab Sample ID: 400-153398-8**

**Date Collected: 05/01/18 15:05**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:41	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10653 MW-15**

**Lab Sample ID: 400-153398-9**

**Date Collected: 05/01/18 16:05**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:41	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10654 MW-12**

**Lab Sample ID: 400-153398-10**

**Date Collected: 05/02/18 10:10**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:41	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:42	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10655 MW-13**

**Lab Sample ID: 400-153398-11**

**Date Collected: 05/02/18 11:12**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:48	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:42	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10656 MW-14**

**Lab Sample ID: 400-153398-12**

**Date Collected: 05/02/18 12:10**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:42	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:42	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10657 MW-11**

**Lab Sample ID: 400-153398-13**

**Date Collected: 05/02/18 13:15**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 15:42	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:42	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10658 MW-11 DUP**

**Lab Sample ID: 400-153398-14**

**Date Collected: 05/02/18 13:15**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:42	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10659 MW-10**

**Lab Sample ID: 400-153398-15**

**Date Collected: 05/02/18 14:17**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10660 MW-9**

**Lab Sample ID: 400-153398-16**

**Date Collected: 05/02/18 15:12**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

**Client Sample ID: AY10661 MW-6**

**Lab Sample ID: 400-153398-17**

**Date Collected: 05/02/18 16:08**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10662 MW-5**

**Lab Sample ID: 400-153398-18**

**Date Collected: 05/02/18 13:00**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10663 MW-8**

**Lab Sample ID: 400-153398-19**

**Date Collected: 05/02/18 14:02**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/14/18 10:48	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

**Client Sample ID: AY10664 MW-7**

**Lab Sample ID: 400-153398-20**

**Date Collected: 05/02/18 15:26**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365869	05/15/18 15:30	ABB	TAL SL
Total/NA	Analysis	9315		1	369713	06/09/18 17:43	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365431	05/15/18 15:18	ABB	TAL SL
Total/NA	Analysis	9320		1	367845	05/29/18 15:43	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

**Client Sample ID: AY10665 FB-2**

**Lab Sample ID: 400-153398-21**

**Date Collected: 05/02/18 15:45**

**Matrix: Water**

**Date Received: 05/07/18 15:00**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			365848	05/15/18 13:03	ABB	TAL SL
Total/NA	Analysis	9315		1	369711	06/09/18 17:50	CDR	TAL SL
Total/NA	Prep	PrecSep_0			365860	05/15/18 14:00	ABB	TAL SL
Total/NA	Analysis	9320		1	367435	05/25/18 16:45	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	370474	06/14/18 14:28	RTM	TAL SL

#### Laboratory References:

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



# QC Association Summary

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

## Rad

### Prep Batch: 365431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-1	AY10645 MW-4	Total/NA	Water	PrecSep_0	
400-153398-2	AY10646 MW-3	Total/NA	Water	PrecSep_0	
400-153398-3	AY10647 MW-3 DUP	Total/NA	Water	PrecSep_0	
400-153398-4	AY10648 MW-2	Total/NA	Water	PrecSep_0	
400-153398-5	AY10649 EB-1	Total/NA	Water	PrecSep_0	
400-153398-6	AY10650 MW-1	Total/NA	Water	PrecSep_0	
400-153398-7	AY10651 MW-16	Total/NA	Water	PrecSep_0	
400-153398-8	AY10652 FB-1	Total/NA	Water	PrecSep_0	
400-153398-9	AY10653 MW-15	Total/NA	Water	PrecSep_0	
400-153398-10	AY10654 MW-12	Total/NA	Water	PrecSep_0	
400-153398-11	AY10655 MW-13	Total/NA	Water	PrecSep_0	
400-153398-12	AY10656 MW-14	Total/NA	Water	PrecSep_0	
400-153398-13	AY10657 MW-11	Total/NA	Water	PrecSep_0	
400-153398-14	AY10658 MW-11 DUP	Total/NA	Water	PrecSep_0	
400-153398-15	AY10659 MW-10	Total/NA	Water	PrecSep_0	
400-153398-16	AY10660 MW-9	Total/NA	Water	PrecSep_0	
400-153398-17	AY10661 MW-6	Total/NA	Water	PrecSep_0	
400-153398-18	AY10662 MW-5	Total/NA	Water	PrecSep_0	
400-153398-19	AY10663 MW-8	Total/NA	Water	PrecSep_0	
400-153398-20	AY10664 MW-7	Total/NA	Water	PrecSep_0	
MB 160-365431/25-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-365431/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-153398-9 DU	AY10653 MW-15	Total/NA	Water	PrecSep_0	
400-153398-10 DU	AY10654 MW-12	Total/NA	Water	PrecSep_0	

### Prep Batch: 365848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-21	AY10665 FB-2	Total/NA	Water	PrecSep-21	
MB 160-365848/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-365848/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-365848/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

### Prep Batch: 365860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-21	AY10665 FB-2	Total/NA	Water	PrecSep_0	
MB 160-365860/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-365860/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-365860/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

### Prep Batch: 365869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-1	AY10645 MW-4	Total/NA	Water	PrecSep-21	
400-153398-2	AY10646 MW-3	Total/NA	Water	PrecSep-21	
400-153398-3	AY10647 MW-3 DUP	Total/NA	Water	PrecSep-21	
400-153398-4	AY10648 MW-2	Total/NA	Water	PrecSep-21	
400-153398-5	AY10649 EB-1	Total/NA	Water	PrecSep-21	
400-153398-6	AY10650 MW-1	Total/NA	Water	PrecSep-21	
400-153398-7	AY10651 MW-16	Total/NA	Water	PrecSep-21	
400-153398-8	AY10652 FB-1	Total/NA	Water	PrecSep-21	
400-153398-9	AY10653 MW-15	Total/NA	Water	PrecSep-21	
400-153398-10	AY10654 MW-12	Total/NA	Water	PrecSep-21	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

## Rad (Continued)

### Prep Batch: 365869 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153398-11	AY10655 MW-13	Total/NA	Water	PrecSep-21	
400-153398-12	AY10656 MW-14	Total/NA	Water	PrecSep-21	
400-153398-13	AY10657 MW-11	Total/NA	Water	PrecSep-21	
400-153398-14	AY10658 MW-11 DUP	Total/NA	Water	PrecSep-21	
400-153398-15	AY10659 MW-10	Total/NA	Water	PrecSep-21	
400-153398-16	AY10660 MW-9	Total/NA	Water	PrecSep-21	
400-153398-17	AY10661 MW-6	Total/NA	Water	PrecSep-21	
400-153398-18	AY10662 MW-5	Total/NA	Water	PrecSep-21	
400-153398-19	AY10663 MW-8	Total/NA	Water	PrecSep-21	
400-153398-20	AY10664 MW-7	Total/NA	Water	PrecSep-21	
MB 160-365869/25-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-365869/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-153398-9 DU	AY10653 MW-15	Total/NA	Water	PrecSep-21	
400-153398-10 DU	AY10654 MW-12	Total/NA	Water	PrecSep-21	

# QC Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

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

**Lab Sample ID: MB 160-365848/22-A**  
**Matrix: Water**  
**Analysis Batch: 369710**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 365848**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01336	U	0.0577	0.0577	1.00	0.113	pCi/L	05/15/18 13:03	06/09/18 20:00	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	73.5		40 - 110					05/15/18 13:03	06/09/18 20:00	1

**Lab Sample ID: LCS 160-365848/1-A**  
**Matrix: Water**  
**Analysis Batch: 369713**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365848**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	9.891		1.03	1.00	0.0921	pCi/L	84	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	90.3		40 - 110						

**Lab Sample ID: LCSD 160-365848/2-A**  
**Matrix: Water**  
**Analysis Batch: 369713**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 365848**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.8	10.57		1.10	1.00	0.101	pCi/L	90	68 - 137	0.32	1
Carrier	LCSD %Yield	LCSD Qualifier	Limits								
Ba Carrier	91.2		40 - 110								

**Lab Sample ID: MB 160-365869/25-A**  
**Matrix: Water**  
**Analysis Batch: 369713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 365869**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06792	U	0.0532	0.0535	1.00	0.0729	pCi/L	05/15/18 15:30	06/09/18 17:43	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/15/18 15:30	06/09/18 17:43	1

**Lab Sample ID: LCS 160-365869/1-A**  
**Matrix: Water**  
**Analysis Batch: 369710**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365869**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.8	10.92		1.14	1.00	0.0952	pCi/L	93	68 - 137

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

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

**Lab Sample ID: LCS 160-365869/1-A**  
**Matrix: Water**  
**Analysis Batch: 369710**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365869**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.6		40 - 110

**Lab Sample ID: 400-153398-9 DU**  
**Matrix: Water**  
**Analysis Batch: 369713**

**Client Sample ID: AY10653 MW-15**  
**Prep Type: Total/NA**  
**Prep Batch: 365869**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.255		0.2649		0.0952	1.00	0.0822	pCi/L	0.05	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.6		40 - 110

**Lab Sample ID: 400-153398-10 DU**  
**Matrix: Water**  
**Analysis Batch: 369713**

**Client Sample ID: AY10654 MW-12**  
**Prep Type: Total/NA**  
**Prep Batch: 365869**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.321		0.2622		0.0883	1.00	0.0675	pCi/L	0.30	1

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

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

**Lab Sample ID: MB 160-365431/25-A**  
**Matrix: Water**  
**Analysis Batch: 367845**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 365431**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.05940	U	0.168	0.168	1.00	0.316	pCi/L	05/15/18 15:18	05/29/18 15:43	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	05/15/18 15:18	05/29/18 15:43	1
Y Carrier	96.8		40 - 110	05/15/18 15:18	05/29/18 15:43	1

**Lab Sample ID: LCS 160-365431/1-A**  
**Matrix: Water**  
**Analysis Batch: 367803**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365431**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.27	8.983		1.07	1.00	0.406	pCi/L	109	56 - 140

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

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

**Lab Sample ID: LCS 160-365431/1-A**  
**Matrix: Water**  
**Analysis Batch: 367803**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365431**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	87.6		40 - 110
Y Carrier	93.5		40 - 110

**Lab Sample ID: 400-153398-9 DU**  
**Matrix: Water**  
**Analysis Batch: 367845**

**Client Sample ID: AY10653 MW-15**  
**Prep Type: Total/NA**  
**Prep Batch: 365431**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.396	U	0.1826	U	0.249	1.00	0.415	pCi/L	0.40	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	95.6		40 - 110
Y Carrier	92.7		40 - 110

**Lab Sample ID: 400-153398-10 DU**  
**Matrix: Water**  
**Analysis Batch: 367845**

**Client Sample ID: AY10654 MW-12**  
**Prep Type: Total/NA**  
**Prep Batch: 365431**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.784		0.4378		0.209	1.00	0.293	pCi/L	0.70	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	96.8		40 - 110

**Lab Sample ID: MB 160-365860/22-A**  
**Matrix: Water**  
**Analysis Batch: 367435**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 365860**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.01938	U	0.263	0.263	1.00	0.478	pCi/L	05/15/18 14:00	05/25/18 16:45	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	73.5		40 - 110	05/15/18 14:00	05/25/18 16:45	1
Y Carrier	95.0		40 - 110	05/15/18 14:00	05/25/18 16:45	1

**Lab Sample ID: LCS 160-365860/1-A**  
**Matrix: Water**  
**Analysis Batch: 367434**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365860**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	8.28	8.656		1.03	1.00	0.387	pCi/L	105	56 - 140

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

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

**Lab Sample ID: LCS 160-365860/1-A**  
**Matrix: Water**  
**Analysis Batch: 367434**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 365860**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.3		40 - 110
Y Carrier	95.0		40 - 110

**Lab Sample ID: LCSD 160-365860/2-A**  
**Matrix: Water**  
**Analysis Batch: 367434**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 365860**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec.		RER
									Limits	RER	Limit
Radium-228	8.28	7.646		0.926	1.00	0.362	pCi/L	92	56 - 140	0.52	1

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	91.2		40 - 110
Y Carrier	97.9		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-153398-9 DU**  
**Matrix: Water**  
**Analysis Batch: 370474**

**Client Sample ID: AY10653 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	0.651		0.4475		0.267	5.00	0.415	pCi/L	0.36	

**Lab Sample ID: 400-153398-10 DU**  
**Matrix: Water**  
**Analysis Batch: 370474**

**Client Sample ID: AY10654 MW-12**  
**Prep Type: Total/NA**


Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER
										Limit
Combined Radium 226 + 228	1.11		0.7000		0.227	5.00	0.293	pCi/L	0.76	



# Chain of Custody Record

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Sarah Copeland		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2
Company: Alabama Power General Test Laboratory				Job #:
Address: 744 County Rd 87 GSC #8				
City: Calera				
State, Zip: AL, 35040				
Phone: 205-664-6121(Tel)				
Email: sgcopela@southernco.com				
Project #: 40007143				
CCR				
Site: Barry Ash Pond 1148				

Due Date Requested:		<b>Analysis Requested</b>	
TAT Requested (days):	Routine	Total Number of Containers	
PO #:		 400-153398 COC	
WO #:		9315_Ra226, 9320_Ra228, Ra228, Ra228Ra228, GPC	
Project #:		Form MS/MSD (Yes or No)	
SSOW#:		Field Filtered Sample (Yes or No)	
		SM 4500 F_C	
		SM 4500 C_E	
		SM 4500 S04_E	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (W=Water, S=solid, O=soil, BT=Issue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Form MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 C_E	SM 4500 S04_E	9315_Ra226, 9320_Ra228, Ra228, Ra228Ra228, GPC	Total Number of Containers	Special Instructions/Note:
AY10645	5/1/18	1003	G	Water		X	X	X	X	X		2	MW-4
AY10646	5/1/18	1100	G	Water		X	X	X	X	X		2	MW-3
AY10647	5/1/18	1100	G	Water		X	X	X	X	X		2	MW-3 Dup (Sample Duplicate)
AY10648	5/1/18	1212	G	Water		X	X	X	X	X		2	MW-2
AY10649	5/1/18	1235	G	Water		X	X	X	X	X		2	EB-1 (Equipment Blank)
AY10650	5/1/18	1345	G	Water		X	X	X	X	X		2	MW-1
AY10651	5/1/18	1448	G	Water		X	X	X	X	X		2	MW-16
AY10652	5/1/18	1505	G	Water		X	X	X	X	X		2	FB-1 (Field Blank)
AY10653	5/1/18	1605	G	Water		Y	X	X	X	X		4	MW-15
AY10654	5/2/18	1010	G	Water		Y	X	X	X	X		4	MW-12
AY10655	5/2/18	1112	G	Water		X	X	X	X	X		2	MW-13
AY10656	5/2/18	1210	G	Water		X	X	X	X	X		2	MW-14
AY10657	5/2/18	1315	G	Water		X	X	X	X	X		2	MW-11
AY10658	5/2/18	1315	G	Water		X	X	X	X	X		2	MW-11 Dup (Sample Duplicate)
AY10659	5/2/18	1417	G	Water		X	X	X	X	X		2	MW-10
AY10660	5/2/18	1512	G	Water		X	X	X	X	X		2	MW-9
AY10661	5/2/18	1608	G	Water		X	X	X	X	X		2	MW-6

<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	Special Instructions/QC Requirements: Archive For _____ Months
Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Sarah Copeland	Date/Time: 5/8/2018, 0845		Date/Time: 5/18/18 1500
Relinquished by:	Date/Time:		Date/Time: 5/18/18 0900
Relinquished by:	Date/Time:		Date/Time:
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		496 JCR 17







## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153398-2  
SDG Number: Barry Ash Pond 1148

**Login Number: 153398**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.9°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153398-2  
SDG Number: Barry Ash Pond 1148

**Login Number: 153398**  
**List Number: 2**  
**Creator: Press, Nicholas B**

**List Source: TestAmerica St. Louis**  
**List Creation: 05/11/18 01:40 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19, 19
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153398-2  
 SDG: Barry Ash Pond 1148

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-18-14	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18 *
Washington	State Program	10	C915	05-15-19

## Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18 *
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18 *
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18 *
Missouri	State Program	7	780	06-30-18 *
Nevada	State Program	9	MO000542018-1	07-31-18 *
New Jersey	NELAP	2	MO002	06-30-18 *

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

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153398-2  
SDG: Barry Ash Pond 1148

## Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-18 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18 *
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18 *
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-1	5/1/2018 13:13	676.5	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:13	19.42	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:13	0.22	mg/L	DO
BY-AP-MW-1	5/1/2018 13:13	17.4	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:13	5.83	pH	pH
BY-AP-MW-1	5/1/2018 13:13	22.04	C	Temperature
BY-AP-MW-1	5/1/2018 13:13	3.54	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:18	665	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:18	19.43	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:18	0.18	mg/L	DO
BY-AP-MW-1	5/1/2018 13:18	12.8	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:18	5.84	pH	pH
BY-AP-MW-1	5/1/2018 13:18	21.87	C	Temperature
BY-AP-MW-1	5/1/2018 13:18	1.63	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:23	659.2	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:23	19.43	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:23	0.16	mg/L	DO
BY-AP-MW-1	5/1/2018 13:23	7.2	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:23	5.84	pH	pH
BY-AP-MW-1	5/1/2018 13:23	22.19	C	Temperature
BY-AP-MW-1	5/1/2018 13:23	2.49	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:28	697	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:28	19.43	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:28	0.15	mg/L	DO
BY-AP-MW-1	5/1/2018 13:28	4.3	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:28	5.83	pH	pH
BY-AP-MW-1	5/1/2018 13:28	22.14	C	Temperature
BY-AP-MW-1	5/1/2018 13:28	2.55	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:33	640.4	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:33	19.43	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:33	0.14	mg/L	DO
BY-AP-MW-1	5/1/2018 13:33	4.8	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:33	5.83	pH	pH
BY-AP-MW-1	5/1/2018 13:33	22.36	C	Temperature
BY-AP-MW-1	5/1/2018 13:33	1.81	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:38	670.6	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:38	19.43	ft	Depth to Water Detail
BY-AP-MW-1	5/1/2018 13:38	0.14	mg/L	DO
BY-AP-MW-1	5/1/2018 13:38	5.1	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:38	5.83	pH	pH
BY-AP-MW-1	5/1/2018 13:38	22.45	C	Temperature
BY-AP-MW-1	5/1/2018 13:38	1.51	NTU	Turbidity
BY-AP-MW-1	5/1/2018 13:43	661.2	uS/cm	Conductivity
BY-AP-MW-1	5/1/2018 13:43	19.43	ft	Depth to Water Detail



**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-1	5/1/2018 13:43	0.13	mg/L	DO
BY-AP-MW-1	5/1/2018 13:43	5.2	mv	Oxidation Reduction Potention
BY-AP-MW-1	5/1/2018 13:43	5.83	pH	pH
BY-AP-MW-1	5/1/2018 13:43	22.18	C	Temperature
BY-AP-MW-1	5/1/2018 13:43	2.08	NTU	Turbidity



**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-10	5/2/2018 13:59	614	uS/cm	Conductivity
BY-AP-MW-10	5/2/2018 13:59	21.42	ft	Depth to Water Detail
BY-AP-MW-10	5/2/2018 13:59	0.28	mg/L	DO
BY-AP-MW-10	5/2/2018 13:59	-72.1	mv	Oxidation Reduction Potention
BY-AP-MW-10	5/2/2018 13:59	6.39	pH	pH
BY-AP-MW-10	5/2/2018 13:59	22.37	C	Temperature
BY-AP-MW-10	5/2/2018 13:59	2.78	NTU	Turbidity
BY-AP-MW-10	5/2/2018 14:04	599.8	uS/cm	Conductivity
BY-AP-MW-10	5/2/2018 14:04	21.42	ft	Depth to Water Detail
BY-AP-MW-10	5/2/2018 14:04	0.22	mg/L	DO
BY-AP-MW-10	5/2/2018 14:04	-73.5	mv	Oxidation Reduction Potention
BY-AP-MW-10	5/2/2018 14:04	6.37	pH	pH
BY-AP-MW-10	5/2/2018 14:04	22.18	C	Temperature
BY-AP-MW-10	5/2/2018 14:04	2.66	NTU	Turbidity
BY-AP-MW-10	5/2/2018 14:09	611.6	uS/cm	Conductivity
BY-AP-MW-10	5/2/2018 14:09	21.42	ft	Depth to Water Detail
BY-AP-MW-10	5/2/2018 14:09	0.19	mg/L	DO
BY-AP-MW-10	5/2/2018 14:09	-74.3	mv	Oxidation Reduction Potention
BY-AP-MW-10	5/2/2018 14:09	6.37	pH	pH
BY-AP-MW-10	5/2/2018 14:09	22.17	C	Temperature
BY-AP-MW-10	5/2/2018 14:09	1.76	NTU	Turbidity
BY-AP-MW-10	5/2/2018 14:14	605.8	uS/cm	Conductivity
BY-AP-MW-10	5/2/2018 14:14	21.42	ft	Depth to Water Detail
BY-AP-MW-10	5/2/2018 14:14	0.18	mg/L	DO
BY-AP-MW-10	5/2/2018 14:14	-73.9	mv	Oxidation Reduction Potention
BY-AP-MW-10	5/2/2018 14:14	6.36	pH	pH
BY-AP-MW-10	5/2/2018 14:14	22.18	C	Temperature
BY-AP-MW-10	5/2/2018 14:14	1.72	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-11	5/2/2018 12:52	644.1	uS/cm	Conductivity
BY-AP-MW-11	5/2/2018 12:52	20.57	ft	Depth to Water Detail
BY-AP-MW-11	5/2/2018 12:52	0.26	mg/L	DO
BY-AP-MW-11	5/2/2018 12:52	-61.5	mv	Oxidation Reduction Potention
BY-AP-MW-11	5/2/2018 12:52	6.39	pH	pH
BY-AP-MW-11	5/2/2018 12:52	22	C	Temperature
BY-AP-MW-11	5/2/2018 12:52	3.96	NTU	Turbidity
BY-AP-MW-11	5/2/2018 12:57	614.5	uS/cm	Conductivity
BY-AP-MW-11	5/2/2018 12:57	20.57	ft	Depth to Water Detail
BY-AP-MW-11	5/2/2018 12:57	0.21	mg/L	DO
BY-AP-MW-11	5/2/2018 12:57	-57.4	mv	Oxidation Reduction Potention
BY-AP-MW-11	5/2/2018 12:57	6.37	pH	pH
BY-AP-MW-11	5/2/2018 12:57	21.91	C	Temperature
BY-AP-MW-11	5/2/2018 12:57	3.16	NTU	Turbidity
BY-AP-MW-11	5/2/2018 13:02	590.9	uS/cm	Conductivity
BY-AP-MW-11	5/2/2018 13:02	20.57	ft	Depth to Water Detail
BY-AP-MW-11	5/2/2018 13:02	0.19	mg/L	DO
BY-AP-MW-11	5/2/2018 13:02	-53.5	mv	Oxidation Reduction Potention
BY-AP-MW-11	5/2/2018 13:02	6.35	pH	pH
BY-AP-MW-11	5/2/2018 13:02	21.91	C	Temperature
BY-AP-MW-11	5/2/2018 13:02	5	NTU	Turbidity
BY-AP-MW-11	5/2/2018 13:07	584.5	uS/cm	Conductivity
BY-AP-MW-11	5/2/2018 13:07	20.57	ft	Depth to Water Detail
BY-AP-MW-11	5/2/2018 13:07	0.18	mg/L	DO
BY-AP-MW-11	5/2/2018 13:07	-50.6	mv	Oxidation Reduction Potention
BY-AP-MW-11	5/2/2018 13:07	6.34	pH	pH
BY-AP-MW-11	5/2/2018 13:07	21.92	C	Temperature
BY-AP-MW-11	5/2/2018 13:07	2.49	NTU	Turbidity
BY-AP-MW-11	5/2/2018 13:12	571	uS/cm	Conductivity
BY-AP-MW-11	5/2/2018 13:12	20.57	ft	Depth to Water Detail
BY-AP-MW-11	5/2/2018 13:12	0.18	mg/L	DO
BY-AP-MW-11	5/2/2018 13:12	-47.7	mv	Oxidation Reduction Potention
BY-AP-MW-11	5/2/2018 13:12	6.33	pH	pH
BY-AP-MW-11	5/2/2018 13:12	21.91	C	Temperature
BY-AP-MW-11	5/2/2018 13:12	2.81	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-12	5/2/2018 9:46	514.3	uS/cm	Conductivity
BY-AP-MW-12	5/2/2018 9:46	18.67	ft	Depth to Water Detail
BY-AP-MW-12	5/2/2018 9:46	0.24	mg/L	DO
BY-AP-MW-12	5/2/2018 9:46	-38.5	mv	Oxidation Reduction Potention
BY-AP-MW-12	5/2/2018 9:46	6.18	pH	pH
BY-AP-MW-12	5/2/2018 9:46	21	C	Temperature
BY-AP-MW-12	5/2/2018 9:46	4.06	NTU	Turbidity
BY-AP-MW-12	5/2/2018 9:51	486.6	uS/cm	Conductivity
BY-AP-MW-12	5/2/2018 9:51	18.67	ft	Depth to Water Detail
BY-AP-MW-12	5/2/2018 9:51	0.18	mg/L	DO
BY-AP-MW-12	5/2/2018 9:51	-36.6	mv	Oxidation Reduction Potention
BY-AP-MW-12	5/2/2018 9:51	6.16	pH	pH
BY-AP-MW-12	5/2/2018 9:51	20.96	C	Temperature
BY-AP-MW-12	5/2/2018 9:51	1.98	NTU	Turbidity
BY-AP-MW-12	5/2/2018 9:56	475.9	uS/cm	Conductivity
BY-AP-MW-12	5/2/2018 9:56	18.67	ft	Depth to Water Detail
BY-AP-MW-12	5/2/2018 9:56	0.15	mg/L	DO
BY-AP-MW-12	5/2/2018 9:56	-34.9	mv	Oxidation Reduction Potention
BY-AP-MW-12	5/2/2018 9:56	6.15	pH	pH
BY-AP-MW-12	5/2/2018 9:56	20.97	C	Temperature
BY-AP-MW-12	5/2/2018 9:56	1.61	NTU	Turbidity
BY-AP-MW-12	5/2/2018 10:01	474.9	uS/cm	Conductivity
BY-AP-MW-12	5/2/2018 10:01	18.67	ft	Depth to Water Detail
BY-AP-MW-12	5/2/2018 10:01	0.13	mg/L	DO
BY-AP-MW-12	5/2/2018 10:01	-34.3	mv	Oxidation Reduction Potention
BY-AP-MW-12	5/2/2018 10:01	6.15	pH	pH
BY-AP-MW-12	5/2/2018 10:01	21	C	Temperature
BY-AP-MW-12	5/2/2018 10:01	1.59	NTU	Turbidity
BY-AP-MW-12	5/2/2018 10:06	485.3	uS/cm	Conductivity
BY-AP-MW-12	5/2/2018 10:06	18.67	ft	Depth to Water Detail
BY-AP-MW-12	5/2/2018 10:06	0.13	mg/L	DO
BY-AP-MW-12	5/2/2018 10:06	-34.2	mv	Oxidation Reduction Potention
BY-AP-MW-12	5/2/2018 10:06	6.15	pH	pH
BY-AP-MW-12	5/2/2018 10:06	21.01	C	Temperature
BY-AP-MW-12	5/2/2018 10:06	1.61	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-13	5/2/2018 10:52	497.1	uS/cm	Conductivity
BY-AP-MW-13	5/2/2018 10:52	18.94	ft	Depth to Water Detail
BY-AP-MW-13	5/2/2018 10:52	0.23	mg/L	DO
BY-AP-MW-13	5/2/2018 10:52	-16.2	mv	Oxidation Reduction Potention
BY-AP-MW-13	5/2/2018 10:52	6.2	pH	pH
BY-AP-MW-13	5/2/2018 10:52	21.06	C	Temperature
BY-AP-MW-13	5/2/2018 10:52	3.53	NTU	Turbidity
BY-AP-MW-13	5/2/2018 10:57	465.8	uS/cm	Conductivity
BY-AP-MW-13	5/2/2018 10:57	18.94	ft	Depth to Water Detail
BY-AP-MW-13	5/2/2018 10:57	0.19	mg/L	DO
BY-AP-MW-13	5/2/2018 10:57	-11.9	mv	Oxidation Reduction Potention
BY-AP-MW-13	5/2/2018 10:57	6.17	pH	pH
BY-AP-MW-13	5/2/2018 10:57	21	C	Temperature
BY-AP-MW-13	5/2/2018 10:57	5.77	NTU	Turbidity
BY-AP-MW-13	5/2/2018 11:02	455.9	uS/cm	Conductivity
BY-AP-MW-13	5/2/2018 11:02	18.94	ft	Depth to Water Detail
BY-AP-MW-13	5/2/2018 11:02	0.17	mg/L	DO
BY-AP-MW-13	5/2/2018 11:02	-9.5	mv	Oxidation Reduction Potention
BY-AP-MW-13	5/2/2018 11:02	6.15	pH	pH
BY-AP-MW-13	5/2/2018 11:02	21.02	C	Temperature
BY-AP-MW-13	5/2/2018 11:02	2.84	NTU	Turbidity
BY-AP-MW-13	5/2/2018 11:07	454.9	uS/cm	Conductivity
BY-AP-MW-13	5/2/2018 11:07	18.94	ft	Depth to Water Detail
BY-AP-MW-13	5/2/2018 11:07	0.16	mg/L	DO
BY-AP-MW-13	5/2/2018 11:07	-8.5	mv	Oxidation Reduction Potention
BY-AP-MW-13	5/2/2018 11:07	6.14	pH	pH
BY-AP-MW-13	5/2/2018 11:07	21.02	C	Temperature
BY-AP-MW-13	5/2/2018 11:07	2.35	NTU	Turbidity
BY-AP-MW-13	5/2/2018 11:12	446.9	uS/cm	Conductivity
BY-AP-MW-13	5/2/2018 11:12	18.94	ft	Depth to Water Detail
BY-AP-MW-13	5/2/2018 11:12	0.15	mg/L	DO
BY-AP-MW-13	5/2/2018 11:12	-7.6	mv	Oxidation Reduction Potention
BY-AP-MW-13	5/2/2018 11:12	6.13	pH	pH
BY-AP-MW-13	5/2/2018 11:12	21.02	C	Temperature
BY-AP-MW-13	5/2/2018 11:12	3.43	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-14	5/2/2018 11:51	467	uS/cm	Conductivity
BY-AP-MW-14	5/2/2018 11:51	7.05	ft	Depth to Water Detail
BY-AP-MW-14	5/2/2018 11:51	0.23	mg/L	DO
BY-AP-MW-14	5/2/2018 11:51	-12.2	mv	Oxidation Reduction Potention
BY-AP-MW-14	5/2/2018 11:51	6.17	pH	pH
BY-AP-MW-14	5/2/2018 11:51	20.35	C	Temperature
BY-AP-MW-14	5/2/2018 11:51	1.54	NTU	Turbidity
BY-AP-MW-14	5/2/2018 11:56	454.5	uS/cm	Conductivity
BY-AP-MW-14	5/2/2018 11:56	7.05	ft	Depth to Water Detail
BY-AP-MW-14	5/2/2018 11:56	0.19	mg/L	DO
BY-AP-MW-14	5/2/2018 11:56	-12	mv	Oxidation Reduction Potention
BY-AP-MW-14	5/2/2018 11:56	6.15	pH	pH
BY-AP-MW-14	5/2/2018 11:56	20.25	C	Temperature
BY-AP-MW-14	5/2/2018 11:56	1.62	NTU	Turbidity
BY-AP-MW-14	5/2/2018 12:01	443.6	uS/cm	Conductivity
BY-AP-MW-14	5/2/2018 12:01	7.05	ft	Depth to Water Detail
BY-AP-MW-14	5/2/2018 12:01	0.18	mg/L	DO
BY-AP-MW-14	5/2/2018 12:01	-11.3	mv	Oxidation Reduction Potention
BY-AP-MW-14	5/2/2018 12:01	6.14	pH	pH
BY-AP-MW-14	5/2/2018 12:01	20.35	C	Temperature
BY-AP-MW-14	5/2/2018 12:01	1.79	NTU	Turbidity
BY-AP-MW-14	5/2/2018 12:06	443.9	uS/cm	Conductivity
BY-AP-MW-14	5/2/2018 12:06	7.05	ft	Depth to Water Detail
BY-AP-MW-14	5/2/2018 12:06	0.16	mg/L	DO
BY-AP-MW-14	5/2/2018 12:06	-10	mv	Oxidation Reduction Potention
BY-AP-MW-14	5/2/2018 12:06	6.13	pH	pH
BY-AP-MW-14	5/2/2018 12:06	20.41	C	Temperature
BY-AP-MW-14	5/2/2018 12:06	1.93	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-15	5/1/2018 15:47	486.1	uS/cm	Conductivity
BY-AP-MW-15	5/1/2018 15:47	18.62	ft	Depth to Water Detail
BY-AP-MW-15	5/1/2018 15:47	0.4	mg/L	DO
BY-AP-MW-15	5/1/2018 15:47	-122.9	mv	Oxidation Reduction Potention
BY-AP-MW-15	5/1/2018 15:47	6.63	pH	pH
BY-AP-MW-15	5/1/2018 15:47	21.38	C	Temperature
BY-AP-MW-15	5/1/2018 15:47	3.25	NTU	Turbidity
BY-AP-MW-15	5/1/2018 15:52	464.9	uS/cm	Conductivity
BY-AP-MW-15	5/1/2018 15:52	18.62	ft	Depth to Water Detail
BY-AP-MW-15	5/1/2018 15:52	0.34	mg/L	DO
BY-AP-MW-15	5/1/2018 15:52	-114.9	mv	Oxidation Reduction Potention
BY-AP-MW-15	5/1/2018 15:52	6.63	pH	pH
BY-AP-MW-15	5/1/2018 15:52	21.28	C	Temperature
BY-AP-MW-15	5/1/2018 15:52	2.86	NTU	Turbidity
BY-AP-MW-15	5/1/2018 15:57	456.5	uS/cm	Conductivity
BY-AP-MW-15	5/1/2018 15:57	18.62	ft	Depth to Water Detail
BY-AP-MW-15	5/1/2018 15:57	0.31	mg/L	DO
BY-AP-MW-15	5/1/2018 15:57	-112.6	mv	Oxidation Reduction Potention
BY-AP-MW-15	5/1/2018 15:57	6.62	pH	pH
BY-AP-MW-15	5/1/2018 15:57	21.59	C	Temperature
BY-AP-MW-15	5/1/2018 15:57	2.7	NTU	Turbidity
BY-AP-MW-15	5/1/2018 16:02	453.7	uS/cm	Conductivity
BY-AP-MW-15	5/1/2018 16:02	18.62	ft	Depth to Water Detail
BY-AP-MW-15	5/1/2018 16:02	0.29	mg/L	DO
BY-AP-MW-15	5/1/2018 16:02	-111.5	mv	Oxidation Reduction Potention
BY-AP-MW-15	5/1/2018 16:02	6.62	pH	pH
BY-AP-MW-15	5/1/2018 16:02	21.69	C	Temperature
BY-AP-MW-15	5/1/2018 16:02	2.44	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-16	5/1/2018 14:30	397.7	uS/cm	Conductivity
BY-AP-MW-16	5/1/2018 14:30	19.53	ft	Depth to Water Detail
BY-AP-MW-16	5/1/2018 14:30	0.26	mg/L	DO
BY-AP-MW-16	5/1/2018 14:30	6.2	mv	Oxidation Reduction Potention
BY-AP-MW-16	5/1/2018 14:30	5.87	pH	pH
BY-AP-MW-16	5/1/2018 14:30	22.2	C	Temperature
BY-AP-MW-16	5/1/2018 14:30	5.64	NTU	Turbidity
BY-AP-MW-16	5/1/2018 14:35	397	uS/cm	Conductivity
BY-AP-MW-16	5/1/2018 14:35	19.53	ft	Depth to Water Detail
BY-AP-MW-16	5/1/2018 14:35	0.2	mg/L	DO
BY-AP-MW-16	5/1/2018 14:35	9	mv	Oxidation Reduction Potention
BY-AP-MW-16	5/1/2018 14:35	5.86	pH	pH
BY-AP-MW-16	5/1/2018 14:35	22.13	C	Temperature
BY-AP-MW-16	5/1/2018 14:35	2.69	NTU	Turbidity
BY-AP-MW-16	5/1/2018 14:40	392.8	uS/cm	Conductivity
BY-AP-MW-16	5/1/2018 14:40	19.53	ft	Depth to Water Detail
BY-AP-MW-16	5/1/2018 14:40	0.18	mg/L	DO
BY-AP-MW-16	5/1/2018 14:40	12.2	mv	Oxidation Reduction Potention
BY-AP-MW-16	5/1/2018 14:40	5.85	pH	pH
BY-AP-MW-16	5/1/2018 14:40	22.38	C	Temperature
BY-AP-MW-16	5/1/2018 14:40	1.6	NTU	Turbidity
BY-AP-MW-16	5/1/2018 14:45	389.8	uS/cm	Conductivity
BY-AP-MW-16	5/1/2018 14:45	19.53	ft	Depth to Water Detail
BY-AP-MW-16	5/1/2018 14:45	0.16	mg/L	DO
BY-AP-MW-16	5/1/2018 14:45	16.2	mv	Oxidation Reduction Potention
BY-AP-MW-16	5/1/2018 14:45	5.85	pH	pH
BY-AP-MW-16	5/1/2018 14:45	22.13	C	Temperature
BY-AP-MW-16	5/1/2018 14:45	2.65	NTU	Turbidity



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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-2	5/1/2018 11:55	57	uS/cm	Conductivity
BY-AP-MW-2	5/1/2018 11:55	17.99	ft	Depth to Water Detail
BY-AP-MW-2	5/1/2018 11:55	0.63	mg/L	DO
BY-AP-MW-2	5/1/2018 11:55	92.3	mv	Oxidation Reduction Potention
BY-AP-MW-2	5/1/2018 11:55	5.82	pH	pH
BY-AP-MW-2	5/1/2018 11:55	22.22	C	Temperature
BY-AP-MW-2	5/1/2018 11:55	1.16	NTU	Turbidity
BY-AP-MW-2	5/1/2018 12:00	57.4	uS/cm	Conductivity
BY-AP-MW-2	5/1/2018 12:00	17.99	ft	Depth to Water Detail
BY-AP-MW-2	5/1/2018 12:00	0.53	mg/L	DO
BY-AP-MW-2	5/1/2018 12:00	90.8	mv	Oxidation Reduction Potention
BY-AP-MW-2	5/1/2018 12:00	5.83	pH	pH
BY-AP-MW-2	5/1/2018 12:00	22.2	C	Temperature
BY-AP-MW-2	5/1/2018 12:00	1.1	NTU	Turbidity
BY-AP-MW-2	5/1/2018 12:05	56.6	uS/cm	Conductivity
BY-AP-MW-2	5/1/2018 12:05	17.99	ft	Depth to Water Detail
BY-AP-MW-2	5/1/2018 12:05	0.47	mg/L	DO
BY-AP-MW-2	5/1/2018 12:05	93.9	mv	Oxidation Reduction Potention
BY-AP-MW-2	5/1/2018 12:05	5.82	pH	pH
BY-AP-MW-2	5/1/2018 12:05	21.91	C	Temperature
BY-AP-MW-2	5/1/2018 12:05	0.9	NTU	Turbidity
BY-AP-MW-2	5/1/2018 12:10	56.7	uS/cm	Conductivity
BY-AP-MW-2	5/1/2018 12:10	17.99	ft	Depth to Water Detail
BY-AP-MW-2	5/1/2018 12:10	0.45	mg/L	DO
BY-AP-MW-2	5/1/2018 12:10	93.9	mv	Oxidation Reduction Potention
BY-AP-MW-2	5/1/2018 12:10	5.8	pH	pH
BY-AP-MW-2	5/1/2018 12:10	22.27	C	Temperature
BY-AP-MW-2	5/1/2018 12:10	0.9	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-3	5/1/2018 10:44	34.9	uS/cm	Conductivity
BY-AP-MW-3	5/1/2018 10:44	20.77	ft	Depth to Water Detail
BY-AP-MW-3	5/1/2018 10:44	3.8	mg/L	DO
BY-AP-MW-3	5/1/2018 10:44	131.9	mv	Oxidation Reduction Potention
BY-AP-MW-3	5/1/2018 10:44	5.16	pH	pH
BY-AP-MW-3	5/1/2018 10:44	21.82	C	Temperature
BY-AP-MW-3	5/1/2018 10:44	0.88	NTU	Turbidity
BY-AP-MW-3	5/1/2018 10:49	37	uS/cm	Conductivity
BY-AP-MW-3	5/1/2018 10:49	20.77	ft	Depth to Water Detail
BY-AP-MW-3	5/1/2018 10:49	3.93	mg/L	DO
BY-AP-MW-3	5/1/2018 10:49	132.6	mv	Oxidation Reduction Potention
BY-AP-MW-3	5/1/2018 10:49	5.13	pH	pH
BY-AP-MW-3	5/1/2018 10:49	21.59	C	Temperature
BY-AP-MW-3	5/1/2018 10:49	0.89	NTU	Turbidity
BY-AP-MW-3	5/1/2018 10:54	38.2	uS/cm	Conductivity
BY-AP-MW-3	5/1/2018 10:54	20.77	ft	Depth to Water Detail
BY-AP-MW-3	5/1/2018 10:54	3.91	mg/L	DO
BY-AP-MW-3	5/1/2018 10:54	133.4	mv	Oxidation Reduction Potention
BY-AP-MW-3	5/1/2018 10:54	5.12	pH	pH
BY-AP-MW-3	5/1/2018 10:54	21.75	C	Temperature
BY-AP-MW-3	5/1/2018 10:54	0.84	NTU	Turbidity
BY-AP-MW-3	5/1/2018 10:59	38.7	uS/cm	Conductivity
BY-AP-MW-3	5/1/2018 10:59	20.77	ft	Depth to Water Detail
BY-AP-MW-3	5/1/2018 10:59	3.87	mg/L	DO
BY-AP-MW-3	5/1/2018 10:59	133.2	mv	Oxidation Reduction Potention
BY-AP-MW-3	5/1/2018 10:59	5.11	pH	pH
BY-AP-MW-3	5/1/2018 10:59	21.69	C	Temperature
BY-AP-MW-3	5/1/2018 10:59	0.73	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-4	5/1/2018 9:45	51.2	uS/cm	Conductivity
BY-AP-MW-4	5/1/2018 9:45	21.31	ft	Depth to Water Detail
BY-AP-MW-4	5/1/2018 9:45	0.54	mg/L	DO
BY-AP-MW-4	5/1/2018 9:45	149.6	mv	Oxidation Reduction Potention
BY-AP-MW-4	5/1/2018 9:45	4.53	pH	pH
BY-AP-MW-4	5/1/2018 9:45	21.91	C	Temperature
BY-AP-MW-4	5/1/2018 9:45	1.22	NTU	Turbidity
BY-AP-MW-4	5/1/2018 9:50	51.1	uS/cm	Conductivity
BY-AP-MW-4	5/1/2018 9:50	21.31	ft	Depth to Water Detail
BY-AP-MW-4	5/1/2018 9:50	0.38	mg/L	DO
BY-AP-MW-4	5/1/2018 9:50	157.5	mv	Oxidation Reduction Potention
BY-AP-MW-4	5/1/2018 9:50	4.44	pH	pH
BY-AP-MW-4	5/1/2018 9:50	21.95	C	Temperature
BY-AP-MW-4	5/1/2018 9:50	0.76	NTU	Turbidity
BY-AP-MW-4	5/1/2018 9:55	51	uS/cm	Conductivity
BY-AP-MW-4	5/1/2018 9:55	21.31	ft	Depth to Water Detail
BY-AP-MW-4	5/1/2018 9:55	0.35	mg/L	DO
BY-AP-MW-4	5/1/2018 9:55	160.5	mv	Oxidation Reduction Potention
BY-AP-MW-4	5/1/2018 9:55	4.44	pH	pH
BY-AP-MW-4	5/1/2018 9:55	21.96	C	Temperature
BY-AP-MW-4	5/1/2018 9:55	0.81	NTU	Turbidity
BY-AP-MW-4	5/1/2018 10:00	50.7	uS/cm	Conductivity
BY-AP-MW-4	5/1/2018 10:00	21.31	ft	Depth to Water Detail
BY-AP-MW-4	5/1/2018 10:00	0.32	mg/L	DO
BY-AP-MW-4	5/1/2018 10:00	163.6	mv	Oxidation Reduction Potention
BY-AP-MW-4	5/1/2018 10:00	4.44	pH	pH
BY-AP-MW-4	5/1/2018 10:00	21.95	C	Temperature
BY-AP-MW-4	5/1/2018 10:00	0.73	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-5	5/2/2018 12:42	434.9	uS/cm	Conductivity
BY-AP-MW-5	5/2/2018 12:42	23.47	ft	Depth to Water Detail
BY-AP-MW-5	5/2/2018 12:42	0.06	mg/L	DO
BY-AP-MW-5	5/2/2018 12:42	-41.4	mv	Oxidation Reduction Potention
BY-AP-MW-5	5/2/2018 12:42	5.96	pH	pH
BY-AP-MW-5	5/2/2018 12:42	22.64	C	Temperature
BY-AP-MW-5	5/2/2018 12:42	0.97	NTU	Turbidity
BY-AP-MW-5	5/2/2018 12:47	429.8	uS/cm	Conductivity
BY-AP-MW-5	5/2/2018 12:47	23.47	ft	Depth to Water Detail
BY-AP-MW-5	5/2/2018 12:47	0.05	mg/L	DO
BY-AP-MW-5	5/2/2018 12:47	-32.8	mv	Oxidation Reduction Potention
BY-AP-MW-5	5/2/2018 12:47	5.96	pH	pH
BY-AP-MW-5	5/2/2018 12:47	22.55	C	Temperature
BY-AP-MW-5	5/2/2018 12:47	0.57	NTU	Turbidity
BY-AP-MW-5	5/2/2018 12:52	422.9	uS/cm	Conductivity
BY-AP-MW-5	5/2/2018 12:52	23.47	ft	Depth to Water Detail
BY-AP-MW-5	5/2/2018 12:52	0.04	mg/L	DO
BY-AP-MW-5	5/2/2018 12:52	-36.3	mv	Oxidation Reduction Potention
BY-AP-MW-5	5/2/2018 12:52	5.99	pH	pH
BY-AP-MW-5	5/2/2018 12:52	22.54	C	Temperature
BY-AP-MW-5	5/2/2018 12:52	0.51	NTU	Turbidity
BY-AP-MW-5	5/2/2018 12:57	417.6	uS/cm	Conductivity
BY-AP-MW-5	5/2/2018 12:57	23.47	ft	Depth to Water Detail
BY-AP-MW-5	5/2/2018 12:57	0.04	mg/L	DO
BY-AP-MW-5	5/2/2018 12:57	-34.2	mv	Oxidation Reduction Potention
BY-AP-MW-5	5/2/2018 12:57	5.99	pH	pH
BY-AP-MW-5	5/2/2018 12:57	22.53	C	Temperature
BY-AP-MW-5	5/2/2018 12:57	0.78	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-6	5/2/2018 15:51	56.6	uS/cm	Conductivity
BY-AP-MW-6	5/2/2018 15:51	21.09	ft	Depth to Water Detail
BY-AP-MW-6	5/2/2018 15:51	0.27	mg/L	DO
BY-AP-MW-6	5/2/2018 15:51	143.5	mv	Oxidation Reduction Potention
BY-AP-MW-6	5/2/2018 15:51	5.38	pH	pH
BY-AP-MW-6	5/2/2018 15:51	21.61	C	Temperature
BY-AP-MW-6	5/2/2018 15:51	1.94	NTU	Turbidity
BY-AP-MW-6	5/2/2018 15:56	56.5	uS/cm	Conductivity
BY-AP-MW-6	5/2/2018 15:56	21.09	ft	Depth to Water Detail
BY-AP-MW-6	5/2/2018 15:56	0.23	mg/L	DO
BY-AP-MW-6	5/2/2018 15:56	147.5	mv	Oxidation Reduction Potention
BY-AP-MW-6	5/2/2018 15:56	5.36	pH	pH
BY-AP-MW-6	5/2/2018 15:56	21.53	C	Temperature
BY-AP-MW-6	5/2/2018 15:56	0.49	NTU	Turbidity
BY-AP-MW-6	5/2/2018 16:01	56.9	uS/cm	Conductivity
BY-AP-MW-6	5/2/2018 16:01	21.09	ft	Depth to Water Detail
BY-AP-MW-6	5/2/2018 16:01	0.21	mg/L	DO
BY-AP-MW-6	5/2/2018 16:01	148.8	mv	Oxidation Reduction Potention
BY-AP-MW-6	5/2/2018 16:01	5.33	pH	pH
BY-AP-MW-6	5/2/2018 16:01	21.55	C	Temperature
BY-AP-MW-6	5/2/2018 16:01	0.33	NTU	Turbidity
BY-AP-MW-6	5/2/2018 16:06	57.4	uS/cm	Conductivity
BY-AP-MW-6	5/2/2018 16:06	21.09	ft	Depth to Water Detail
BY-AP-MW-6	5/2/2018 16:06	0.2	mg/L	DO
BY-AP-MW-6	5/2/2018 16:06	149.3	mv	Oxidation Reduction Potention
BY-AP-MW-6	5/2/2018 16:06	5.33	pH	pH
BY-AP-MW-6	5/2/2018 16:06	21.54	C	Temperature
BY-AP-MW-6	5/2/2018 16:06	0.32	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-7	5/2/2018 14:45	250.1	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 14:45	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 14:45	0.79	mg/L	DO
BY-AP-MW-7	5/2/2018 14:45	-14.5	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 14:45	6.36	pH	pH
BY-AP-MW-7	5/2/2018 14:45	22.17	C	Temperature
BY-AP-MW-7	5/2/2018 14:45	18.4	NTU	Turbidity
BY-AP-MW-7	5/2/2018 14:50	245.6	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 14:50	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 14:50	0.7	mg/L	DO
BY-AP-MW-7	5/2/2018 14:50	-13.6	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 14:50	6.33	pH	pH
BY-AP-MW-7	5/2/2018 14:50	22.12	C	Temperature
BY-AP-MW-7	5/2/2018 14:50	14.9	NTU	Turbidity
BY-AP-MW-7	5/2/2018 14:55	240.1	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 14:55	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 14:55	0.74	mg/L	DO
BY-AP-MW-7	5/2/2018 14:55	-13.6	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 14:55	6.32	pH	pH
BY-AP-MW-7	5/2/2018 14:55	22.09	C	Temperature
BY-AP-MW-7	5/2/2018 14:55	11.67	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:00	239.5	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:00	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 15:00	1.46	mg/L	DO
BY-AP-MW-7	5/2/2018 15:00	-13.2	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:00	6.32	pH	pH
BY-AP-MW-7	5/2/2018 15:00	22.06	C	Temperature
BY-AP-MW-7	5/2/2018 15:00	8.84	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:05	235.8	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:05	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 15:05	1.36	mg/L	DO
BY-AP-MW-7	5/2/2018 15:05	-11.3	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:05	6.29	pH	pH
BY-AP-MW-7	5/2/2018 15:05	22.03	C	Temperature
BY-AP-MW-7	5/2/2018 15:05	9.13	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:10	236.3	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:10	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 15:10	1.46	mg/L	DO
BY-AP-MW-7	5/2/2018 15:10	-10.7	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:10	6.29	pH	pH
BY-AP-MW-7	5/2/2018 15:10	22	C	Temperature
BY-AP-MW-7	5/2/2018 15:10	6.84	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:15	235.2	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:15	20.21	ft	Depth to Water Detail

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-7	5/2/2018 15:15	1.43	mg/L	DO
BY-AP-MW-7	5/2/2018 15:15	-10.5	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:15	6.3	pH	pH
BY-AP-MW-7	5/2/2018 15:15	21.95	C	Temperature
BY-AP-MW-7	5/2/2018 15:15	6.47	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:20	233.5	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:20	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 15:20	1.25	mg/L	DO
BY-AP-MW-7	5/2/2018 15:20	-9.9	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:20	6.29	pH	pH
BY-AP-MW-7	5/2/2018 15:20	21.95	C	Temperature
BY-AP-MW-7	5/2/2018 15:20	3.96	NTU	Turbidity
BY-AP-MW-7	5/2/2018 15:25	234.2	uS/cm	Conductivity
BY-AP-MW-7	5/2/2018 15:25	20.21	ft	Depth to Water Detail
BY-AP-MW-7	5/2/2018 15:25	1.38	mg/L	DO
BY-AP-MW-7	5/2/2018 15:25	-10	mv	Oxidation Reduction Potention
BY-AP-MW-7	5/2/2018 15:25	6.29	pH	pH
BY-AP-MW-7	5/2/2018 15:25	21.96	C	Temperature
BY-AP-MW-7	5/2/2018 15:25	3.39	NTU	Turbidity



**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-8	5/2/2018 13:47	496.5	uS/cm	Conductivity
BY-AP-MW-8	5/2/2018 13:47	22.98	ft	Depth to Water Detail
BY-AP-MW-8	5/2/2018 13:47	0.06	mg/L	DO
BY-AP-MW-8	5/2/2018 13:47	-85.8	mv	Oxidation Reduction Potention
BY-AP-MW-8	5/2/2018 13:47	6.16	pH	pH
BY-AP-MW-8	5/2/2018 13:47	21.47	C	Temperature
BY-AP-MW-8	5/2/2018 13:47	1.28	NTU	Turbidity
BY-AP-MW-8	5/2/2018 13:52	493.1	uS/cm	Conductivity
BY-AP-MW-8	5/2/2018 13:52	22.99	ft	Depth to Water Detail
BY-AP-MW-8	5/2/2018 13:52	0.04	mg/L	DO
BY-AP-MW-8	5/2/2018 13:52	-84.4	mv	Oxidation Reduction Potention
BY-AP-MW-8	5/2/2018 13:52	6.16	pH	pH
BY-AP-MW-8	5/2/2018 13:52	21.43	C	Temperature
BY-AP-MW-8	5/2/2018 13:52	0.74	NTU	Turbidity
BY-AP-MW-8	5/2/2018 13:57	494.3	uS/cm	Conductivity
BY-AP-MW-8	5/2/2018 13:57	22.99	ft	Depth to Water Detail
BY-AP-MW-8	5/2/2018 13:57	0.04	mg/L	DO
BY-AP-MW-8	5/2/2018 13:57	-82.6	mv	Oxidation Reduction Potention
BY-AP-MW-8	5/2/2018 13:57	6.16	pH	pH
BY-AP-MW-8	5/2/2018 13:57	21.35	C	Temperature
BY-AP-MW-8	5/2/2018 13:57	0.41	NTU	Turbidity
BY-AP-MW-8	5/2/2018 14:02	491.9	uS/cm	Conductivity
BY-AP-MW-8	5/2/2018 14:02	22.99	ft	Depth to Water Detail
BY-AP-MW-8	5/2/2018 14:02	0.04	mg/L	DO
BY-AP-MW-8	5/2/2018 14:02	-81.3	mv	Oxidation Reduction Potention
BY-AP-MW-8	5/2/2018 14:02	6.17	pH	pH
BY-AP-MW-8	5/2/2018 14:02	21.34	C	Temperature
BY-AP-MW-8	5/2/2018 14:02	0.43	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-9	5/2/2018 14:50	566.2	uS/cm	Conductivity
BY-AP-MW-9	5/2/2018 14:50	19.03	ft	Depth to Water Detail
BY-AP-MW-9	5/2/2018 14:50	0.27	mg/L	DO
BY-AP-MW-9	5/2/2018 14:50	-77.4	mv	Oxidation Reduction Potention
BY-AP-MW-9	5/2/2018 14:50	6.34	pH	pH
BY-AP-MW-9	5/2/2018 14:50	21.87	C	Temperature
BY-AP-MW-9	5/2/2018 14:50	1.26	NTU	Turbidity
BY-AP-MW-9	5/2/2018 14:55	561.1	uS/cm	Conductivity
BY-AP-MW-9	5/2/2018 14:55	19.03	ft	Depth to Water Detail
BY-AP-MW-9	5/2/2018 14:55	0.21	mg/L	DO
BY-AP-MW-9	5/2/2018 14:55	-79.2	mv	Oxidation Reduction Potention
BY-AP-MW-9	5/2/2018 14:55	6.33	pH	pH
BY-AP-MW-9	5/2/2018 14:55	21.73	C	Temperature
BY-AP-MW-9	5/2/2018 14:55	1.19	NTU	Turbidity
BY-AP-MW-9	5/2/2018 15:00	564.9	uS/cm	Conductivity
BY-AP-MW-9	5/2/2018 15:00	19.03	ft	Depth to Water Detail
BY-AP-MW-9	5/2/2018 15:00	0.19	mg/L	DO
BY-AP-MW-9	5/2/2018 15:00	-79.1	mv	Oxidation Reduction Potention
BY-AP-MW-9	5/2/2018 15:00	6.32	pH	pH
BY-AP-MW-9	5/2/2018 15:00	21.67	C	Temperature
BY-AP-MW-9	5/2/2018 15:00	1.63	NTU	Turbidity
BY-AP-MW-9	5/2/2018 15:05	559.4	uS/cm	Conductivity
BY-AP-MW-9	5/2/2018 15:05	19.03	ft	Depth to Water Detail
BY-AP-MW-9	5/2/2018 15:05	0.18	mg/L	DO
BY-AP-MW-9	5/2/2018 15:05	-78.8	mv	Oxidation Reduction Potention
BY-AP-MW-9	5/2/2018 15:05	6.31	pH	pH
BY-AP-MW-9	5/2/2018 15:05	21.64	C	Temperature
BY-AP-MW-9	5/2/2018 15:05	1.73	NTU	Turbidity
BY-AP-MW-9	5/2/2018 15:10	567.6	uS/cm	Conductivity
BY-AP-MW-9	5/2/2018 15:10	19.03	ft	Depth to Water Detail
BY-AP-MW-9	5/2/2018 15:10	0.18	mg/L	DO
BY-AP-MW-9	5/2/2018 15:10	-78.4	mv	Oxidation Reduction Potention
BY-AP-MW-9	5/2/2018 15:10	6.31	pH	pH
BY-AP-MW-9	5/2/2018 15:10	21.63	C	Temperature
BY-AP-MW-9	5/2/2018 15:10	1.42	NTU	Turbidity

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

# Analytical Report



**Sample Group :** WMWBARAP\_1184  
**Project/Site :** Barry Ash Pond  
Bucks, AL 36512  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks, Greg Dyer, & Lauren Parker  
**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

The following data has been reviewed and approved by:

**Quality Control:** Laura Midkiff  
Digitally signed by Laura Midkiff  
DN: cn=Laura Midkiff, o=Alabama Power  
Company, ou=Environmental Affairs,  
email=lbmidkif@southernco.com, c=US  
Date: 2018.12.18 10:18:28 -0600

**Supervision:** T. Durant  
Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.12.18 16:28:33 -0600



Metals ICP

Barry Ash Pond

WMWBARAP\_1184

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>
AY27759	633689	WMWBARAP_1184
AY27760	633689	WMWBARAP_1184
AY27761	633689	WMWBARAP_1184
AY27762	633689	WMWBARAP_1184
AY27763	633689	WMWBARAP_1184
AY27764	633689	WMWBARAP_1184
AY27765	633689	WMWBARAP_1184
AY27766	633689	WMWBARAP_1184
AY27767	633689	WMWBARAP_1184
AY27768	633689	WMWBARAP_1184
AY27769	633690	WMWBARAP_1184
AY27770	633690	WMWBARAP_1184
AY27771	633690	WMWBARAP_1184
AY27772	633690	WMWBARAP_1184
AY27773	633690	WMWBARAP_1184
AY27774	633690	WMWBARAP_1184
AY27775	633690	WMWBARAP_1184
AY27776	633690	WMWBARAP_1184
AY27777	633690	WMWBARAP_1184
AY27778	633690	WMWBARAP_1184
AY27779	633691	WMWBARAP_1184

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



### General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

### Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects.
  8. The raw data results are shown with dilution factors included.



Metals ICPMS

Barry Ash Pond

WMWBARAP\_1184

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>
AY27759	634158	WMWBARAP_1184
AY27760	634158	WMWBARAP_1184
AY27761	634158	WMWBARAP_1184
AY27762	634158	WMWBARAP_1184
AY27763	634158	WMWBARAP_1184
AY27764	634158	WMWBARAP_1184
AY27765	634158	WMWBARAP_1184
AY27766	634158	WMWBARAP_1184
AY27767	634158	WMWBARAP_1184
AY27768	634158	WMWBARAP_1184
AY27769	634159	WMWBARAP_1184
AY27770	634159	WMWBARAP_1184
AY27771	634159	WMWBARAP_1184
AY27772	634159	WMWBARAP_1184
AY27773	634159	WMWBARAP_1184
AY27774	634159	WMWBARAP_1184
AY27775	634159	WMWBARAP_1184
AY27776	634159	WMWBARAP_1184
AY27777	634159	WMWBARAP_1184
AY27778	634159	WMWBARAP_1184
AY27779	634160	WMWBARAP_1184

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



### General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
  8. The raw data results are shown with dilution factors included.



## Case Narrative



Mercury

Barry Ash Pond

WMWBARAP\_1184

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>
AY27759	633837	WMWBARAP_1184
AY27760	633837	WMWBARAP_1184
AY27761	633837	WMWBARAP_1184
AY27762	633837	WMWBARAP_1184
AY27763	633837	WMWBARAP_1184
AY27764	633837	WMWBARAP_1184
AY27765	633837	WMWBARAP_1184
AY27766	633863	WMWBARAP_1184
AY27767	633863	WMWBARAP_1184
AY27768	633863	WMWBARAP_1184
AY27769	633863	WMWBARAP_1184
AY27770	633863	WMWBARAP_1184
AY27771	633863	WMWBARAP_1184
AY27772	633863	WMWBARAP_1184
AY27773	633863	WMWBARAP_1184
AY27774	633863	WMWBARAP_1184
AY27775	633863	WMWBARAP_1184
AY27776	633864	WMWBARAP_1184
AY27777	633864	WMWBARAP_1184
AY27778	633864	WMWBARAP_1184
AY27779	633864	WMWBARAP_1184

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



### General Quality Control Procedures:

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

### Matrix Specific Quality Control Procedures:

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

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



TDS

Barry Ash Pond

WMWBARAP\_1184

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>
AY27759	633962	WMWBARAP_1184
AY27760	633962	WMWBARAP_1184
AY27761	633962	WMWBARAP_1184
AY27762	633962	WMWBARAP_1184
AY27763	633962	WMWBARAP_1184
AY27764	633962	WMWBARAP_1184
AY27765	633962	WMWBARAP_1184
AY27766	633963	WMWBARAP_1184
AY27767	633963	WMWBARAP_1184
AY27768	633963	WMWBARAP_1184
AY27769	633963	WMWBARAP_1184
AY27770	633963	WMWBARAP_1184
AY27771	633963	WMWBARAP_1184
AY27772	633963	WMWBARAP_1184
AY27773	633963	WMWBARAP_1184
AY27774	634047	WMWBARAP_1184
AY27775	634047	WMWBARAP_1184
AY27776	634047	WMWBARAP_1184
AY27777	634047	WMWBARAP_1184
AY27778	633963	WMWBARAP_1184
AY27779	633963	WMWBARAP_1184

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 Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - AY27769
  - AY27772
  - AY27777

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY27759

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0283	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.139	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0613	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	13.7	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	248	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY27759

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	20
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20

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

Laboratory certification ID: E571114

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY27759

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60		4.11	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY27760

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0536	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.143	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	1.31	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	32.5	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	303	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY27760

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115		96.8	70 to 130	4.18	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115		102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115		105	70 to 130	4.77	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046		94.2	70 to 130	3.26	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115		93.5	70 to 130	1.07	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15		96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75		95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115		96.2	70 to 130	1.64	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115		92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115		99.0	70 to 130	2.99	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23		97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115		101	70 to 130	1.77	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115		95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115		89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115		98.9	70 to 130	3.58	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY27760

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60		4.11	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY27761

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0209	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0654	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0311	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	9.66	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	0.0178	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	138	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY27761

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike	MS				Limit	Rec	Limit	Prec	
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20	
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20	
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20	
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20	
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20	
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20	
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20	
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20	
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20	
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20	
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520		
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20	
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20	
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20	
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY27761

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY27762

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0422	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.119	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	2.23	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	39.7	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	330	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY27762

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit	
			MB	Limit					Limit	Prec			
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY27762

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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Laboratory certification ID: E571114

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AY27763

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0420	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.121	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	2.20	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	39.6	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	348	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AY27763

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AY27763

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60		4.11	5

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Laboratory certification ID: E571114

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY27764

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0536	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0660	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	2.00	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	54.2	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	378	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY27764

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20		
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20		
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20		
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520			
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20		
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20		
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20		
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20		
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20		
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20		
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20		
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20		
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20		
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046	94.2	70 to 130	3.26	20		
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20		

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY27764

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60			4.11	5

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Laboratory certification ID: E571114

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Comments:

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY27765

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0231	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.91	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	50.7	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY27765

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115		96.8	70 to 130	4.18	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115		102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115		105	70 to 130	4.77	20
AY27765	Mercury, Total by CVAA	mg/L	0.00006	0.0005	0.004	0.00377	0.00389	0.004	0.0034 to 0.0046		94.2	70 to 130	3.26	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115		93.5	70 to 130	1.07	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115		92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115		99.0	70 to 130	2.99	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115		95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115		89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115		98.9	70 to 130	3.58	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23		97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115		101	70 to 130	1.77	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15		96.3	70 to 130	0.0095520	20
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75		95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115		96.2	70 to 130	1.64	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY27765

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27765	Solids, Dissolved	mg/L	0.0000	25			46.7	56.0	40 to 60		4.11	5

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Laboratory certification ID: E571114

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 744 County Road 87, GSC#8  
 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY27766

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0321	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000710	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.01	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	J 0.00363	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	32.0	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY27766

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit				Limit	Rec	Limit	Prec		
AY27768	Cobalt, Total	mg/L	0.0000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY27766

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60		0.166	5

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Laboratory certification ID: E571114

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY27767

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0339	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.999	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	41.3	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY27767

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27768	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY27767

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60		0.166	5

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Laboratory certification ID: E571114

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Comments:

CC:

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



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY27768

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	J 0.00144	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0249	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	2.80	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	0.00660	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	48.0	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY27768

Sample	Analysis	Units	MB	MB			LCS			Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	
AY27768	Cobalt, Total	mg/L	0.0000503	0.0044	0.10	0.100	0.101	0.0994	0.085 to 0.115	93.5	70 to 130	1.07	20
AY27768	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.93	20
AY27768	Lithium, Total	mg/L	-0.0000815	0.022	0.20	0.194	0.196	0.187	0.17 to 0.23	97.2	70 to 130	0.726	20
AY27768	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.101	0.103	0.100	0.085 to 0.115	101	70 to 130	1.77	20
AY27768	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0955	0.0963	0.0980	0.085 to 0.115	95.5	70 to 130	0.848	20
AY27768	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0898	0.0902	0.0923	0.085 to 0.115	89.8	70 to 130	0.439	20
AY27768	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.0989	0.103	0.105	0.085 to 0.115	98.9	70 to 130	3.58	20
AY27768	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.117	0.119	0.0983	0.085 to 0.115	92.2	70 to 130	1.86	20
AY27768	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.0990	0.102	0.104	0.085 to 0.115	99.0	70 to 130	2.99	20
AY27768	Boron, Total	mg/L	-0.000157	0.044	1.00	0.963	0.963	0.944	0.85 to 1.15	96.3	70 to 130	0.0095520	
AY27768	Calcium, Total	mg/L	-0.00133	0.22	5.00	7.58	7.56	4.85	4.25 to 5.75	95.6	70 to 130	0.190	20
AY27768	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.0962	0.0978	0.0970	0.085 to 0.115	96.2	70 to 130	1.64	20
AY27768	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.0982	0.102	0.102	0.085 to 0.115	96.8	70 to 130	4.18	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20
AY27768	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.105	0.110	0.110	0.085 to 0.115	105	70 to 130	4.77	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY27768

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60		0.166	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27769

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27769

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115		97.0	70 to 130	1.08	20
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15		101	70 to 130	3.00	20
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115		108	70 to 130	5.98	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23		101	70 to 130	6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115		91.6	70 to 130	0.974	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115		95.7	70 to 130	0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115		103	70 to 130	3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75		86.7	70 to 130	3.79	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046		99.2	70 to 130	0.189	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115		98.3	70 to 130	0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115		102	70 to 130	0.320	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115		99.4	70 to 130	0.893	20
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115		97.1	70 to 130	0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115		104	70 to 130	0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115		103	70 to 130	1.15	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27769

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY27770

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0108	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0792	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	1.58	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	13.3	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	0.0182	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	250	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY27770

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20

This Certificate states the physical and/or chemical characteristics 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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY27770

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit	
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166	5

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

**CC:**

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY27771

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0158	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0557	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0715	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	7.58	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	0.0311	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	J 0.0169	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	190	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY27771

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Limit	
			MB	Limit					Rec	Limit			
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY27771

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			0.0000	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166 5

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

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Laboratory certification ID: E571114

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**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPEB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY27772

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPEB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY27772

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20	
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20	
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20	
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20	
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20	
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20	
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20	
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20	
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20	
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20	
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20	
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20	
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20	
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20	
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPEB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY27772

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY27773

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0145	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0589	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0493	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	10.8	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00523	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	295	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY27773

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115		97.0	70 to 130	1.08	20
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115		108	70 to 130	5.98	20
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15		101	70 to 130	3.00	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23		101	70 to 130	6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115		91.6	70 to 130	0.974	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115		95.7	70 to 130	0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115		103	70 to 130	3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75		86.7	70 to 130	3.79	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115		99.4	70 to 130	0.893	20
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115		97.1	70 to 130	0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115		104	70 to 130	0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115		103	70 to 130	1.15	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046		99.2	70 to 130	0.189	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115		98.3	70 to 130	0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115		102	70 to 130	0.320	20

This Certificate states the physical and/or chemical characteristics 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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY27773

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60		0.166	5

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY27774

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0141	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0697	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0417	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	15.2	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00680	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	304	mg/L
Filter Completion Date	CRB	12/4/2018	SM 2540C		1			12/04/2018	Date

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY27774

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20	
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20	
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20	
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20	
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20	
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20	
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20	
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20	
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20	
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046	99.2	70 to 130	0.189	20	
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20	
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20	
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20	
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20	
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20	

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

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

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY27774

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
				Limit			Duplicate	LCS	Limit	Limit		Limit
AY27774	Solids, Dissolved	mg/L	0.0000	25			289	46.0	40 to 60		2.53	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY27775

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0216	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0788	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0640	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	22.1	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	J 0.00274	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00353	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	336	mg/L
Filter Completion Date	CRB	12/4/2018	SM 2540C		1			12/04/2018	Date

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

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY27775

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit	
				Limit	Spike				Limit	Rec	Limit	Prec			
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115		108	70 to 130		5.98	20
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15		101	70 to 130		3.00	20
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115		97.0	70 to 130		1.08	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115		99.4	70 to 130		0.893	20
AY27778	Cobalt, Total	mg/L	0.0000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115		97.1	70 to 130		0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115		104	70 to 130		0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115		103	70 to 130		1.15	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23		101	70 to 130		6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115		91.6	70 to 130		0.974	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115		95.7	70 to 130		0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115		103	70 to 130		3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75		86.7	70 to 130		3.79	20
AY27775	Mercury, Total by CVAA	mg/L	0.0000650	0.0005	0.004	0.00397	0.00396	0.00388	0.0034 to 0.0046		99.2	70 to 130		0.189	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115		98.3	70 to 130		0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115		102	70 to 130		0.320	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY27775

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27774	Solids, Dissolved	mg/L	0.0000	25			289	46.0	40 to 60		2.53	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY27776

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0140	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0796	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0545	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	24.6	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00230	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	0.0262	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	357	mg/L
Filter Completion Date	CRB	12/4/2018	SM 2540C		1			12/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY27776

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20		
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20		
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20		
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20		
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20		
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20		
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20		
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20		
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20		
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20		
AY27779	Mercury, Total by CVAA	mg/L	0.0000611	0.0005	0.004	0.00397	0.00399	0.00399	0.0034 to 0.0046	99.3	70 to 130	0.362	20		
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20		
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20		
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20		
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20		

This Certificate states the physical and/or chemical characteristics 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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY27776

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY27774	Solids, Dissolved	mg/L	0.0000	25			289	46.0	40 to 60		2.53	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27777

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	12/4/2018	SM 2540C		1			12/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27777

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20		
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20		
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20		
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20		
AY27778	Cobalt, Total	mg/L	0.0000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20		
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20		
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20		
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20		
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20		
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20		
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20		
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20		
AY27779	Mercury, Total by CVAA	mg/L	0.0000611	0.0005	0.004	0.00397	0.00399	0.00399	0.0034 to 0.0046	99.3	70 to 130	0.362	20		
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20		
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20		

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27777

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY27774	Solids, Dissolved	mg/L	0.0000	25			289	46.0	40 to 60			2.53	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

Comments:

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY27778

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0677	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.271	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	1.80	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	35.8	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00360	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	408	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY27778

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY27778	Chromium, Total	mg/L	0.0000493	0.0044	0.10	0.101	0.0995	0.0970	0.085 to 0.115	97.0	70 to 130	1.08	20
AY27778	Beryllium, Total	mg/L	0.0000328	0.00132	0.10	0.108	0.102	0.110	0.085 to 0.115	108	70 to 130	5.98	20
AY27778	Boron, Total	mg/L	-0.000152	0.044	1.00	2.81	2.90	0.956	0.85 to 1.15	101	70 to 130	3.00	20
AY27778	Antimony, Total	mg/L	0.0000732	0.00176	0.10	0.0983	0.0976	0.0980	0.085 to 0.115	98.3	70 to 130	0.740	20
AY27778	Selenium, Total	mg/L	0.0000307	0.0044	0.10	0.102	0.102	0.105	0.085 to 0.115	102	70 to 130	0.320	20
AY27778	Lithium, Total	mg/L	-0.0000775	0.022	0.20	0.202	0.216	0.189	0.17 to 0.23	101	70 to 130	6.80	20
AY27778	Molybdenum, Total	mg/L	0.0000223	0.0044	0.10	0.0916	0.0925	0.0923	0.085 to 0.115	91.6	70 to 130	0.974	20
AY27778	Arsenic, Total	mg/L	0.0000165	0.0022	0.10	0.167	0.166	0.102	0.085 to 0.115	99.4	70 to 130	0.893	20
AY27778	Cobalt, Total	mg/L	0.00000503	0.0044	0.10	0.0971	0.0965	0.0994	0.085 to 0.115	97.1	70 to 130	0.668	20
AY27778	Lead, Total	mg/L	0.0000164	0.0022	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.725	20
AY27778	Thallium, Total	mg/L	0.0000103	0.00044	0.10	0.103	0.102	0.100	0.085 to 0.115	103	70 to 130	1.15	20
AY27778	Barium, Total	mg/L	0.00000497	0.0044	0.10	0.367	0.365	0.0983	0.085 to 0.115	95.7	70 to 130	0.597	20
AY27778	Cadmium, Total	mg/L	0.00000683	0.00066	0.10	0.103	0.0995	0.104	0.085 to 0.115	103	70 to 130	3.02	20
AY27778	Calcium, Total	mg/L	0.00170	0.22	5.00	40.1	41.7	4.88	4.25 to 5.75	86.7	70 to 130	3.79	20
AY27779	Mercury, Total by CVAA	mg/L	0.0000611	0.0005	0.004	0.00397	0.00399	0.00399	0.0034 to 0.0046	99.3	70 to 130	0.362	20

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Laboratory certification ID: E571114

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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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY27778

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
				Limit			Duplicate	LCS	Limit	Rec	Limit	Limit
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166 5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14 DUP

Laboratory ID Number: AY27779

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.0149	mg/L
* Barium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	0.0598	mg/L
* Beryllium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.02	0.1	J 0.0532	mg/L
* Calcium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	11.0	mg/L
* Cadmium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	J 0.00532	mg/L
* Mercury, Total by CVAA	GAS	12/6/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	12/6/2018	SM 2540C		1		25	301	mg/L
Filter Completion Date	CRB	11/30/2018	SM 2540C		1			11/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14 DUP

Laboratory ID Number: AY27779

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit	
			MB	Limit					Limit	Prec			
AY27779	Selenium, Total	mg/L	0.0000286	0.0044	0.10	0.104	0.104	0.105	0.085 to 0.115	104	70 to 130	0.101	20
AY27779	Chromium, Total	mg/L	0.0000516	0.0044	0.10	0.104	0.104	0.0973	0.085 to 0.115	98.3	70 to 130	0.265	20
AY27779	Antimony, Total	mg/L	0.0000694	0.00176	0.10	0.0985	0.0968	0.0987	0.085 to 0.115	98.5	70 to 130	1.71	20
AY27779	Lead, Total	mg/L	0.0000182	0.0022	0.10	0.106	0.105	0.102	0.085 to 0.115	106	70 to 130	0.331	20
AY27779	Arsenic, Total	mg/L	0.0000172	0.0022	0.10	0.117	0.117	0.103	0.085 to 0.115	102	70 to 130	0.350	20
AY27779	Barium, Total	mg/L	0.00000758	0.0044	0.10	0.159	0.157	0.0990	0.085 to 0.115	99.2	70 to 130	1.33	20
AY27779	Boron, Total	mg/L	0.0000209	0.044	1.00	1.01	1.00	0.946	0.85 to 1.15	95.7	70 to 130	0.733	20
AY27779	Mercury, Total by CVAA	mg/L	0.0000611	0.0005	0.004	0.00397	0.00399	0.00399	0.0034 to 0.0046	99.3	70 to 130	0.362	20
AY27779	Thallium, Total	mg/L	0.0000107	0.00044	0.10	0.105	0.104	0.101	0.085 to 0.115	105	70 to 130	0.428	20
AY27779	Beryllium, Total	mg/L	0.0000517	0.00132	0.10	0.105	0.109	0.110	0.085 to 0.115	105	70 to 130	3.93	20
AY27779	Cadmium, Total	mg/L	0.00000764	0.00066	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.900	20
AY27779	Calcium, Total	mg/L	0.00200	0.22	5.00	15.5	15.7	4.79	4.25 to 5.75	90.3	70 to 130	1.40	20
AY27779	Cobalt, Total	mg/L	0.00000102	0.0044	0.10	0.0998	0.0990	0.0960	0.085 to 0.115	99.8	70 to 130	0.710	20
AY27779	Lithium, Total	mg/L	-0.0000612	0.022	0.20	0.207	0.206	0.187	0.17 to 0.23	103	70 to 130	0.145	20
AY27779	Molybdenum, Total	mg/L	0.0000275	0.0044	0.10	0.0938	0.0921	0.0919	0.085 to 0.115	93.8	70 to 130	1.74	20

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**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14 DUP

Laboratory ID Number: AY27779

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
				Limit			Duplicate	LCS	Limit	Limit		Limit	
AY27779	Solids, Dissolved	mg/L	0.0000	25			300	56.0	40 to 60			0.166	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:



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

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





# Chain of Custody

## Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:23

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Nick Pitts	Location	Barry Ash Pond

Bottles	1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
	2	Hg	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	11/27/18	09:27	3	Groundwater		AY27766
MW-3	11/27/2018	10:45	3	Groundwater		AY27767
MW-2	11/27/2018	12:30	3	Groundwater		AY27768
FB-1	11/27/2018	11:50	3	Field Blank		AY27769
MW-16	11/27/2018	13:32	3	Groundwater		AY27770
MW-15	11/27/2018	15:20	3	Groundwater		AY27771
EB-1	11/27/2018	14:10	3	Equipment Blank		AY27772
MW-14	11/27/2018	16:12	3	Groundwater		AY27773
MW-13	11/28/2018	08:55	3	Groundwater		AY27774
MW-12	11/28/2018	10:07	3	Groundwater		AY27775
MW-11	11/28/2018	11:25	3	Groundwater		AY27776
FB-2	11/28/2018	10:45	3	Field Blank		AY27777
MW-1	11/28/2018	12:48	3	Groundwater		AY27778
MW-14 Dup	11/27/2018	16:12	3	Sample Duplicate		AY27779

Relinquished By	Received By	Date/Time
<b>Nick Pitts</b> <small>Digitally signed by Nick Pitts Date: 2018.11.29 08:33:46 -06'00'</small>	<b>Laura Midkiff</b> <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, ou=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 08:36:04 -06'00'</small>	<b>11/29/2018 08:36</b>

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp
Sample Event	1184	Thermometer ID
		pH Strip ID
		0.8 degrees C
		5408-27568-2-2
		7114-38608-1-1







# Chain of Custody

## Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:24

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Lauren Parker
Site Representative	Tamala Davis	Requested By	Lauren Parker
Collector	Nick Pitts	Location	Barry Ash Pond

Bottles	1 Radium	1 L	3 N/A	N/A	5 N/A	N/A	7 N/A	N/A
	2 Anions	250 mL	4 N/A	N/A	6 N/A	N/A	8 N/A	N/A

Comments Rad Dup on MW-4 and MW-11.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	11/27/18	09:27	4	Groundwater		AY27787
MW-3	11/27/2018	10:45	2	Groundwater		AY27788
MW-2	11/27/2018	12:30	2	Groundwater		AY27789
FB-1	11/27/2018	11:50	2	Field Blank		AY27790
MW-16	11/27/2018	13:32	2	Groundwater		AY27791
MW-15	11/27/2018	15:20	2	Groundwater		AY27792
EB-1	11/27/2018	14:10	2	Equipment Blank		AY27793
MW-14	11/27/2018	16:12	2	Groundwater		AY27794
MW-13	11/28/2018	08:55	2	Groundwater		AY27795
MW-12	11/28/2018	10:07	2	Groundwater		AY27796
MW-11	11/28/2018	11:25	4	Groundwater		AY27797
FB-2	11/28/2018	10:45	2	Field Blank		AY27798
MW-1	11/28/2018	12:48	2	Groundwater		AY27799
MW-14 Dup	11/27/2018	16:12	2	Sample Duplicate		AY27800

Relinquished By	Received By	Date/Time
<b>Nick Pitts</b> <small>Digitally signed by Nick Pitts Date: 2018.11.29 08:28:35 -06'00'</small>	<b>Laura Midkiff</b> <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 08:31:47 -06'00'</small>	11/29/2018 08:31

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2	<input checked="" type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp	0.8 degrees C
Sample Event	1184	Thermometer ID	5408-27568-2-2
		pH Strip ID	7114-38608-1-1

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-162856-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1184

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

12/14/2018 6:18:57 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

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

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

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

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# Case Narrative

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

**Job ID: 400-162856-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-162856-1

#### General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 423145 was outside control limits: (400-162846-A-4 DU). The associated Laboratory Control Sample(LCS)met acceptance criteria.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 422889 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: Due to matrix interference the sample was diluted in order to achieve a positive response with the instrument. AY27796 MW-12 (400-162856-17)

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# Detection Summary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## Client Sample ID: AY27780 MW-5

## Lab Sample ID: 400-162856-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY27781 MW-8

## Lab Sample ID: 400-162856-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27782 MW-7

## Lab Sample ID: 400-162856-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.070	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY27783 MW-9

## Lab Sample ID: 400-162856-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	1.4	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	1.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY27784 MW-9 DUP

## Lab Sample ID: 400-162856-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	1.4	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	2.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY27785 MW-10

## Lab Sample ID: 400-162856-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27786 MW-6

## Lab Sample ID: 400-162856-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27787 MW-4

## Lab Sample ID: 400-162856-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY27788 MW-3

## Lab Sample ID: 400-162856-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27789 MW-2

## Lab Sample ID: 400-162856-10

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## Client Sample ID: AY27789 MW-2 (Continued)

Lab Sample ID: 400-162856-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.8		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27790 FB-1

Lab Sample ID: 400-162856-11

No Detections.

## Client Sample ID: AY27791 MW-16

Lab Sample ID: 400-162856-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY27792 MW-15

Lab Sample ID: 400-162856-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.18		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA

## Client Sample ID: AY27793 EB-1

Lab Sample ID: 400-162856-14

No Detections.

## Client Sample ID: AY27794 MW-14

Lab Sample ID: 400-162856-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43		2.0	1.4	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

## Client Sample ID: AY27795 MW-13

Lab Sample ID: 400-162856-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43		2.0	1.4	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	4.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY27796 MW-12

Lab Sample ID: 400-162856-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	1.4	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

## Client Sample ID: AY27798 FB-2

Lab Sample ID: 400-162856-18

No Detections.

## Client Sample ID: AY27799 MW-1

Lab Sample ID: 400-162856-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	4.1	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

# Detection Summary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## Client Sample ID: AY27800 MW-14 DUP

## Lab Sample ID: 400-162856-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43		2.0	1.4	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

## Client Sample ID: AY27797 MW-11

## Lab Sample ID: 400-162856-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	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

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 Barry

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

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 Barry

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-162856-1	AY27780 MW-5	Water	11/27/18 16:22	12/01/18 15:15
400-162856-2	AY27781 MW-8	Water	11/27/18 17:24	12/01/18 15:15
400-162856-3	AY27782 MW-7	Water	11/28/18 09:04	12/01/18 15:15
400-162856-4	AY27783 MW-9	Water	11/28/18 10:10	12/01/18 15:15
400-162856-5	AY27784 MW-9 DUP	Water	11/28/18 10:10	12/01/18 15:15
400-162856-6	AY27785 MW-10	Water	11/28/18 11:18	12/01/18 15:15
400-162856-7	AY27786 MW-6	Water	11/28/18 12:41	12/01/18 15:15
400-162856-8	AY27787 MW-4	Water	11/27/18 09:27	12/01/18 15:15
400-162856-9	AY27788 MW-3	Water	11/27/18 10:45	12/01/18 15:15
400-162856-10	AY27789 MW-2	Water	11/27/18 12:30	12/01/18 15:15
400-162856-11	AY27790 FB-1	Water	11/27/18 11:50	12/01/18 15:15
400-162856-12	AY27791 MW-16	Water	11/27/18 13:32	12/01/18 15:15
400-162856-13	AY27792 MW-15	Water	11/27/18 15:20	12/01/18 15:15
400-162856-14	AY27793 EB-1	Water	11/27/18 14:10	12/01/18 15:15
400-162856-15	AY27794 MW-14	Water	11/27/18 16:12	12/01/18 15:15
400-162856-16	AY27795 MW-13	Water	11/28/18 08:55	12/01/18 15:15
400-162856-17	AY27796 MW-12	Water	11/28/18 10:07	12/01/18 15:15
400-162856-18	AY27798 FB-2	Water	11/28/18 10:45	12/01/18 15:15
400-162856-19	AY27799 MW-1	Water	11/28/18 12:48	12/01/18 15:15
400-162856-20	AY27800 MW-14 DUP	Water	11/27/18 16:12	12/01/18 15:15
400-162856-21	AY27797 MW-11	Water	11/28/18 11:25	12/01/18 15:15

# Client Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27780 MW-5**

**Lab Sample ID: 400-162856-1**

Date Collected: 11/27/18 16:22

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:37	1
Sulfate	2.7	J	5.0	1.4	mg/L			12/13/18 11:02	1

**Client Sample ID: AY27781 MW-8**

**Lab Sample ID: 400-162856-2**

Date Collected: 11/27/18 17:24

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 17:40	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:02	1

**Client Sample ID: AY27782 MW-7**

**Lab Sample ID: 400-162856-3**

Date Collected: 11/28/18 09:04

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	0.070	J	0.10	0.032	mg/L			12/12/18 17:44	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:02	1

**Client Sample ID: AY27783 MW-9**

**Lab Sample ID: 400-162856-4**

Date Collected: 11/28/18 10:10

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	0.040	J	0.10	0.032	mg/L			12/12/18 17:46	1
Sulfate	1.4	J	5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27784 MW-9 DUP**

**Lab Sample ID: 400-162856-5**

Date Collected: 11/28/18 10:10

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	0.040	J	0.10	0.032	mg/L			12/13/18 10:04	1
Sulfate	2.3	J	5.0	1.4	mg/L			12/13/18 14:08	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27785 MW-10**

**Lab Sample ID: 400-162856-6**

Date Collected: 11/28/18 11:18

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 11:02	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27786 MW-6**

**Lab Sample ID: 400-162856-7**

Date Collected: 11/28/18 12:41

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 11:06	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27787 MW-4**

**Lab Sample ID: 400-162856-8**

Date Collected: 11/27/18 09:27

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	1.4	mg/L			12/12/18 11:45	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:11	1
Sulfate	2.3	J	5.0	1.4	mg/L			12/13/18 11:02	1

**Client Sample ID: AY27788 MW-3**

**Lab Sample ID: 400-162856-9**

Date Collected: 11/27/18 10:45

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.4		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:15	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:02	1

**Client Sample ID: AY27789 MW-2**

**Lab Sample ID: 400-162856-10**

Date Collected: 11/27/18 12:30

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.8		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:17	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:02	1

**Client Sample ID: AY27790 FB-1**

**Lab Sample ID: 400-162856-11**

Date Collected: 11/27/18 11:50

Matrix: Water

Date Received: 12/01/18 15:15

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:52	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27790 FB-1**

**Lab Sample ID: 400-162856-11**

Date Collected: 11/27/18 11:50

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:21	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27791 MW-16**

**Lab Sample ID: 400-162856-12**

Date Collected: 11/27/18 13:32

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:23	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27792 MW-15**

**Lab Sample ID: 400-162856-13**

Date Collected: 11/27/18 15:20

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	0.18		0.10	0.032	mg/L			12/13/18 10:25	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27793 EB-1**

**Lab Sample ID: 400-162856-14**

Date Collected: 11/27/18 14:10

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 10:29	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27794 MW-14**

**Lab Sample ID: 400-162856-15**

Date Collected: 11/27/18 16:12

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	0.060	J	0.10	0.032	mg/L			12/13/18 10:37	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27795 MW-13**

**Lab Sample ID: 400-162856-16**

Date Collected: 11/28/18 08:55

Matrix: Water

Date Received: 12/01/18 15:15

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	0.050	J	0.10	0.032	mg/L			12/13/18 14:42	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27795 MW-13**

**Lab Sample ID: 400-162856-16**

Date Collected: 11/28/18 08:55

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	4.9	J	5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27796 MW-12**

**Lab Sample ID: 400-162856-17**

Date Collected: 11/28/18 10:07

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	1.4	mg/L			12/12/18 13:36	1
Fluoride	0.040	J	0.10	0.032	mg/L			12/13/18 14:53	1
Sulfate	<14		50	14	mg/L			12/13/18 14:58	10

**Client Sample ID: AY27798 FB-2**

**Lab Sample ID: 400-162856-18**

Date Collected: 11/28/18 10:45

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 14:50	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27799 MW-1**

**Lab Sample ID: 400-162856-19**

Date Collected: 11/28/18 12:48

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		2.0	1.4	mg/L			12/12/18 13:43	1
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 14:56	1
Sulfate	4.1	J	5.0	1.4	mg/L			12/13/18 14:08	1

**Client Sample ID: AY27800 MW-14 DUP**

**Lab Sample ID: 400-162856-20**

Date Collected: 11/27/18 16:12

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		2.0	1.4	mg/L			12/12/18 11:52	1
Fluoride	0.060	J	0.10	0.032	mg/L			12/13/18 10:42	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 11:06	1

**Client Sample ID: AY27797 MW-11**

**Lab Sample ID: 400-162856-21**

Date Collected: 11/28/18 11:25

Matrix: Water

Date Received: 12/01/18 15:15

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			12/12/18 13:43	1
Fluoride	0.050	J	0.10	0.032	mg/L			12/13/18 15:00	1
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:13	1

TestAmerica Pensacola

# Definitions/Glossary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
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.
F1	MS and/or MSD Recovery is outside acceptance limits.

## Glossary

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

# Lab Chronicle

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27780 MW-5**

**Date Collected: 11/27/18 16:22**

**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-1**

**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	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

**Client Sample ID: AY27781 MW-8**

**Date Collected: 11/27/18 17:24**

**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-2**

**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	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:40	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

**Client Sample ID: AY27782 MW-7**

**Date Collected: 11/28/18 09:04**

**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-3**

**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	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:02	RRC	TAL PEN

**Client Sample ID: AY27783 MW-9**

**Date Collected: 11/28/18 10:10**

**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-4**

**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	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	422987	12/12/18 17:46	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27784 MW-9 DUP**

**Date Collected: 11/28/18 10:10**

**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-5**

**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	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:04	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN



# Lab Chronicle

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27785 MW-10**

**Lab Sample ID: 400-162856-6**

**Date Collected: 11/28/18 11:18**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 11:02	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27786 MW-6**

**Lab Sample ID: 400-162856-7**

**Date Collected: 11/28/18 12:41**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 11:06	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27787 MW-4**

**Lab Sample ID: 400-162856-8**

**Date Collected: 11/27/18 09:27**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:11	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

**Client Sample ID: AY27788 MW-3**

**Lab Sample ID: 400-162856-9**

**Date Collected: 11/27/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:15	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

**Client Sample ID: AY27789 MW-2**

**Lab Sample ID: 400-162856-10**

**Date Collected: 11/27/18 12:30**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:02	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27790 FB-1**

**Lab Sample ID: 400-162856-11**

**Date Collected: 11/27/18 11:50**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

**Client Sample ID: AY27791 MW-16**

**Lab Sample ID: 400-162856-12**

**Date Collected: 11/27/18 13:32**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

**Client Sample ID: AY27792 MW-15**

**Lab Sample ID: 400-162856-13**

**Date Collected: 11/27/18 15:20**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

**Client Sample ID: AY27793 EB-1**

**Lab Sample ID: 400-162856-14**

**Date Collected: 11/27/18 14:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

**Client Sample ID: AY27794 MW-14**

**Lab Sample ID: 400-162856-15**

**Date Collected: 11/27/18 16:12**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27795 MW-13**

**Lab Sample ID: 400-162856-16**

**Date Collected: 11/28/18 08:55**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423145	12/13/18 14:42	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27796 MW-12**

**Lab Sample ID: 400-162856-17**

**Date Collected: 11/28/18 10:07**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423145	12/13/18 14:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	423131	12/13/18 14:58	RRC	TAL PEN

**Client Sample ID: AY27798 FB-2**

**Lab Sample ID: 400-162856-18**

**Date Collected: 11/28/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:43	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423145	12/13/18 14:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27799 MW-1**

**Lab Sample ID: 400-162856-19**

**Date Collected: 11/28/18 12:48**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:43	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423145	12/13/18 14:56	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:08	RRC	TAL PEN

**Client Sample ID: AY27800 MW-14 DUP**

**Lab Sample ID: 400-162856-20**

**Date Collected: 11/27/18 16:12**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422889	12/12/18 11:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423073	12/13/18 10:42	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423102	12/13/18 11:06	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27797 MW-11**

**Lab Sample ID: 400-162856-21**

**Date Collected: 11/28/18 11:25**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	422929	12/12/18 13:43	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	423145	12/13/18 15:00	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	423131	12/13/18 14:13	RRC	TAL PEN

#### Laboratory References:

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

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# QC Association Summary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## General Chemistry

### Analysis Batch: 422889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-1	AY27780 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-162856-2	AY27781 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-162856-8	AY27787 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-162856-9	AY27788 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-162856-10	AY27789 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-162856-11	AY27790 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-162856-12	AY27791 MW-16	Total/NA	Water	SM 4500 Cl- E	
400-162856-13	AY27792 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-162856-14	AY27793 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-162856-15	AY27794 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-162856-20	AY27800 MW-14 DUP	Total/NA	Water	SM 4500 Cl- E	
MB 400-422889/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-422889/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-422889/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-162854-A-7 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-162854-A-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-162854-A-8 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-162854-A-8 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 422929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-3	AY27782 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-162856-4	AY27783 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-162856-5	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 Cl- E	
400-162856-6	AY27785 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-162856-7	AY27786 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-162856-16	AY27795 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-162856-17	AY27796 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-162856-18	AY27798 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-162856-19	AY27799 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-162856-21	AY27797 MW-11	Total/NA	Water	SM 4500 Cl- E	
MB 400-422929/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-422929/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-422929/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-162856-5 MS	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 Cl- E	
400-162856-5 MSD	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 422987

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-1	AY27780 MW-5	Total/NA	Water	SM 4500 F C	
400-162856-2	AY27781 MW-8	Total/NA	Water	SM 4500 F C	
400-162856-3	AY27782 MW-7	Total/NA	Water	SM 4500 F C	
400-162856-4	AY27783 MW-9	Total/NA	Water	SM 4500 F C	
MB 400-422987/2	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-422987/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-162854-A-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-162854-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-162854-A-9 DU	Duplicate	Total/NA	Water	SM 4500 F C	

# QC Association Summary

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

## General Chemistry (Continued)

### Analysis Batch: 423073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-5	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 F C	
400-162856-6	AY27785 MW-10	Total/NA	Water	SM 4500 F C	
400-162856-7	AY27786 MW-6	Total/NA	Water	SM 4500 F C	
400-162856-8	AY27787 MW-4	Total/NA	Water	SM 4500 F C	
400-162856-9	AY27788 MW-3	Total/NA	Water	SM 4500 F C	
400-162856-10	AY27789 MW-2	Total/NA	Water	SM 4500 F C	
400-162856-11	AY27790 FB-1	Total/NA	Water	SM 4500 F C	
400-162856-12	AY27791 MW-16	Total/NA	Water	SM 4500 F C	
400-162856-13	AY27792 MW-15	Total/NA	Water	SM 4500 F C	
400-162856-14	AY27793 EB-1	Total/NA	Water	SM 4500 F C	
400-162856-15	AY27794 MW-14	Total/NA	Water	SM 4500 F C	
400-162856-20	AY27800 MW-14 DUP	Total/NA	Water	SM 4500 F C	
MB 400-423073/2	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-423073/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-162856-5 MS	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 F C	
400-162856-5 MSD	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 F C	
400-162856-15 DU	AY27794 MW-14	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 423102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-1	AY27780 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-162856-2	AY27781 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-162856-8	AY27787 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-162856-9	AY27788 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-162856-10	AY27789 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-162856-11	AY27790 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-162856-12	AY27791 MW-16	Total/NA	Water	SM 4500 SO4 E	
400-162856-13	AY27792 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-162856-14	AY27793 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-162856-15	AY27794 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-162856-20	AY27800 MW-14 DUP	Total/NA	Water	SM 4500 SO4 E	
MB 400-423102/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-423102/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-423102/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-162854-A-9 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-162854-A-9 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 423131

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-3	AY27782 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-162856-4	AY27783 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-162856-5	AY27784 MW-9 DUP	Total/NA	Water	SM 4500 SO4 E	
400-162856-6	AY27785 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-162856-7	AY27786 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-162856-16	AY27795 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-162856-17	AY27796 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-162856-18	AY27798 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-162856-19	AY27799 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-162856-21	AY27797 MW-11	Total/NA	Water	SM 4500 SO4 E	
MB 400-423131/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-423131/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-162856-1  
SDG: Barry Ash Pond 1184

## General Chemistry (Continued)

### Analysis Batch: 423131 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-423131/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-162856-7 MS	AY27786 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-162856-7 MSD	AY27786 MW-6	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 423145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-16	AY27795 MW-13	Total/NA	Water	SM 4500 F C	
400-162856-17	AY27796 MW-12	Total/NA	Water	SM 4500 F C	
400-162856-18	AY27798 FB-2	Total/NA	Water	SM 4500 F C	
400-162856-19	AY27799 MW-1	Total/NA	Water	SM 4500 F C	
400-162856-21	AY27797 MW-11	Total/NA	Water	SM 4500 F C	
MB 400-423145/2	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-423145/3	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-162856-16 MS	AY27795 MW-13	Total/NA	Water	SM 4500 F C	
400-162856-16 MSD	AY27795 MW-13	Total/NA	Water	SM 4500 F C	
400-162846-A-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

# QC Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

## Method: SM 4500 Cl- E - Chloride, Total

**Lab Sample ID: MB 400-422889/6**  
**Matrix: Water**  
**Analysis Batch: 422889**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 11:42	1

**Lab Sample ID: LCS 400-422889/7**  
**Matrix: Water**  
**Analysis Batch: 422889**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.9		mg/L		110	90 - 110

**Lab Sample ID: MRL 400-422889/3**  
**Matrix: Water**  
**Analysis Batch: 422889**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.64	J	mg/L		82	50 - 150

**Lab Sample ID: 400-162854-A-7 MS**  
**Matrix: Water**  
**Analysis Batch: 422889**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.9	F1	10.0	17.0	F1	mg/L		122	73 - 120

**Lab Sample ID: 400-162854-A-7 MSD**  
**Matrix: Water**  
**Analysis Batch: 422889**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.9	F1	10.0	17.0	F1	mg/L		122	73 - 120	0	8

**Lab Sample ID: 400-162854-A-8 MS**  
**Matrix: Water**  
**Analysis Batch: 422889**

**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	16.8	F1	mg/L		132	73 - 120

**Lab Sample ID: 400-162854-A-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 422889**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.7	F1	10.0	16.6	F1	mg/L		129	73 - 120	2	8

**Lab Sample ID: MB 400-422929/6**  
**Matrix: Water**  
**Analysis Batch: 422929**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			12/12/18 13:33	1

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# QC Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Lab Sample ID: LCS 400-422929/7**  
**Matrix: Water**  
**Analysis Batch: 422929**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.9		mg/L		110	90 - 110

**Lab Sample ID: MRL 400-422929/3**  
**Matrix: Water**  
**Analysis Batch: 422929**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.52	J	mg/L		76	50 - 150

**Lab Sample ID: 400-162856-5 MS**  
**Matrix: Water**  
**Analysis Batch: 422929**

**Client Sample ID: AY27784 MW-9 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	23		10.0	32.6		mg/L		95	73 - 120

**Lab Sample ID: 400-162856-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 422929**

**Client Sample ID: AY27784 MW-9 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	23		10.0	32.5		mg/L		95	73 - 120	0	8

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 400-422987/2**  
**Matrix: Water**  
**Analysis Batch: 422987**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			12/12/18 16:19	1

**Lab Sample ID: LCS 400-422987/3**  
**Matrix: Water**  
**Analysis Batch: 422987**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.84		mg/L		96	90 - 110

**Lab Sample ID: 400-162854-A-1 MS**  
**Matrix: Water**  
**Analysis Batch: 422987**

**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	1.08		mg/L		101	75 - 125

# QC Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: 400-162854-A-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 422987**

**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	1.08		mg/L		101	75 - 125	0	4

**Lab Sample ID: 400-162854-A-9 DU**  
**Matrix: Water**  
**Analysis Batch: 422987**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

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

**Lab Sample ID: MB 400-423073/2**  
**Matrix: Water**  
**Analysis Batch: 423073**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 09:51	1

**Lab Sample ID: LCS 400-423073/3**  
**Matrix: Water**  
**Analysis Batch: 423073**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.91		mg/L		98	90 - 110

**Lab Sample ID: 400-162856-5 MS**  
**Matrix: Water**  
**Analysis Batch: 423073**

**Client Sample ID: AY27784 MW-9 DUP**  
**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	1.08		mg/L		104	75 - 125

**Lab Sample ID: 400-162856-5 MSD**  
**Matrix: Water**  
**Analysis Batch: 423073**

**Client Sample ID: AY27784 MW-9 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J	1.00	1.08		mg/L		104	75 - 125	0	4

**Lab Sample ID: 400-162856-15 DU**  
**Matrix: Water**  
**Analysis Batch: 423073**

**Client Sample ID: AY27794 MW-14**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.060	J	0.0600	J	mg/L		0	4

**Lab Sample ID: MB 400-423145/2**  
**Matrix: Water**  
**Analysis Batch: 423145**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			12/13/18 14:30	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

**Lab Sample ID: LCS 400-423145/3**  
**Matrix: Water**  
**Analysis Batch: 423145**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.84		mg/L		96	90 - 110

**Lab Sample ID: 400-162856-16 MS**  
**Matrix: Water**  
**Analysis Batch: 423145**

**Client Sample ID: AY27795 MW-13**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.050	J	1.00	1.08		mg/L		103	75 - 125

**Lab Sample ID: 400-162856-16 MSD**  
**Matrix: Water**  
**Analysis Batch: 423145**

**Client Sample ID: AY27795 MW-13**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.050	J	1.00	1.08		mg/L		103	75 - 125	0	4

**Lab Sample ID: 400-162846-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 423145**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J		0.0500	J F5	mg/L				22	4

## Method: SM 4500 SO4 E - Sulfate, Total

**Lab Sample ID: MB 400-423102/6**  
**Matrix: Water**  
**Analysis Batch: 423102**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 10:55	1

**Lab Sample ID: LCS 400-423102/7**  
**Matrix: Water**  
**Analysis Batch: 423102**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

**Lab Sample ID: MRL 400-423102/3**  
**Matrix: Water**  
**Analysis Batch: 423102**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.80	J	mg/L		76	50 - 150

# QC Sample Results

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

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

**Lab Sample ID: 400-162854-A-9 MS**  
**Matrix: Water**  
**Analysis Batch: 423102**

**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	6.5		10.0	17.4		mg/L		109	77 - 128

**Lab Sample ID: 400-162854-A-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 423102**

**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	6.5		10.0	17.2		mg/L		106	77 - 128	2	5

**Lab Sample ID: MB 400-423131/6**  
**Matrix: Water**  
**Analysis Batch: 423131**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			12/13/18 14:02	1

**Lab Sample ID: LCS 400-423131/7**  
**Matrix: Water**  
**Analysis Batch: 423131**

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.4		mg/L		96	90 - 110

**Lab Sample ID: MRL 400-423131/3**  
**Matrix: Water**  
**Analysis Batch: 423131**

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.88	J	mg/L		78	50 - 150

**Lab Sample ID: 400-162856-7 MS**  
**Matrix: Water**  
**Analysis Batch: 423131**

**Client Sample ID: AY27786 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4		10.0	10.2		mg/L		102	77 - 128

**Lab Sample ID: 400-162856-7 MSD**  
**Matrix: Water**  
**Analysis Batch: 423131**

**Client Sample ID: AY27786 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	9.99		mg/L		100	77 - 128	2	5

**TestAmerica Pensacola**  
 3355 McLeMORE Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2871

**Chain of Custody Record**



400-162856 COC

<b>Client Information</b>		Sampler: Ben Rothschild Phone: Laura Midkiff		Lab PM: Whitmire, Cheyenne R E-Mail: Cheyenne.whitmire@testamericainc.com		COC No: 400-56625-24537-1 Page: Page 1 of 2 Job #: 102856				
<b>Company:</b> Alabama Power General Test Laboratory Address: 744 County Rd 87, SSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6197 (Tel) E-Mail: lmidkiff@southemco.com Project Name: CCR Site: Barry Ash Pond 1184		<b>Due Date Requested:</b> 744 County Rd 87, SSC #8 <b>TAT Requested (days):</b> Routine <b>PO #:</b> <b>WO #:</b> <b>Project #:</b> 40007143 <b>SSOW#:</b>		<b>Analysis Requested</b>		<b>Preservation Codes:</b> A- HCL B- NaOH C- Zn Acetate D- Nitric Acid E- NiH2SO4 F- MeOH G- Amchlor H- Ascorbic Acid I- Ice J- DI Water K- EDTA L- EDA Other: M- Heptane N- Hexane O- Nitro2 P- Na2SO3 R- Na2S2O3 S- H2SO4 T- TSP Dodecahydrate U- Acetone V- MCAA W- pH 4.5 Z- other (specify)				
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (number, formula, container, BT# in box, vol)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F, C, E, M	9315_Ra226_9320_Ra226_Ra226Ra226_GFPc	Total Number of containers	Special Instructions/Note:
AY27780	11/27/18	16:22	G	Water	X	X	X	X	2	MW-5
AY27781	11/27/18	17:24	G	Water	X	X	X	X	2	MW-8
AY27782	11/28/18	09:04	G	Water	X	X	X	X	2	MW-7
AY27783	11/28/18	10:10	G	Water	X	X	X	X	2	MW-9
AY27784	11/28/18	10:10	G	Water	X	X	X	X	2	MW-9 DUP (Sample Duplicate)
AY27785	11/28/18	11:18	G	Water	X	X	X	X	2	MW-10
AY27786	11/28/18	12:41	G	Water	X	X	X	X	2	MW-5
<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)										
<b>Empty Kit Relinquished by:</b> Laura Midkiff Relinquished by: Laura Midkiff Relinquished by: Relinquished by:										
<b>Custody Seals Intact:</b> Δ Yes Δ No Custody Seal No.:										
<b>Special Instructions/QC Requirements:</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> Date/Time: 12/1/18 1:55 PM Date/Time: Date/Time:										
<b>Method of Shipment:</b> Date/Time: 12/1/18 1:55 PM Date/Time: Date/Time:										
Cooler Temperature: 18.0°C and other Remarks:										






**Chain of Custody Record**

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State/Zip: AL, 35040 Phone: 205-664-6197(Tel) Email: lbmidkif@southemco.com Project Name: Barry Ash Pond 1184 Project #: 40007143 CCR: SSOWF		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Sampler: Nick Pitts Phone:		COC No: 400-56625-24537.1 Page: Page 2 of 2 Job #: 102854		
Due Date Requested: TAT Requested (days): Routine FO #: IWO #: Project #: CCR:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> <input type="checkbox"/> SM 4500 F, C <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SM 4500 Cl, E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SM 4500 SO4, E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 9315 Ra226, 9320 Ra228, Ra226Ra228_GFPc <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				
<b>Sample Identification</b> Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Water, Solid, Spill, etc.) Preservation Code:		<b>Special Instructions/Note:</b> Total Number of containers				
AY27787	11/27/18	09:27	G	Water	MW-4	4
AY27788	11/27/18	10:45	G	Water	MW-3	2
AY27789	11/27/18	12:30	G	Water	MW-2	2
AY27790	11/27/18	11:50	G	Water	FB-1 (Field Blank)	2
AY27791	11/27/18	13:32	G	Water	MW-16	2
AY27792	11/27/18	15:20	G	Water	MW-15	2
AY27793	11/27/18	14:10	G	Water	EB-1 (Equipment Blank)	2
AY27794	11/27/18	16:12	G	Water	MW-14	2
AY27795	11/28/18	8:55	G	Water	MW-13	2
AY27796	11/28/18	10:07	G	Water	MW-12	2
AY27798	11/28/18	10:45	G	Water	FB-2 (Field Blank)	2
AY27799	11/28/18	12:48	G	Water	MW-1	2
AY27800	11/27/18	16:12	G	Water	MW-14 DUP (Sample Duplicate)	2
AY27797	11/28/18	11:25	G	Water	MW-11	4
<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"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/OC Requirements:				
Empty Kit Relinquished by: Relinquished by: Laura Midkiff Relinquished by: Relinquished by:		Date: Date/Time: 11/30/2018 09:10 Date/Time: Date/Time:		Method of Shipment: Received by: [Signature] Date/Time: 12/1/18 15:15 Company: [Signature] Received by: Date/Time: Company:		
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				



**Chain of Custody Record**

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State: AL Zip: 35040 Phone: 205-664-6197 (Tel) Email: lbmidkiff@southernco.com Project Name: CCR Site: Barry Ash Pond 1184		<b>Sampler:</b> Ben Rothschild Phone: _____ Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com		Carrier Tracking Note: COC No: 400-56525-24537.1 Page: Page 1 of 2 Job #: _____	
<b>Analysis Requested</b>  400-162856 COC		<b>Preservation Codes:</b> M - Hexane 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: _____ U - Acetone V - MCAA W - ph 4-5 Z - other (specify)			
<b>Sample Identification</b> AY27780 AY27781 AY27782 AY27783 AY27784 AY27785 AY27786		<b>Sample Date</b> 11/27/18 11/27/18 11/28/18 11/28/18 11/28/18 11/28/18 11/28/18		<b>Sample Time</b> 16:22 17:24 09:04 10:10 10:10 11:18 12:41	
<b>Sample Type</b> (C=Comp, G=grab) G G G G G G G		<b>Matrix</b> (Water, Solid, Overstool, BTEX, Aque) Water Water Water Water Water Water Water		<b>Preservation Code:</b> _____ _____ _____ _____ _____ _____ _____ _____	
<b>Field Filtered Sample (Yes or No)</b> X X X X X X X		<b>Perform MS/MSD (Yes or No)</b> N N N N N N N		<b>SM 4500 F.C.</b> X X X X X X X	
<b>SM 4500 CL.E</b> X X X X X X X		<b>SM 4500 SO4.E</b> X X X X X X X		<b>Special Instructions/Note:</b> MW-5 MW-8 MW-7 MW-9 MW-9 DUP (Sample Duplicate) MW-10 MW-6	
<b>Total Number of Containers</b> 2 2 2 2 2 2 2		<b>Special Instructions/Note:</b> _____ _____ _____ _____ _____ _____ _____			
<b>Deliverable Requested:</b> <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					
<b>Empty Kit Relinquished by:</b> Laura Midkiff Date/Time: 11/30/2018 08:10					
<b>Relinquished by:</b> _____ Date/Time: _____					
<b>Relinquished by:</b> _____ Date/Time: _____					
<b>Custody Seal Intact:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No: _____					
<b>Special Instructions/CC Requirements:</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
<b>Received by:</b> _____ Date/Time: 12/14/18 9:16 Company: TAKEN					
<b>Received by:</b> _____ Date/Time: _____ Company: _____					
<b>Received by:</b> _____ Date/Time: _____ Company: _____					
<b>Method of Shipment:</b> _____ Date/Time: _____					









## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162856-1  
SDG Number: Barry Ash Pond 1184

**Login Number: 162856**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.2°C, 18.0°C IR7 - Rads
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162856-1  
SDG Number: Barry Ash Pond 1184

**Login Number: 162856**

**List Number: 3**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.5°C IR8 - wet chemistry
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-162856-1  
 SDG: Barry Ash Pond 1184

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	12-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA180023	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-162856-2

TestAmerica Sample Delivery Group: Barry Ash Pond 1184

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

12/31/2018 5:29:53 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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

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

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# Case Narrative

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

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

**Job ID: 400-162856-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-162856-2

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-404487: The following samples were prepared at a reduced aliquot: AY27797 MW-11 (400-162856-21) and AY27797 MW-11 (400-162856-21[DU]). Samples 160-32106-1, 160-32106-2, and 160-32106-3 were reduced due to red discoloration and sediment. Samples 240-105042-1, 240-105042-2, 240-105042-3, 400-162856-21, and 400-162856-21[DU] were reduced due to limited volume available.

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-404512: The following samples were prepared at a reduced aliquot due to limited volume: AY27780 MW-5 (400-162856-1), AY27781 MW-8 (400-162856-2), AY27782 MW-7 (400-162856-3), AY27783 MW-9 (400-162856-4), AY27784 MW-9 DUP (400-162856-5), AY27785 MW-10 (400-162856-6), AY27786 MW-6 (400-162856-7), AY27787 MW-4 (400-162856-8), AY27787 MW-4 (400-162856-8[DU]), AY27788 MW-3 (400-162856-9), AY27789 MW-2 (400-162856-10), AY27790 FB-1 (400-162856-11), AY27791 MW-16 (400-162856-12), AY27792 MW-15 (400-162856-13), AY27793 EB-1 (400-162856-14), AY27794 MW-14 (400-162856-15), AY27795 MW-13 (400-162856-16), AY27796 MW-12 (400-162856-17), AY27798 FB-2 (400-162856-18), AY27799 MW-1 (400-162856-19) and AY27800 MW-14 DUP (400-162856-20).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-404475: The following samples were prepared at a reduced aliquot: AY27797 MW-11 (400-162856-21) and AY27797 MW-11 (400-162856-21[DU]). Samples 160-32106-1, 160-32106-2, and 160-32106-3 were reduced due to red discoloration and sediment. Samples 240-105042-1, 240-105042-2, 240-105042-3, 400-162856-21, and 400-162856-21[DU] were reduced due to limited volume available.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-404507: The following samples were prepared at a reduced aliquot due to limited volume: AY27780 MW-5 (400-162856-1), AY27781 MW-8 (400-162856-2), AY27782 MW-7 (400-162856-3), AY27783 MW-9 (400-162856-4), AY27784 MW-9 DUP (400-162856-5), AY27785 MW-10 (400-162856-6), AY27786 MW-6 (400-162856-7), AY27787 MW-4 (400-162856-8), AY27787 MW-4 (400-162856-8[DU]), AY27788 MW-3 (400-162856-9), AY27789 MW-2 (400-162856-10), AY27790 FB-1 (400-162856-11), AY27791 MW-16 (400-162856-12), AY27792 MW-15 (400-162856-13), AY27793 EB-1 (400-162856-14), AY27794 MW-14 (400-162856-15), AY27795 MW-13 (400-162856-16), AY27796 MW-12 (400-162856-17), AY27798 FB-2 (400-162856-18), AY27799 MW-1 (400-162856-19) and AY27800 MW-14 DUP (400-162856-20).

# Method Summary

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

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

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

#### Protocol References:

None = None

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

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

#### Laboratory References:

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

# Sample Summary

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

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-162856-1	AY27780 MW-5	Water	11/27/18 16:22	12/01/18 15:15
400-162856-2	AY27781 MW-8	Water	11/27/18 17:24	12/01/18 15:15
400-162856-3	AY27782 MW-7	Water	11/28/18 09:04	12/01/18 15:15
400-162856-4	AY27783 MW-9	Water	11/28/18 10:10	12/01/18 15:15
400-162856-5	AY27784 MW-9 DUP	Water	11/28/18 10:10	12/01/18 15:15
400-162856-6	AY27785 MW-10	Water	11/28/18 11:18	12/01/18 15:15
400-162856-7	AY27786 MW-6	Water	11/28/18 12:41	12/01/18 15:15
400-162856-8	AY27787 MW-4	Water	11/27/18 09:27	12/01/18 15:15
400-162856-9	AY27788 MW-3	Water	11/27/18 10:45	12/01/18 15:15
400-162856-10	AY27789 MW-2	Water	11/27/18 12:30	12/01/18 15:15
400-162856-11	AY27790 FB-1	Water	11/27/18 11:50	12/01/18 15:15
400-162856-12	AY27791 MW-16	Water	11/27/18 13:32	12/01/18 15:15
400-162856-13	AY27792 MW-15	Water	11/27/18 15:20	12/01/18 15:15
400-162856-14	AY27793 EB-1	Water	11/27/18 14:10	12/01/18 15:15
400-162856-15	AY27794 MW-14	Water	11/27/18 16:12	12/01/18 15:15
400-162856-16	AY27795 MW-13	Water	11/28/18 08:55	12/01/18 15:15
400-162856-17	AY27796 MW-12	Water	11/28/18 10:07	12/01/18 15:15
400-162856-18	AY27798 FB-2	Water	11/28/18 10:45	12/01/18 15:15
400-162856-19	AY27799 MW-1	Water	11/28/18 12:48	12/01/18 15:15
400-162856-20	AY27800 MW-14 DUP	Water	11/27/18 16:12	12/01/18 15:15
400-162856-21	AY27797 MW-11	Water	11/28/18 11:25	12/01/18 15:15



# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27780 MW-5**

**Lab Sample ID: 400-162856-1**

**Date Collected: 11/27/18 16:22**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.472		0.142	0.148	1.00	0.120	pCi/L	12/06/18 17:42	12/28/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					12/06/18 17:42	12/28/18 07:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.955		0.411	0.420	1.00	0.587	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	77.0		40 - 110					12/06/18 18:37	12/17/18 15:36	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.43		0.435	0.445	5.00	0.587	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27781 MW-8**  
**Date Collected: 11/27/18 17:24**  
**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-2**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.236		0.110	0.112	1.00	0.126	pCi/L	12/06/18 17:42	12/28/18 07:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 17:42	12/28/18 07:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.451	U	0.347	0.350	1.00	0.549	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	79.3		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.687		0.364	0.367	5.00	0.549	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27782 MW-7**

**Lab Sample ID: 400-162856-3**

**Date Collected: 11/28/18 09:04**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.186		0.0954	0.0968	1.00	0.110	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					12/06/18 17:42	12/28/18 07:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434	U	0.329	0.332	1.00	0.519	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	80.4		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.620		0.343	0.346	5.00	0.519	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27783 MW-9**  
**Date Collected: 11/28/18 10:10**  
**Date Received: 12/01/18 15:15**

**Lab Sample ID: 400-162856-4**  
**Matrix: Water**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.355		0.126	0.130	1.00	0.120	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					12/06/18 17:42	12/28/18 07:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.391	U	0.332	0.334	1.00	0.530	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	78.5		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.747		0.355	0.358	5.00	0.530	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27784 MW-9 DUP**

**Lab Sample ID: 400-162856-5**

**Date Collected: 11/28/18 10:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.451		0.139	0.145	1.00	0.122	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 17:42	12/28/18 07:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.401	U	0.335	0.337	1.00	0.533	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	77.8		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.852		0.363	0.367	5.00	0.533	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27785 MW-10**

**Lab Sample ID: 400-162856-6**

**Date Collected: 11/28/18 11:18**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.296		0.117	0.120	1.00	0.119	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 17:42	12/28/18 07:47	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.334	0.335	1.00	0.546	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	81.1		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.609		0.354	0.356	5.00	0.546	pCi/L		12/29/18 15:37	1

# Client Sample Results

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

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27786 MW-6**

**Lab Sample ID: 400-162856-7**

**Date Collected: 11/28/18 12:41**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.123		0.0859	0.0866	1.00	0.116	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					12/06/18 17:42	12/28/18 07:47	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.354	U	0.348	0.350	1.00	0.565	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	81.5		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.478	U	0.358	0.361	5.00	0.565	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27787 MW-4**

**Lab Sample ID: 400-162856-8**

**Date Collected: 11/27/18 09:27**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145		0.0927	0.0936	1.00	0.123	pCi/L	12/06/18 17:42	12/28/18 07:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					12/06/18 17:42	12/28/18 07:47	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.550	U	0.364	0.368	1.00	0.564	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	81.1		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.695		0.376	0.380	5.00	0.564	pCi/L		12/29/18 15:37	1



# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27788 MW-3**

**Lab Sample ID: 400-162856-9**

**Date Collected: 11/27/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.151		0.0900	0.0910	1.00	0.114	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 17:42	12/28/18 07:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.440	U	0.317	0.319	1.00	0.493	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	81.5		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.591		0.330	0.332	5.00	0.493	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27789 MW-2**

**Lab Sample ID: 400-162856-10**

**Date Collected: 11/27/18 12:30**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.125		0.0798	0.0806	1.00	0.0958	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					12/06/18 17:42	12/28/18 07:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.347	0.348	1.00	0.583	pCi/L	12/06/18 18:37	12/17/18 15:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.0		40 - 110					12/06/18 18:37	12/17/18 15:36	1
Y Carrier	82.2		40 - 110					12/06/18 18:37	12/17/18 15:36	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	0.359	U	0.356	0.357	5.00	0.583	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27790 FB-1**

**Lab Sample ID: 400-162856-11**

**Date Collected: 11/27/18 11:50**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.101	U	0.0774	0.0779	1.00	0.106	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					12/06/18 17:42	12/28/18 07:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.111	U	0.265	0.265	1.00	0.502	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	84.1		40 - 110					12/06/18 18:37	12/17/18 15:35	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	-0.00951	U	0.276	0.276	5.00	0.502	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27791 MW-16**

**Lab Sample ID: 400-162856-12**

**Date Collected: 11/27/18 13:32**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330		0.118	0.122	1.00	0.111	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 17:42	12/28/18 07:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.413	U	0.292	0.294	1.00	0.450	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	81.9		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.744		0.315	0.318	5.00	0.450	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27792 MW-15**

**Lab Sample ID: 400-162856-13**

Date Collected: 11/27/18 15:20

Matrix: Water

Date Received: 12/01/18 15:15

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.290		0.108	0.111	1.00	0.0943	pCi/L	12/06/18 17:42	12/28/18 08:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					12/06/18 17:42	12/28/18 08:33	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.474	U	0.340	0.343	1.00	0.530	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.5		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	80.4		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.764		0.357	0.361	5.00	0.530	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27793 EB-1**

**Lab Sample ID: 400-162856-14**

**Date Collected: 11/27/18 14:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00275	U	0.0575	0.0575	1.00	0.121	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					12/06/18 17:42	12/28/18 07:49	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.00945	U	0.322	0.322	1.00	0.575	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.6		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	83.0		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.0122	U	0.327	0.327	5.00	0.575	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27794 MW-14**

**Lab Sample ID: 400-162856-15**

Date Collected: 11/27/18 16:12

Matrix: Water

Date Received: 12/01/18 15:15

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.190		0.0925	0.0941	1.00	0.104	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					12/06/18 17:42	12/28/18 07:49	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.386	U	0.284	0.286	1.00	0.440	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	82.2		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.576		0.299	0.301	5.00	0.440	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27795 MW-13**

**Lab Sample ID: 400-162856-16**

Date Collected: 11/28/18 08:55

Matrix: Water

Date Received: 12/01/18 15:15

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.252		0.110	0.113	1.00	0.121	pCi/L	12/06/18 17:42	12/28/18 07:49	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					12/06/18 17:42	12/28/18 07:49	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.271	U	0.315	0.316	1.00	0.518	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	86.0		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.523		0.334	0.336	5.00	0.518	pCi/L		12/29/18 15:37	1



# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27796 MW-12**

**Lab Sample ID: 400-162856-17**

Date Collected: 11/28/18 10:07

Matrix: Water

Date Received: 12/01/18 15:15

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.198		0.0950	0.0966	1.00	0.103	pCi/L	12/06/18 17:42	12/28/18 07:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					12/06/18 17:42	12/28/18 07:50	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.648		0.347	0.352	1.00	0.520	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	84.5		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.846		0.360	0.365	5.00	0.520	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27798 FB-2**

**Lab Sample ID: 400-162856-18**

**Date Collected: 11/28/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

### Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0301	U	0.0627	0.0627	1.00	0.115	pCi/L	12/06/18 17:42	12/28/18 07:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 17:42	12/28/18 07:50	1

### Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U	0.354	0.356	1.00	0.572	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	84.5		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.410	U	0.360	0.361	5.00	0.572	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27799 MW-1**

**Lab Sample ID: 400-162856-19**

**Date Collected: 11/28/18 12:48**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.728		0.163	0.176	1.00	0.102	pCi/L	12/06/18 17:42	12/28/18 07:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					12/06/18 17:42	12/28/18 07:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.753		0.306	0.314	1.00	0.417	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	83.0		40 - 110					12/06/18 18:37	12/17/18 15:35	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	1.48		0.347	0.360	5.00	0.417	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27800 MW-14 DUP**

**Lab Sample ID: 400-162856-20**

**Date Collected: 11/27/18 16:12**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0885	U	0.0715	0.0719	1.00	0.101	pCi/L	12/06/18 17:42	12/28/18 07:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					12/06/18 17:42	12/28/18 07:50	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.120	U	0.246	0.246	1.00	0.423	pCi/L	12/06/18 18:37	12/17/18 15:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					12/06/18 18:37	12/17/18 15:35	1
Y Carrier	83.7		40 - 110					12/06/18 18:37	12/17/18 15:35	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	0.209	U	0.256	0.256	5.00	0.423	pCi/L		12/29/18 15:37	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27797 MW-11**

**Lab Sample ID: 400-162856-21**

**Date Collected: 11/28/18 11:25**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

**Method: 9315 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.254		0.107	0.109	1.00	0.0998	pCi/L	12/06/18 13:46	12/28/18 07:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					12/06/18 13:46	12/28/18 07:42	1

**Method: 9320 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0224	U	0.313	0.313	1.00	0.567	pCi/L	12/06/18 14:49	12/18/18 16:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					12/06/18 14:49	12/18/18 16:45	1
Y Carrier	82.6		40 - 110					12/06/18 14:49	12/18/18 16:45	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	0.232	U	0.331	0.331	5.00	0.567	pCi/L		12/29/18 15:37	1

# Definitions/Glossary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27780 MW-5**

**Lab Sample ID: 400-162856-1**

**Date Collected: 11/27/18 16:22**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27781 MW-8**

**Lab Sample ID: 400-162856-2**

**Date Collected: 11/27/18 17:24**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27782 MW-7**

**Lab Sample ID: 400-162856-3**

**Date Collected: 11/28/18 09:04**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27783 MW-9**

**Lab Sample ID: 400-162856-4**

**Date Collected: 11/28/18 10:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27784 MW-9 DUP**

**Lab Sample ID: 400-162856-5**

**Date Collected: 11/28/18 10:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27785 MW-10**

**Lab Sample ID: 400-162856-6**

**Date Collected: 11/28/18 11:18**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27786 MW-6**

**Lab Sample ID: 400-162856-7**

**Date Collected: 11/28/18 12:41**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27787 MW-4**

**Lab Sample ID: 400-162856-8**

**Date Collected: 11/27/18 09:27**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL



# Lab Chronicle

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27788 MW-3**

**Lab Sample ID: 400-162856-9**

**Date Collected: 11/27/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27789 MW-2**

**Lab Sample ID: 400-162856-10**

**Date Collected: 11/27/18 12:30**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:36	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27790 FB-1**

**Lab Sample ID: 400-162856-11**

**Date Collected: 11/27/18 11:50**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27791 MW-16**

**Lab Sample ID: 400-162856-12**

**Date Collected: 11/27/18 13:32**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27792 MW-15**

**Lab Sample ID: 400-162856-13**

**Date Collected: 11/27/18 15:20**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407766	12/28/18 08:33	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27793 EB-1**

**Lab Sample ID: 400-162856-14**

**Date Collected: 11/27/18 14:10**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27794 MW-14**

**Lab Sample ID: 400-162856-15**

**Date Collected: 11/27/18 16:12**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27795 MW-13**

**Lab Sample ID: 400-162856-16**

**Date Collected: 11/28/18 08:55**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:49	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

**Client Sample ID: AY27796 MW-12**

**Lab Sample ID: 400-162856-17**

**Date Collected: 11/28/18 10:07**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407768	12/28/18 07:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27798 FB-2**

**Lab Sample ID: 400-162856-18**

**Date Collected: 11/28/18 10:45**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407766	12/28/18 07:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27799 MW-1**

**Lab Sample ID: 400-162856-19**

**Date Collected: 11/28/18 12:48**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407766	12/28/18 07:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

**Client Sample ID: AY27800 MW-14 DUP**

**Lab Sample ID: 400-162856-20**

**Date Collected: 11/27/18 16:12**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404507	12/06/18 17:42	CLP	TAL SL
Total/NA	Analysis	9315		1	407766	12/28/18 07:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404512	12/06/18 18:37	CLP	TAL SL
Total/NA	Analysis	9320		1	406074	12/17/18 15:35	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

**Client Sample ID: AY27797 MW-11**

**Lab Sample ID: 400-162856-21**

**Date Collected: 11/28/18 11:25**

**Matrix: Water**

**Date Received: 12/01/18 15:15**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			404475	12/06/18 13:46	CLP	TAL SL
Total/NA	Analysis	9315		1	407767	12/28/18 07:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			404487	12/06/18 14:49	CLP	TAL SL
Total/NA	Analysis	9320		1	406293	12/18/18 16:45	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	408243	12/29/18 15:37	RTM	TAL SL

#### Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

# QC Association Summary

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Rad

### Prep Batch: 404475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-21	AY27797 MW-11	Total/NA	Water	PrecSep-21	
MB 160-404475/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-404475/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-162856-21 DU	AY27797 MW-11	Total/NA	Water	PrecSep-21	

### Prep Batch: 404487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-21	AY27797 MW-11	Total/NA	Water	PrecSep_0	
MB 160-404487/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-404487/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-162856-21 DU	AY27797 MW-11	Total/NA	Water	PrecSep_0	

### Prep Batch: 404507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-1	AY27780 MW-5	Total/NA	Water	PrecSep-21	
400-162856-2	AY27781 MW-8	Total/NA	Water	PrecSep-21	
400-162856-3	AY27782 MW-7	Total/NA	Water	PrecSep-21	
400-162856-4	AY27783 MW-9	Total/NA	Water	PrecSep-21	
400-162856-5	AY27784 MW-9 DUP	Total/NA	Water	PrecSep-21	
400-162856-6	AY27785 MW-10	Total/NA	Water	PrecSep-21	
400-162856-7	AY27786 MW-6	Total/NA	Water	PrecSep-21	
400-162856-8	AY27787 MW-4	Total/NA	Water	PrecSep-21	
400-162856-9	AY27788 MW-3	Total/NA	Water	PrecSep-21	
400-162856-10	AY27789 MW-2	Total/NA	Water	PrecSep-21	
400-162856-11	AY27790 FB-1	Total/NA	Water	PrecSep-21	
400-162856-12	AY27791 MW-16	Total/NA	Water	PrecSep-21	
400-162856-13	AY27792 MW-15	Total/NA	Water	PrecSep-21	
400-162856-14	AY27793 EB-1	Total/NA	Water	PrecSep-21	
400-162856-15	AY27794 MW-14	Total/NA	Water	PrecSep-21	
400-162856-16	AY27795 MW-13	Total/NA	Water	PrecSep-21	
400-162856-17	AY27796 MW-12	Total/NA	Water	PrecSep-21	
400-162856-18	AY27798 FB-2	Total/NA	Water	PrecSep-21	
400-162856-19	AY27799 MW-1	Total/NA	Water	PrecSep-21	
400-162856-20	AY27800 MW-14 DUP	Total/NA	Water	PrecSep-21	
MB 160-404507/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-404507/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-162856-8 DU	AY27787 MW-4	Total/NA	Water	PrecSep-21	

### Prep Batch: 404512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-1	AY27780 MW-5	Total/NA	Water	PrecSep_0	
400-162856-2	AY27781 MW-8	Total/NA	Water	PrecSep_0	
400-162856-3	AY27782 MW-7	Total/NA	Water	PrecSep_0	
400-162856-4	AY27783 MW-9	Total/NA	Water	PrecSep_0	
400-162856-5	AY27784 MW-9 DUP	Total/NA	Water	PrecSep_0	
400-162856-6	AY27785 MW-10	Total/NA	Water	PrecSep_0	
400-162856-7	AY27786 MW-6	Total/NA	Water	PrecSep_0	
400-162856-8	AY27787 MW-4	Total/NA	Water	PrecSep_0	
400-162856-9	AY27788 MW-3	Total/NA	Water	PrecSep_0	
400-162856-10	AY27789 MW-2	Total/NA	Water	PrecSep_0	
400-162856-11	AY27790 FB-1	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola



# QC Association Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

## Rad (Continued)

### Prep Batch: 404512 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-162856-12	AY27791 MW-16	Total/NA	Water	PrecSep_0	
400-162856-13	AY27792 MW-15	Total/NA	Water	PrecSep_0	
400-162856-14	AY27793 EB-1	Total/NA	Water	PrecSep_0	
400-162856-15	AY27794 MW-14	Total/NA	Water	PrecSep_0	
400-162856-16	AY27795 MW-13	Total/NA	Water	PrecSep_0	
400-162856-17	AY27796 MW-12	Total/NA	Water	PrecSep_0	
400-162856-18	AY27798 FB-2	Total/NA	Water	PrecSep_0	
400-162856-19	AY27799 MW-1	Total/NA	Water	PrecSep_0	
400-162856-20	AY27800 MW-14 DUP	Total/NA	Water	PrecSep_0	
MB 160-404512/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-404512/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-162856-8 DU	AY27787 MW-4	Total/NA	Water	PrecSep_0	

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Method: 9315 - Radium-226 (GFPC)

**Lab Sample ID: MB 160-404475/20-A**  
**Matrix: Water**  
**Analysis Batch: 407767**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404475**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.007710	U	0.0363	0.0363	1.00	0.0855	pCi/L	12/06/18 13:46	12/28/18 07:42	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		12/06/18 13:46	12/28/18 07:42				1	
	95.3		40 - 110							

**Lab Sample ID: LCS 160-404475/1-A**  
**Matrix: Water**  
**Analysis Batch: 407777**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404475**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.4	11.18		1.16	1.00	0.0986	pCi/L	98	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		12/06/18 13:46	12/28/18 07:42				1
	92.3		40 - 110						

**Lab Sample ID: 400-162856-21 DU**  
**Matrix: Water**  
**Analysis Batch: 407767**

**Client Sample ID: AY27797 MW-11**  
**Prep Type: Total/NA**  
**Prep Batch: 404475**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.254		0.2371		0.104	1.00	0.106	pCi/L	0.08	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		12/06/18 17:42	12/28/18 07:50				1	
	108		40 - 110							

**Lab Sample ID: MB 160-404507/23-A**  
**Matrix: Water**  
**Analysis Batch: 407766**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404507**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.09920	U	0.0738	0.0744	1.00	0.100	pCi/L	12/06/18 17:42	12/28/18 07:50	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		12/06/18 17:42	12/28/18 07:50				1	
	101		40 - 110							

**Lab Sample ID: LCS 160-404507/1-A**  
**Matrix: Water**  
**Analysis Batch: 407767**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404507**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	14.30		1.48	1.00	0.139	pCi/L	94	68 - 137

TestAmerica Pensacola

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Method: 9315 - Radium-226 (GFPC) (Continued)

**Lab Sample ID: LCS 160-404507/1-A**  
**Matrix: Water**  
**Analysis Batch: 407767**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404507**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.4		40 - 110

**Lab Sample ID: 400-162856-8 DU**  
**Matrix: Water**  
**Analysis Batch: 407768**

**Client Sample ID: AY27787 MW-4**  
**Prep Type: Total/NA**  
**Prep Batch: 404507**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.145		0.1762		0.0986	1.00	0.122	pCi/L	0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.9		40 - 110

## Method: 9320 - Radium-228 (GFPC)

**Lab Sample ID: MB 160-404487/20-A**  
**Matrix: Water**  
**Analysis Batch: 406293**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404487**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2499	U	0.241	0.242	1.00	0.388	pCi/L	12/06/18 14:49	12/18/18 16:45	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110	12/06/18 14:49	12/18/18 16:45	1
Y Carrier	81.5		40 - 110	12/06/18 14:49	12/18/18 16:45	1

**Lab Sample ID: LCS 160-404487/1-A**  
**Matrix: Water**  
**Analysis Batch: 406293**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404487**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.11	8.772		1.13	1.00	0.566	pCi/L	96	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.3		40 - 110
Y Carrier	70.7		40 - 110

**Lab Sample ID: 400-162856-21 DU**  
**Matrix: Water**  
**Analysis Batch: 406293**

**Client Sample ID: AY27797 MW-11**  
**Prep Type: Total/NA**  
**Prep Batch: 404487**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	-0.0224	U	0.6454		0.378	1.00	0.567	pCi/L	0.97	1

TestAmerica Pensacola



# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Method: 9320 - Radium-228 (GFPC) (Continued)

**Lab Sample ID: 400-162856-21 DU**  
**Matrix: Water**  
**Analysis Batch: 406293**

**Client Sample ID: AY27797 MW-11**  
**Prep Type: Total/NA**  
**Prep Batch: 404487**

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	108		40 - 110
Y Carrier	81.9		40 - 110

**Lab Sample ID: MB 160-404512/23-A**  
**Matrix: Water**  
**Analysis Batch: 406074**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 404512**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3219	U	0.284	0.285	1.00	0.453	pCi/L	12/06/18 18:37	12/17/18 15:35	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110	12/06/18 18:37	12/17/18 15:35	1
Y Carrier	84.1		40 - 110	12/06/18 18:37	12/17/18 15:35	1

**Lab Sample ID: LCS 160-404512/1-A**  
**Matrix: Water**  
**Analysis Batch: 406074**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 404512**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	12.2	11.30		1.38	1.00	0.599	pCi/L	93	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.4		40 - 110
Y Carrier	80.0		40 - 110

**Lab Sample ID: 400-162856-8 DU**  
**Matrix: Water**  
**Analysis Batch: 406074**

**Client Sample ID: AY27787 MW-4**  
**Prep Type: Total/NA**  
**Prep Batch: 404512**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.550	U	0.2963	U	0.336	1.00	0.550	pCi/L	0.36	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	92.9		40 - 110
Y Carrier	80.4		40 - 110

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-162856-8 DU**  
**Matrix: Water**  
**Analysis Batch: 408243**

**Client Sample ID: AY27787 MW-4**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.695		0.4726	U	0.350	5.00	0.550	pCi/L	0.30	

**Lab Sample ID: 400-162856-21 DU**  
**Matrix: Water**  
**Analysis Batch: 408243**

**Client Sample ID: AY27797 MW-11**  
**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	0.232	U	0.8825		0.392	5.00	0.567	pCi/L	0.90	



**TestAmerica Pensacola**  
 3355 McLeMORE Drive  
 Pensacola, FL 32514  
 Phone (850) 474-1001 Fax (850) 478-2871

**Chain of Custody Record**



400-162856 COC

<b>Client Information</b>		Sampler: Ben Rothschild		Lab PM: Whitmire, Cheyenne R		Carrier Tracking Note(s):	
Client Contact: Laura Midkiff		Phone:		E-Mail: Cheyenne.whitmire@testamericainc.com		COC No: 400-56625-24537-1	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87, SSC #8		City: Callera		Page: Page 1 of 2	
State, Zip: AL, 35040		Phone: 205-664-6197 (Tel)		PO #: [Blank]		Job #: 162856	
Email: lmidkiff@southemco.com		Project #: 40007143		WO #: [Blank]		Preservation Codes:	
CCR		Site: Barry Ash Pond 1184		Due Date Requested:		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NiH2SO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - Nitric O2 O - Nitro2 P - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
AY27780		11/27/18		16:22		G	
AY27781		11/27/18		17:24		G	
AY27782		11/28/18		09:04		G	
AY27783		11/28/18		10:10		G	
AY27784		11/28/18		10:10		G	
AY27785		11/28/18		11:18		G	
AY27786		11/28/18		12:41		G	
Matrix (number, formula, compound, or substance)		Preservation Code:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
Water		G		X		X	
SM 4500 F.C		N		X		X	
SM 4500 Cl.E		N		X		X	
SM 4500 SO4.F		N		X		X	
9315_Ra226_9320_Ra226_Ra226Ra226_GFPc		N		X		X	
Total Number of containers		MW-5		2		MW-8	
		MW-7		2		MW-9	
		MW-9 DUP (Sample Duplicate)		2		MW-10	
		MW-5		2			
Special Instructions/Note:							
Return To Client		Disposal By Lab		Archive For		Months	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Special Instructions/QC Requirements:							
Empty Kit Relinquished by:		Date:		Date:		Date:	
Relinquished by: Laura Midkiff		11/30/2018 08:10		Company APC		Company	
Relinquished by:		Date:		Date:		Date:	
Relinquished by:		Date:		Date:		Date:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) and Other Remarks: 18.0°C		Company	





**Chain of Custody Record**

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State/Zip: AL, 35040 Phone: 205-664-6197(Tel) Email: lbmidkif@southemco.com Project Name: CCR Site: Barry Ash Pond 1184		Sampler: Nick Pitts Lab PM: Whitmore, Cheyenne R E-Mail: cheyenne.whitmore@testamericainc.com		Carrier (Tracking No.): COC No: 400-56625-24537.1 Page: Page 2 of 2 Job #: 102854	
Due Date Requested: TAT Requested (days): Routine FO #: IWO #: Project #: 40007143 CCR SSOWF:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) X Field Filtered Sample (Yes or No) X SM 4500 F, C N N D SM 4500 Cl, E N N D SM 4500 SO4, E N N D 9315 Ra226, 9320 Ra228, Ra226Ra228_GFP			
<b>Sample Identification</b> Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (Water, Solid, Spill, etc.) Preservation Code:		<b>Special Instructions/Note:</b> Total Number of Containers MW-4 MW-3 MW-2 FB-1 (Field Blank) MW-16 MW-15 EB-1 (Equipment Blank) MW-14 MW-13 MW-12 FB-2 (Field Blank) MW-1 MW-14 DUP (Sample Duplicate) MW-11 4			
<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"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months <b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>			
Empty Kit Relinquished by: Relinquished by: Laura Midkiff Date/Time: 11/30/2018 09:10 Company: APC		Method of Shipment: Date/Time: 12/1/18 15:15 Company:			
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:			
Relinquished by: Date/Time: Company:		Relinquished by: Date/Time: Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:			



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162856-2  
SDG Number: Barry Ash Pond 1184

**Login Number: 162856**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.2°C, 18.0°C IR7 - Rads
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-162856-2  
SDG Number: Barry Ash Pond 1184

**Login Number: 162856**  
**List Number: 2**  
**Creator: Dupart, Lacey S**

**List Source: TestAmerica St. Louis**  
**List Creation: 12/04/18 10:57 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
 SDG: Barry Ash Pond 1184

## Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-20
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	12-31-18 *
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-19
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA017	12-31-19
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-19
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18 *
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

## Laboratory: TestAmerica St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-19
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-19
Illinois	NELAP	5	200023	11-30-18 *
Iowa	State Program	7	373	12-01-18 *
Kansas	NELAP	7	E-10236	10-31-19
Kentucky (DW)	State Program	4	90125	12-31-18 *
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA180017	12-31-18 *
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-19
Missouri	State Program	7	780	06-30-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-162856-2  
SDG: Barry Ash Pond 1184

## Laboratory: TestAmerica St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Nevada	State Program	9	MO000542018-1	07-31-19
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-19 *
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-12	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.



**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-1	11/28/2018 12:21	697.3	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:21	21.22	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:21	0.29	mg/L	DO
BY-AP-MW-1	11/28/2018 12:21	-2.1	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:21	5.8	pH	pH
BY-AP-MW-1	11/28/2018 12:21	21.37	C	Temperature
BY-AP-MW-1	11/28/2018 12:21	4.64	NTU	Turbidity
BY-AP-MW-1	11/28/2018 12:26	703.5	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:26	21.25	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:26	0.21	mg/L	DO
BY-AP-MW-1	11/28/2018 12:26	-11.9	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:26	5.81	pH	pH
BY-AP-MW-1	11/28/2018 12:26	21.35	C	Temperature
BY-AP-MW-1	11/28/2018 12:26	4.37	NTU	Turbidity
BY-AP-MW-1	11/28/2018 12:31	709.2	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:31	21.27	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:31	0.17	mg/L	DO
BY-AP-MW-1	11/28/2018 12:31	-15.2	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:31	5.81	pH	pH
BY-AP-MW-1	11/28/2018 12:31	21.33	C	Temperature
BY-AP-MW-1	11/28/2018 12:31	3.32	NTU	Turbidity
BY-AP-MW-1	11/28/2018 12:36	709.2	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:36	21.28	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:36	0.16	mg/L	DO
BY-AP-MW-1	11/28/2018 12:36	-17.2	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:36	5.82	pH	pH
BY-AP-MW-1	11/28/2018 12:36	21.38	C	Temperature
BY-AP-MW-1	11/28/2018 12:36	1.01	NTU	Turbidity
BY-AP-MW-1	11/28/2018 12:41	709.3	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:41	21.28	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:41	0.15	mg/L	DO
BY-AP-MW-1	11/28/2018 12:41	-18	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:41	5.82	pH	pH
BY-AP-MW-1	11/28/2018 12:41	21.42	C	Temperature
BY-AP-MW-1	11/28/2018 12:41	1.42	NTU	Turbidity
BY-AP-MW-1	11/28/2018 12:46	701.6	uS/cm	Conductivity
BY-AP-MW-1	11/28/2018 12:46	21.28	ft	Depth to Water Detail
BY-AP-MW-1	11/28/2018 12:46	0.15	mg/L	DO
BY-AP-MW-1	11/28/2018 12:46	-19	mv	Oxidation Reduction Potention
BY-AP-MW-1	11/28/2018 12:46	5.82	pH	pH
BY-AP-MW-1	11/28/2018 12:46	21.46	C	Temperature
BY-AP-MW-1	11/28/2018 12:46	1.38	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-2	11/27/2018 12:07	53.6	uS/cm	Conductivity
BY-AP-MW-2	11/27/2018 12:07	19.96	ft	Depth to Water Detail
BY-AP-MW-2	11/27/2018 12:07	0.93	mg/L	DO
BY-AP-MW-2	11/27/2018 12:07	82.9	mv	Oxidation Reduction Potention
BY-AP-MW-2	11/27/2018 12:07	5.65	pH	pH
BY-AP-MW-2	11/27/2018 12:07	20.14	C	Temperature
BY-AP-MW-2	11/27/2018 12:07	0.56	NTU	Turbidity
BY-AP-MW-2	11/27/2018 12:12	54	uS/cm	Conductivity
BY-AP-MW-2	11/27/2018 12:12	19.96	ft	Depth to Water Detail
BY-AP-MW-2	11/27/2018 12:12	0.77	mg/L	DO
BY-AP-MW-2	11/27/2018 12:12	76.5	mv	Oxidation Reduction Potention
BY-AP-MW-2	11/27/2018 12:12	5.69	pH	pH
BY-AP-MW-2	11/27/2018 12:12	20.21	C	Temperature
BY-AP-MW-2	11/27/2018 12:12	0.64	NTU	Turbidity
BY-AP-MW-2	11/27/2018 12:17	53.9	uS/cm	Conductivity
BY-AP-MW-2	11/27/2018 12:17	19.96	ft	Depth to Water Detail
BY-AP-MW-2	11/27/2018 12:17	0.69	mg/L	DO
BY-AP-MW-2	11/27/2018 12:17	77.7	mv	Oxidation Reduction Potention
BY-AP-MW-2	11/27/2018 12:17	5.69	pH	pH
BY-AP-MW-2	11/27/2018 12:17	20.41	C	Temperature
BY-AP-MW-2	11/27/2018 12:17	0.64	NTU	Turbidity
BY-AP-MW-2	11/27/2018 12:22	53.8	uS/cm	Conductivity
BY-AP-MW-2	11/27/2018 12:22	19.96	ft	Depth to Water Detail
BY-AP-MW-2	11/27/2018 12:22	0.64	mg/L	DO
BY-AP-MW-2	11/27/2018 12:22	77.8	mv	Oxidation Reduction Potention
BY-AP-MW-2	11/27/2018 12:22	5.7	pH	pH
BY-AP-MW-2	11/27/2018 12:22	20.35	C	Temperature
BY-AP-MW-2	11/27/2018 12:22	0.56	NTU	Turbidity
BY-AP-MW-2	11/27/2018 12:27	53.8	uS/cm	Conductivity
BY-AP-MW-2	11/27/2018 12:27	19.96	ft	Depth to Water Detail
BY-AP-MW-2	11/27/2018 12:27	0.59	mg/L	DO
BY-AP-MW-2	11/27/2018 12:27	77.3	mv	Oxidation Reduction Potention
BY-AP-MW-2	11/27/2018 12:27	5.71	pH	pH
BY-AP-MW-2	11/27/2018 12:27	20.52	C	Temperature
BY-AP-MW-2	11/27/2018 12:27	0.63	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-3	11/27/2018 10:13	32.8	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:13	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:13	3.38	mg/L	DO
BY-AP-MW-3	11/27/2018 10:13	221.5	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:13	5.11	pH	pH
BY-AP-MW-3	11/27/2018 10:13	20.22	C	Temperature
BY-AP-MW-3	11/27/2018 10:13	1.41	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:18	33.7	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:18	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:18	3.5	mg/L	DO
BY-AP-MW-3	11/27/2018 10:18	222	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:18	5.08	pH	pH
BY-AP-MW-3	11/27/2018 10:18	20.39	C	Temperature
BY-AP-MW-3	11/27/2018 10:18	1.07	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:23	35	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:23	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:23	3.52	mg/L	DO
BY-AP-MW-3	11/27/2018 10:23	221.1	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:23	5.08	pH	pH
BY-AP-MW-3	11/27/2018 10:23	20.47	C	Temperature
BY-AP-MW-3	11/27/2018 10:23	0.79	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:28	35.9	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:28	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:28	3.48	mg/L	DO
BY-AP-MW-3	11/27/2018 10:28	219.8	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:28	5.07	pH	pH
BY-AP-MW-3	11/27/2018 10:28	20.61	C	Temperature
BY-AP-MW-3	11/27/2018 10:28	1.14	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:33	37	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:33	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:33	3.45	mg/L	DO
BY-AP-MW-3	11/27/2018 10:33	218.7	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:33	5.07	pH	pH
BY-AP-MW-3	11/27/2018 10:33	20.7	C	Temperature
BY-AP-MW-3	11/27/2018 10:33	0.72	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:38	37.5	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:38	22.76	ft	Depth to Water Detail
BY-AP-MW-3	11/27/2018 10:38	3.44	mg/L	DO
BY-AP-MW-3	11/27/2018 10:38	217.4	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:38	5.06	pH	pH
BY-AP-MW-3	11/27/2018 10:38	20.76	C	Temperature
BY-AP-MW-3	11/27/2018 10:38	0.62	NTU	Turbidity
BY-AP-MW-3	11/27/2018 10:43	38	uS/cm	Conductivity
BY-AP-MW-3	11/27/2018 10:43	22.76	ft	Depth to Water Detail

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-3	11/27/2018 10:43	3.41	mg/L	DO
BY-AP-MW-3	11/27/2018 10:43	216.4	mv	Oxidation Reduction Potention
BY-AP-MW-3	11/27/2018 10:43	5.05	pH	pH
BY-AP-MW-3	11/27/2018 10:43	20.84	C	Temperature
BY-AP-MW-3	11/27/2018 10:43	0.72	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-4	11/27/2018 9:00	51.9	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:00	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:00	1.94	mg/L	DO
BY-AP-MW-4	11/27/2018 9:00	272.6	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:00	4.71	pH	pH
BY-AP-MW-4	11/27/2018 9:00	19.14	C	Temperature
BY-AP-MW-4	11/27/2018 9:00	0.5	NTU	Turbidity
BY-AP-MW-4	11/27/2018 9:05	49.9	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:05	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:05	2.37	mg/L	DO
BY-AP-MW-4	11/27/2018 9:05	263.9	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:05	4.73	pH	pH
BY-AP-MW-4	11/27/2018 9:05	19.41	C	Temperature
BY-AP-MW-4	11/27/2018 9:05	0.67	NTU	Turbidity
BY-AP-MW-4	11/27/2018 9:10	48.9	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:10	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:10	2.55	mg/L	DO
BY-AP-MW-4	11/27/2018 9:10	257.8	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:10	4.75	pH	pH
BY-AP-MW-4	11/27/2018 9:10	19.68	C	Temperature
BY-AP-MW-4	11/27/2018 9:10	0.54	NTU	Turbidity
BY-AP-MW-4	11/27/2018 9:15	48.5	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:15	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:15	2.68	mg/L	DO
BY-AP-MW-4	11/27/2018 9:15	252	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:15	4.76	pH	pH
BY-AP-MW-4	11/27/2018 9:15	19.72	C	Temperature
BY-AP-MW-4	11/27/2018 9:15	0.58	NTU	Turbidity
BY-AP-MW-4	11/27/2018 9:20	47.7	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:20	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:20	2.82	mg/L	DO
BY-AP-MW-4	11/27/2018 9:20	247.9	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:20	4.77	pH	pH
BY-AP-MW-4	11/27/2018 9:20	19.84	C	Temperature
BY-AP-MW-4	11/27/2018 9:20	0.52	NTU	Turbidity
BY-AP-MW-4	11/27/2018 9:25	47.3	uS/cm	Conductivity
BY-AP-MW-4	11/27/2018 9:25	23.36	ft	Depth to Water Detail
BY-AP-MW-4	11/27/2018 9:25	2.91	mg/L	DO
BY-AP-MW-4	11/27/2018 9:25	243.5	mv	Oxidation Reduction Potention
BY-AP-MW-4	11/27/2018 9:25	4.78	pH	pH
BY-AP-MW-4	11/27/2018 9:25	19.79	C	Temperature
BY-AP-MW-4	11/27/2018 9:25	0.75	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-5	11/27/2018 16:05	414	uS/cm	Conductivity
BY-AP-MW-5	11/27/2018 16:05	25.98	ft	Depth to Water Detail
BY-AP-MW-5	11/27/2018 16:05	0.09	mg/L	DO
BY-AP-MW-5	11/27/2018 16:05	-70.3	mv	Oxidation Reduction Potention
BY-AP-MW-5	11/27/2018 16:05	6	pH	pH
BY-AP-MW-5	11/27/2018 16:05	21.06	C	Temperature
BY-AP-MW-5	11/27/2018 16:05	0.61	NTU	Turbidity
BY-AP-MW-5	11/27/2018 16:10	410.4	uS/cm	Conductivity
BY-AP-MW-5	11/27/2018 16:10	25.99	ft	Depth to Water Detail
BY-AP-MW-5	11/27/2018 16:10	0.08	mg/L	DO
BY-AP-MW-5	11/27/2018 16:10	-69.4	mv	Oxidation Reduction Potention
BY-AP-MW-5	11/27/2018 16:10	6	pH	pH
BY-AP-MW-5	11/27/2018 16:10	21.01	C	Temperature
BY-AP-MW-5	11/27/2018 16:10	0.72	NTU	Turbidity
BY-AP-MW-5	11/27/2018 16:15	406.1	uS/cm	Conductivity
BY-AP-MW-5	11/27/2018 16:15	25.99	ft	Depth to Water Detail
BY-AP-MW-5	11/27/2018 16:15	0.07	mg/L	DO
BY-AP-MW-5	11/27/2018 16:15	-67.9	mv	Oxidation Reduction Potention
BY-AP-MW-5	11/27/2018 16:15	6	pH	pH
BY-AP-MW-5	11/27/2018 16:15	20.93	C	Temperature
BY-AP-MW-5	11/27/2018 16:15	0.62	NTU	Turbidity
BY-AP-MW-5	11/27/2018 16:20	399.3	uS/cm	Conductivity
BY-AP-MW-5	11/27/2018 16:20	25.99	ft	Depth to Water Detail
BY-AP-MW-5	11/27/2018 16:20	0.07	mg/L	DO
BY-AP-MW-5	11/27/2018 16:20	-65.9	mv	Oxidation Reduction Potention
BY-AP-MW-5	11/27/2018 16:20	6.01	pH	pH
BY-AP-MW-5	11/27/2018 16:20	20.95	C	Temperature
BY-AP-MW-5	11/27/2018 16:20	0.74	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-6	11/28/2018 12:24	56.2	uS/cm	Conductivity
BY-AP-MW-6	11/28/2018 12:24	23.64	ft	Depth to Water Detail
BY-AP-MW-6	11/28/2018 12:24	4.88	mg/L	DO
BY-AP-MW-6	11/28/2018 12:24	110.3	mv	Oxidation Reduction Potention
BY-AP-MW-6	11/28/2018 12:24	5.53	pH	pH
BY-AP-MW-6	11/28/2018 12:24	20.8	C	Temperature
BY-AP-MW-6	11/28/2018 12:24	4.65	NTU	Turbidity
BY-AP-MW-6	11/28/2018 12:29	56.3	uS/cm	Conductivity
BY-AP-MW-6	11/28/2018 12:29	23.64	ft	Depth to Water Detail
BY-AP-MW-6	11/28/2018 12:29	4.74	mg/L	DO
BY-AP-MW-6	11/28/2018 12:29	111.5	mv	Oxidation Reduction Potention
BY-AP-MW-6	11/28/2018 12:29	5.51	pH	pH
BY-AP-MW-6	11/28/2018 12:29	20.79	C	Temperature
BY-AP-MW-6	11/28/2018 12:29	3.89	NTU	Turbidity
BY-AP-MW-6	11/28/2018 12:34	56	uS/cm	Conductivity
BY-AP-MW-6	11/28/2018 12:34	23.64	ft	Depth to Water Detail
BY-AP-MW-6	11/28/2018 12:34	4.74	mg/L	DO
BY-AP-MW-6	11/28/2018 12:34	115.8	mv	Oxidation Reduction Potention
BY-AP-MW-6	11/28/2018 12:34	5.48	pH	pH
BY-AP-MW-6	11/28/2018 12:34	20.75	C	Temperature
BY-AP-MW-6	11/28/2018 12:34	3.18	NTU	Turbidity
BY-AP-MW-6	11/28/2018 12:39	55.7	uS/cm	Conductivity
BY-AP-MW-6	11/28/2018 12:39	23.64	ft	Depth to Water Detail
BY-AP-MW-6	11/28/2018 12:39	4.85	mg/L	DO
BY-AP-MW-6	11/28/2018 12:39	122.1	mv	Oxidation Reduction Potention
BY-AP-MW-6	11/28/2018 12:39	5.46	pH	pH
BY-AP-MW-6	11/28/2018 12:39	20.78	C	Temperature
BY-AP-MW-6	11/28/2018 12:39	1.88	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-7	11/28/2018 8:42	234.3	uS/cm	Conductivity
BY-AP-MW-7	11/28/2018 8:42	22.71	ft	Depth to Water Detail
BY-AP-MW-7	11/28/2018 8:42	0.9	mg/L	DO
BY-AP-MW-7	11/28/2018 8:42	-15.4	mv	Oxidation Reduction Potention
BY-AP-MW-7	11/28/2018 8:42	6.37	pH	pH
BY-AP-MW-7	11/28/2018 8:42	20.66	C	Temperature
BY-AP-MW-7	11/28/2018 8:42	7.17	NTU	Turbidity
BY-AP-MW-7	11/28/2018 8:47	231.5	uS/cm	Conductivity
BY-AP-MW-7	11/28/2018 8:47	22.71	ft	Depth to Water Detail
BY-AP-MW-7	11/28/2018 8:47	0.92	mg/L	DO
BY-AP-MW-7	11/28/2018 8:47	-20.5	mv	Oxidation Reduction Potention
BY-AP-MW-7	11/28/2018 8:47	6.35	pH	pH
BY-AP-MW-7	11/28/2018 8:47	20.75	C	Temperature
BY-AP-MW-7	11/28/2018 8:47	9.05	NTU	Turbidity
BY-AP-MW-7	11/28/2018 8:52	228.9	uS/cm	Conductivity
BY-AP-MW-7	11/28/2018 8:52	22.71	ft	Depth to Water Detail
BY-AP-MW-7	11/28/2018 8:52	0.82	mg/L	DO
BY-AP-MW-7	11/28/2018 8:52	-23.6	mv	Oxidation Reduction Potention
BY-AP-MW-7	11/28/2018 8:52	6.34	pH	pH
BY-AP-MW-7	11/28/2018 8:52	20.76	C	Temperature
BY-AP-MW-7	11/28/2018 8:52	8.97	NTU	Turbidity
BY-AP-MW-7	11/28/2018 8:57	228.9	uS/cm	Conductivity
BY-AP-MW-7	11/28/2018 8:57	22.71	ft	Depth to Water Detail
BY-AP-MW-7	11/28/2018 8:57	0.74	mg/L	DO
BY-AP-MW-7	11/28/2018 8:57	-24.9	mv	Oxidation Reduction Potention
BY-AP-MW-7	11/28/2018 8:57	6.34	pH	pH
BY-AP-MW-7	11/28/2018 8:57	20.8	C	Temperature
BY-AP-MW-7	11/28/2018 8:57	4.38	NTU	Turbidity
BY-AP-MW-7	11/28/2018 9:02	228.7	uS/cm	Conductivity
BY-AP-MW-7	11/28/2018 9:02	22.71	ft	Depth to Water Detail
BY-AP-MW-7	11/28/2018 9:02	0.67	mg/L	DO
BY-AP-MW-7	11/28/2018 9:02	-25.8	mv	Oxidation Reduction Potention
BY-AP-MW-7	11/28/2018 9:02	6.33	pH	pH
BY-AP-MW-7	11/28/2018 9:02	20.84	C	Temperature
BY-AP-MW-7	11/28/2018 9:02	4.38	NTU	Turbidity



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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-8	11/27/2018 17:08	507.1	uS/cm	Conductivity
BY-AP-MW-8	11/27/2018 17:08	26.08	ft	Depth to Water Detail
BY-AP-MW-8	11/27/2018 17:08	0.1	mg/L	DO
BY-AP-MW-8	11/27/2018 17:08	-91.1	mv	Oxidation Reduction Potention
BY-AP-MW-8	11/27/2018 17:08	6.19	pH	pH
BY-AP-MW-8	11/27/2018 17:08	19.68	C	Temperature
BY-AP-MW-8	11/27/2018 17:08	1.52	NTU	Turbidity
BY-AP-MW-8	11/27/2018 17:13	495.3	uS/cm	Conductivity
BY-AP-MW-8	11/27/2018 17:13	26.08	ft	Depth to Water Detail
BY-AP-MW-8	11/27/2018 17:13	0.07	mg/L	DO
BY-AP-MW-8	11/27/2018 17:13	-93.8	mv	Oxidation Reduction Potention
BY-AP-MW-8	11/27/2018 17:13	6.18	pH	pH
BY-AP-MW-8	11/27/2018 17:13	19.59	C	Temperature
BY-AP-MW-8	11/27/2018 17:13	0.8	NTU	Turbidity
BY-AP-MW-8	11/27/2018 17:18	487.5	uS/cm	Conductivity
BY-AP-MW-8	11/27/2018 17:18	26.08	ft	Depth to Water Detail
BY-AP-MW-8	11/27/2018 17:18	0.06	mg/L	DO
BY-AP-MW-8	11/27/2018 17:18	-94.9	mv	Oxidation Reduction Potention
BY-AP-MW-8	11/27/2018 17:18	6.18	pH	pH
BY-AP-MW-8	11/27/2018 17:18	19.62	C	Temperature
BY-AP-MW-8	11/27/2018 17:18	0.68	NTU	Turbidity
BY-AP-MW-8	11/27/2018 17:23	483.4	uS/cm	Conductivity
BY-AP-MW-8	11/27/2018 17:23	26.08	ft	Depth to Water Detail
BY-AP-MW-8	11/27/2018 17:23	0.06	mg/L	DO
BY-AP-MW-8	11/27/2018 17:23	-94.5	mv	Oxidation Reduction Potention
BY-AP-MW-8	11/27/2018 17:23	6.18	pH	pH
BY-AP-MW-8	11/27/2018 17:23	19.54	C	Temperature
BY-AP-MW-8	11/27/2018 17:23	0.65	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-9	11/28/2018 9:53	557.3	uS/cm	Conductivity
BY-AP-MW-9	11/28/2018 9:53	21.73	ft	Depth to Water Detail
BY-AP-MW-9	11/28/2018 9:53	0.34	mg/L	DO
BY-AP-MW-9	11/28/2018 9:53	-95.3	mv	Oxidation Reduction Potention
BY-AP-MW-9	11/28/2018 9:53	6.31	pH	pH
BY-AP-MW-9	11/28/2018 9:53	20.78	C	Temperature
BY-AP-MW-9	11/28/2018 9:53	1.5	NTU	Turbidity
BY-AP-MW-9	11/28/2018 9:58	553	uS/cm	Conductivity
BY-AP-MW-9	11/28/2018 9:58	21.73	ft	Depth to Water Detail
BY-AP-MW-9	11/28/2018 9:58	0.25	mg/L	DO
BY-AP-MW-9	11/28/2018 9:58	-95	mv	Oxidation Reduction Potention
BY-AP-MW-9	11/28/2018 9:58	6.32	pH	pH
BY-AP-MW-9	11/28/2018 9:58	20.79	C	Temperature
BY-AP-MW-9	11/28/2018 9:58	1.71	NTU	Turbidity
BY-AP-MW-9	11/28/2018 10:03	547.8	uS/cm	Conductivity
BY-AP-MW-9	11/28/2018 10:03	21.73	ft	Depth to Water Detail
BY-AP-MW-9	11/28/2018 10:03	0.22	mg/L	DO
BY-AP-MW-9	11/28/2018 10:03	-92.6	mv	Oxidation Reduction Potention
BY-AP-MW-9	11/28/2018 10:03	6.29	pH	pH
BY-AP-MW-9	11/28/2018 10:03	20.79	C	Temperature
BY-AP-MW-9	11/28/2018 10:03	0.85	NTU	Turbidity
BY-AP-MW-9	11/28/2018 10:08	551.3	uS/cm	Conductivity
BY-AP-MW-9	11/28/2018 10:08	21.73	ft	Depth to Water Detail
BY-AP-MW-9	11/28/2018 10:08	0.2	mg/L	DO
BY-AP-MW-9	11/28/2018 10:08	-93.2	mv	Oxidation Reduction Potention
BY-AP-MW-9	11/28/2018 10:08	6.32	pH	pH
BY-AP-MW-9	11/28/2018 10:08	20.79	C	Temperature
BY-AP-MW-9	11/28/2018 10:08	0.91	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-10	11/28/2018 11:01	646.4	uS/cm	Conductivity
BY-AP-MW-10	11/28/2018 11:01	21.17	ft	Depth to Water Detail
BY-AP-MW-10	11/28/2018 11:01	0.39	mg/L	DO
BY-AP-MW-10	11/28/2018 11:01	-82.1	mv	Oxidation Reduction Potention
BY-AP-MW-10	11/28/2018 11:01	6.33	pH	pH
BY-AP-MW-10	11/28/2018 11:01	20.88	C	Temperature
BY-AP-MW-10	11/28/2018 11:01	1.1	NTU	Turbidity
BY-AP-MW-10	11/28/2018 11:06	641.2	uS/cm	Conductivity
BY-AP-MW-10	11/28/2018 11:06	21.17	ft	Depth to Water Detail
BY-AP-MW-10	11/28/2018 11:06	0.3	mg/L	DO
BY-AP-MW-10	11/28/2018 11:06	-84.4	mv	Oxidation Reduction Potention
BY-AP-MW-10	11/28/2018 11:06	6.34	pH	pH
BY-AP-MW-10	11/28/2018 11:06	20.93	C	Temperature
BY-AP-MW-10	11/28/2018 11:06	1.1	NTU	Turbidity
BY-AP-MW-10	11/28/2018 11:11	635.9	uS/cm	Conductivity
BY-AP-MW-10	11/28/2018 11:11	21.17	ft	Depth to Water Detail
BY-AP-MW-10	11/28/2018 11:11	0.26	mg/L	DO
BY-AP-MW-10	11/28/2018 11:11	-83.6	mv	Oxidation Reduction Potention
BY-AP-MW-10	11/28/2018 11:11	6.32	pH	pH
BY-AP-MW-10	11/28/2018 11:11	20.93	C	Temperature
BY-AP-MW-10	11/28/2018 11:11	1.3	NTU	Turbidity
BY-AP-MW-10	11/28/2018 11:16	631.5	uS/cm	Conductivity
BY-AP-MW-10	11/28/2018 11:16	21.17	ft	Depth to Water Detail
BY-AP-MW-10	11/28/2018 11:16	0.24	mg/L	DO
BY-AP-MW-10	11/28/2018 11:16	-83.3	mv	Oxidation Reduction Potention
BY-AP-MW-10	11/28/2018 11:16	6.32	pH	pH
BY-AP-MW-10	11/28/2018 11:16	20.89	C	Temperature
BY-AP-MW-10	11/28/2018 11:16	0.9	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-11	11/28/2018 11:07	608.7	uS/cm	Conductivity
BY-AP-MW-11	11/28/2018 11:07	23.28	ft	Depth to Water Detail
BY-AP-MW-11	11/28/2018 11:07	0.41	mg/L	DO
BY-AP-MW-11	11/28/2018 11:07	-54.4	mv	Oxidation Reduction Potention
BY-AP-MW-11	11/28/2018 11:07	6.3	pH	pH
BY-AP-MW-11	11/28/2018 11:07	20.75	C	Temperature
BY-AP-MW-11	11/28/2018 11:07	14.6	NTU	Turbidity
BY-AP-MW-11	11/28/2018 11:12	577.3	uS/cm	Conductivity
BY-AP-MW-11	11/28/2018 11:12	23.29	ft	Depth to Water Detail
BY-AP-MW-11	11/28/2018 11:12	0.32	mg/L	DO
BY-AP-MW-11	11/28/2018 11:12	-55.1	mv	Oxidation Reduction Potention
BY-AP-MW-11	11/28/2018 11:12	6.28	pH	pH
BY-AP-MW-11	11/28/2018 11:12	20.7	C	Temperature
BY-AP-MW-11	11/28/2018 11:12	8.22	NTU	Turbidity
BY-AP-MW-11	11/28/2018 11:17	567.6	uS/cm	Conductivity
BY-AP-MW-11	11/28/2018 11:17	23.31	ft	Depth to Water Detail
BY-AP-MW-11	11/28/2018 11:17	0.28	mg/L	DO
BY-AP-MW-11	11/28/2018 11:17	-55.7	mv	Oxidation Reduction Potention
BY-AP-MW-11	11/28/2018 11:17	6.29	pH	pH
BY-AP-MW-11	11/28/2018 11:17	20.66	C	Temperature
BY-AP-MW-11	11/28/2018 11:17	4.1	NTU	Turbidity
BY-AP-MW-11	11/28/2018 11:22	565.1	uS/cm	Conductivity
BY-AP-MW-11	11/28/2018 11:22	23.31	ft	Depth to Water Detail
BY-AP-MW-11	11/28/2018 11:22	0.26	mg/L	DO
BY-AP-MW-11	11/28/2018 11:22	-55.9	mv	Oxidation Reduction Potention
BY-AP-MW-11	11/28/2018 11:22	6.28	pH	pH
BY-AP-MW-11	11/28/2018 11:22	20.66	C	Temperature
BY-AP-MW-11	11/28/2018 11:22	1.92	NTU	Turbidity

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<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-12	11/28/2018 9:35	562.7	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 9:35	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 9:35	0.38	mg/L	DO
BY-AP-MW-12	11/28/2018 9:35	-45.1	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 9:35	6.12	pH	pH
BY-AP-MW-12	11/28/2018 9:35	19.69	C	Temperature
BY-AP-MW-12	11/28/2018 9:35	2.71	NTU	Turbidity
BY-AP-MW-12	11/28/2018 9:40	548.8	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 9:40	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 9:40	0.3	mg/L	DO
BY-AP-MW-12	11/28/2018 9:40	-47.1	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 9:40	6.12	pH	pH
BY-AP-MW-12	11/28/2018 9:40	19.77	C	Temperature
BY-AP-MW-12	11/28/2018 9:40	1.05	NTU	Turbidity
BY-AP-MW-12	11/28/2018 9:45	544.9	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 9:45	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 9:45	0.25	mg/L	DO
BY-AP-MW-12	11/28/2018 9:45	-48.1	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 9:45	6.12	pH	pH
BY-AP-MW-12	11/28/2018 9:45	19.93	C	Temperature
BY-AP-MW-12	11/28/2018 9:45	0.89	NTU	Turbidity
BY-AP-MW-12	11/28/2018 9:50	538.5	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 9:50	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 9:50	0.22	mg/L	DO
BY-AP-MW-12	11/28/2018 9:50	-47.8	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 9:50	6.11	pH	pH
BY-AP-MW-12	11/28/2018 9:50	20.3	C	Temperature
BY-AP-MW-12	11/28/2018 9:50	0.89	NTU	Turbidity
BY-AP-MW-12	11/28/2018 9:55	533.4	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 9:55	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 9:55	0.21	mg/L	DO
BY-AP-MW-12	11/28/2018 9:55	-47.9	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 9:55	6.12	pH	pH
BY-AP-MW-12	11/28/2018 9:55	20.23	C	Temperature
BY-AP-MW-12	11/28/2018 9:55	0.92	NTU	Turbidity
BY-AP-MW-12	11/28/2018 10:00	535.9	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 10:00	21.21	ft	Depth to Water Detail
BY-AP-MW-12	11/28/2018 10:00	0.2	mg/L	DO
BY-AP-MW-12	11/28/2018 10:00	-47.4	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 10:00	6.11	pH	pH
BY-AP-MW-12	11/28/2018 10:00	20.23	C	Temperature
BY-AP-MW-12	11/28/2018 10:00	1.13	NTU	Turbidity
BY-AP-MW-12	11/28/2018 10:05	539.1	uS/cm	Conductivity
BY-AP-MW-12	11/28/2018 10:05	21.21	ft	Depth to Water Detail

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-12	11/28/2018 10:05	0.19	mg/L	DO
BY-AP-MW-12	11/28/2018 10:05	-47.2	mv	Oxidation Reduction Potention
BY-AP-MW-12	11/28/2018 10:05	6.11	pH	pH
BY-AP-MW-12	11/28/2018 10:05	20.3	C	Temperature
BY-AP-MW-12	11/28/2018 10:05	0.95	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-13	11/28/2018 8:39	453.9	uS/cm	Conductivity
BY-AP-MW-13	11/28/2018 8:39	21.36	ft	Depth to Water Detail
BY-AP-MW-13	11/28/2018 8:39	0.48	mg/L	DO
BY-AP-MW-13	11/28/2018 8:39	-40.3	mv	Oxidation Reduction Potention
BY-AP-MW-13	11/28/2018 8:39	6.05	pH	pH
BY-AP-MW-13	11/28/2018 8:39	18.96	C	Temperature
BY-AP-MW-13	11/28/2018 8:39	5.9	NTU	Turbidity
BY-AP-MW-13	11/28/2018 8:44	441.4	uS/cm	Conductivity
BY-AP-MW-13	11/28/2018 8:44	21.36	ft	Depth to Water Detail
BY-AP-MW-13	11/28/2018 8:44	0.36	mg/L	DO
BY-AP-MW-13	11/28/2018 8:44	-37.9	mv	Oxidation Reduction Potention
BY-AP-MW-13	11/28/2018 8:44	6.04	pH	pH
BY-AP-MW-13	11/28/2018 8:44	19.37	C	Temperature
BY-AP-MW-13	11/28/2018 8:44	5.45	NTU	Turbidity
BY-AP-MW-13	11/28/2018 8:49	434	uS/cm	Conductivity
BY-AP-MW-13	11/28/2018 8:49	21.36	ft	Depth to Water Detail
BY-AP-MW-13	11/28/2018 8:49	0.31	mg/L	DO
BY-AP-MW-13	11/28/2018 8:49	-36.2	mv	Oxidation Reduction Potention
BY-AP-MW-13	11/28/2018 8:49	6.04	pH	pH
BY-AP-MW-13	11/28/2018 8:49	19.46	C	Temperature
BY-AP-MW-13	11/28/2018 8:49	3.25	NTU	Turbidity
BY-AP-MW-13	11/28/2018 8:54	431.3	uS/cm	Conductivity
BY-AP-MW-13	11/28/2018 8:54	21.36	ft	Depth to Water Detail
BY-AP-MW-13	11/28/2018 8:54	0.29	mg/L	DO
BY-AP-MW-13	11/28/2018 8:54	-35.1	mv	Oxidation Reduction Potention
BY-AP-MW-13	11/28/2018 8:54	6.04	pH	pH
BY-AP-MW-13	11/28/2018 8:54	19.47	C	Temperature
BY-AP-MW-13	11/28/2018 8:54	1.19	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-14	11/27/2018 15:56	486.7	uS/cm	Conductivity
BY-AP-MW-14	11/27/2018 15:56	9.93	ft	Depth to Water Detail
BY-AP-MW-14	11/27/2018 15:56	0.37	mg/L	DO
BY-AP-MW-14	11/27/2018 15:56	-34	mv	Oxidation Reduction Potention
BY-AP-MW-14	11/27/2018 15:56	6.08	pH	pH
BY-AP-MW-14	11/27/2018 15:56	19.08	C	Temperature
BY-AP-MW-14	11/27/2018 15:56	4.61	NTU	Turbidity
BY-AP-MW-14	11/27/2018 16:01	470.6	uS/cm	Conductivity
BY-AP-MW-14	11/27/2018 16:01	9.93	ft	Depth to Water Detail
BY-AP-MW-14	11/27/2018 16:01	0.28	mg/L	DO
BY-AP-MW-14	11/27/2018 16:01	-34.5	mv	Oxidation Reduction Potention
BY-AP-MW-14	11/27/2018 16:01	6.07	pH	pH
BY-AP-MW-14	11/27/2018 16:01	19.1	C	Temperature
BY-AP-MW-14	11/27/2018 16:01	1.09	NTU	Turbidity
BY-AP-MW-14	11/27/2018 16:06	467.5	uS/cm	Conductivity
BY-AP-MW-14	11/27/2018 16:06	9.93	ft	Depth to Water Detail
BY-AP-MW-14	11/27/2018 16:06	0.25	mg/L	DO
BY-AP-MW-14	11/27/2018 16:06	-34.5	mv	Oxidation Reduction Potention
BY-AP-MW-14	11/27/2018 16:06	6.07	pH	pH
BY-AP-MW-14	11/27/2018 16:06	19.15	C	Temperature
BY-AP-MW-14	11/27/2018 16:06	1.02	NTU	Turbidity
BY-AP-MW-14	11/27/2018 16:11	468.1	uS/cm	Conductivity
BY-AP-MW-14	11/27/2018 16:11	9.93	ft	Depth to Water Detail
BY-AP-MW-14	11/27/2018 16:11	0.21	mg/L	DO
BY-AP-MW-14	11/27/2018 16:11	-34.9	mv	Oxidation Reduction Potention
BY-AP-MW-14	11/27/2018 16:11	6.07	pH	pH
BY-AP-MW-14	11/27/2018 16:11	19.28	C	Temperature
BY-AP-MW-14	11/27/2018 16:11	1.18	NTU	Turbidity



**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-15	11/27/2018 14:28	504.7	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:28	21.35	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:28	0.53	mg/L	DO
BY-AP-MW-15	11/27/2018 14:28	-120.1	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:28	6.46	pH	pH
BY-AP-MW-15	11/27/2018 14:28	21.34	C	Temperature
BY-AP-MW-15	11/27/2018 14:28	25.8	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:33	488.7	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:33	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:33	0.41	mg/L	DO
BY-AP-MW-15	11/27/2018 14:33	-120.1	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:33	6.51	pH	pH
BY-AP-MW-15	11/27/2018 14:33	21.33	C	Temperature
BY-AP-MW-15	11/27/2018 14:33	26	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:38	470.5	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:38	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:38	0.37	mg/L	DO
BY-AP-MW-15	11/27/2018 14:38	-115.3	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:38	6.51	pH	pH
BY-AP-MW-15	11/27/2018 14:38	21.22	C	Temperature
BY-AP-MW-15	11/27/2018 14:38	25.2	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:43	467.8	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:43	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:43	0.36	mg/L	DO
BY-AP-MW-15	11/27/2018 14:43	-113.6	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:43	6.53	pH	pH
BY-AP-MW-15	11/27/2018 14:43	21.19	C	Temperature
BY-AP-MW-15	11/27/2018 14:43	25.6	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:48	410.2	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:48	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:48	0.33	mg/L	DO
BY-AP-MW-15	11/27/2018 14:48	-98	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:48	6.52	pH	pH
BY-AP-MW-15	11/27/2018 14:48	21.08	C	Temperature
BY-AP-MW-15	11/27/2018 14:48	99.2	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:53	461.3	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:53	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 14:53	0.34	mg/L	DO
BY-AP-MW-15	11/27/2018 14:53	-111.2	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:53	6.55	pH	pH
BY-AP-MW-15	11/27/2018 14:53	21.05	C	Temperature
BY-AP-MW-15	11/27/2018 14:53	31.4	NTU	Turbidity
BY-AP-MW-15	11/27/2018 14:58	461.2	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 14:58	21.34	ft	Depth to Water Detail

**Alabama Power Company  
Plant Barry Ash Pond**

Well ID	READING DATETIME	VALUE	UNIT	DESCRIPTION
BY-AP-MW-15	11/27/2018 14:58	0.33	mg/L	DO
BY-AP-MW-15	11/27/2018 14:58	-111	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 14:58	6.56	pH	pH
BY-AP-MW-15	11/27/2018 14:58	20.97	C	Temperature
BY-AP-MW-15	11/27/2018 14:58	19	NTU	Turbidity
BY-AP-MW-15	11/27/2018 15:03	459.5	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 15:03	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 15:03	0.34	mg/L	DO
BY-AP-MW-15	11/27/2018 15:03	-110.5	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 15:03	6.57	pH	pH
BY-AP-MW-15	11/27/2018 15:03	21	C	Temperature
BY-AP-MW-15	11/27/2018 15:03	4.54	NTU	Turbidity
BY-AP-MW-15	11/27/2018 15:08	459.2	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 15:08	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 15:08	0.34	mg/L	DO
BY-AP-MW-15	11/27/2018 15:08	-110.3	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 15:08	6.57	pH	pH
BY-AP-MW-15	11/27/2018 15:08	20.97	C	Temperature
BY-AP-MW-15	11/27/2018 15:08	10.84	NTU	Turbidity
BY-AP-MW-15	11/27/2018 15:13	460.9	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 15:13	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 15:13	0.34	mg/L	DO
BY-AP-MW-15	11/27/2018 15:13	-110.5	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 15:13	6.57	pH	pH
BY-AP-MW-15	11/27/2018 15:13	20.74	C	Temperature
BY-AP-MW-15	11/27/2018 15:13	7.82	NTU	Turbidity
BY-AP-MW-15	11/27/2018 15:18	461.9	uS/cm	Conductivity
BY-AP-MW-15	11/27/2018 15:18	21.34	ft	Depth to Water Detail
BY-AP-MW-15	11/27/2018 15:18	0.35	mg/L	DO
BY-AP-MW-15	11/27/2018 15:18	-109.9	mv	Oxidation Reduction Potention
BY-AP-MW-15	11/27/2018 15:18	6.58	pH	pH
BY-AP-MW-15	11/27/2018 15:18	20.39	C	Temperature
BY-AP-MW-15	11/27/2018 15:18	4.96	NTU	Turbidity

**Alabama Power Company  
Plant Barry Ash Pond**

<b>Well ID</b>	<b>READING DATETIME</b>	<b>VALUE</b>	<b>UNIT</b>	<b>DESCRIPTION</b>
BY-AP-MW-16	11/27/2018 13:11	403.8	uS/cm	Conductivity
BY-AP-MW-16	11/27/2018 13:11	21.75	ft	Depth to Water Detail
BY-AP-MW-16	11/27/2018 13:11	0.58	mg/L	DO
BY-AP-MW-16	11/27/2018 13:11	-17.7	mv	Oxidation Reduction Potention
BY-AP-MW-16	11/27/2018 13:11	5.73	pH	pH
BY-AP-MW-16	11/27/2018 13:11	20.46	C	Temperature
BY-AP-MW-16	11/27/2018 13:11	2.87	NTU	Turbidity
BY-AP-MW-16	11/27/2018 13:16	394.8	uS/cm	Conductivity
BY-AP-MW-16	11/27/2018 13:16	21.75	ft	Depth to Water Detail
BY-AP-MW-16	11/27/2018 13:16	0.45	mg/L	DO
BY-AP-MW-16	11/27/2018 13:16	-17.8	mv	Oxidation Reduction Potention
BY-AP-MW-16	11/27/2018 13:16	5.75	pH	pH
BY-AP-MW-16	11/27/2018 13:16	20.54	C	Temperature
BY-AP-MW-16	11/27/2018 13:16	2.32	NTU	Turbidity
BY-AP-MW-16	11/27/2018 13:21	385.6	uS/cm	Conductivity
BY-AP-MW-16	11/27/2018 13:21	21.75	ft	Depth to Water Detail
BY-AP-MW-16	11/27/2018 13:21	0.4	mg/L	DO
BY-AP-MW-16	11/27/2018 13:21	-16.3	mv	Oxidation Reduction Potention
BY-AP-MW-16	11/27/2018 13:21	5.75	pH	pH
BY-AP-MW-16	11/27/2018 13:21	20.57	C	Temperature
BY-AP-MW-16	11/27/2018 13:21	2.57	NTU	Turbidity
BY-AP-MW-16	11/27/2018 13:26	386.3	uS/cm	Conductivity
BY-AP-MW-16	11/27/2018 13:26	21.75	ft	Depth to Water Detail
BY-AP-MW-16	11/27/2018 13:26	0.37	mg/L	DO
BY-AP-MW-16	11/27/2018 13:26	-14.6	mv	Oxidation Reduction Potention
BY-AP-MW-16	11/27/2018 13:26	5.75	pH	pH
BY-AP-MW-16	11/27/2018 13:26	20.35	C	Temperature
BY-AP-MW-16	11/27/2018 13:26	2.16	NTU	Turbidity
BY-AP-MW-16	11/27/2018 13:31	385.2	uS/cm	Conductivity
BY-AP-MW-16	11/27/2018 13:31	21.75	ft	Depth to Water Detail
BY-AP-MW-16	11/27/2018 13:31	0.35	mg/L	DO
BY-AP-MW-16	11/27/2018 13:31	-13.5	mv	Oxidation Reduction Potention
BY-AP-MW-16	11/27/2018 13:31	5.76	pH	pH
BY-AP-MW-16	11/27/2018 13:31	20.26	C	Temperature
BY-AP-MW-16	11/27/2018 13:31	1.66	NTU	Turbidity

Alabama Power General Test Laboratory  
744 County Road 87, GSC#8  
Calera, AL 35040  
(205) 664-6032 or 6171  
FAX (205) 257-1654

# Analytical Report




**Sample Group :** WMWBARAP\_1160  
**Project/Site :** Barry Ash Pond  
Bucks, AL 36512  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

The following data has been reviewed and approved by:

**Quality Control:**  **Laura Midkiff**  
Digitally signed by Laura Midkiff  
DN: cn=Laura Midkiff, o=Alabama Power  
Company, ou=Environmental Affairs,  
email=lbmidkif@southernco.com, c=US  
Date: 2018.10.29 11:33:18 -0500

**Supervision:** **T. Durant Maske**

  
Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.10.29 14:10:55 -0500



Metals ICP

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627973	WMWBARAP_1160
AY20764	627973	WMWBARAP_1160
AY20765	627973	WMWBARAP_1160
AY20766	627973	WMWBARAP_1160
AY20767	627973	WMWBARAP_1160
AY20768	627973	WMWBARAP_1160
AY20769	627973	WMWBARAP_1160
AY20770	627973	WMWBARAP_1160
AY20771	627973	WMWBARAP_1160
AY20772	627973	WMWBARAP_1160
AY20773	627974	WMWBARAP_1160
AY20964	627974	WMWBARAP_1160
AY20965	627974	WMWBARAP_1160
AY20966	627974	WMWBARAP_1160
AY20967	627974	WMWBARAP_1160
AY20968	627974	WMWBARAP_1160
AY20969	627974	WMWBARAP_1160
AY20970	627974	WMWBARAP_1160
AY20971	627974	WMWBARAP_1160
AY20972	627974	WMWBARAP_1160
AY20973	627975	WMWBARAP_1160
AY20974	627975	WMWBARAP_1160

4. All of the above samples were analyzed by analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



### General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

### Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
  - AY20974 MS/MSD spike level was less than 30% of sample nominal concentration for iron.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.



7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. 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>
AY20763	Iron	X101.5
AY20764	Iron	X101.5
AY20770	Iron	X101.5
AY20964	Iron	X101.5
AY20965	Iron	X101.5
AY20966	Iron	X101.5
AY20967	Iron	X101.5
AY20968	Iron	X101.5
AY20970	Iron	X101.5
AY20971	Iron	X101.5
AY20973	Iron	X101.5
AY20974	Iron	X101.5
AY20965	Sodium	X101.5
AY20966	Sodium	X101.5
AY20970	Sodium	X101.5

8. The raw data results include results corrected for dilution.



Metals ICPMS

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627643	WMWBARAP_1160
AY20764	627643	WMWBARAP_1160
AY20765	627643	WMWBARAP_1160
AY20766	627643	WMWBARAP_1160
AY20767	627643	WMWBARAP_1160
AY20768	627643	WMWBARAP_1160
AY20769	627643	WMWBARAP_1160
AY20770	627643	WMWBARAP_1160
AY20771	627643	WMWBARAP_1160
AY20772	627643	WMWBARAP_1160
AY20773	627644	WMWBARAP_1160
AY20964	627644	WMWBARAP_1160
AY20965	627644	WMWBARAP_1160
AY20966	627644	WMWBARAP_1160
AY20967	627644	WMWBARAP_1160
AY20968	627644	WMWBARAP_1160
AY20969	627644	WMWBARAP_1160
AY20970	627644	WMWBARAP_1160
AY20971	627644	WMWBARAP_1160
AY20972	627644	WMWBARAP_1160
AY20973	627645	WMWBARAP_1160
AY20974	627645	WMWBARAP_1160

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.





### General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
  8. The raw data results include results corrected for dilution.



TDS

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627389	WMWBARAP_1160
AY20764	627389	WMWBARAP_1160
AY20765	627389	WMWBARAP_1160
AY20766	627389	WMWBARAP_1160
AY20767	627389	WMWBARAP_1160
AY20768	627390	WMWBARAP_1160
AY20769	627390	WMWBARAP_1160
AY20770	627390	WMWBARAP_1160
AY20771	627390	WMWBARAP_1160
AY20772	627390	WMWBARAP_1160
AY20773	627390	WMWBARAP_1160
AY20964	627536	WMWBARAP_1160
AY20965	627536	WMWBARAP_1160
AY20966	627536	WMWBARAP_1160
AY20967	627536	WMWBARAP_1160
AY20968	627536	WMWBARAP_1160
AY20969	627536	WMWBARAP_1160
AY20970	627536	WMWBARAP_1160
AY20971	627536	WMWBARAP_1160
AY20972	627536	WMWBARAP_1160
AY20973	627536	WMWBARAP_1160
AY20974	627537	WMWBARAP_1160

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 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- All samples were between 2.5mg and 200mg residue except for AY20769, AY20771, and AY20972, which were below the 2.5mg requirement. Max volume of 150mL filtered.



Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627635	WMWBARAP_1160
AY20764	627635	WMWBARAP_1160
AY20765	627635	WMWBARAP_1160
AY20766	627635	WMWBARAP_1160
AY20767	627635	WMWBARAP_1160
AY20768	627635	WMWBARAP_1160
AY20769	627635	WMWBARAP_1160
AY20770	627635	WMWBARAP_1160
AY20771	627635	WMWBARAP_1160
AY20772	627635	WMWBARAP_1160
AY20773	627785	WMWBARAP_1160
AY20964	627785	WMWBARAP_1160
AY20965	627785	WMWBARAP_1160
AY20966	627785	WMWBARAP_1160
AY20967	627785	WMWBARAP_1160
AY20968	627785	WMWBARAP_1160
AY20969	627785	WMWBARAP_1160
AY20970	627785	WMWBARAP_1160
AY20971	627785	WMWBARAP_1160
AY20972	627785	WMWBARAP_1160
AY20973	627786	WMWBARAP_1160
AY20974	627786	WMWBARAP_1160

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



### General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

### Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x5.075 dilution to compensate for potential matrix effects.
  8. The raw data results include results corrected for dilution.



Alkalinity

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627612 & 627613	WMWBARAP_1160
AY20764	627612 & 627613	WMWBARAP_1160
AY20765	627612 & 627613	WMWBARAP_1160
AY20766	627612 & 627613	WMWBARAP_1160
AY20767	627612 & 627613	WMWBARAP_1160
AY20768	627612 & 627613	WMWBARAP_1160
AY20769	627612 & 627613	WMWBARAP_1160
AY20770	627612 & 627613	WMWBARAP_1160
AY20771	627612 & 627613	WMWBARAP_1160
AY20772	627612 & 627613	WMWBARAP_1160
AY20773	627748 & 627749	WMWBARAP_1160
AY20964	627748 & 627749	WMWBARAP_1160
AY20965	627748 & 627749	WMWBARAP_1160
AY20966	627748 & 627749	WMWBARAP_1160
AY20967	627748 & 627749	WMWBARAP_1160
AY20968	627748 & 627749	WMWBARAP_1160
AY20969	627748 & 627749	WMWBARAP_1160
AY20970	627748 & 627749	WMWBARAP_1160
AY20971	627748 & 627749	WMWBARAP_1160
AY20972	627748 & 627749	WMWBARAP_1160
AY20973	627750 & 627751	WMWBARAP_1160
AY20974	627750 & 627751	WMWBARAP_1160

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.



General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.



Dissolved Metals ICP

Barry Ash Pond

WMWBARAP\_1160

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>
AY20763	627678	WMWBARAP_1160
AY20764	627678	WMWBARAP_1160
AY20765	627678	WMWBARAP_1160
AY20766	627678	WMWBARAP_1160
AY20767	627678	WMWBARAP_1160
AY20768	627678	WMWBARAP_1160
AY20769	627678	WMWBARAP_1160
AY20770	627678	WMWBARAP_1160
AY20771	627678	WMWBARAP_1160
AY20772	627678	WMWBARAP_1160
AY20773	627679	WMWBARAP_1160
AY20964	627679	WMWBARAP_1160
AY20965	627679	WMWBARAP_1160
AY20966	627679	WMWBARAP_1160
AY20967	627679	WMWBARAP_1160
AY20968	627679	WMWBARAP_1160
AY20969	627679	WMWBARAP_1160
AY20970	627679	WMWBARAP_1160
AY20971	627679	WMWBARAP_1160
AY20972	627679	WMWBARAP_1160
AY20973	627680	WMWBARAP_1160
AY20974	627680	WMWBARAP_1160

4. All of the above samples were analyzed by analyzed by EPA 200.7 and prepared by EPA 1638 for dissolved analysis.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.





### General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes, except for the following. Final CCB for the analysis of dilutions had an ISTD failure. Reanalysis of CCB passed all requirements.
- Due to no filtered MB or LCS submitted with sample set, an unfiltered method blank and laboratory control sample were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

### Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
  - AY20974 MS/MSD spike level was less than 30% of sample nominal concentration for iron.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.



7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. 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>
AY20763	Iron	X101.5
AY20764	Iron	X101.5
AY20770	Iron	X101.5
AY20964	Iron	X101.5
AY20965	Iron	X101.5
AY20966	Iron	X101.5
AY20967	Iron	X101.5
AY20968	Iron	X101.5
AY20970	Iron	X101.5
AY20971	Iron	X101.5
AY20973	Iron	X101.5
AY20974	Iron	X101.5

8. The raw data results include results corrected for dilution.

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY20763

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	40.0	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	77.2	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	79.3	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	10.8	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	1.95	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	2.01	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	20.2	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.860	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.20	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	214	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			214	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	324	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB  
 or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY20763

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5		103	70 to 130		0.0380	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75		101	70 to 130		0.944	20
AY20772	Mangenes, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115		93.9	70 to 130		0.615	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0					0.659	10
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75		95.3	70 to 130		0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23		125	70 to 130		0.668	20
AY20772	Mangenes, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115		95.7	70 to 130		2.94	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23		94.4	70 to 130		2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75		97.2	70 to 130		1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05						

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY20763

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20767	Solids, Dissolved	mg/L	0.0000	25			29.3	53.0	40 to 60	1.12	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY20764

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	56.4	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	68.7	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	70.2	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	14.7	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	1.27	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	1.25	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	24.9	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.63	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.28	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	264	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.05	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			264	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	375	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY20764

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5		103	70 to 130	0.0380	20
AY20772	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115		93.9	70 to 130	0.615	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75		101	70 to 130	0.944	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0				0.659	10
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75		95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23		125	70 to 130	0.668	20
AY20772	Mangnese, Dissolved	mg/L	-0.00000860	0.005	0.10	0.104	0.101		0.085 to 0.115		95.7	70 to 130	2.94	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23		94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75		97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05					

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\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB  
 or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY20764

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20767	Solids, Dissolved	mg/L	0.0000	25			29.3	53.0	40 to 60	1.12	5

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Laboratory certification ID: E571114

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CC:



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 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY20765

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.800	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.680	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00591	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00523	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	5.02	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.976	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	4.95	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	0.42	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.42	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	26.0	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY20765

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit
			MB	Limit						Rec	Limit	
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5	103	70 to 130	0.0380 20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75	101	70 to 130	0.944 20
AY20772	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115	93.9	70 to 130	0.615 20
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75	95.3	70 to 130	0.988 20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23	125	70 to 130	0.668 20
AY20772	Mangnese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115	95.7	70 to 130	2.94 20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23	94.4	70 to 130	2.55 20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75	97.2	70 to 130	1.58 20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05			
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0			0.659 10

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Laboratory certification ID: E571114

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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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY20765

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20767	Solids, Dissolved	mg/L	0.0000	25			29.3	53.0	40 to 60	1.12	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:

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 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY20766

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.02	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.754	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00695	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00690	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.91	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.04	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.14	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	2.30	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			2.30	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	34.0	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY20766

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5	103	70 to 130	0.0380	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75	101	70 to 130	0.944	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0			0.659	10
AY20772	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115	93.9	70 to 130	0.615	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23	94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75	97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75	95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23	125	70 to 130	0.668	20
AY20772	Manganese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115	95.7	70 to 130	2.94	20

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY20766

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20767	Solids, Dissolved	mg/L	0.0000	25			29.3	53.0	40 to 60	1.12	5

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CC:

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Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY20767

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.03	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	0.757	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00679	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00718	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.90	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.06	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.12	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	13.7	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			13.7	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	30.0	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

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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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY20767

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5		103	70 to 130		0.0380	20
AY20772	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115		93.9	70 to 130		0.615	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0					0.659	10
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75		101	70 to 130		0.944	20
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75		95.3	70 to 130		0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23		125	70 to 130		0.668	20
AY20772	Mangnese, Dissolved	mg/L	-0.00000860	0.005	0.10	0.104	0.101		0.085 to 0.115		95.7	70 to 130		2.94	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23		94.4	70 to 130		2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75		97.2	70 to 130		1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-3 Dup

Laboratory ID Number: AY20767

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20767	Solids, Dissolved	mg/L	0.0000	25			29.3	53.0	40 to 60		1.12	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY20768

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	2.85	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	0.468	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	0.472	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.76	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.320	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.299	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.93	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.964	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.24	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	15.6	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			15.6	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	28.0	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY20768

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY20772	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115		93.9	70 to 130	0.615	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75		101	70 to 130	0.944	20
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5		103	70 to 130	0.0380	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0				0.659	10
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23		94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75		97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75		95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23		125	70 to 130	0.668	20
AY20772	Manganese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115		95.7	70 to 130	2.94	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY20768

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60		1.95	5

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CC:

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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPFB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20769

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.60	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPFB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20769

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5		103	70 to 130	0.0380	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75		101	70 to 130	0.944	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0				0.659	10
AY20772	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115		93.9	70 to 130	0.615	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23		94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75		97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05					
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75		95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23		125	70 to 130	0.668	20
AY20772	Manganese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115		95.7	70 to 130	2.94	20

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Expiration: June 30, 2019

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPFB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20769

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60		1.95	5

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CC:

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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY20770

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	37.2	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	136	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	145	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	12.0	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.829	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.847	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	23.8	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.20	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.11	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	337	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.04	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			337	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	420	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY20770

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75	101	70 to 130	0.944	20
AY20772	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115	93.9	70 to 130	0.615	20
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5	103	70 to 130	0.0380	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0			0.659	10
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23	94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75	97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75	95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23	125	70 to 130	0.668	20
AY20772	Mangnese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115	95.7	70 to 130	2.94	20

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY20770

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60		1.95	5

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CC:

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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPEB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY20771

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.37	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPEB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY20771

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5	103	70 to 130	0.0380	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0			0.659	10
AY20772	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115	93.9	70 to 130	0.615	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75	101	70 to 130	0.944	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23	94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75	97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75	95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23	125	70 to 130	0.668	20
AY20772	Mangnese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115	95.7	70 to 130	2.94	20

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Laboratory certification ID: E571114

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPEB  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY20771

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60		1.95	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, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond -DC-1

Laboratory ID Number: AY20772

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	16.2	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	J 0.0378	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	0.641	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.86	mg/L
* Manganese, Dissolved	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.00820	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0597	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	12.4	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.01	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	7.65	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	51.8	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.22	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			51.6	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	113	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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Alabama Power General Test Laboratory  
 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: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond -DC-1

Laboratory ID Number: AY20772

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20772	Potassium, Total	mg/L	-0.000197	0.0946	10.0	12.3	12.3	10.2	8.5 to 11.5	103	70 to 130	0.0380	20
AY20772	Sodium, Total	mg/L	-0.00210	0.22	5.00	17.5	17.6	5.12	4.25 to 5.75	101	70 to 130	0.944	20
AY20772	Alkalinity, Total as CaCO3	mg/L					51.4	50.4	45.0 to 55.0			0.659	10
AY20772	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.154	0.155	0.0958	0.085 to 0.115	93.9	70 to 130	0.615	20
AY20772	Iron, Dissolved	mg/L	-0.000246	0.022	0.2	0.227	0.232	0.200	0.17 to 0.23	94.4	70 to 130	2.55	20
AY20772	Magnesium, Total	mg/L	-0.00204	0.22	5.00	8.72	8.86	4.90	4.25 to 5.75	97.2	70 to 130	1.58	20
AY20772	pH for Alkalinity	SU						7.01	6.95 to 7.05				
AY20772	Calcium, Total	mg/L	0.00583	0.22	5.00	21.0	21.2	4.97	4.25 to 5.75	95.3	70 to 130	0.988	20
AY20772	Iron, Total	mg/L	0.000710	0.022	0.2	0.891	0.885	0.20207	0.17 to 0.23	125	70 to 130	0.668	20
AY20772	Manganese, Dissolved	mg/L	-0.000000860	0.005	0.10	0.104	0.101		0.085 to 0.115	95.7	70 to 130	2.94	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond -DC-1

Laboratory ID Number: AY20772

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60	1.95	5

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 Calera, AL 35040  
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 FAX (205) 257-1654

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - BR-1

Laboratory ID Number: AY20773

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	16.5	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	J 0.0289	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	0.392	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	3.75	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.00542	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.0412	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	11.2	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.00	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	7.90	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	55.1	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.41	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			54.7	mg/L
* Solids, Dissolved	CRB	9/4/2018	SM 2540C		1		25	105	mg/L
Filter Completion Date	CRB	8/30/2018	SM 2540C		1			08/30/2018	Date

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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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - BR-1

Laboratory ID Number: AY20773

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY20972	Manganese, Dissolved	mg/L	-0.000000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20	
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20	
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05					
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10	
AY20972	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20	
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20	
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20	
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20	
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20	
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 28-Aug-18  
 Customer ID:  
 Delivery Date: 29-Aug-18

Description: Barry Ash Pond - BR-1

Laboratory ID Number: AY20773

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20773	Solids, Dissolved	mg/L	0.0000	25			101	53.0	40 to 60		1.95	5

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# Certificate Of Analysis



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY20964

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	22.3	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	61.2	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	62.8	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	17.0	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.707	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.631	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	39.6	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	2.75	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.16	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	231	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			231	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	307	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Expiration: June 30, 2019

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY20964

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20	
AY20972	Mangnese, Dissolved	mg/L	-0.000000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20	
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05					
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10	
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20	
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20	
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20	
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20	
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20	
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	20	

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Laboratory certification ID: E571114

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY20964

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit		
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60		2.73	5

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Laboratory certification ID: E571114

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CC:

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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY20965

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	13.3	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	29.8	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	31.4	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	7.47	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.485	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.460	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		101.5	10.15	50.75	61.6	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.95	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.14	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	156	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			156	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	312	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY20965

Sample	Analysis	Units	MB				LCS			Rec		Prec		
			MB	Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit	
AY20972	pH for Alkalinity	SU					6.97	6.95 to 7.05						
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23		100	70 to 130	1.32	20
AY20972	Mangnese, Dissolved	mg/L	-0.00000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115		97.2	70 to 130	2.60	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75		98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75		98.5	70 to 130	3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75		99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23		90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5		104	70 to 130	0.314	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0				0.00	10
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115		97.0	70 to 130	0.980	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, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY20965

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60		2.73	5

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Laboratory certification ID: E571114

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY20966

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	11.7	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	27.1	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	28.6	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	5.69	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.266	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.249	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		101.5	10.15	50.75	78.2	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.45	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.17	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	172	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			172	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	318	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Expiration: June 30, 2019

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 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY20966

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	Spike				Limit	Rec	Limit	Prec			
AY20972	pH for Alkalinity	SU					6.97	6.95 to 7.05						
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23		100	70 to 130	1.32	20
AY20972	Mangenes, Dissolved	mg/L	-0.00000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115		97.2	70 to 130	2.60	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75		98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75		98.5	70 to 130	3.29	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0				0.00	10
AY20972	Mangenes, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115		97.0	70 to 130	0.980	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75		99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23		90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5		104	70 to 130	0.314	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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY20966

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60		2.73	5

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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY20967

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	7.37	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	84.6	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	87.4	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	5.28	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.696	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.664	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	21.0	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	3.08	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.28	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	113	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			113	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	192	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY20967

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit
			MB	Limit						Rec	Limit		
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY20972	Mangnese, Dissolved	mg/L	-0.00000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY20967

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60		2.73	5

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CC:

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 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY20968

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	12.1	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	99.2	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	97.7	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	6.42	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.706	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.706	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	25.4	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.08	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.87	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	215	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			215	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	283	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
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Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY20968

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20	
AY20972	Mangnese, Dissolved	mg/L	-0.000000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20	
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05					
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20	
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20	
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10	
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20	
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20	
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20	
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY20968

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60	2.73	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY20969

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.92	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	0.0842	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	0.0931	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	1.24	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	J 0.00493	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	J 0.00454	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	6.76	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.11	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.45	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	13.1	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			13.1	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	50.0	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB  
 or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY20969

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec	Rec Limit	Prec	Prec Limit	
			MB	Limit									
AY20972	pH for Alkalinity	SU					6.97	6.95 to 7.05					
AY20972	Mangnese, Dissolved	mg/L	-0.000000767	0.005	0.10	0.0972	0.0998	0.085 to 0.115	97.2	70 to 130	2.60	20	
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.17 to 0.23	100	70 to 130	1.32	20	
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0		0.00	10	
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power 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: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY20969

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60	2.73	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY20970

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	25.6	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	60.1	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	73.9	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	13.1	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.593	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.589	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		10.15	1.015	5.075	47.1	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	7.57	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.21	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	241	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.04	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			241	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	352	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power 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: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY20970

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	
AY20972	Manganese, Dissolved	mg/L	-0.000000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10
AY20972	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
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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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY20970

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60		2.73	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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CC:



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12 DUP

Laboratory ID Number: AY20971

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	22.5	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	58.1	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	63.3	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	17.0	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.673	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.674	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	39.6	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	2.89	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.13	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	235	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			235	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	341	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power 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: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12 DUP

Laboratory ID Number: AY20971

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	Limit					Limit	Limit	Rec	Limit			
AY20972	pH for Alkalinity	SU						6.97	6.95 to 7.05						
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23		100	70 to 130		1.32	20
AY20972	Mangnese, Dissolved	mg/L	-0.00000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115		97.2	70 to 130		2.60	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0					0.00	10
AY20972	Mangnese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115		97.0	70 to 130		0.980	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75		98.9	70 to 130		1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75		98.5	70 to 130		3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75		99.3	70 to 130		1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23		90.4	70 to 130		7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5		104	70 to 130		0.314	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power 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: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-12 DUP

Laboratory ID Number: AY20971

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60	2.73	5

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Expiration: June 30, 2019

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPFB  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20972

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	5.45	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 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: WMWBARAPFB  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20972

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit
			Limit							Rec	Limit		
AY20972	pH for Alkalinity	SU					6.97	6.95 to 7.05					
AY20972	Iron, Total	mg/L	-0.000111	0.022	0.2	0.201	0.203	0.201324	0.17 to 0.23	100	70 to 130	1.32	20
AY20972	Manganese, Dissolved	mg/L	-0.00000767	0.005	0.10	0.0972	0.0998		0.085 to 0.115	97.2	70 to 130	2.60	20
AY20972	Magnesium, Total	mg/L	-0.00321	0.22	5.00	4.94	5.03	4.89	4.25 to 5.75	98.9	70 to 130	1.78	20
AY20972	Sodium, Total	mg/L	-0.00104	0.22	5.00	4.93	5.09	4.95	4.25 to 5.75	98.5	70 to 130	3.29	20
AY20972	Calcium, Total	mg/L	0.00614	0.22	5.00	4.97	5.05	5.00	4.25 to 5.75	99.3	70 to 130	1.67	20
AY20972	Iron, Dissolved	mg/L	0.000175	0.022	0.2	0.181	0.194	0.197	0.17 to 0.23	90.4	70 to 130	7.02	20
AY20972	Potassium, Total	mg/L	-0.000197	0.0946	10.0	10.4	10.5	10.2	8.5 to 11.5	104	70 to 130	0.314	20
AY20972	Alkalinity, Total as CaCO3	mg/L					0.040	49.8	45.0 to 55.0			0.00	10
AY20972	Manganese, Total	mg/L	0.0000105	0.0022	0.10	0.0970	0.0979	0.0958	0.085 to 0.115	97.0	70 to 130	0.980	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** Revised Copy: Correcting Alkalinity significant figures. LBM 10/26/18  
 The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 10/11/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAPFB  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY20972

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60	2.73	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**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY20973

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	14.3	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	71.9	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	63.1	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	4.60	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	0.606	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	0.586	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	20.7	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.52	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.01	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	184	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			184	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	263	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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Alabama Power General Test Laboratory  
 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: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY20973

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY20974	Potassium, Total	mg/L	-0.000360	0.0946	10.0	11.0	11.0	10.3	8.5 to 11.5	104	70 to 130	0.157	20
AY20974	Alkalinity, Total as CaCO3	mg/L					203	49.8	45.0 to 55.0			0.802	10
AY20974	Iron, Total	mg/L	-0.000154	0.022	0.2	71.6	73.0	0.200651	0.17 to 0.23	-206	70 to 130	1.94	20
AY20974	Magnesium, Total	mg/L	-0.00101	0.22	5.00	14.7	14.6	4.84	4.25 to 5.75	98.7	70 to 130	0.351	20
AY20974	Mangenes, Dissolved	mg/L	0.00000346	0.005	0.10	1.75	1.75		0.085 to 0.115	80.2	70 to 130	0.236	20
AY20974	Mangenes, Total	mg/L	0.00000208	0.0022	0.10	1.74	1.74	0.0957	0.085 to 0.115	85.9	70 to 130	0.334	20
AY20974	Calcium, Total	mg/L	0.00546	0.22	5.00	37.6	37.6	4.98	4.25 to 5.75	99.9	70 to 130	0.143	20
AY20974	Iron, Dissolved	mg/L	-0.000230	0.022	0.2	71.6	71.1	0.201	0.17 to 0.23	379	70 to 130	0.701	20
AY20974	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY20974	Sodium, Total	mg/L	0.00126	0.22	5.00	22.6	22.5	4.87	4.25 to 5.75	100	70 to 130	0.201	20

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Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY20973

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20973	Solids, Dissolved	mg/L	2.00	25			249	58.0	40 to 60	2.73	5

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CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
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 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**

Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY20974

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	32.6	mg/L
* Iron, Dissolved	RDA	9/11/2018	EPA 200.7		101.5	1.015	5.075	70.8	mg/L
* Iron, Total	RDA	9/12/2018	EPA 200.7		101.5	1.015	5.075	75.7	mg/L
* Magnesium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	9.72	mg/L
* Manganese, Dissolved	ABB	9/11/2018	EPA 200.8		5.075	0.001	0.005	1.67	mg/L
* Manganese, Total	ABB	9/7/2018	EPA 200.8		5.075	0.001	0.005	1.65	mg/L
* Sodium, Total	RDA	9/12/2018	EPA 200.7		2.03	0.1	0.5	17.5	mg/L
* Potassium, Total	ABB	9/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.645	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	HRG	9/5/2018	SM 4500H+ B		1		4.00	6.15	SU
Alkalinity, Total as CaCO3	HRG	9/5/2018	SM 2320 B		1		0.10	201	mg/L
Carbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	HRG	9/5/2018	SM 4500CO2 D		1			201	mg/L
* Solids, Dissolved	CRB	9/6/2018	SM 2540C		1		25	287	mg/L
Filter Completion Date	CRB	9/4/2018	SM 2540C		1			09/04/2018	Date

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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



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY20974

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY20974	Alkalinity, Total as CaCO3	mg/L					203	49.8	45.0 to 55.0				0.802	10	
AY20974	Potassium, Total	mg/L	-0.000360	0.0946	10.0	11.0	11.0	10.3	8.5 to 11.5		104	70 to 130		0.157	20
AY20974	Calcium, Total	mg/L	0.00546	0.22	5.00	37.6	37.6	4.98	4.25 to 5.75		99.9	70 to 130		0.143	20
AY20974	Iron, Dissolved	mg/L	-0.000230	0.022	0.2	71.6	71.1	0.201	0.17 to 0.23		379	70 to 130		0.701	20
AY20974	pH for Alkalinity	SU						6.97	6.95 to 7.05						
AY20974	Sodium, Total	mg/L	0.00126	0.22	5.00	22.6	22.5	4.87	4.25 to 5.75		100	70 to 130		0.201	20
AY20974	Iron, Total	mg/L	-0.000154	0.022	0.2	71.6	73.0	0.200651	0.17 to 0.23		-206	70 to 130		1.94	20
AY20974	Magnesium, Total	mg/L	-0.00101	0.22	5.00	14.7	14.6	4.84	4.25 to 5.75		98.7	70 to 130		0.351	20
AY20974	Manganese, Dissolved	mg/L	0.00000346	0.005	0.10	1.75	1.75		0.085 to 0.115		80.2	70 to 130		0.236	20
AY20974	Manganese, Total	mg/L	0.00000208	0.0022	0.10	1.74	1.74	0.0957	0.085 to 0.115		85.9	70 to 130		0.334	20

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# Batch QC Summary



Revised Copy



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWBARAP  
 Sample Date: 29-Aug-18  
 Customer ID:  
 Delivery Date: 30-Aug-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY20974

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY20974	Solids, Dissolved	mg/L	2.00	25			288	58.0	40 to 60	0.174	5

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CC:

## Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



















Alabama Power General Test Laboratory  
744 County Road 87, GSC#8  
Calera, AL 35040  
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## ***Field Case Narrative***



# **Plant Barry Ash Pond**

## **General Chemistry Event**

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Rain showers moved into the area while sampling wells MW-5 and MW-8.

Turbidity levels of less than 10 NTU could not be achieved for MW-7. A standard set of samples were collected, as well as a dissolved set for laboratory analysis. Samples for MW-7 were not analyzed, per SCS instruction.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

# 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: 400-158701-1

TestAmerica Sample Delivery Group: Barry Ash Pond 1160

Client Project/Site: CCR Plant Barry

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

9/18/2018 5:43:38 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Job ID: 400-158701-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-158701-1

#### General Chemistry

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 411787 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for analytical batch 411826 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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# Detection Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

## Client Sample ID: AY20776 MW-9

## Lab Sample ID: 400-158701-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20777 MW-10

## Lab Sample ID: 400-158701-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20778 MW-4

## Lab Sample ID: 400-158701-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20779 MW-3

## Lab Sample ID: 400-158701-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20780 MW-3 DUP

## Lab Sample ID: 400-158701-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20781 MW-2

## Lab Sample ID: 400-158701-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20782 FB-1

## Lab Sample ID: 400-158701-7

No Detections.

## Client Sample ID: AY20783 MW-1

## Lab Sample ID: 400-158701-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20784 EB-1

## Lab Sample ID: 400-158701-9

No Detections.

## Client Sample ID: AY20785 DC-1

## Lab Sample ID: 400-158701-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.5	F1	2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	20		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY20786 BR-1

## Lab Sample ID: 400-158701-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	15		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

## Client Sample ID: AY20975 MW-12

## Lab Sample ID: 400-158701-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20976 MW-13

## Lab Sample ID: 400-158701-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20977 MW-14

## Lab Sample ID: 400-158701-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	44		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20978 MW-15

## Lab Sample ID: 400-158701-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	38		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	6.2		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY20979 MW-16

## Lab Sample ID: 400-158701-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY20980 MW-6

## Lab Sample ID: 400-158701-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20981 MW-11

## Lab Sample ID: 400-158701-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY20982 MW-12 DUP

## Lab Sample ID: 400-158701-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

## Client Sample ID: AY20983 FB-2

## Lab Sample ID: 400-158701-20

No Detections.

## Client Sample ID: AY20984 MW-5

## Lab Sample ID: 400-158701-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.6	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Client Sample ID: AY20985 MW-8**

**Lab Sample ID: 400-158701-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

# Sample Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-158701-1	AY20776 MW-9	Water	08/28/18 14:17	09/05/18 11:06
400-158701-2	AY20777 MW-10	Water	08/28/18 15:23	09/05/18 11:06
400-158701-3	AY20778 MW-4	Water	08/28/18 10:05	09/05/18 11:06
400-158701-4	AY20779 MW-3	Water	08/28/18 14:05	09/05/18 11:06
400-158701-5	AY20780 MW-3 DUP	Water	08/28/18 14:05	09/05/18 11:06
400-158701-6	AY20781 MW-2	Water	08/28/18 15:07	09/05/18 11:06
400-158701-7	AY20782 FB-1	Water	08/28/18 15:20	09/05/18 11:06
400-158701-8	AY20783 MW-1	Water	08/28/18 16:10	09/05/18 11:06
400-158701-9	AY20784 EB-1	Water	08/28/18 16:40	09/05/18 11:06
400-158701-10	AY20785 DC-1	Water	08/28/18 11:00	09/05/18 11:06
400-158701-11	AY20786 BR-1	Water	08/28/18 11:45	09/05/18 11:06
400-158701-12	AY20975 MW-12	Water	08/29/18 09:16	09/05/18 11:06
400-158701-13	AY20976 MW-13	Water	08/29/18 10:13	09/05/18 11:06
400-158701-14	AY20977 MW-14	Water	08/29/18 11:03	09/05/18 11:06
400-158701-15	AY20978 MW-15	Water	08/29/18 12:05	09/05/18 11:06
400-158701-16	AY20979 MW-16	Water	08/29/18 12:53	09/05/18 11:06
400-158701-17	AY20980 MW-6	Water	08/29/18 13:52	09/05/18 11:06
400-158701-18	AY20981 MW-11	Water	08/29/18 16:02	09/05/18 11:06
400-158701-19	AY20982 MW-12 DUP	Water	08/29/18 09:16	09/05/18 11:06
400-158701-20	AY20983 FB-2	Water	08/29/18 12:18	09/05/18 11:06
400-158701-21	AY20984 MW-5	Water	08/29/18 15:36	09/05/18 11:06
400-158701-22	AY20985 MW-8	Water	08/29/18 16:27	09/05/18 11:06

# Client Sample Results

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Client Sample ID: AY20776 MW-9**

Date Collected: 08/28/18 14:17

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-1**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	1.4	mg/L			09/17/18 09:06	1
Sulfate	<1.4	F1 F2	5.0	1.4	mg/L			09/17/18 14:12	1

**Client Sample ID: AY20777 MW-10**

Date Collected: 08/28/18 15:23

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-2**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			09/17/18 09:15	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:18	1

**Client Sample ID: AY20778 MW-4**

Date Collected: 08/28/18 10:05

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-3**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	1.4	mg/L			09/17/18 09:15	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:19	1

**Client Sample ID: AY20779 MW-3**

Date Collected: 08/28/18 14:05

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-4**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		2.0	1.4	mg/L			09/17/18 09:16	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:19	1

**Client Sample ID: AY20780 MW-3 DUP**

Date Collected: 08/28/18 14:05

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-5**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.2		2.0	1.4	mg/L			09/17/18 09:16	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:19	1

**Client Sample ID: AY20781 MW-2**

Date Collected: 08/28/18 15:07

Date Received: 09/05/18 11:06

**Lab Sample ID: 400-158701-6**

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5		2.0	1.4	mg/L			09/17/18 09:16	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:23	1

TestAmerica Pensacola

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

**Client Sample ID: AY20782 FB-1**

**Lab Sample ID: 400-158701-7**

Date Collected: 08/28/18 15:20

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 09:16	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:23	1

**Client Sample ID: AY20783 MW-1**

**Lab Sample ID: 400-158701-8**

Date Collected: 08/28/18 16:10

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			09/17/18 09:16	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:23	1

**Client Sample ID: AY20784 EB-1**

**Lab Sample ID: 400-158701-9**

Date Collected: 08/28/18 16:40

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 09:15	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:23	1

**Client Sample ID: AY20785 DC-1**

**Lab Sample ID: 400-158701-10**

Date Collected: 08/28/18 11:00

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.5	F1	2.0	1.4	mg/L			09/17/18 11:04	1
Sulfate	20		5.0	1.4	mg/L			09/17/18 14:23	1

**Client Sample ID: AY20786 BR-1**

**Lab Sample ID: 400-158701-11**

Date Collected: 08/28/18 11:45

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.6		2.0	1.4	mg/L			09/17/18 11:04	1
Sulfate	15		5.0	1.4	mg/L			09/17/18 14:23	1

**Client Sample ID: AY20975 MW-12**

**Lab Sample ID: 400-158701-12**

Date Collected: 08/29/18 09:16

Matrix: Water

Date Received: 09/05/18 11:06

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:57	1



# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

## Client Sample ID: AY20976 MW-13

## Lab Sample ID: 400-158701-13

Date Collected: 08/29/18 10:13

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:57	1

## Client Sample ID: AY20977 MW-14

## Lab Sample ID: 400-158701-14

Date Collected: 08/29/18 11:03

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:57	1

## Client Sample ID: AY20978 MW-15

## Lab Sample ID: 400-158701-15

Date Collected: 08/29/18 12:05

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	6.2		5.0	1.4	mg/L			09/17/18 15:57	1

## Client Sample ID: AY20979 MW-16

## Lab Sample ID: 400-158701-16

Date Collected: 08/29/18 12:53

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	3.9	J	5.0	1.4	mg/L			09/17/18 15:57	1

## Client Sample ID: AY20980 MW-6

## Lab Sample ID: 400-158701-17

Date Collected: 08/29/18 13:52

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.4		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:57	1

## Client Sample ID: AY20981 MW-11

## Lab Sample ID: 400-158701-18

Date Collected: 08/29/18 16:02

Matrix: Water

Date Received: 09/05/18 11:06

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	2.3	J	5.0	1.4	mg/L			09/17/18 16:02	1

# Client Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

**Client Sample ID: AY20982 MW-12 DUP**

**Lab Sample ID: 400-158701-19**

Date Collected: 08/29/18 09:16

Matrix: Water

Date Received: 09/05/18 11:06

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 16:02	1

**Client Sample ID: AY20983 FB-2**

**Lab Sample ID: 400-158701-20**

Date Collected: 08/29/18 12:18

Matrix: Water

Date Received: 09/05/18 11:06

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 11:14	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 16:02	1

**Client Sample ID: AY20984 MW-5**

**Lab Sample ID: 400-158701-21**

Date Collected: 08/29/18 15:36

Matrix: Water

Date Received: 09/05/18 11:06

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	1.4	mg/L			09/17/18 12:59	1
Sulfate	1.6	J	5.0	1.4	mg/L			09/17/18 16:02	1

**Client Sample ID: AY20985 MW-8**

**Lab Sample ID: 400-158701-22**

Date Collected: 08/29/18 16:27

Matrix: Water

Date Received: 09/05/18 11:06

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	25		2.0	1.4	mg/L			09/17/18 12:59	1
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 16:02	1

# Definitions/Glossary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

## 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 Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

## Client Sample ID: AY20776 MW-9

Date Collected: 08/28/18 14:17

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-1

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	411757	09/17/18 09:06	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:12	RRC	TAL PEN

## Client Sample ID: AY20777 MW-10

Date Collected: 08/28/18 15:23

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-2

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	411757	09/17/18 09:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:18	RRC	TAL PEN

## Client Sample ID: AY20778 MW-4

Date Collected: 08/28/18 10:05

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-3

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	411757	09/17/18 09:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:19	RRC	TAL PEN

## Client Sample ID: AY20779 MW-3

Date Collected: 08/28/18 14:05

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-4

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	411757	09/17/18 09:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:19	RRC	TAL PEN

## Client Sample ID: AY20780 MW-3 DUP

Date Collected: 08/28/18 14:05

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-5

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	411757	09/17/18 09:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:19	RRC	TAL PEN

## Client Sample ID: AY20781 MW-2

Date Collected: 08/28/18 15:07

Date Received: 09/05/18 11:06

## Lab Sample ID: 400-158701-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411757	09/17/18 09:16	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Client Sample ID: AY20781 MW-2**

**Lab Sample ID: 400-158701-6**

Date Collected: 08/28/18 15:07

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

**Client Sample ID: AY20782 FB-1**

**Lab Sample ID: 400-158701-7**

Date Collected: 08/28/18 15:20

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411757	09/17/18 09:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

**Client Sample ID: AY20783 MW-1**

**Lab Sample ID: 400-158701-8**

Date Collected: 08/28/18 16:10

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411757	09/17/18 09:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

**Client Sample ID: AY20784 EB-1**

**Lab Sample ID: 400-158701-9**

Date Collected: 08/28/18 16:40

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411757	09/17/18 09:15	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

**Client Sample ID: AY20785 DC-1**

**Lab Sample ID: 400-158701-10**

Date Collected: 08/28/18 11:00

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:04	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

**Client Sample ID: AY20786 BR-1**

**Lab Sample ID: 400-158701-11**

Date Collected: 08/28/18 11:45

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:04	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411826	09/17/18 14:23	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Client Sample ID: AY20975 MW-12**

**Lab Sample ID: 400-158701-12**

**Date Collected: 08/29/18 09:16**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20976 MW-13**

**Lab Sample ID: 400-158701-13**

**Date Collected: 08/29/18 10:13**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20977 MW-14**

**Lab Sample ID: 400-158701-14**

**Date Collected: 08/29/18 11:03**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20978 MW-15**

**Lab Sample ID: 400-158701-15**

**Date Collected: 08/29/18 12:05**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20979 MW-16**

**Lab Sample ID: 400-158701-16**

**Date Collected: 08/29/18 12:53**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20980 MW-6**

**Lab Sample ID: 400-158701-17**

**Date Collected: 08/29/18 13:52**

**Matrix: Water**

**Date Received: 09/05/18 11:06**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Client Sample ID: AY20980 MW-6**

**Lab Sample ID: 400-158701-17**

Date Collected: 08/29/18 13:52

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 15:57	RRC	TAL PEN

**Client Sample ID: AY20981 MW-11**

**Lab Sample ID: 400-158701-18**

Date Collected: 08/29/18 16:02

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

**Client Sample ID: AY20982 MW-12 DUP**

**Lab Sample ID: 400-158701-19**

Date Collected: 08/29/18 09:16

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

**Client Sample ID: AY20983 FB-2**

**Lab Sample ID: 400-158701-20**

Date Collected: 08/29/18 12:18

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411787	09/17/18 11:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

**Client Sample ID: AY20984 MW-5**

**Lab Sample ID: 400-158701-21**

Date Collected: 08/29/18 15:36

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 12:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

**Client Sample ID: AY20985 MW-8**

**Lab Sample ID: 400-158701-22**

Date Collected: 08/29/18 16:27

Matrix: Water

Date Received: 09/05/18 11:06

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	411814	09/17/18 12:59	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	411845	09/17/18 16:02	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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# QC Association Summary

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

## General Chemistry

### Analysis Batch: 411757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-1	AY20776 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-158701-2	AY20777 MW-10	Total/NA	Water	SM 4500 Cl- E	
400-158701-3	AY20778 MW-4	Total/NA	Water	SM 4500 Cl- E	
400-158701-4	AY20779 MW-3	Total/NA	Water	SM 4500 Cl- E	
400-158701-5	AY20780 MW-3 DUP	Total/NA	Water	SM 4500 Cl- E	
400-158701-6	AY20781 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-158701-7	AY20782 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-158701-8	AY20783 MW-1	Total/NA	Water	SM 4500 Cl- E	
400-158701-9	AY20784 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-411757/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-411757/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-411757/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-158701-1 MS	AY20776 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-158701-1 MSD	AY20776 MW-9	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 411787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-10	AY20785 DC-1	Total/NA	Water	SM 4500 Cl- E	
400-158701-11	AY20786 BR-1	Total/NA	Water	SM 4500 Cl- E	
400-158701-12	AY20975 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-158701-13	AY20976 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-158701-14	AY20977 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-158701-15	AY20978 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-158701-16	AY20979 MW-16	Total/NA	Water	SM 4500 Cl- E	
400-158701-17	AY20980 MW-6	Total/NA	Water	SM 4500 Cl- E	
400-158701-18	AY20981 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-158701-19	AY20982 MW-12 DUP	Total/NA	Water	SM 4500 Cl- E	
400-158701-20	AY20983 FB-2	Total/NA	Water	SM 4500 Cl- E	
MB 400-411787/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-411787/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-158701-10 MS	AY20785 DC-1	Total/NA	Water	SM 4500 Cl- E	
400-158701-10 MSD	AY20785 DC-1	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 411814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-21	AY20984 MW-5	Total/NA	Water	SM 4500 Cl- E	
400-158701-22	AY20985 MW-8	Total/NA	Water	SM 4500 Cl- E	
MB 400-411814/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-411814/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-411814/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-158792-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-158792-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 411826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-1	AY20776 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-158701-2	AY20777 MW-10	Total/NA	Water	SM 4500 SO4 E	
400-158701-3	AY20778 MW-4	Total/NA	Water	SM 4500 SO4 E	
400-158701-4	AY20779 MW-3	Total/NA	Water	SM 4500 SO4 E	
400-158701-5	AY20780 MW-3 DUP	Total/NA	Water	SM 4500 SO4 E	
400-158701-6	AY20781 MW-2	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

# QC Association Summary

Client: Alabama Power General Test Laboratory  
Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
SDG: Barry Ash Pond 1160

## General Chemistry (Continued)

### Analysis Batch: 411826 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-7	AY20782 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-158701-8	AY20783 MW-1	Total/NA	Water	SM 4500 SO4 E	
400-158701-9	AY20784 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-158701-10	AY20785 DC-1	Total/NA	Water	SM 4500 SO4 E	
400-158701-11	AY20786 BR-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-411826/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-411826/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-411826/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-158701-1 MS	AY20776 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-158701-1 MSD	AY20776 MW-9	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 411845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-158701-12	AY20975 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-158701-13	AY20976 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-158701-14	AY20977 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-158701-15	AY20978 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-158701-16	AY20979 MW-16	Total/NA	Water	SM 4500 SO4 E	
400-158701-17	AY20980 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-158701-18	AY20981 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-158701-19	AY20982 MW-12 DUP	Total/NA	Water	SM 4500 SO4 E	
400-158701-20	AY20983 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-158701-21	AY20984 MW-5	Total/NA	Water	SM 4500 SO4 E	
400-158701-22	AY20985 MW-8	Total/NA	Water	SM 4500 SO4 E	
MB 400-411845/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-411845/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-411845/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-158701-17 MS	AY20980 MW-6	Total/NA	Water	SM 4500 SO4 E	
400-158701-17 MSD	AY20980 MW-6	Total/NA	Water	SM 4500 SO4 E	

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

## Method: SM 4500 Cl- E - Chloride, Total

**Lab Sample ID: MB 400-411757/6**  
**Matrix: Water**  
**Analysis Batch: 411757**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 09:06	1

**Lab Sample ID: LCS 400-411757/7**  
**Matrix: Water**  
**Analysis Batch: 411757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.4		mg/L		108	90 - 110

**Lab Sample ID: MRL 400-411757/3**  
**Matrix: Water**  
**Analysis Batch: 411757**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	2.16		mg/L		108	50 - 150

**Lab Sample ID: 400-158701-1 MS**  
**Matrix: Water**  
**Analysis Batch: 411757**

**Client Sample ID: AY20776 MW-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21		10.0	31.1		mg/L		101	73 - 120

**Lab Sample ID: 400-158701-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 411757**

**Client Sample ID: AY20776 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	21		10.0	31.3		mg/L		103	73 - 120	1	8

**Lab Sample ID: MB 400-411787/6**  
**Matrix: Water**  
**Analysis Batch: 411787**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 11:04	1

**Lab Sample ID: LCS 400-411787/7**  
**Matrix: Water**  
**Analysis Batch: 411787**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.6		mg/L		105	90 - 110

**Lab Sample ID: 400-158701-10 MS**  
**Matrix: Water**  
**Analysis Batch: 411787**

**Client Sample ID: AY20785 DC-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	8.5	F1	10.0	8.11	F1	mg/L		-4	73 - 120

TestAmerica Pensacola

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

**Lab Sample ID: 400-158701-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 411787**

**Client Sample ID: AY20785 DC-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	8.5	F1	10.0	8.22	F1	mg/L		-3	73 - 120	1	8

**Lab Sample ID: MB 400-411814/6**  
**Matrix: Water**  
**Analysis Batch: 411814**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			09/17/18 12:59	1

**Lab Sample ID: LCS 400-411814/7**  
**Matrix: Water**  
**Analysis Batch: 411814**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	32.8		mg/L		109	90 - 110

**Lab Sample ID: MRL 400-411814/3**  
**Matrix: Water**  
**Analysis Batch: 411814**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.50	J	mg/L		75	50 - 150

**Lab Sample ID: 400-158792-D-1 MS**  
**Matrix: Water**  
**Analysis Batch: 411814**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.5	F1 F2	10.0	15.1		mg/L		116	73 - 120

**Lab Sample ID: 400-158792-D-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 411814**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.5	F1 F2	10.0	16.4	F1 F2	mg/L		130	73 - 120	9	8

## Method: SM 4500 SO4 E - Sulfate, Total

**Lab Sample ID: MB 400-411826/6**  
**Matrix: Water**  
**Analysis Batch: 411826**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 14:12	1

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

## Method: SM 4500 SO4 E - Sulfate, Total (Continued)

**Lab Sample ID: LCS 400-411826/7**  
**Matrix: Water**  
**Analysis Batch: 411826**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.6		mg/L		97	90 - 110

**Lab Sample ID: MRL 400-411826/3**  
**Matrix: Water**  
**Analysis Batch: 411826**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.63	J	mg/L		73	50 - 150

**Lab Sample ID: 400-158701-1 MS**  
**Matrix: Water**  
**Analysis Batch: 411826**

**Client Sample ID: AY20776 MW-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4	F1 F2	10.0	17.0	F1	mg/L		170	77 - 128

**Lab Sample ID: 400-158701-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 411826**

**Client Sample ID: AY20776 MW-9**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4	F1 F2	10.0	15.5	F1 F2	mg/L		155	77 - 128	9	5

**Lab Sample ID: MB 400-411845/6**  
**Matrix: Water**  
**Analysis Batch: 411845**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			09/17/18 15:51	1

**Lab Sample ID: LCS 400-411845/7**  
**Matrix: Water**  
**Analysis Batch: 411845**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.9		mg/L		99	90 - 110

**Lab Sample ID: MRL 400-411845/3**  
**Matrix: Water**  
**Analysis Batch: 411845**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.55	J	mg/L		71	50 - 150

**Lab Sample ID: 400-158701-17 MS**  
**Matrix: Water**  
**Analysis Batch: 411845**

**Client Sample ID: AY20980 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	<1.4		10.0	9.95		mg/L		100	77 - 128

TestAmerica Pensacola

# QC Sample Results

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

**Lab Sample ID: 400-158701-17 MSD**  
**Matrix: Water**  
**Analysis Batch: 411845**

**Client Sample ID: AY20980 MW-6**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	10.1		mg/L		101	77 - 128	1	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



**Chain of Custody Record**

<b>Client Information</b> Client Contact: Laura Midkiff Phone: (850) 474-1001 E-Mail: lmidkiff@southernco.com		Lab P.M.: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1 Page: Page 1 of 4 Job #:							
<b>Analysis Requested</b> Due Date Requested: _____ TAT Requested (days): _____ Routine PO #: _____ WO #: _____ Project #: 40007143 SSO#: _____ Site: Barry Ash Pond 1160											
Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State: AL 35040 Phone: 205-664-6197(Tel) E-Mail: lmidkiff@southernco.com		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 Z - other (specify) Other:									
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Inorganic, Sulfid, Oxidant, Organic, Acid)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform M/MSD (Yes or No)	SM 4500 CL E	SM 4500 SO4 E	Total Number of Containers	Special Instructions/Note:
AY20776	8/28/18	14:17	G	Water		X	X	X	X	1	MW-9
AY20777	8/28/18	15:23	G	Water		X	X	X	X	1	MW-10
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:											
Relinquished by: Laura Midkiff Date/Time: 9/4/2018, 10:40		Relinquished by: _____ Date/Time: _____		Relinquished by: _____ Date/Time: _____		Relinquished by: _____ Date/Time: _____		Relinquished by: _____ Date/Time: _____		Relinquished by: _____ Date/Time: _____	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.: _____		Cooler Temperature(s) °C and Other Remarks: 0.0°C IR-8		Received by: _____ Date/Time: 9-5-18 11:06		Received by: _____ Date/Time: _____		Received by: _____ Date/Time: _____	









**Chain of Custody Record**

<b>Client Information</b> Sampler: Ben Rotfischadi Client Contact: Laura Midkiff Company: Alabama Power General Test Laboratory Address: 744 County Rd 87, GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 (Tel) Email: lmidkiff@southernco.com Project Name: Barry Ash Pond 1160 CCR Site:		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking Note(s):		COC No: 400-56525-24537.1 Page: Page 4 of 4 Job #:							
<b>Analysis Requested</b> 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 (Water, Solid, Oil, Air, Tissue, Ash)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 CL E	SM 4500 SO4 E	Total Number of Containers	Special Instructions/Note:
AY20984	8/29/18	15:36	G	Water		X	X	X	X	1	MW-5
AY20985	8/29/18	16:27	G	Water		X	X	X	X	1	MW-8
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHCO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - ph 4-5 Z - 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:											
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)						Empty Kit Relinquished by: Relinquished by: Laura Midkiff Date: 9/4/2018, 1040 Company: APC					
Relinquished by: Date/Time:						Relinquished by: Date/Time:					
Relinquished by: Date/Time:						Relinquished by: Date/Time:					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:						Received by: <i>Jennifer</i> Date/Time: 9-5-18 106 Cooler Temperature(s) °C and Other Remarks: 0.0°C IR-B Company: TA-PEN					



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-158701-1  
SDG Number: Barry Ash Pond 1160

**Login Number: 158701**

**List Number: 1**

**Creator: Perez, Trina M**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory  
 Project/Site: CCR Plant Barry

TestAmerica Job ID: 400-158701-1  
 SDG: Barry Ash Pond 1160

### Laboratory: TestAmerica Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18 *
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18 *
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Alabama Power General Test Laboratory  
744 County Road 87, GSC#8  
Calera, AL 35040  
(205) 664-6032 or 6171  
FAX (205) 257-1654

# Analytical Report



**Sample Group :** WMWBARAP\_1185  
**Project/Site :** Barry Ash Pond  
Bucks, AL 36512  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks, Greg Dyer, & Lauren Parker  
**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:

Laura Midkiff

Digitally signed by Laura Midkiff  
DN: cn=Laura Midkiff, o=Alabama Power  
Company, ou=Environmental Affairs,  
email=lbmidkif@southernco.com, c=US  
Date: 2018.12.17 13:30:25 -0600

Supervision: T. Durant  
Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.12.18 16:33:32 -0600



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY27801

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	4.44	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	71.8	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	68.8	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.48	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.568	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.570	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	20.0	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.31	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	161	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			161	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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-5

Laboratory ID Number: AY27801

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75		96.4	70 to 130	0.305	20
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23		126	70 to 130	1.37	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0				0.0251	10
AY27810	Manganese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115		91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75		97.2	70 to 130	0.00	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5		94.9	70 to 130	2.69	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05					
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23		95.0	70 to 130	0.156	20
AY27810	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115		91.2	70 to 130	1.77	20

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 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



**To:** Dustin Brooks  
 Greg Dyer  
 Lauren Parker

**Customer Account:** WMWBARAP  
**Sample Date:** 27-Nov-18  
**Customer ID:**  
**Delivery Date:** 29-Nov-18

**Description:** Barry Ash Pond - MW-8

**Laboratory ID Number:** AY27802

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	9.80	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	73.6	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	69.7	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.659	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.62	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.63	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	17.5	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.41	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	196	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.05	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			196	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

## Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-8

Laboratory ID Number: AY27802

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20
AY27810	Mangnese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

MDL's and RL's are adjusted for sample dilution, as applicable

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY27803

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	7.36	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		10.15	0.1015	0.5075	13.1	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		10.15	1.015	0.5075	12.4	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.21	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.378	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.377	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	20.5	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.63	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	98.4	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.04	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			98.4	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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-7

Laboratory ID Number: AY27803

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27810	Mangnese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY27804

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	10.7	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	80.4	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	72.7	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.834	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.98	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	2.02	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	19.5	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.46	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	241	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.06	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			241	mg/L

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9

Laboratory ID Number: AY27804

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec Limit	
			MB	Limit					Limit	Rec	Limit	Prec		
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23		126	70 to 130	1.37	20
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75		96.4	70 to 130	0.305	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0				0.0132	10
AY27810	Manganese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115		91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75		97.2	70 to 130	0.00	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5		94.9	70 to 130	2.69	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05					
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23		95.0	70 to 130	0.156	20
AY27810	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115		91.2	70 to 130	1.77	20

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# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AY27805

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	10.5	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	83.1	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	75.5	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.831	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.97	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.99	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	19.4	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.54	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	243	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.08	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			243	mg/L

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-9 DUP

Laboratory ID Number: AY27805

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27810	Manganese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20

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# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY27806

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	14.1	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	71.0	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	67.2	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.57	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.24	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	1.23	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	23.0	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.53	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	283	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.09	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			283	mg/L

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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-10

Laboratory ID Number: AY27806

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Mangenes, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10
AY27810	Mangenes, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY27807

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.16	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	0.385	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	0.375	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.15	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00673	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00683	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	6.45	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	5.76	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	15.7	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			15.7	mg/L

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-6

Laboratory ID Number: AY27807

Sample	Analysis	Units	MB	MB				LCS	LCS	Rec		Prec	Limit
				Limit	Spike	MS	MSD			Limit	Prec		
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27810	Manganese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20

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 744 County Road 87, GSC#8  
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**Certificate Of Analysis**  **Alabama Power**



**To:** Dustin Brooks  
 Greg Dyer  
 Lauren Parker

**Customer Account:** WMWBARAP  
**Sample Date:** 27-Nov-18  
**Customer ID:**  
**Delivery Date:** 29-Nov-18

**Description:** Barry Ash Pond - MW-4

**Laboratory ID Number:** AY27808

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.840	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.00	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00726	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00775	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	4.60	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	5.17	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	0.62	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.62	mg/L

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-4

Laboratory ID Number: AY27808

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20
AY27810	Mangnese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20

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MDL's and RL's are adjusted for sample dilution, as applicable

\* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY27809

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	0.729	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	J 0.0208	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.02	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00684	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.00670	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.77	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	5.45	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	1.80	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			1.80	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-3

Laboratory ID Number: AY27809

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75	96.4	70 to 130	0.305	20
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23	126	70 to 130	1.37	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23	95.0	70 to 130	0.156	20
AY27810	Mangenes, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115	91.2	70 to 130	1.77	20
AY27810	Mangenes, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115	91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75	97.2	70 to 130	0.00	20
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5	94.9	70 to 130	2.69	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
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 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY27810

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	1.73	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	0.474	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	0.452	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 0.929	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.298	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.292	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	3.90	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.29	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	13.3	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			13.3	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery passed for dissolved Iron, but matrix spike duplicate recovery failed. LBM 12/17/18



Alabama Power General Test Laboratory  
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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-2

Laboratory ID Number: AY27810

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY27810	Magnesium, Total	mg/L	0.000682	0.22	5.00	6.55	6.57	4.78	4.25 to 5.75		96.4	70 to 130	0.305	20
AY27810	Iron, Total	mg/L	-0.0000630	0.022	0.2	0.642	0.641	0.196	0.17 to 0.23		95.0	70 to 130	0.156	20
AY27810	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.383	0.390	0.0961	0.085 to 0.115		91.2	70 to 130	1.77	20
AY27810	Iron, Dissolved	mg/L	0.000106	0.022	0.2	0.727	0.737	0.201	0.17 to 0.23		126	70 to 130	1.37	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0				0.0251	10
AY27810	Potassium, Total	mg/L	0.00150	0.0946	10.0	10.4	10.7	10.1	8.5 to 11.5		94.9	70 to 130	2.69	20
AY27821	pH for Alkalinity	SU					6.97		6.95 to 7.05					
AY27810	Mangnese, Dissolved	mg/L	0.00000674	0.005	0.10	0.389	0.386		0.085 to 0.115		91.1	70 to 130	0.701	20
AY27810	Sodium, Total	mg/L	-0.00235	0.22	5.00	8.76	8.76	4.83	4.25 to 5.75		97.2	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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Matrix spike recovery passed for dissolved Iron, but matrix spike duplicate recovery failed. LBM 12/17/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27811

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	5.17	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27811

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115		93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5		98.1	70 to 130	1.33	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05					
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23		-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75		98.0	70 to 130	3.04	20
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75		104	70 to 130	3.48	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0				0.0251	10
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23		-212	70 to 130	0.112	20
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115		94.7	70 to 130	0.349	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY27812

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	6.65	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	71.1	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	66.7	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.89	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.929	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.922	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	24.8	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.17	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	165	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			165	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-16

Laboratory ID Number: AY27812

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115	93.5	70 to 130	0.852	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5	98.1	70 to 130	1.33	20
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23	-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75	98.0	70 to 130	3.04	20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23	-212	70 to 130	0.112	20
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115	94.7	70 to 130	0.349	20
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75	104	70 to 130	3.48	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY27813

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	5.46	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	91.9	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	92.4	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	4.43	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.662	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.666	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	22.2	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.47	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	73.8	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.02	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			73.8	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

## Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-15

Laboratory ID Number: AY27813

Sample	Analysis	Units	MB				LCS			Rec		Prec
			MB	Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05			
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115		93.5	70 to 130 0.852 20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5		98.1	70 to 130 1.33 20
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75		104	70 to 130 3.48 20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251 10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23		-188	70 to 130 0.682 20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75		98.0	70 to 130 3.04 20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23		-212	70 to 130 0.112 20
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115		94.7	70 to 130 0.349 20

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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**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPEB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY27814

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	5.54	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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Alabama Power General Test Laboratory  
 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  
 Lauren Parker

Customer Account: WMWBARAPEB  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: AY27814

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115	93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5	98.1	70 to 130	1.33	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23	-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75	98.0	70 to 130	3.04	20
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75	104	70 to 130	3.48	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23	-212	70 to 130	0.112	20
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115	94.7	70 to 130	0.349	20

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Expiration: June 30, 2019

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY27815

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	5.41	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	27.5	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	27.3	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.34	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.240	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.244	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	65.3	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.71	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	163	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.08	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			163	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14

Laboratory ID Number: AY27815

Sample	Analysis	Units	MB				LCS			Rec		Prec		
			MB	Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit	
AY27821	pH for Alkalinity	SU					6.97	6.95 to 7.05						
AY27820	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115		93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5		98.1	70 to 130	1.33	20
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75		104	70 to 130	3.48	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0				0.0251	10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23		-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75		98.0	70 to 130	3.04	20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23		-212	70 to 130	0.112	20
AY27820	Mangnese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115		94.7	70 to 130	0.349	20

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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  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY27816

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	8.34	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	29.2	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	29.1	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 1.91	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.436	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.436	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	60.5	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.25	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	154	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			154	mg/L

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-13

Laboratory ID Number: AY27816

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115		93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5		98.1	70 to 130	1.33	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05					
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75		104	70 to 130	3.48	20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23		-212	70 to 130	0.112	20
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115		94.7	70 to 130	0.349	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0				0.0132	10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23		-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75		98.0	70 to 130	3.04	20

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 744 County Road 87, GSC#8  
 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY27817

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	17.0	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	61.1	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	60.6	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	2.86	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.626	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.619	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	38.2	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.27	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	234	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.04	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			234	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-12

Laboratory ID Number: AY27817

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75	104	70 to 130	3.48	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27820	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115	93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5	98.1	70 to 130	1.33	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23	-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75	98.0	70 to 130	3.04	20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23	-212	70 to 130	0.112	20
AY27820	Mangnese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115	94.7	70 to 130	0.349	20

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Laboratory certification ID: E571114

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# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY27818

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	12.5	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	62.8	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	58.8	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	9.89	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.588	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.588	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	42.2	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.38	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	214	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.05	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			214	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.  
 LBM 12/17/2018



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

## Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-11

Laboratory ID Number: AY27818

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5	98.1	70 to 130	1.33	20	
AY27820	Manganese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115	93.5	70 to 130	0.852	20	
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75	104	70 to 130	3.48	20	
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05					
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10	
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23	-188	70 to 130	0.682	20	
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75	98.0	70 to 130	3.04	20	
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23	-212	70 to 130	0.112	20	
AY27820	Manganese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115	94.7	70 to 130	0.349	20	

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 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27819

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	5.55	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0	mg/L

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 LBM 12/17/2018

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAPFB  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond Field Blank

Laboratory ID Number: AY27819

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75	104	70 to 130	3.48	20
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05				
AY27820	Mangnese, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115	93.5	70 to 130	0.852	20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5	98.1	70 to 130	1.33	20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132	10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23	-188	70 to 130	0.682	20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75	98.0	70 to 130	3.04	20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23	-212	70 to 130	0.112	20
AY27820	Mangnese, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115	94.7	70 to 130	0.349	20

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY27820

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	11.3	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	143	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	133	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.04	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.771	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.778	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	23.0	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/11/2018	SM 4500H+ B		1		4.00	6.02	SU
Alkalinity, Total as CaCO3	EMG	12/11/2018	SM 2320 B		1		0.1	303	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			0.03	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/11/2018	SM 4500CO2 D		1			303	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. Recovery for total and dissolved Iron are out of spec. Spike amounts are less than 30% of the sample amount. LBM 12/17/18

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 28-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-1

Laboratory ID Number: AY27820

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec
AY27820	pH for Alkalinity	SU						7.02	6.95 to 7.05			
AY27820	Sodium, Total	mg/L	0.00354	0.22	5.00	28.2	29.2	4.90	4.25 to 5.75		104	70 to 130 3.48 20
AY27820	Potassium, Total	mg/L	0.00150	0.0946	10.0	11.8	11.7	10.1	8.5 to 11.5		98.1	70 to 130 1.33 20
AY27820	Iron, Dissolved	mg/L	0.000399	0.022	0.2	139	139	0.202	0.17 to 0.23		-212	70 to 130 0.112 20
AY27820	Mangenes, Dissolved	mg/L	0.00000761	0.005	0.10	0.866	0.863		0.085 to 0.115		94.7	70 to 130 0.349 20
AY27820	Mangenes, Total	mg/L	0.0000180	0.0022	0.10	0.871	0.864	0.0961	0.085 to 0.115		93.5	70 to 130 0.852 20
AY27820	Alkalinity, Total as CaCO3	mg/L					303	50.4	45.0 to 55.0			0.0132 10
AY27820	Iron, Total	mg/L	0.0000562	0.022	0.2	132	131	0.197	0.17 to 0.23		-188	70 to 130 0.682 20
AY27820	Magnesium, Total	mg/L	0.00199	0.22	5.00	16.2	16.7	4.80	4.25 to 5.75		98.0	70 to 130 3.04 20

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14 DUP

Laboratory ID Number: AY27821

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	5.49	mg/L
* Iron, Dissolved	RDA	12/7/2018	EPA 200.7		101.5	1.015	5.075	27.2	mg/L
* Iron, Total	RDA	12/5/2018	EPA 200.7		101.5	1.015	5.075	26.6	mg/L
* Potassium, Total	ABB	12/7/2018	EPA 200.8		5.075	0.215	2.5	J 2.39	mg/L
* Manganese, Dissolved	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.245	mg/L
* Manganese, Total	ABB	12/7/2018	EPA 200.8		5.075	0.001	0.005	0.249	mg/L
* Sodium, Total	RDA	12/5/2018	EPA 200.7		2.03	0.1	0.5	66.0	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	12/10/2018	SM 4500H+ B		1		4.00	6.54	SU
Alkalinity, Total as CaCO3	EMG	12/10/2018	SM 2320 B		1		0.1	159	mg/L
Carbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			0.05	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	12/10/2018	SM 4500CO2 D		1			159	mg/L

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer  
 Lauren Parker

Customer Account: WMWBARAP  
 Sample Date: 27-Nov-18  
 Customer ID:  
 Delivery Date: 29-Nov-18

Description: Barry Ash Pond - MW-14 DUP

Laboratory ID Number: AY27821

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY27821	Iron, Dissolved	mg/L	0.000112	0.022	0.2	28.0	28.3	0.202	0.17 to 0.23	405	70 to 130	1.05	20
AY27821	Sodium, Total	mg/L	-0.00288	0.22	5.00	67.9	68.8	4.84	4.25 to 5.75	37.1	70 to 130	1.43	20
AY27821	Alkalinity, Total as CaCO3	mg/L					159	51.1	45.0 to 55.0			0.0251	10
AY27821	Manganese, Total	mg/L	0.0000247	0.0022	0.10	0.341	0.342	0.0962	0.085 to 0.115	92.7	70 to 130	0.186	20
AY27821	Iron, Total	mg/L	-0.0000913	0.022	0.2	26.3	27.1	0.193	0.17 to 0.23	-176	70 to 130	3.00	20
AY27821	Magnesium, Total	mg/L	0.00166	0.22	5.00	10.0	10.1	4.74	4.25 to 5.75	90.5	70 to 130	0.738	20
AY27821	Manganese, Dissolved	mg/L	0.00000508	0.005	0.10	0.336	0.337		0.085 to 0.115	90.2	70 to 130	0.573	20
AY27821	pH for Alkalinity	SU						6.97	6.95 to 7.05				
AY27821	Potassium, Total	mg/L	0.00282	0.0946	10.0	12.2	12.2	10.2	8.5 to 11.5	98.5	70 to 130	0.0091920	

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## Definitions



Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information







# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 11/28/2018 18:51

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks,Greg Dyer,Lauren Parker
	Tamala Davis		Lauren Parker
	Nick Pitts		Barry Ash Pond

Bottles	1	Metals	500 mL	3	Alkalinity	250 mL	5	N/A	N/A	7	N/A	N/A
	2	Dissolved Metals	500 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Relinquished to secure shipping room after hours at 1850 on 11/28/2018.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	11/27/18	09:27	3	Groundwater		AY27808
MW-3	11/27/2018	10:45	3	Groundwater		AY27809
MW-2	11/27/2018	12:30	3	Groundwater		AY27810
FB-1	11/27/2018	11:50	3	Field Blank		AY27811
MW-16	11/27/2018	13:32	3	Groundwater		AY27812
MW-15	11/27/2018	15:20	3	Groundwater		AY27813
EB-1	11/27/2018	14:10	3	Equipment Blank		AY27814
MW-14	11/27/2018	16:12	3	Groundwater		AY27815
MW-13	11/28/2018	08:55	3	Groundwater		AY27816
MW-12	11/28/2018	10:07	3	Groundwater		AY27817
MW-11	11/28/2018	11:25	3	Groundwater		AY27818
FB-2	11/28/2018	10:45	3	Field Blank		AY27819
MW-1	11/28/2018	12:48	3	Groundwater		AY27820
MW-14 Dup	11/27/2018	16:12	3	Sample Duplicate		AY27821

Relinquished By	Received By	Date/Time
<b>Nick Pitts</b> <small>Digitally signed by Nick Pitts Date: 2018.11.28 18:56:14 -06'00'</small>	<b>Laura Midkiff</b> <small>Digitally signed by Laura Midkiff DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lmidkiff@southernco.com, c=US Date: 2018.11.29 08:32:27 -06'00'</small>	11/29/2018 08:32

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>	
Turbidity ID	3901-20009-2-1		
Sample Event	1185		
		Cooler Temp	0.8 degrees C
		Thermometer ID	5408-27568-2-2
		pH Strip ID	7114-38608-1-1

# Appendix B

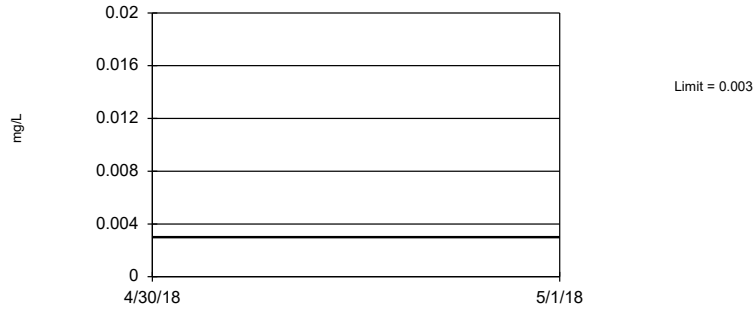
1<sup>st</sup> Semi-Annual

# Upper Tolerance Limits - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/11/2019, 3:39 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	30	n/a	n/a	83.33	n/a	n/a	0.2146	NP Inter(NDs)
Arsenic (mg/L)	0.005	30	n/a	n/a	66.67	n/a	n/a	0.2146	NP Inter(normal...
Barium (mg/L)	0.03982	30	0.02759	0.005508	0	None	No	0.05	Inter
Beryllium (mg/L)	0.003	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Boron (mg/L)	0.1	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Cadmium (mg/L)	0.001	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Chromium (mg/L)	0.01	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Cobalt (mg/L)	0.0127	30	n/a	n/a	43.33	n/a	n/a	0.2146	NP Inter(Cohens...
Combined Radium 226 + 228 (pCi/L)	3	30	n/a	n/a	20	n/a	n/a	0.2146	NP Inter(normal...
Fluoride (mg/L)	0.3	33	n/a	n/a	48.48	n/a	n/a	0.184	NP Inter(normal...
Lead (mg/L)	0.005	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Lithium (mg/L)	0.05	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Mercury (mg/L)	0.0005	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Molybdenum (mg/L)	0.01	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Selenium (mg/L)	0.01	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)
Thallium (mg/L)	0.001	30	n/a	n/a	100	n/a	n/a	0.2146	NP Inter(NDs)

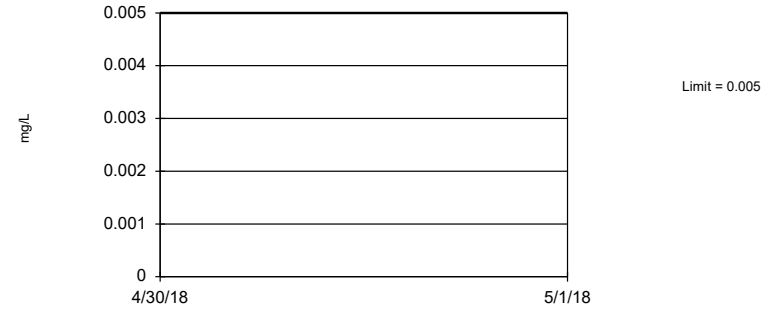
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 30 background values. 83.33% NDs. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Antimony Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. 66.67% NDs. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Arsenic Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

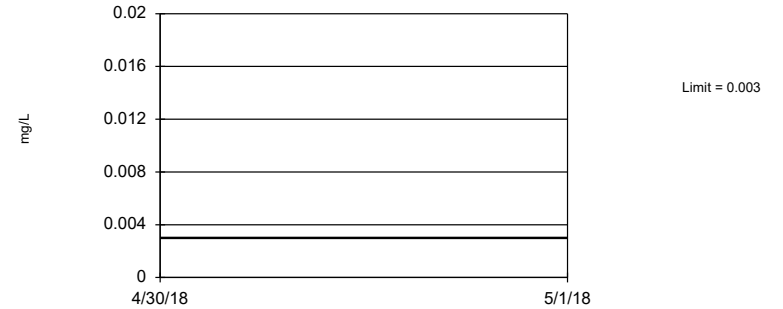
### Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.02759, Std. Dev.=0.005508, n=30. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.9. Report alpha = 0.05.

Constituent: Barium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

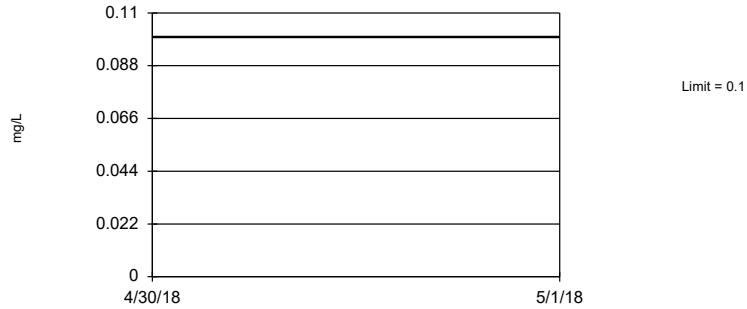
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Beryllium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

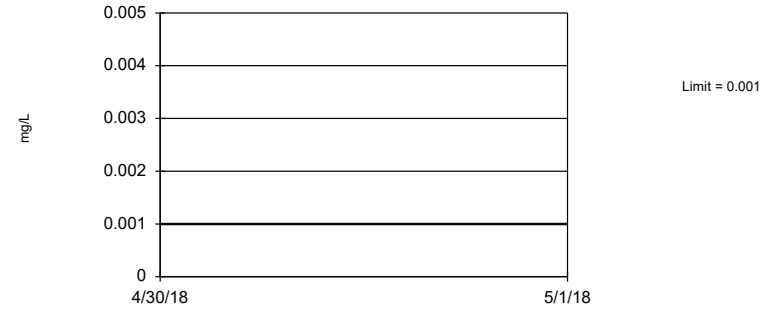
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Boron Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Cadmium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

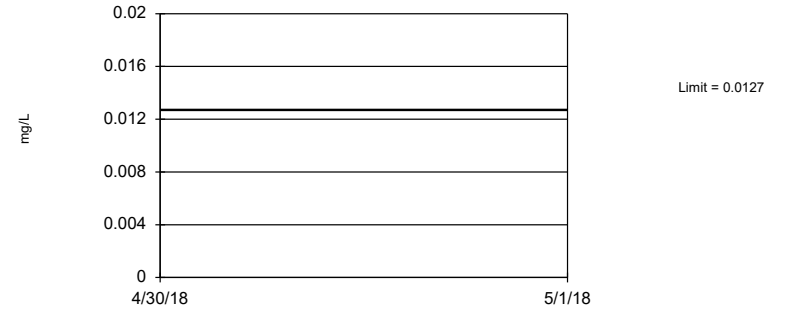
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Chromium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the data required both a power transformation and Cohen's adjustment. Limit is highest of 30 background values. 43.33% NDs. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Cobalt Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

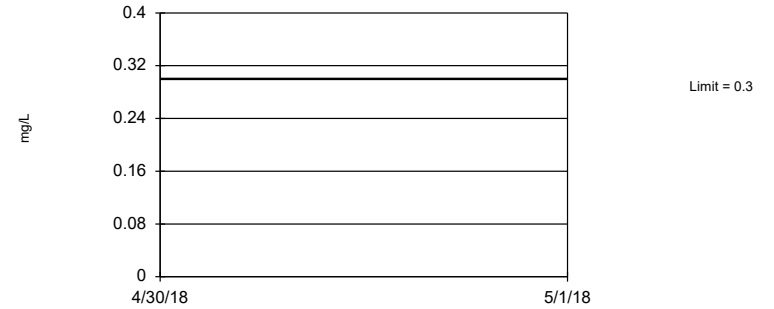
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 30 background values. 20% NDs. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Combined Radium 226 + 228 Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. 48.48% NDs. 86.91% coverage at alpha=0.01; 91.21% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.184.

Constituent: Fluoride Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

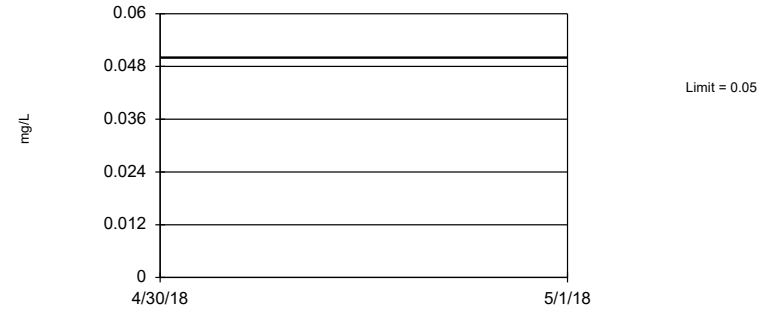
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Lead Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric

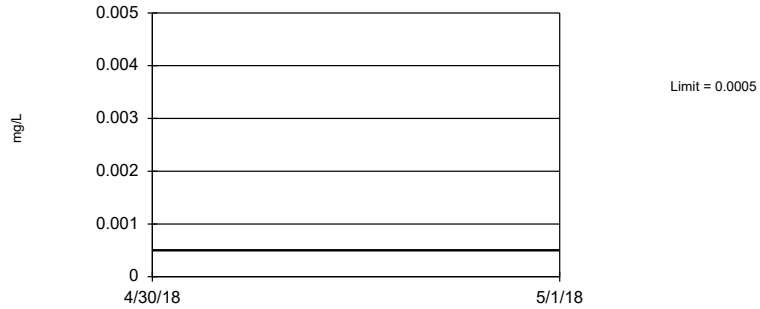


Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Lithium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond



### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Mercury Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Molybdenum Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Selenium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 85.74% coverage at alpha=0.01; 90.43% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2146.

Constituent: Thallium Analysis Run 1/11/2019 3:38 PM View: Tolerance Limits  
Plant Barry Client: Southern Company Data: Barry Ash Pond

# Confidence Intervals - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/31/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.0812	0.06022	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03152	0.0279	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02298	0.01918	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.0536	0.036	0.01	Yes	10	0	No	0.011	NP (normality)
Arsenic (mg/L)	BY-AP-MW-9	0.04346	0.03634	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0362	0.0264	0.01	Yes	10	0	No	0.011	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01561	0.01299	0.01	Yes	10	0	x^3	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02295	0.02143	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01507	0.01199	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01428	0.01152	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01781	0.01513	0.01	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-7	0.01809	0.01461	0.0127	Yes	10	0	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.02899	0.02657	0.0127	Yes	10	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-16	0.01974	0.01374	0.0127	Yes	10	0	x^2	0.01	Param.

# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.0015	0.000687	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.0015	0.000765	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.0015	0.000852	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.0015	0.00107	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.0015	0.00074	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.0015	0.000738	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.0015	0.000743	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.0015	0.000812	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.0015	0.000838	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.0015	0.000834	0.006	No	10	70	No	0.011	NP (normality)
Antimony (mg/L)	BY-AP-MW-14	0.0015	0.00086	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.0015	0.000746	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.0015	0.000769	0.006	No	10	90	No	0.011	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>0.0812</b>	<b>0.06022</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-5</b>	<b>0.03152</b>	<b>0.0279</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	BY-AP-MW-6	0.0025	0.00138	0.01	No	10	80	No	0.011	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>0.02298</b>	<b>0.01918</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>0.0536</b>	<b>0.036</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.011</b>	<b>NP (normality)</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>0.04346</b>	<b>0.03634</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>0.0362</b>	<b>0.0264</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.011</b>	<b>NP (normality)</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>0.01561</b>	<b>0.01299</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>x^3</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>0.02295</b>	<b>0.02143</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-13</b>	<b>0.01507</b>	<b>0.01199</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-14</b>	<b>0.01428</b>	<b>0.01152</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>0.01781</b>	<b>0.01513</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	BY-AP-MW-16	0.0117	0.00982	0.01	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	BY-AP-MW-1	0.2913	0.2269	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.1436	0.126	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02682	0.02372	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06122	0.05398	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1468	0.1336	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1246	0.111	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.06852	0.06016	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.1086	0.08659	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.07882	0.07036	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0686	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.06268	0.05356	2	No	10	0	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.05105	0.04337	2	No	10	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.08495	0.07361	2	No	10	0	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-1	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-5	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-6	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-7	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-8	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-9	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-10	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-11	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-12	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-13	0.0015	0.00103	0.004	No	10	90	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-14	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-15	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-16	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Boron (mg/L)	BY-AP-MW-1	1.972	1.586	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-5	0.07375	0.05319	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-6	0.05	0.05	4	No	10	100	No	0.011	NP (NDs)
Boron (mg/L)	BY-AP-MW-7	0.04716	0.03094	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-8	1.652	1.28	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-9	2.333	2.017	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-10	1.835	1.453	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-11	0.06707	0.05189	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-12	0.07767	0.05759	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-13	0.04321	0.03373	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-14	0.06016	0.0457	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-15	0.07644	0.05194	4	No	10	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-16	1.7	1.47	4	No	10	0	No	0.011	NP (normality)
Cadmium (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)

# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.005	No	10	90	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.00591	0.00246	0.1	No	10	0	No	0.011	NP (normality)
Chromium (mg/L)	BY-AP-MW-5	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-6	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.005	0.00328	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-8	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-9	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-10	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-11	0.002457	0.002097	0.1	No	10	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.0042	0.00308	0.1	No	10	0	No	0.011	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.007274	0.006618	0.1	No	10	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.005619	0.005165	0.1	No	10	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BY-AP-MW-16	0.005	0.00215	0.1	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>0.01809</b>	<b>0.01461</b>	<b>0.0127</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	BY-AP-MW-8	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-12	0.002724	0.002338	0.0127	No	10	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.005	0.0127	No	10	100	No	0.011	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>0.02899</b>	<b>0.02657</b>	<b>0.0127</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Cobalt (mg/L)</b>	<b>BY-AP-MW-16</b>	<b>0.01974</b>	<b>0.01374</b>	<b>0.0127</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.278	1.271	5	No	9	11.11	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.105	0.8738	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	2.239	-0.1003	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	2.215	-0.1708	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	2.327	0.2759	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	2.407	0.5923	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	2.42	0.3933	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.112	0.5541	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	2.366	0.4449	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.094	0.5266	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	2.212	-0.09926	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	2.254	0.06725	5	No	10	20	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.5	0.344	5	No	10	20	No	0.011	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-1	0.069	0.03	4	No	11	18.18	No	0.006	NP (normality)
Fluoride (mg/L)	BY-AP-MW-5	0.05963	0.04291	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.05	0.016	4	No	11	63.64	No	0.006	NP (normality)
Fluoride (mg/L)	BY-AP-MW-7	0.08828	0.06808	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.05513	0.03869	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-9	0.06529	0.04743	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.09326	0.02807	4	No	11	27.27	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-11	0.06943	0.05257	4	No	11	9.091	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-12	0.06443	0.0452	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.06946	0.05182	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.087	0.06354	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.2051	0.1592	4	No	11	9.091	x^3	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-16	0.073	0.04	4	No	11	18.18	No	0.006	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-5	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-6	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-7	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-8	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-9	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)

# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:53 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	BY-AP-MW-10	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-12	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-15	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	BY-AP-MW-16	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-1	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-5	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-6	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-7	0.025	0.0108	0.05	No	10	90	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-8	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-9	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-10	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.025	0.025	0.05	No	10	90	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-12	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-13	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-14	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-15	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	BY-AP-MW-16	0.025	0.025	0.05	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-1	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-5	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-6	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-7	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-8	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-9	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-10	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-11	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-12	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-13	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-14	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-15	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BY-AP-MW-16	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-7	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-8	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-9	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-10	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-12	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-13	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-14	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.005	0.00201	0.1	No	10	60	No	0.011	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-1	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-5	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-6	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-7	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-8	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-9	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-10	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-11	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-12	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-13	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-14	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-15	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	BY-AP-MW-16	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)

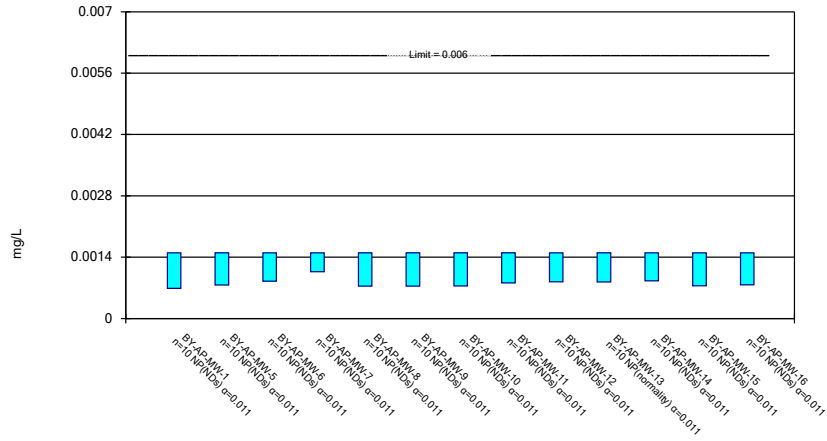
# Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/31/2019, 10:53 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)

### Non-Parametric Confidence Interval

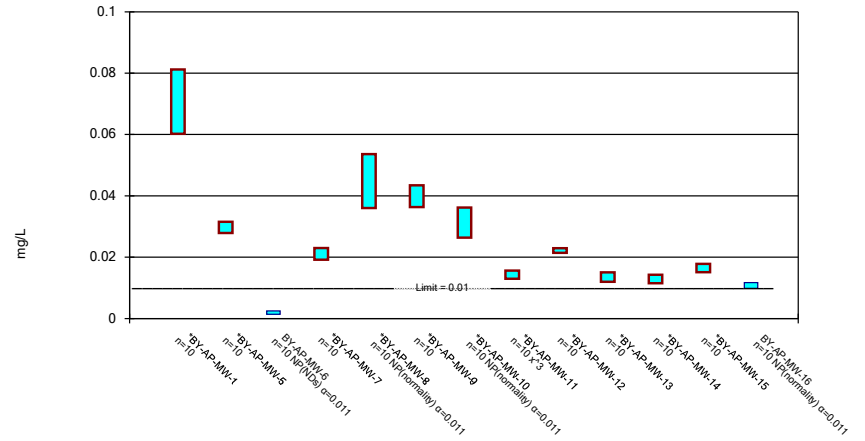
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

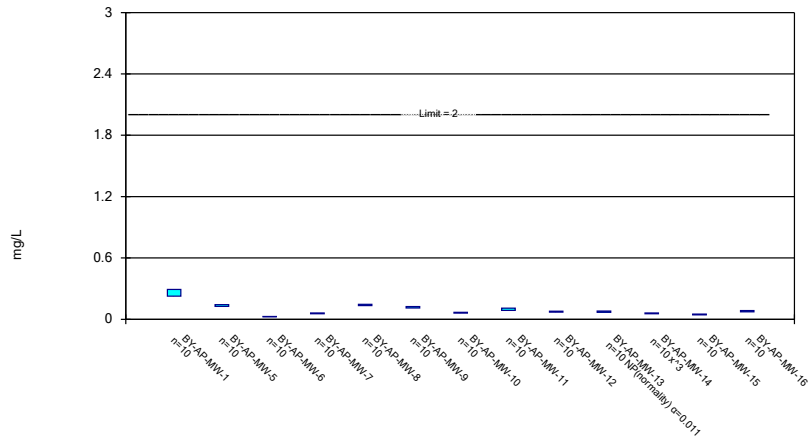
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

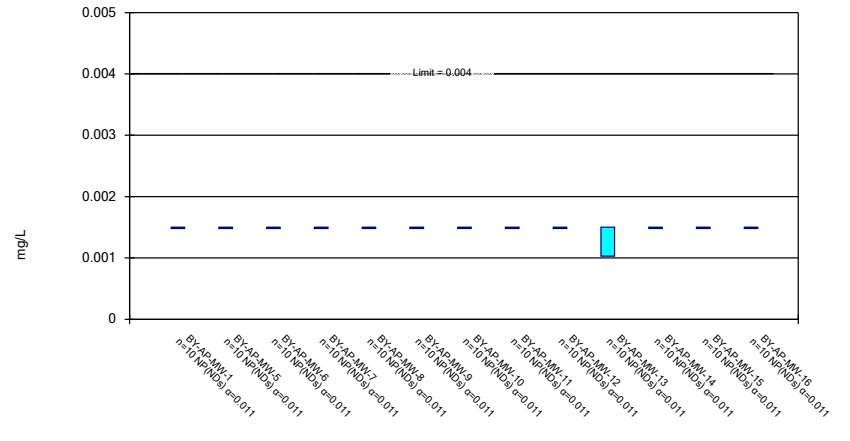
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

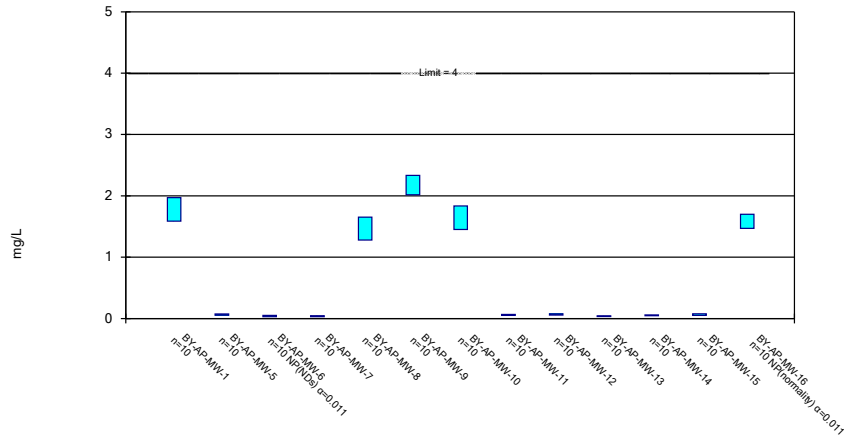
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Constituent: Beryllium Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

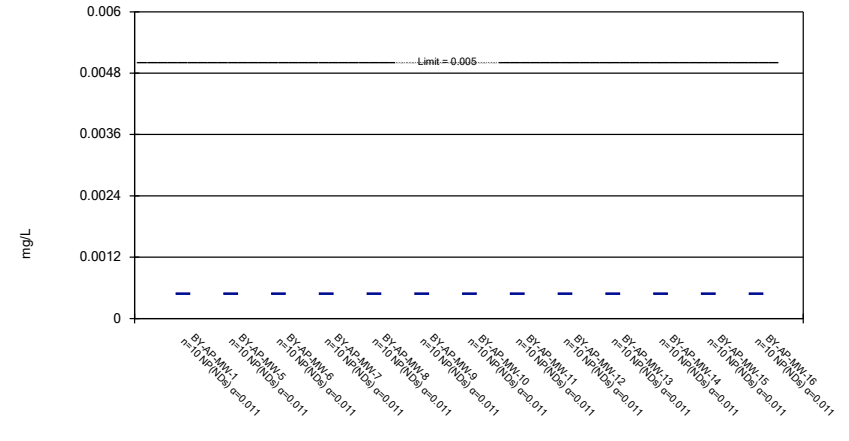
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

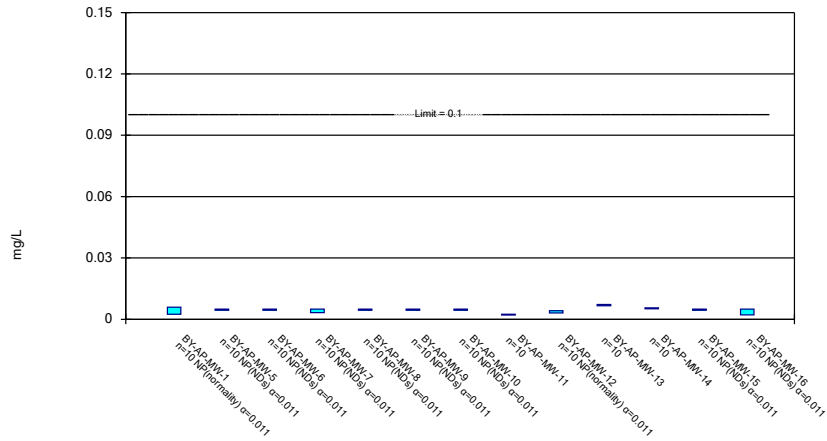
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Constituent: Cadmium Analysis Run 1/31/2019 10:51 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

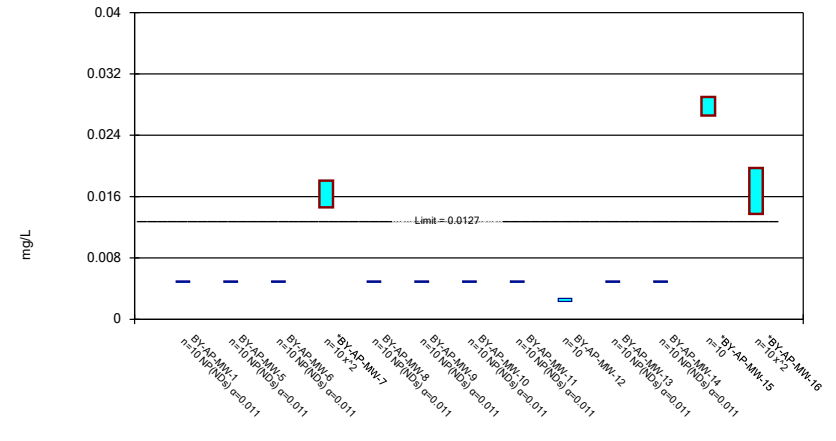
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

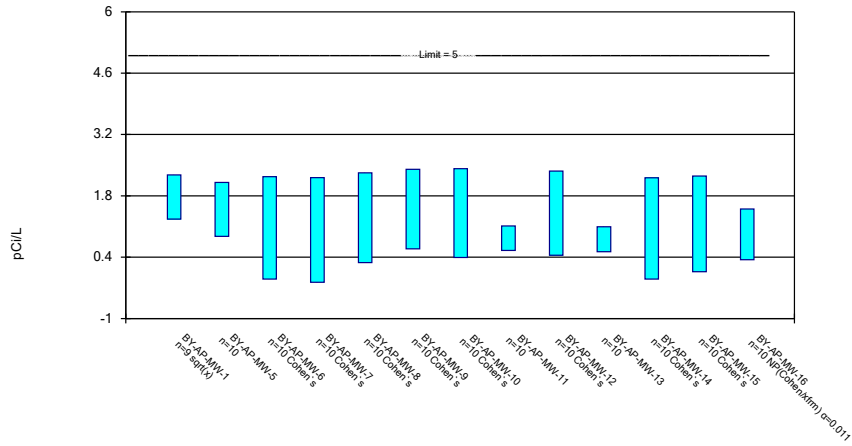


Constituent: Cobalt Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond



### Parametric and Non-Parametric (NP) Confidence Interval

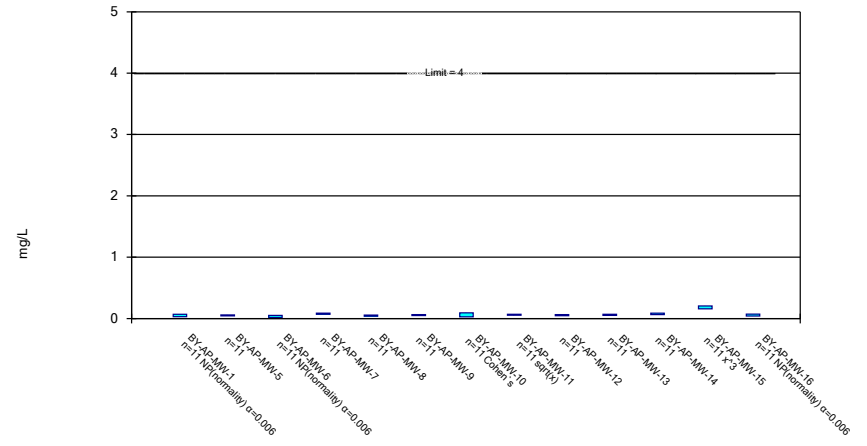
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

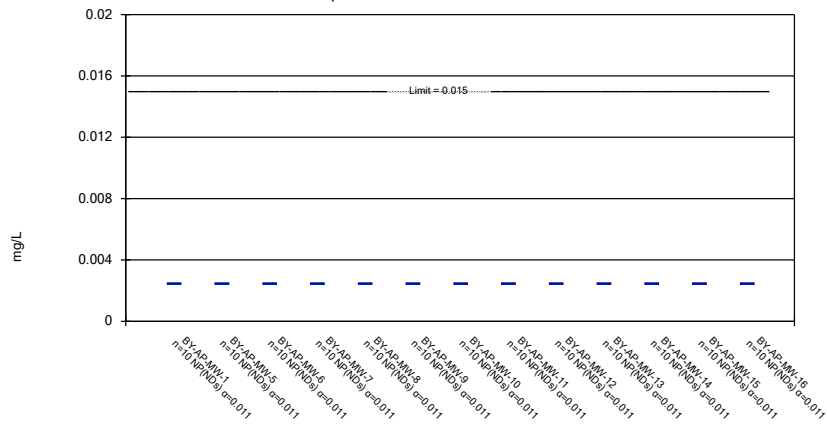
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

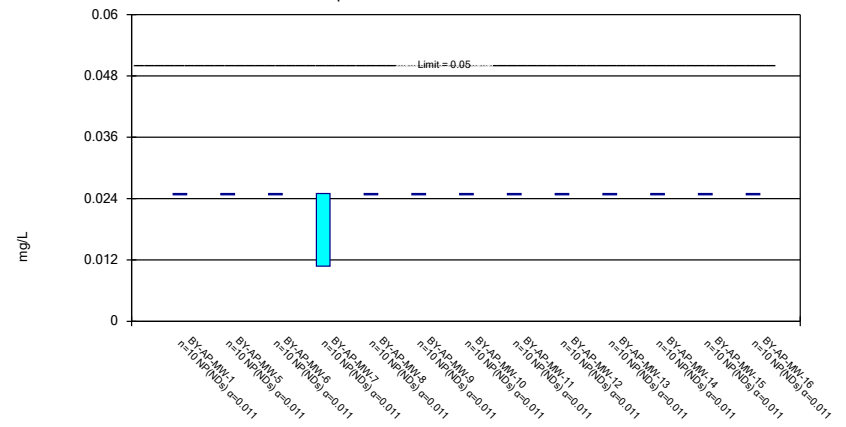
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

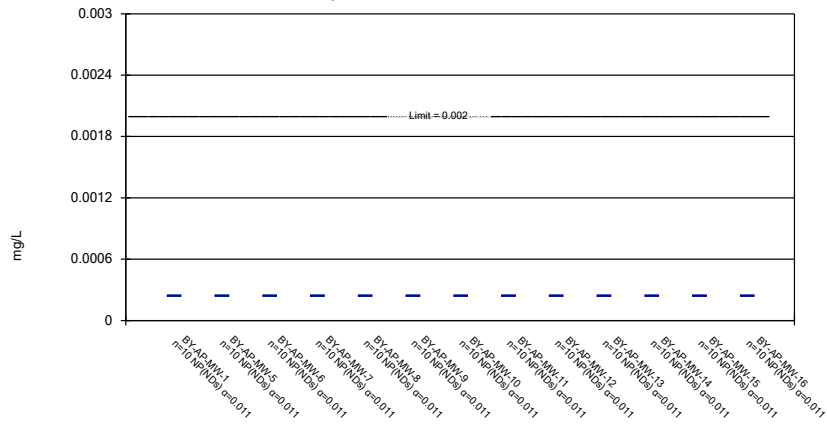
Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

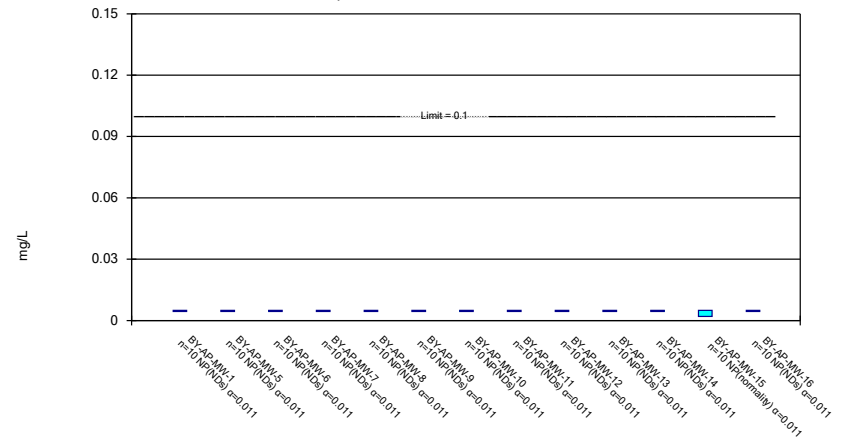
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

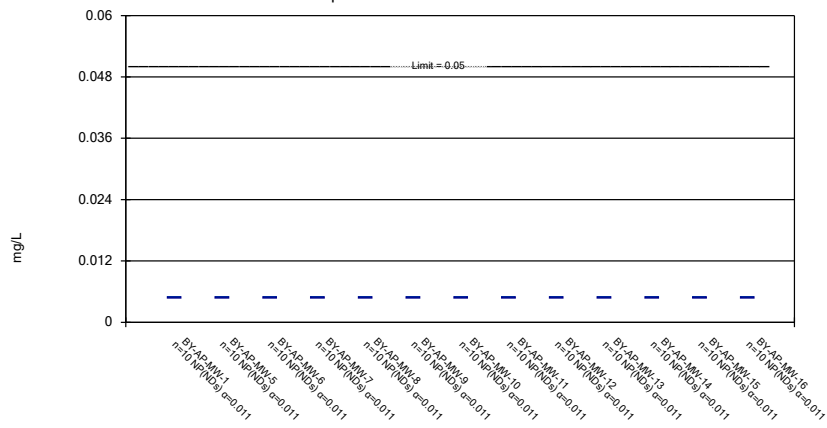
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

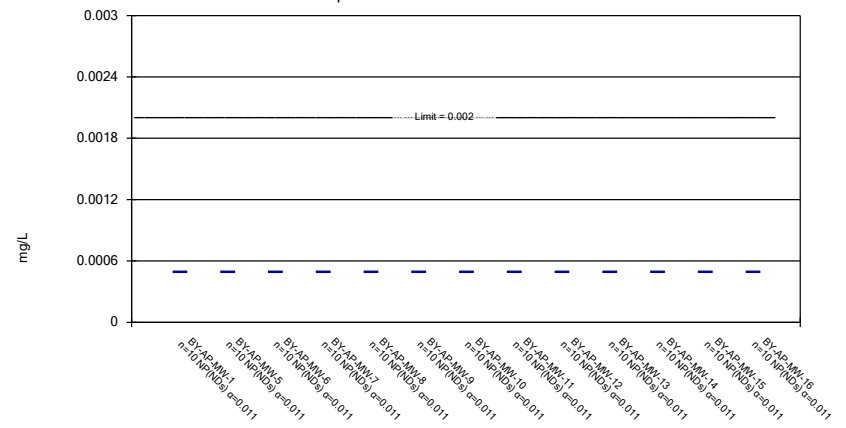
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 10:52 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

2<sup>nd</sup> Semi-Annual

# Interwell Prediction Limit - Significant Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/9/2019, 10:17 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-AP-MW-1	0.1	n/a	11/28/2018	1.8	Yes	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.1	n/a	11/27/2018	1.31	Yes	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.1	n/a	11/28/2018	2.23	Yes	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.1	n/a	11/28/2018	2	Yes	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.1	n/a	11/27/2018	1.58	Yes	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	3.86	n/a	11/28/2018	35.8	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-5	3.86	n/a	11/27/2018	13.7	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-7	3.86	n/a	11/28/2018	9.66	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-8	3.86	n/a	11/27/2018	32.5	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-9	3.86	n/a	11/28/2018	39.7	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-10	3.86	n/a	11/28/2018	54.2	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-11	3.86	n/a	11/28/2018	24.6	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-12	3.86	n/a	11/28/2018	22.1	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-13	3.86	n/a	11/28/2018	15.2	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-14	3.86	n/a	11/27/2018	10.8	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-15	3.86	n/a	11/27/2018	7.58	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Calcium (mg/L)	BY-AP-MW-16	3.86	n/a	11/27/2018	13.3	Yes	33	0	n/a	0.001566	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-1	12.46	n/a	11/28/2018	26	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-5	12.46	n/a	11/27/2018	21	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-7	12.46	n/a	11/28/2018	13	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-8	12.46	n/a	11/27/2018	27	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-9	12.46	n/a	11/28/2018	23	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-10	12.46	n/a	11/28/2018	25	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-11	12.46	n/a	11/28/2018	25	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-12	12.46	n/a	11/28/2018	23	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-13	12.46	n/a	11/28/2018	43	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-14	12.46	n/a	11/27/2018	43	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-15	12.46	n/a	11/27/2018	43	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-16	12.46	n/a	11/27/2018	20	Yes	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-1	52.99	n/a	11/28/2018	408	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-5	52.99	n/a	11/27/2018	248	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-7	52.99	n/a	11/28/2018	138	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-8	52.99	n/a	11/27/2018	303	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-9	52.99	n/a	11/28/2018	330	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-10	52.99	n/a	11/28/2018	378	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-11	52.99	n/a	11/28/2018	357	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-12	52.99	n/a	11/28/2018	336	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-13	52.99	n/a	11/28/2018	304	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-14	52.99	n/a	11/27/2018	295	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-15	52.99	n/a	11/27/2018	190	Yes	33	0	No	0.000...	Param Inter 1 of 2
TDS (mg/L)	BY-AP-MW-16	52.99	n/a	11/27/2018	250	Yes	33	0	No	0.000...	Param Inter 1 of 2

# Interwell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:17 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
<b>Boron (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>0.1</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>1.8</b>	<b>Yes</b>	<b>33</b>	<b>100</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	BY-AP-MW-5	0.1	n/a	11/27/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.1	n/a	11/28/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.1	n/a	11/28/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>0.1</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>1.31</b>	<b>Yes</b>	<b>33</b>	<b>100</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>0.1</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>2.23</b>	<b>Yes</b>	<b>33</b>	<b>100</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>0.1</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>2</b>	<b>Yes</b>	<b>33</b>	<b>100</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	BY-AP-MW-11	0.1	n/a	11/28/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.1	n/a	11/28/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.1	n/a	11/28/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.1	n/a	11/27/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.1	n/a	11/27/2018	0.1ND	No	33	100	n/a	0.001566	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>BY-AP-MW-16</b>	<b>0.1</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>1.58</b>	<b>Yes</b>	<b>33</b>	<b>100</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>35.8</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-5</b>	<b>3.86</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>13.7</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
Calcium (mg/L)	BY-AP-MW-6	3.86	n/a	11/28/2018	1.91	No	33	0	n/a	0.001566	NP Inter (normality) ...
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>9.66</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>3.86</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>32.5</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>39.7</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>54.2</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>24.6</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>22.1</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-13</b>	<b>3.86</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>15.2</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-14</b>	<b>3.86</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>10.8</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>3.86</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>7.58</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-16</b>	<b>3.86</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>13.3</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>n/a</b>	<b>0.001566</b>	<b>NP Inter (normality) ...</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>26</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-5</b>	<b>12.46</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>21</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
Chloride (mg/L)	BY-AP-MW-6	12.46	n/a	11/28/2018	6.2	No	33	0	sqrt(x)	0.000...	Param Inter 1 of 2
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>13</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>12.46</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>27</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>23</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>25</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>25</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>23</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-13</b>	<b>12.46</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>43</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-14</b>	<b>12.46</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>43</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>12.46</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>43</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-16</b>	<b>12.46</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>20</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>sqrt(x)</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	BY-AP-MW-1	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-5	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-6	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-7	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-8	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-9	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-10	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-11	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-12	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-13	0.3	n/a	11/28/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-14	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-15	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-16	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2

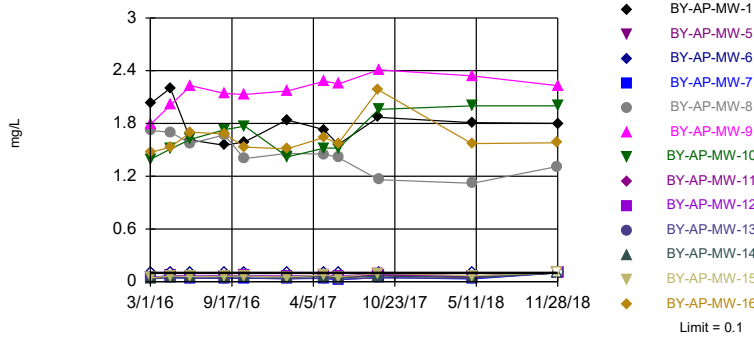
# Interwell Prediction Limit - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/9/2019, 10:17 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Fluoride (mg/L)	BY-AP-MW-15	0.3	n/a	11/27/2018	0.18	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-AP-MW-16	0.3	n/a	11/27/2018	0.1ND	No	36	52.78	n/a	0.001332	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-1	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-5	5.06	n/a	11/27/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-6	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-7	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-8	5.06	n/a	11/27/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-9	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-10	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-11	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-12	5.06	n/a	11/28/2018	50ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-13	5.06	n/a	11/28/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	5.06	n/a	11/27/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-15	5.06	n/a	11/27/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
Sulfate (mg/L)	BY-AP-MW-16	5.06	n/a	11/27/2018	5ND	No	33	45.45	n/a	0.001566	NP Inter (normality) ...
<b>TDS (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>408</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-5</b>	<b>52.99</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>248</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
TDS (mg/L)	BY-AP-MW-6	52.99	n/a	11/28/2018	50.7	No	33	0	No	0.000...	Param Inter 1 of 2
<b>TDS (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>138</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>52.99</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>303</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>330</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>378</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>357</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>336</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-13</b>	<b>52.99</b>	<b>n/a</b>	<b>11/28/2018</b>	<b>304</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-14</b>	<b>52.99</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>295</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>52.99</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>190</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>
<b>TDS (mg/L)</b>	<b>BY-AP-MW-16</b>	<b>52.99</b>	<b>n/a</b>	<b>11/27/2018</b>	<b>250</b>	<b>Yes</b>	<b>33</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Inter 1 of 2</b>

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-8,  
BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-1

Prediction Limit  
Interwell Non-parametric

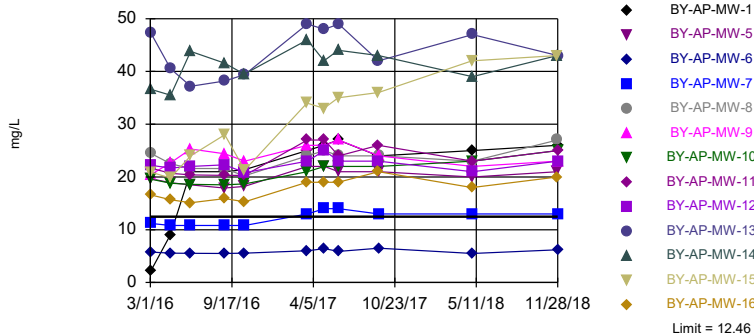


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 33) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.03993. Individual comparison alpha = 0.001566 (1 of 2). Comparing 13 points to limit.

Constituent: Boron Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,  
BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit  
Interwell Parametric

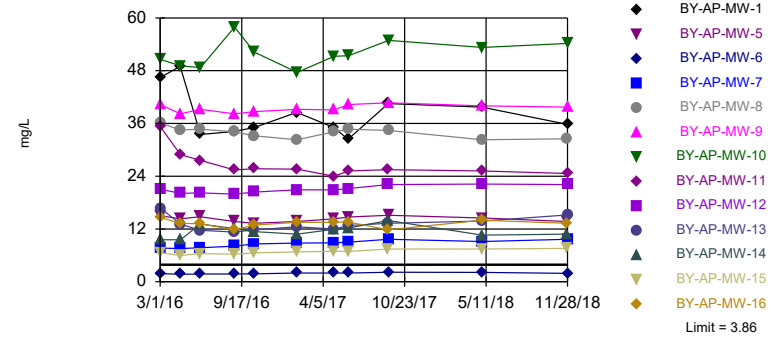


Background Data Summary (based on square root transformation): Mean=2.91, Std. Dev.=0.2843, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9214, critical = 0.906. Kappa = 2.181 (c=7, w=13, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005787. Comparing 13 points to limit.

Constituent: Chloride Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,  
BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit  
Interwell Non-parametric

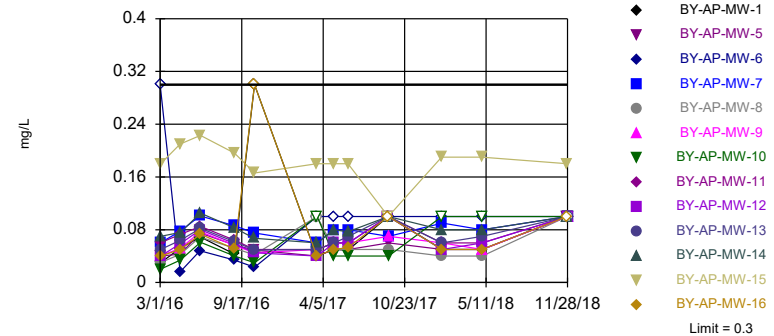


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. Annual per-constituent alpha = 0.03993. Individual comparison alpha = 0.001566 (1 of 2). Comparing 13 points to limit.

Constituent: Calcium Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit  
Interwell Non-parametric

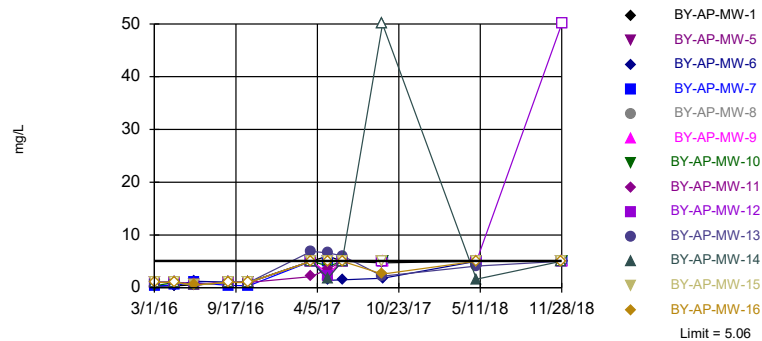


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 52.78% NDs. Annual per-constituent alpha = 0.03406. Individual comparison alpha = 0.001332 (1 of 2). Comparing 13 points to limit.

Constituent: Fluoride Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limit

Prediction Limit  
 Interwell Non-parametric

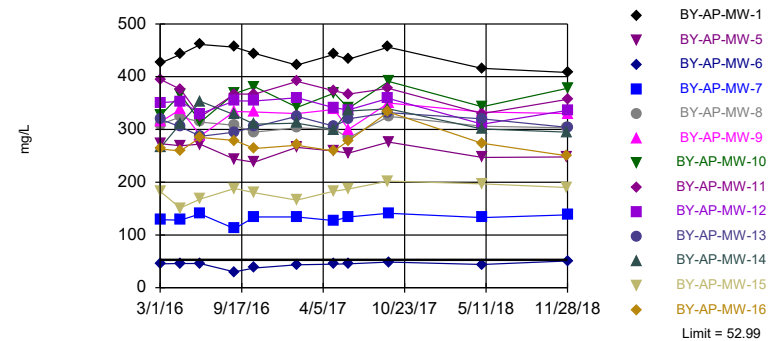


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. 45.45% NDs. Annual per-constituent alpha = 0.03993. Individual comparison alpha = 0.001566 (1 of 2). Comparing 13 points to limit.

Constituent: Sulfate Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5,  
 BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9..

Prediction Limit  
 Interwell Parametric



Background Data Summary: Mean=38.12, Std. Dev.=6.815, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9595, critical = 0.906. Kappa = 2.181 (c=7, w=13, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005787. Comparing 13 points to limit.

Constituent: TDS Analysis Run 1/9/2019 10:16 AM View: Interwell PLs  
 Plant Barry Client: Southern Company Data: Barry Ash Pond



# Intrawell Prediction Limit - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:20 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
<b>pH (pH)</b>	<b>BY-AP-MW-13</b>	<b>6.146</b>	<b>6.045</b>	<b>11/28/2018</b>	<b>6.04</b>	<b>Yes</b>	<b>9</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Intra 1 of 3</b>

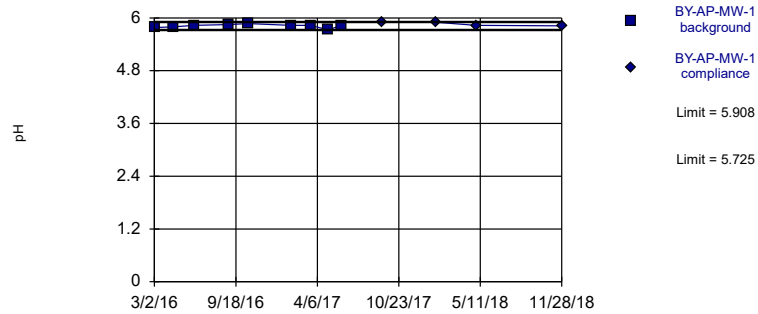
# Intrawell Prediction Limit - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:20 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
pH (pH)	BY-AP-MW-1	5.908	5.725	11/28/2018	5.82	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-2	6.13	5.59	11/27/2018	5.71	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-3	5.15	4.85	11/27/2018	5.05	No	9	0	n/a	0.009351	NP Intra (normality) ...
pH (pH)	BY-AP-MW-4	5.338	4.131	11/27/2018	4.78	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-5	6.044	5.943	11/27/2018	6.01	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-6	5.64	5.142	11/28/2018	5.46	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-7	6.378	6.211	11/28/2018	6.33	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-8	6.265	6.164	11/27/2018	6.18	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-9	6.324	6.168	11/28/2018	6.32	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-10	6.397	6.211	11/28/2018	6.32	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-11	6.399	6.118	11/28/2018	6.28	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-12	6.286	6.039	11/28/2018	6.11	No	9	0	No	0.000...	Param Intra 1 of 3
<b>pH (pH)</b>	<b>BY-AP-MW-13</b>	<b>6.146</b>	<b>6.045</b>	<b>11/28/2018</b>	<b>6.04</b>	<b>Yes</b>	<b>9</b>	<b>0</b>	<b>No</b>	<b>0.000...</b>	<b>Param Intra 1 of 3</b>
pH (pH)	BY-AP-MW-14	6.199	5.945	11/27/2018	6.07	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-15	6.831	6.48	11/27/2018	6.58	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	BY-AP-MW-16	5.892	5.69	11/27/2018	5.76	No	9	0	No	0.000...	Param Intra 1 of 3

Within Limits

Prediction Limit  
Intrawell Parametric

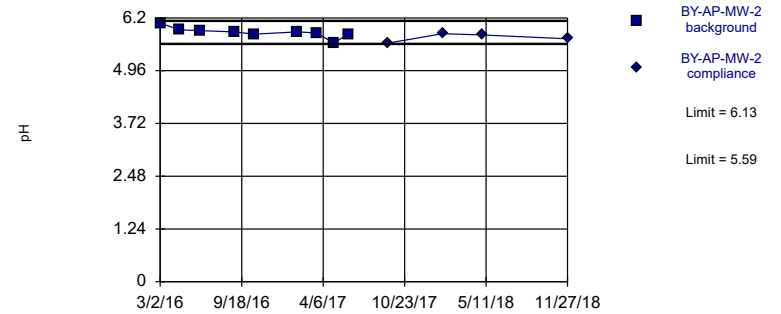


Background Data Summary: Mean=5.817, Std. Dev.=0.04153, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8939, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Parametric

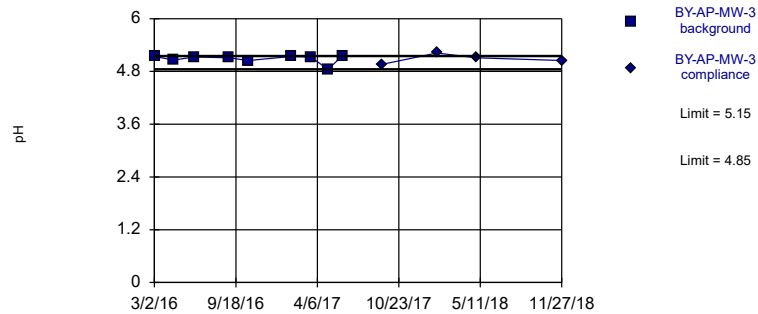


Background Data Summary: Mean=5.86, Std. Dev.=0.1223, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8934, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Non-parametric

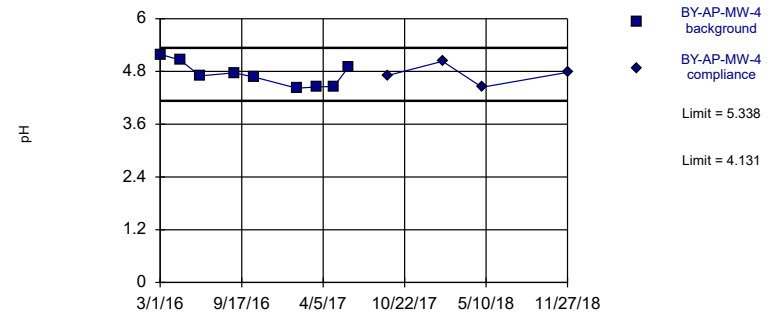


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 9 background values. Well-constituent pair annual alpha = 0.01866. Individual comparison alpha = 0.009351 (1 of 3).

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Parametric

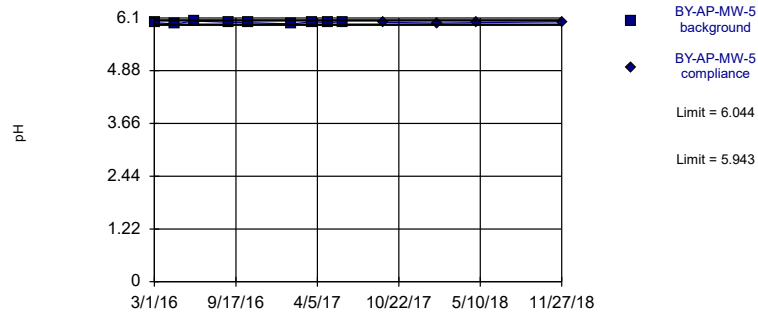


Background Data Summary: Mean=4.734, Std. Dev.=0.2737, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9277, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

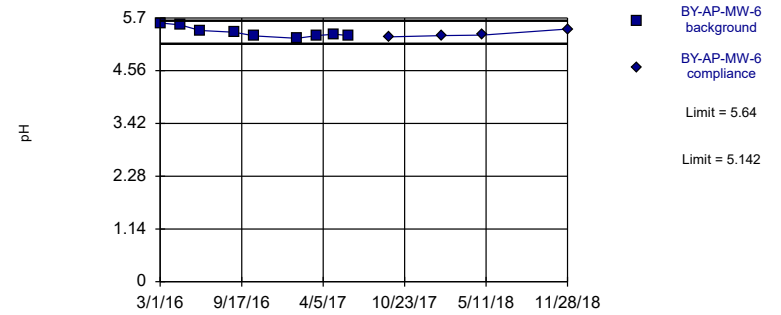


Background Data Summary: Mean=5.993, Std. Dev.=0.02291, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9252, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

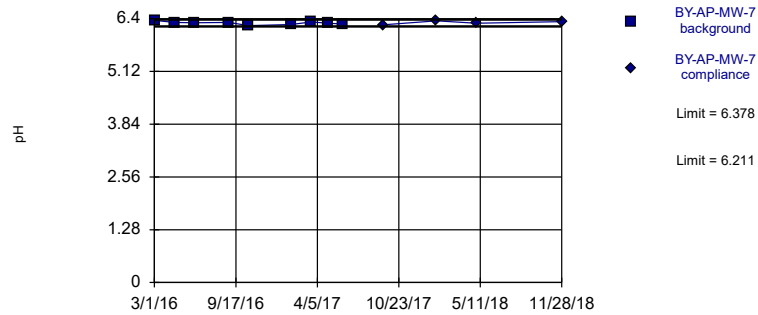


Background Data Summary: Mean=5.391, Std. Dev.=0.1129, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8864, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

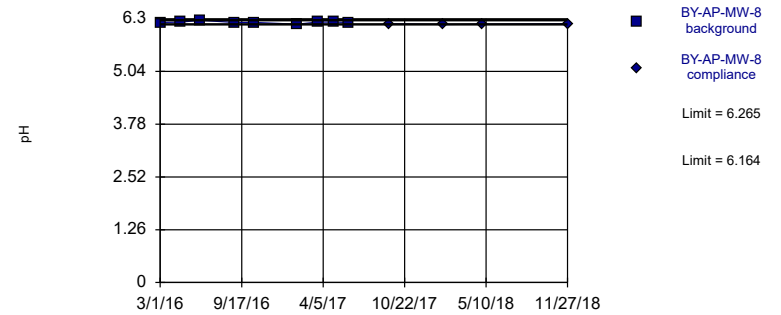


Background Data Summary: Mean=6.294, Std. Dev.=0.03779, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9801, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

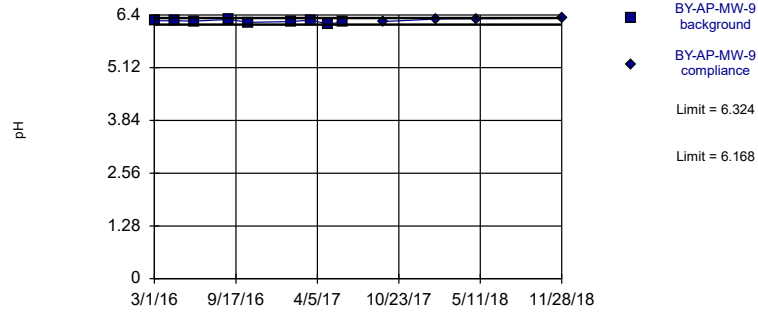


Background Data Summary: Mean=6.214, Std. Dev.=0.02297, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8289, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

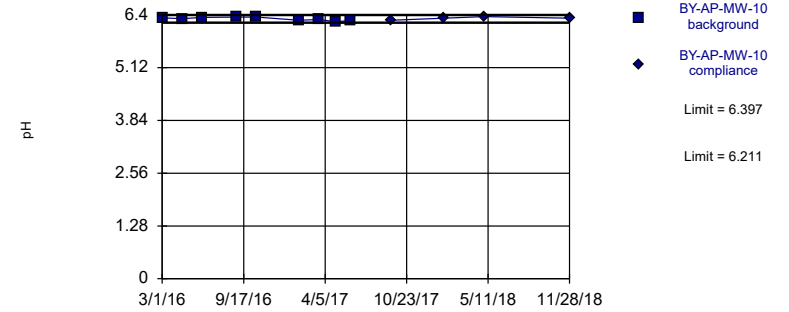


Background Data Summary: Mean=6.246, Std. Dev.=0.03539, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

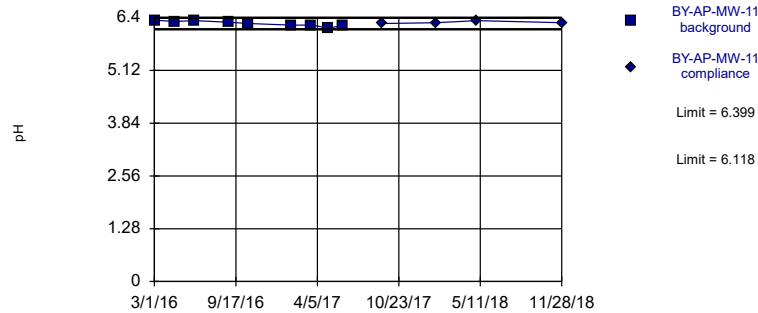


Background Data Summary: Mean=6.304, Std. Dev.=0.04216, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9174, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

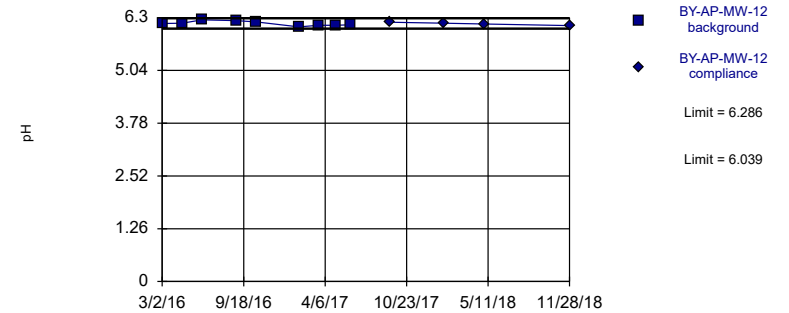


Background Data Summary: Mean=6.259, Std. Dev.=0.06373, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

### Prediction Limit Intrawell Parametric

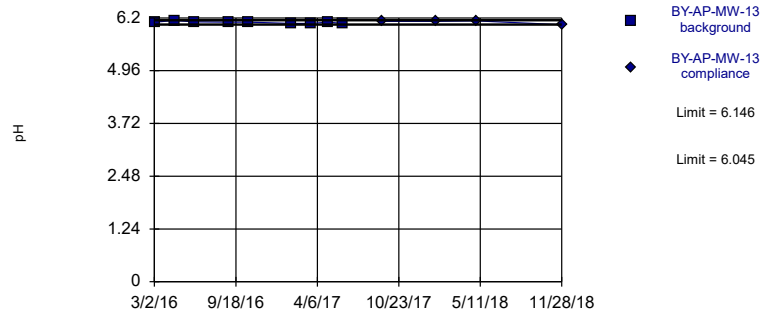


Background Data Summary: Mean=6.162, Std. Dev.=0.05608, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9597, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limits

Prediction Limit  
Intrawell Parametric

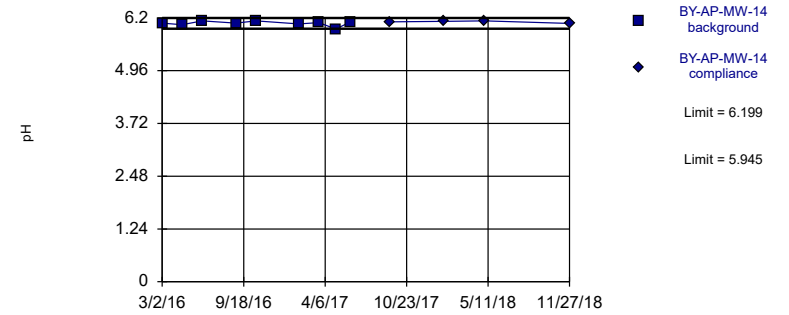


Background Data Summary: Mean=6.096, Std. Dev.=0.02297, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.856, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Parametric

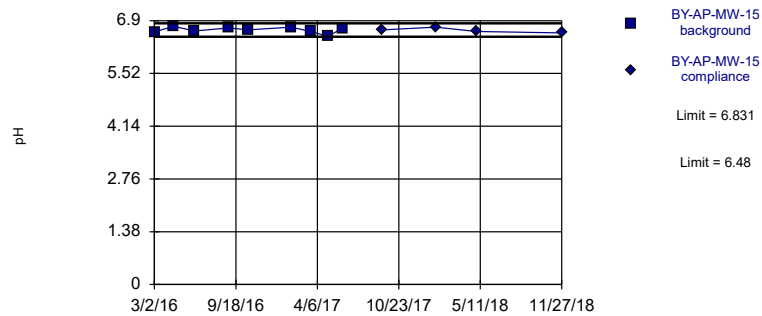


Background Data Summary: Mean=6.072, Std. Dev.=0.05761, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8464, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Parametric

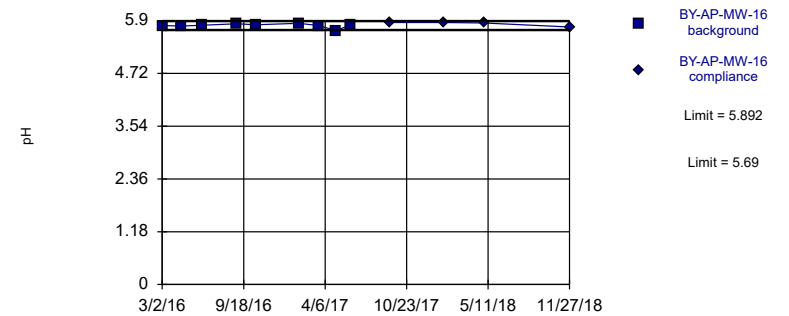


Background Data Summary: Mean=6.656, Std. Dev.=0.0797, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9217, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Within Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=5.791, Std. Dev.=0.04595, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7875, critical = 0.764. Kappa = 2.205 (c=7, w=13, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005787.

Constituent: pH Analysis Run 1/9/2019 10:18 AM View: PLs - Intrawell  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

# Trend Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:31 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-AP-MW-8	-0.2444	-43	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2 (bg)	-0.3101	-44	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-7	1.023	51	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-11	-1.649	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-12	0.869	35	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-15	0.5763	41	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-1	6.507	40	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-2 (bg)	1.086	48	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-10	2.281	36	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-15	9.494	47	34	Yes	11	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-2 (bg)	-0.08539	-53	-43	Yes	13	0	n/a	n/a	0.01	NP

# Trend Test - All Results

Plant Barry   Client: Southern Company   Data: Barry Ash Pond   Printed 1/9/2019, 10:31 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BY-AP-MW-1	-0.02407	-5	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-2 (bg)	0	0	34	No	11	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-3 (bg)	0	0	34	No	11	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-4 (bg)	0	0	34	No	11	100	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>-0.2444</b>	<b>-43</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BY-AP-MW-9	0.1603	34	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-10	0.2215	33	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-16	0.02612	13	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-1	-1.106	-2	-34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-2 (bg)</b>	<b>-0.3101</b>	<b>-44</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BY-AP-MW-3 (bg)	-0.0225	-11	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-4 (bg)	-0.06071	-17	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-5	0	-3	-34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>1.023</b>	<b>51</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BY-AP-MW-8	-1.077	-24	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-9	0.6418	18	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-10	1.896	19	34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>-1.649</b>	<b>-38</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>0.869</b>	<b>35</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BY-AP-MW-13	1.043	19	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-14	0.4798	10	34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>0.5763</b>	<b>41</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BY-AP-MW-16	0	2	34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>6.507</b>	<b>40</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-2 (bg)</b>	<b>1.086</b>	<b>48</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BY-AP-MW-3 (bg)	0.2593	13	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-4 (bg)	0.6737	7	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-5	0.806	13	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-7	0.9805	22	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-8	0.9116	13	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-9	0.7766	9	34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>2.281</b>	<b>36</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BY-AP-MW-11	1.618	13	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-12	0.4042	15	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-13	1.612	12	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-14	1.659	14	34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>9.494</b>	<b>47</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	BY-AP-MW-16	1.829	28	34	No	11	0	n/a	n/a	0.01	NP
<b>pH (pH)</b>	<b>BY-AP-MW-2 (bg)</b>	<b>-0.08539</b>	<b>-53</b>	<b>-43</b>	<b>Yes</b>	<b>13</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH (pH)	BY-AP-MW-3 (bg)	-0.00667	-6	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-4 (bg)	-0.09575	-14	-43	No	13	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-13	0	-8	-43	No	13	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-12.79	-19	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-2 (bg)	0.5261	6	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-3 (bg)	3.115	15	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-4 (bg)	0.6395	1	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-9.116	-15	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	2.709	14	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-5.239	-16	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	2.407	4	34	No	11	0	n/a	n/a	0.01	NP



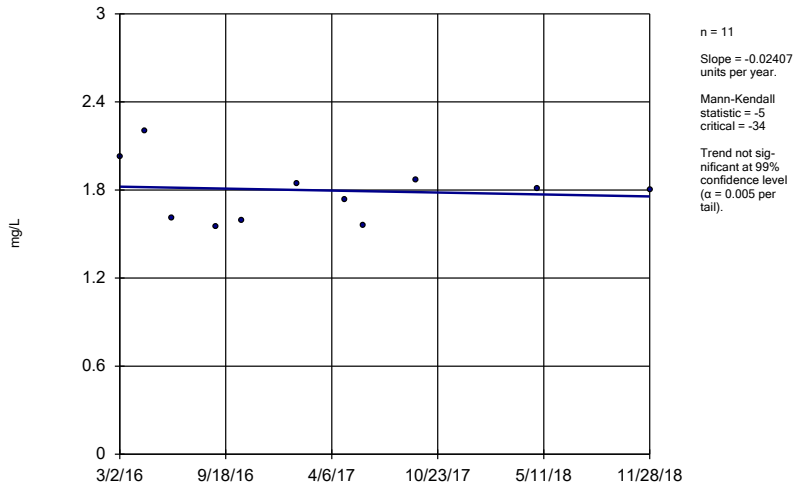
# Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:32 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	BY-AP-MW-10	11.04	19	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	-7.285	-14	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-5.47	-8	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	6.872	15	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	-3.179	-3	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	12.03	29	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-16	0	0	34	No	11	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator

BY-AP-MW-1

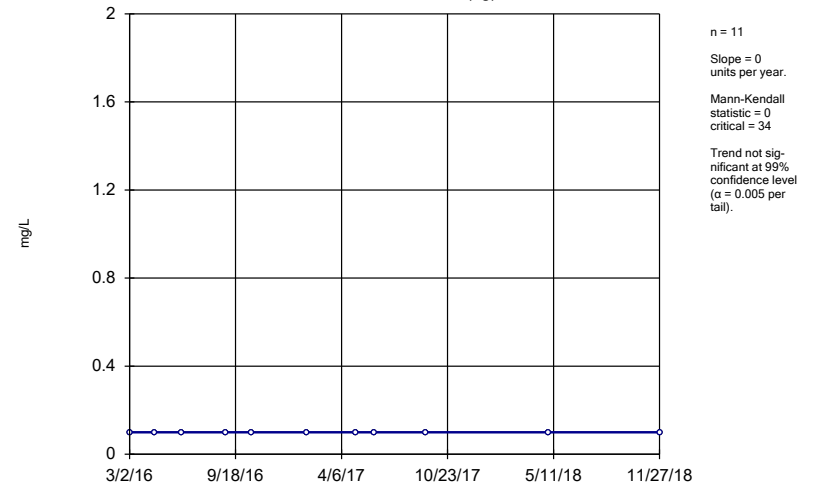


Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Hollow symbols indicate censored values.

### Sen's Slope Estimator

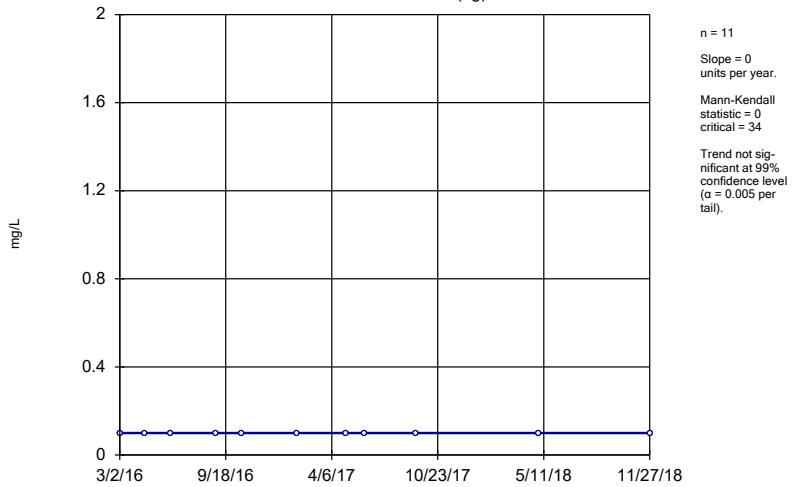
BY-AP-MW-2 (bg)



Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

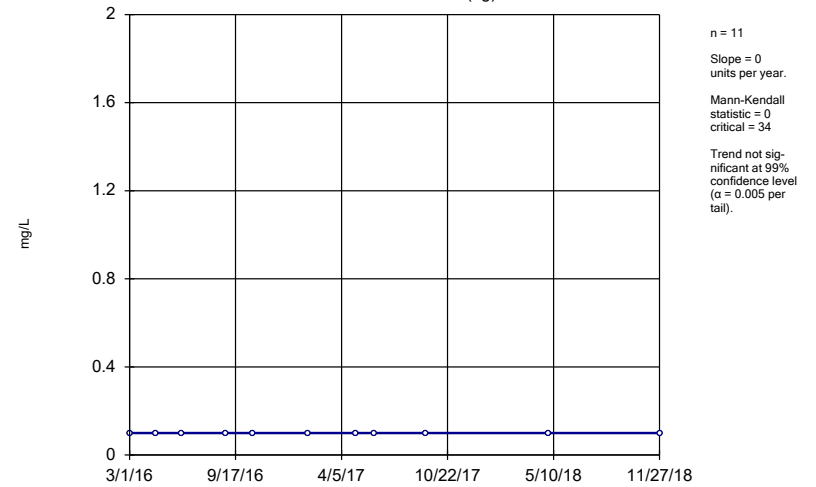
BY-AP-MW-3 (bg)



Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

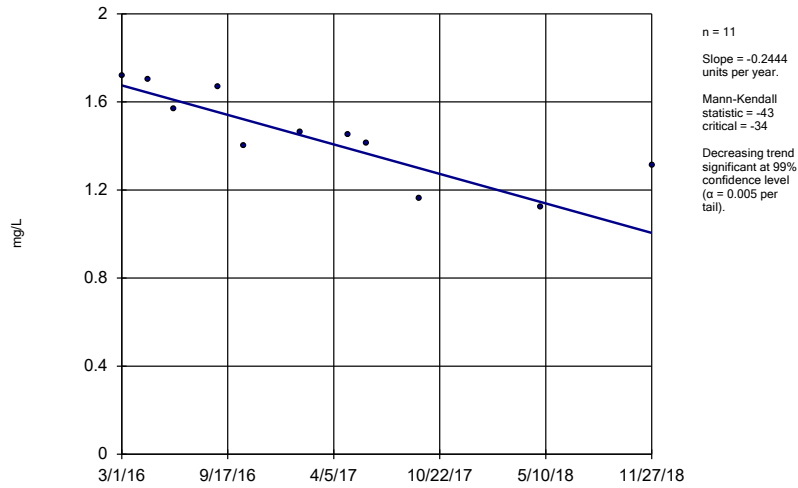
### Sen's Slope Estimator

BY-AP-MW-4 (bg)



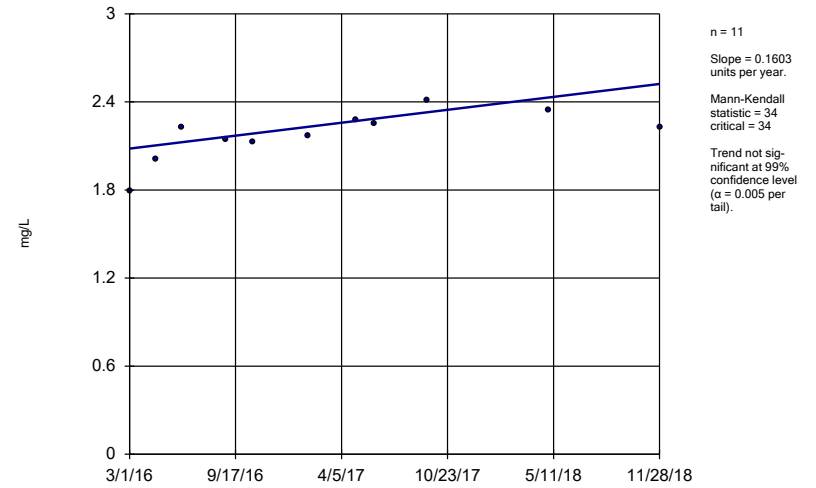
Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-8



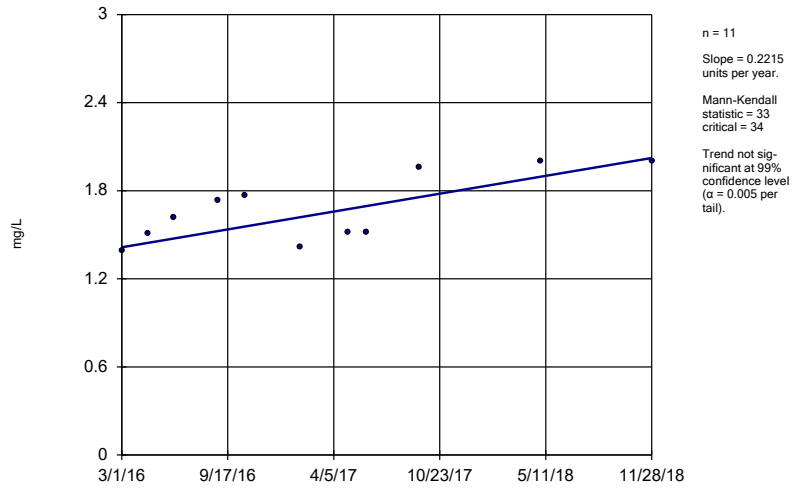
Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-9



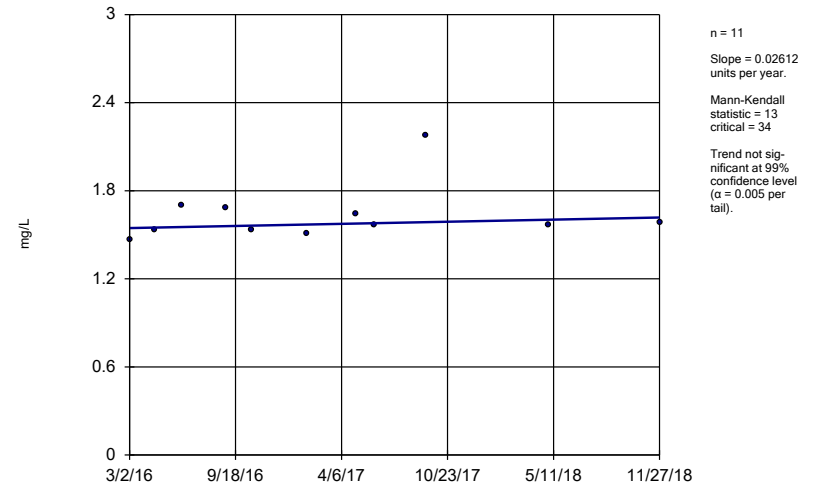
Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-10



Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

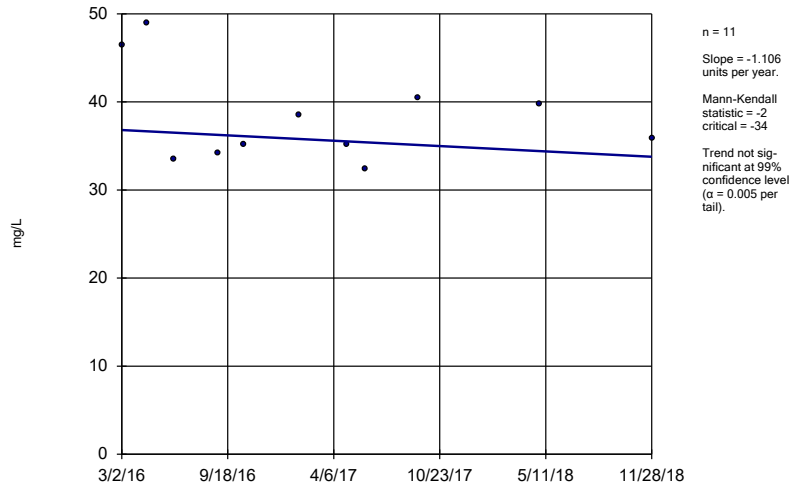
### Sen's Slope Estimator BY-AP-MW-16



Constituent: Boron Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

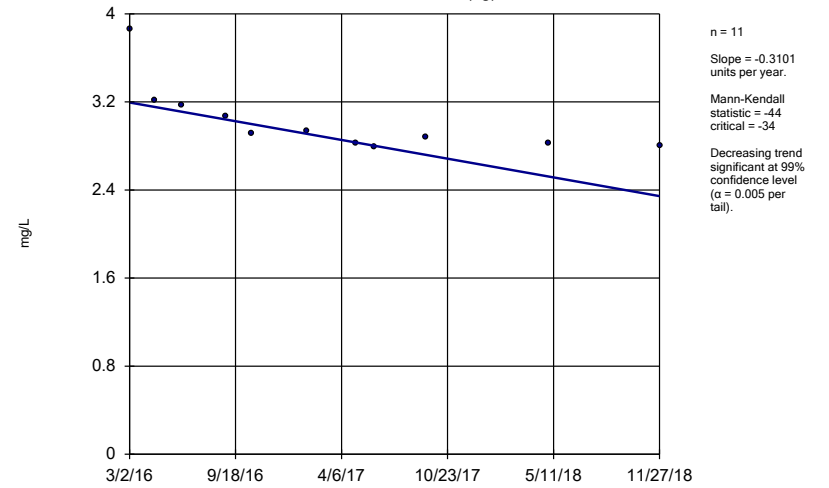
BY-AP-MW-1



Constituent: Calcium Analysis Run 1/9/2019 10:25 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

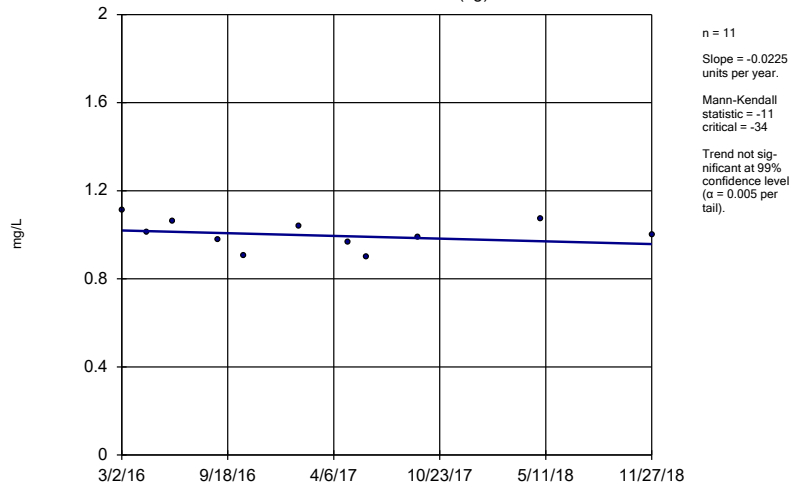
BY-AP-MW-2 (bg)



Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

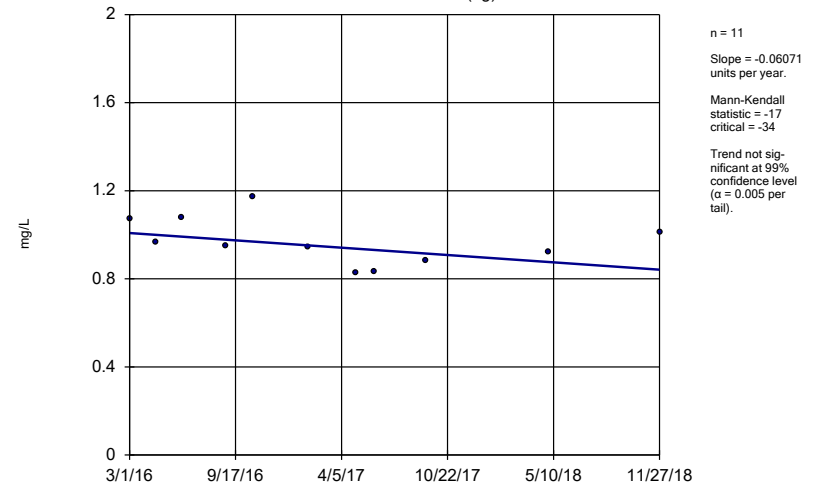
BY-AP-MW-3 (bg)



Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

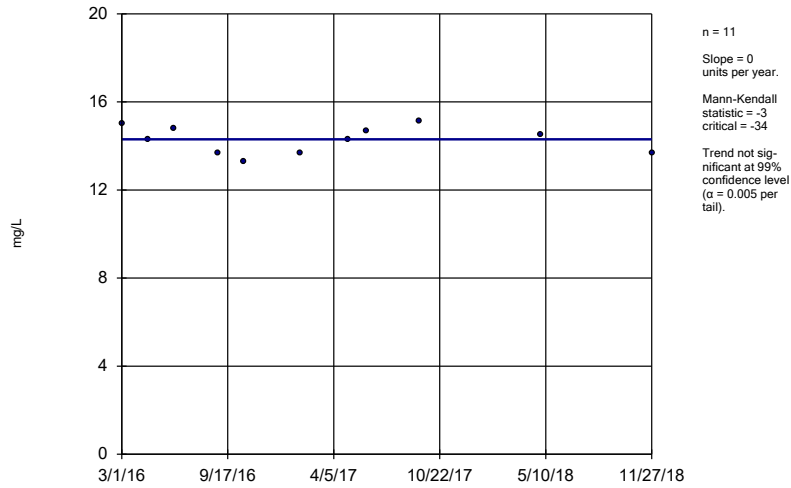
### Sen's Slope Estimator

BY-AP-MW-4 (bg)



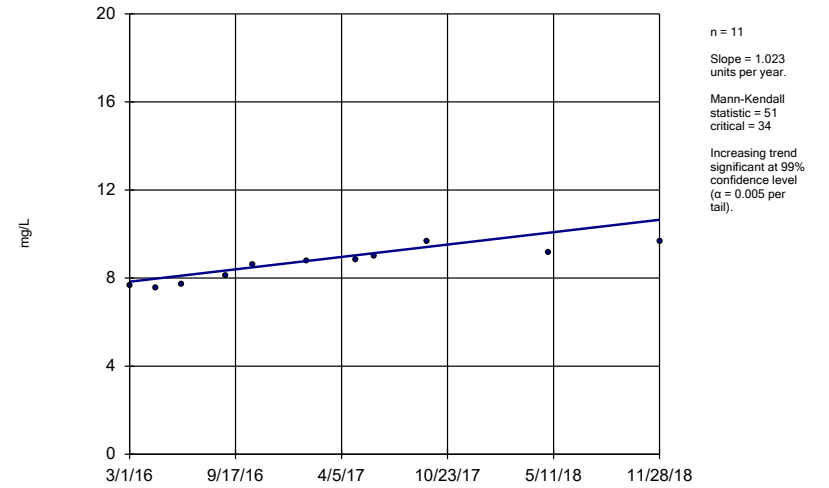
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-5



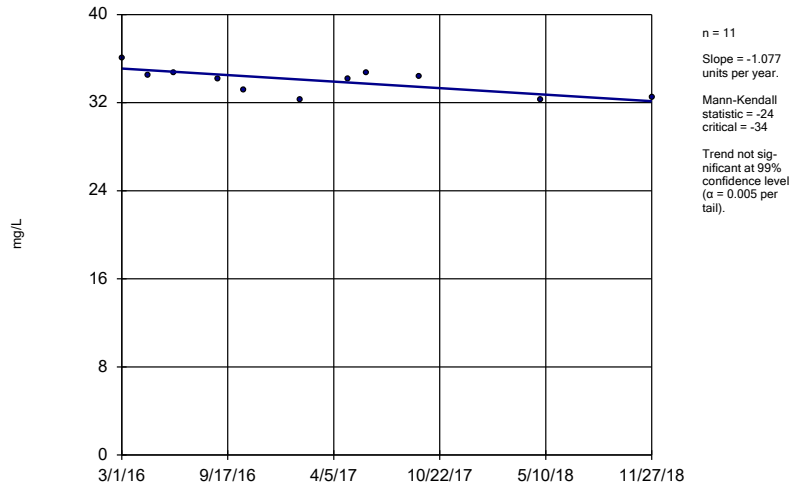
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-7



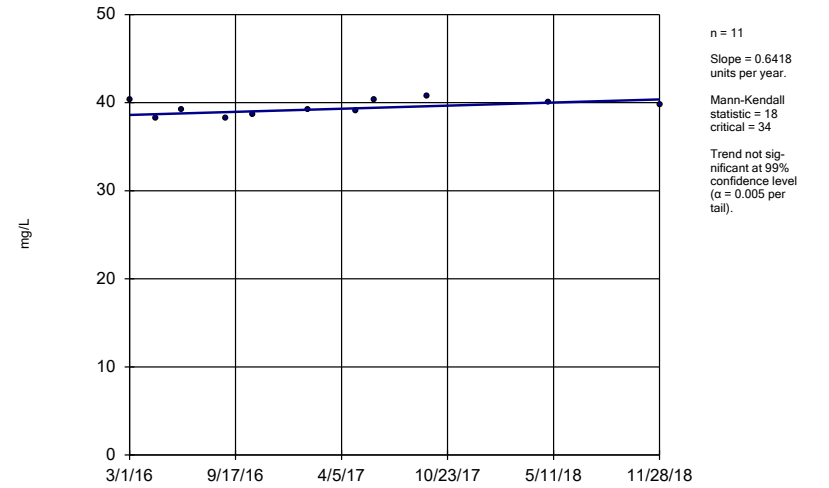
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-8



Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

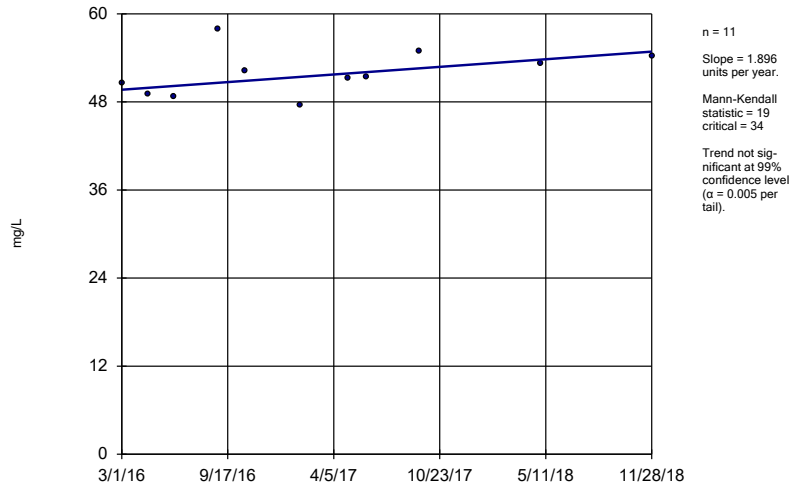
### Sen's Slope Estimator BY-AP-MW-9



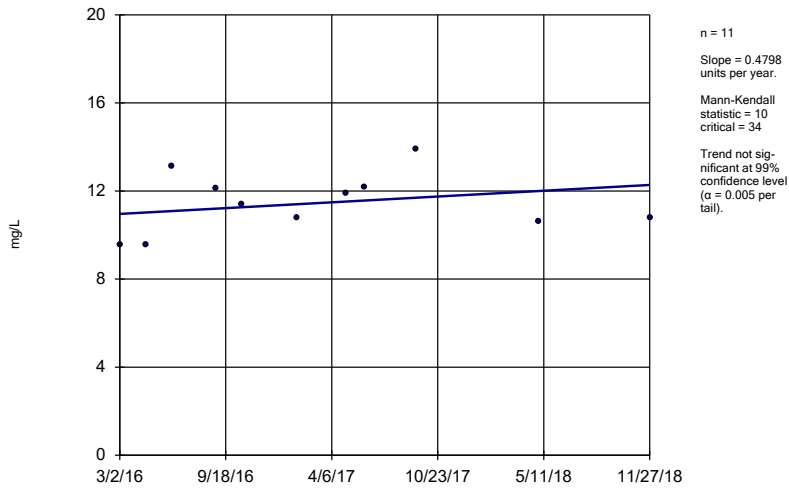
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

BY-AP-MW-10

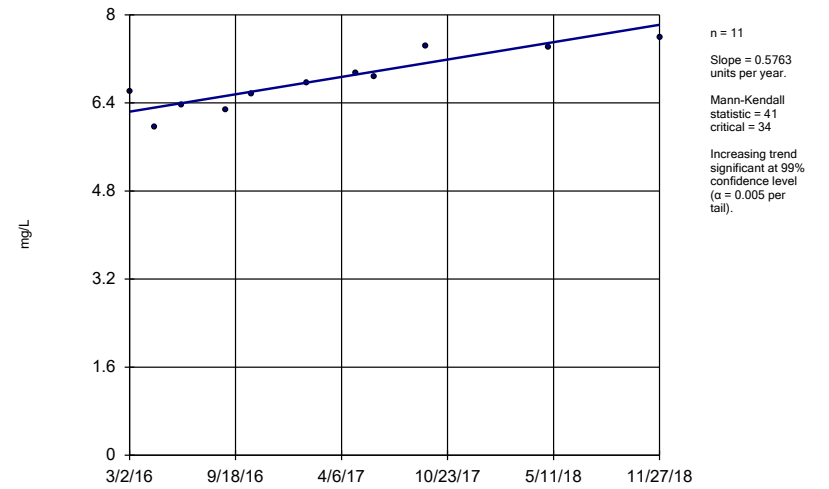


### Sen's Slope Estimator BY-AP-MW-14



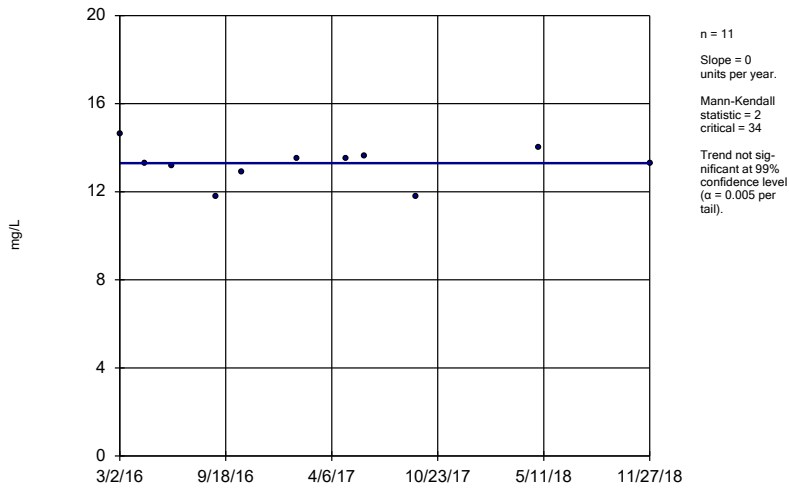
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-15



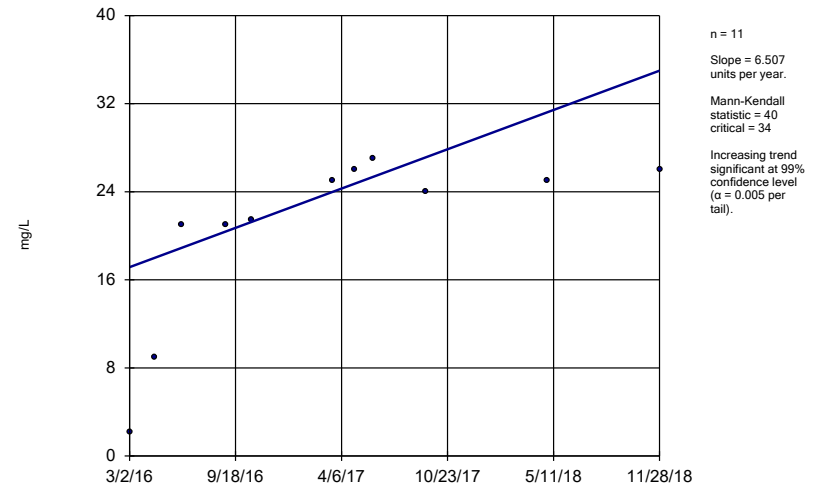
Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator BY-AP-MW-16



Constituent: Calcium Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

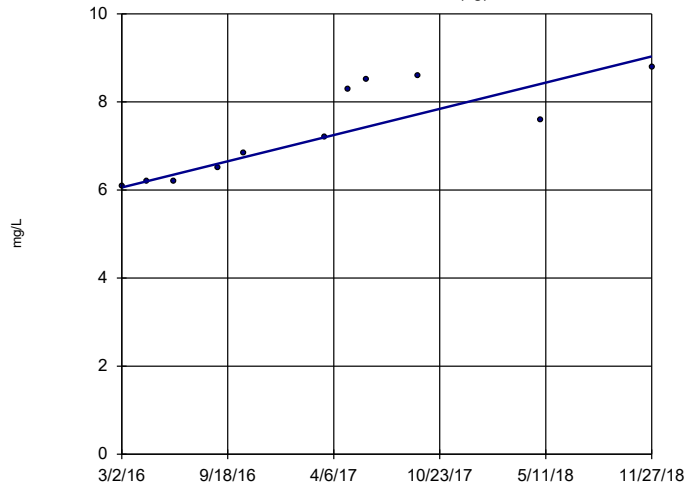
### Sen's Slope Estimator BY-AP-MW-1



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

BY-AP-MW-2 (bg)

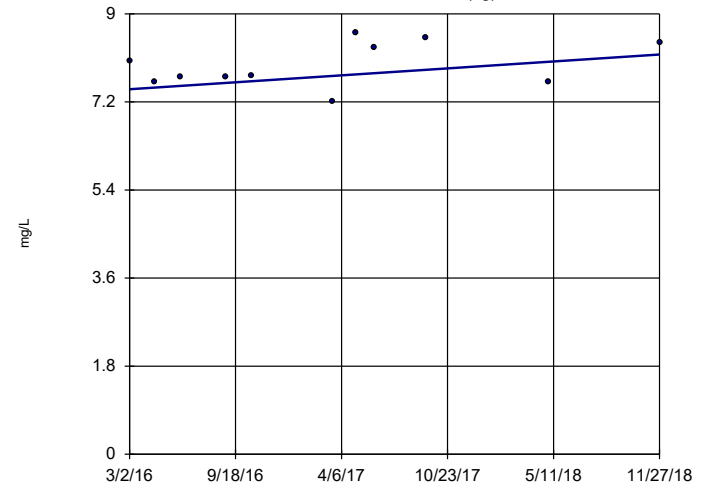


n = 11  
 Slope = 1.086 units per year.  
 Mann-Kendall statistic = 48  
 critical = 34  
 Increasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

BY-AP-MW-3 (bg)

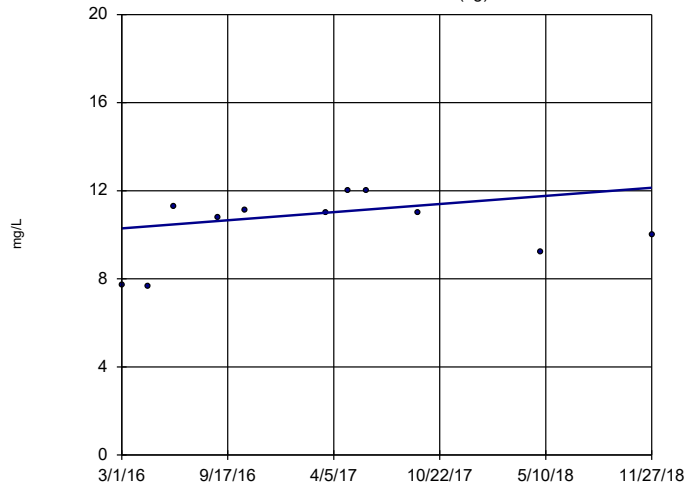


n = 11  
 Slope = 0.2593 units per year.  
 Mann-Kendall statistic = 13  
 critical = 34  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

BY-AP-MW-4 (bg)

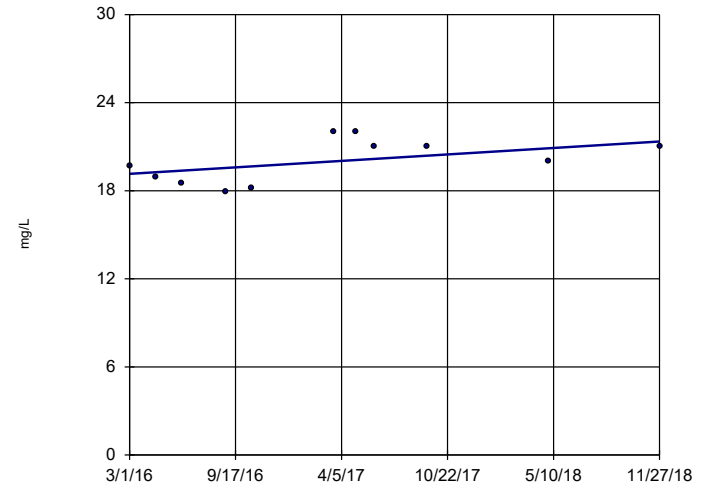


n = 11  
 Slope = 0.6737 units per year.  
 Mann-Kendall statistic = 7  
 critical = 34  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

BY-AP-MW-5

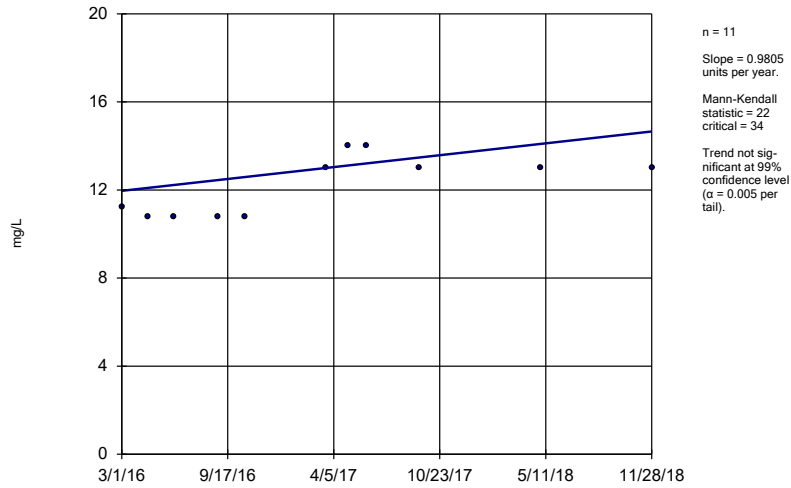


n = 11  
 Slope = 0.806 units per year.  
 Mann-Kendall statistic = 13  
 critical = 34  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

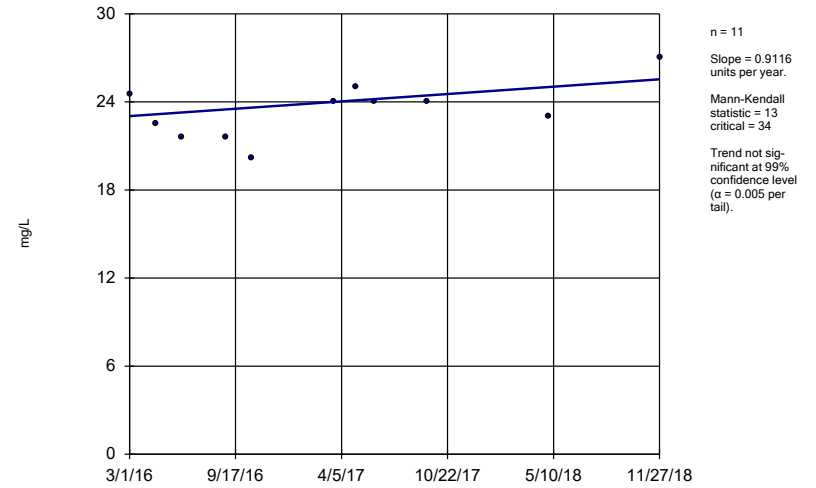


Sen's Slope Estimator  
BY-AP-MW-7



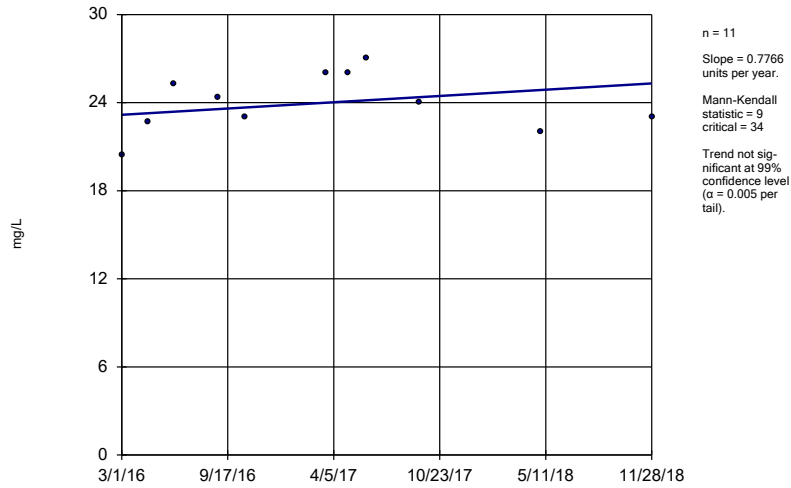
Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator  
BY-AP-MW-8



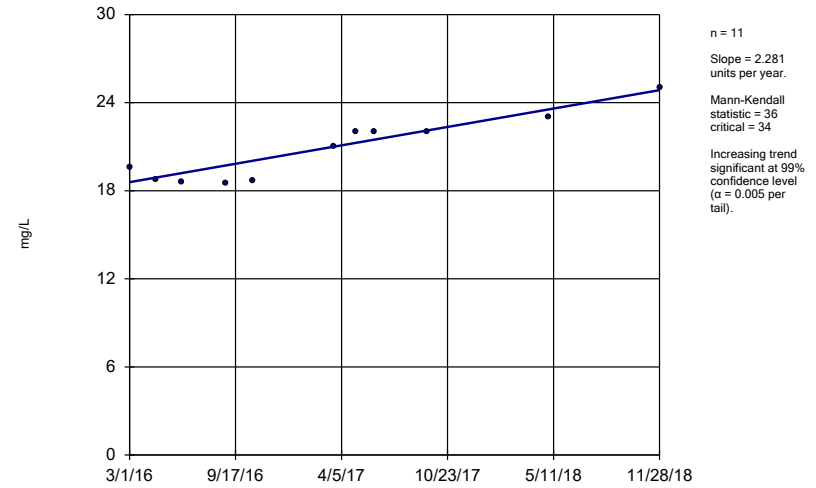
Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sen's Slope Estimator  
BY-AP-MW-9



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

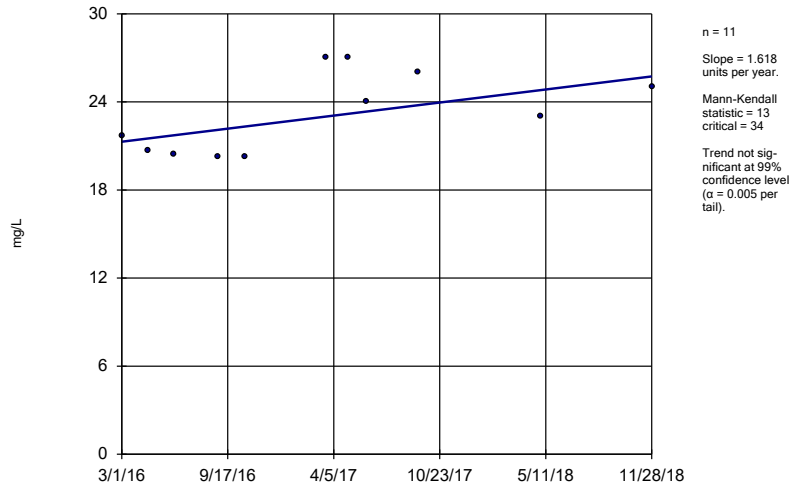
Sen's Slope Estimator  
BY-AP-MW-10



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

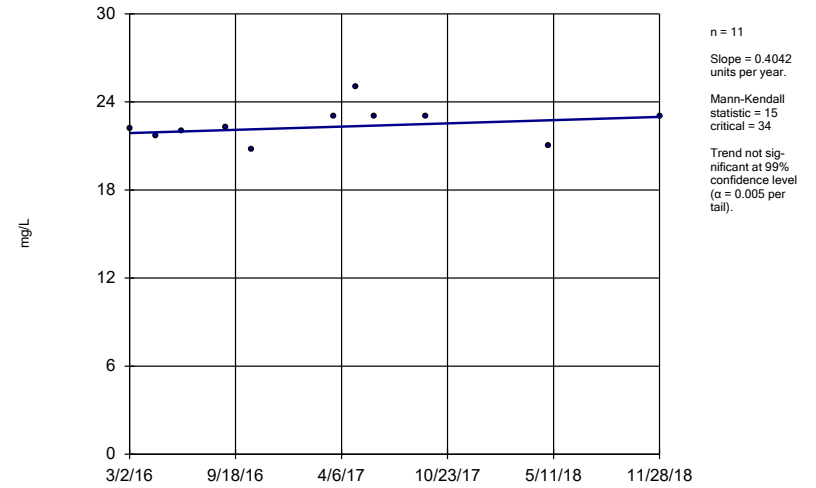
BY-AP-MW-11



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

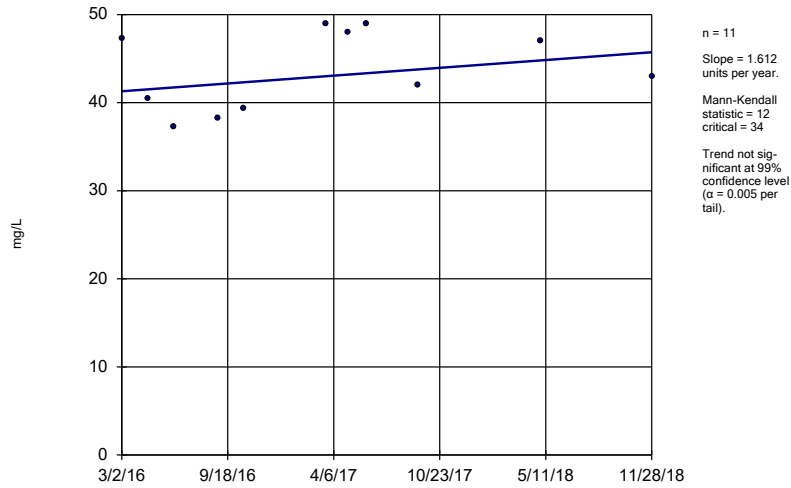
BY-AP-MW-12



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

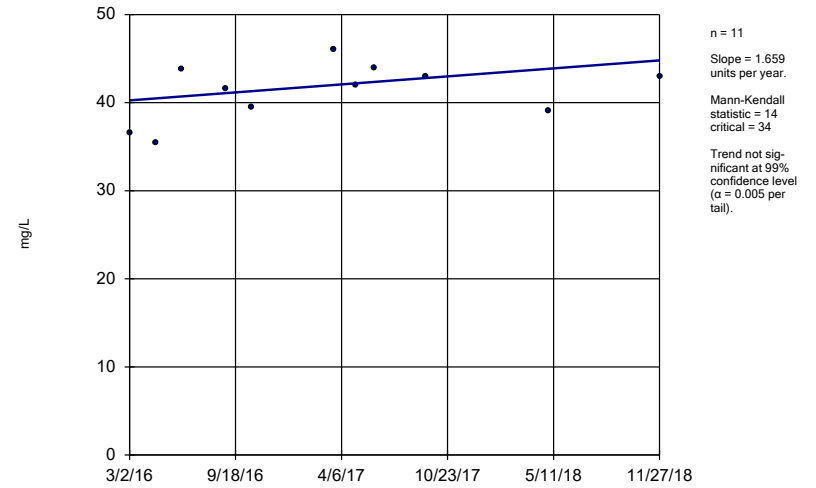
BY-AP-MW-13



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

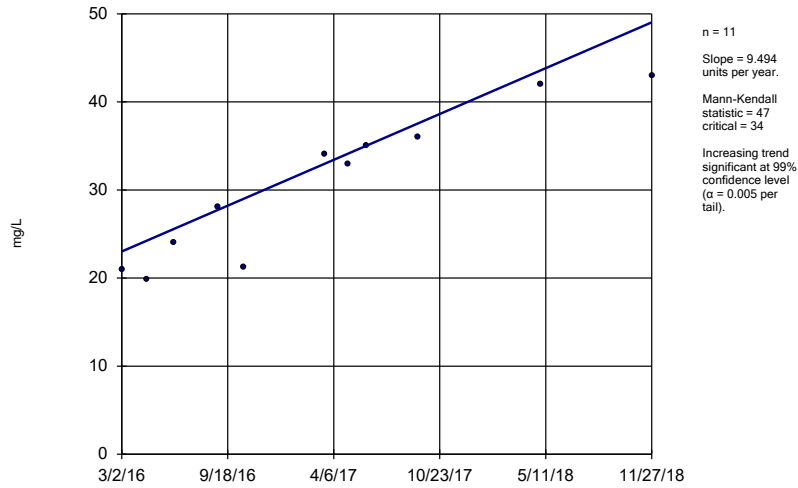
BY-AP-MW-14



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

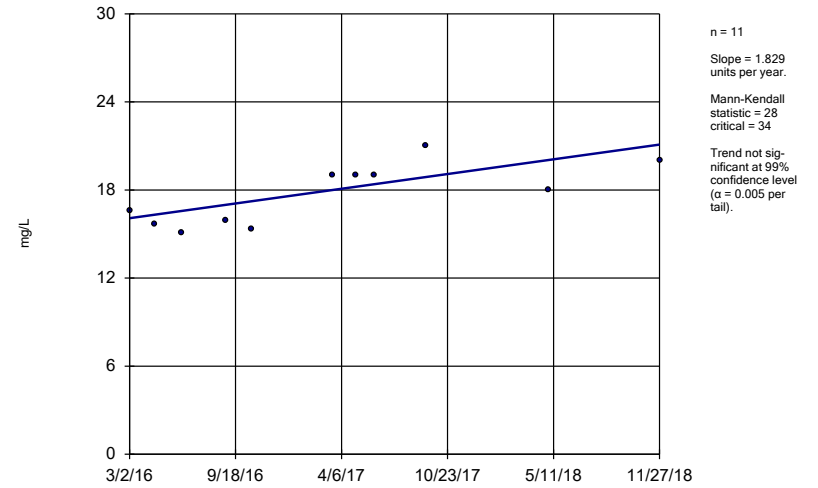
BY-AP-MW-15



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

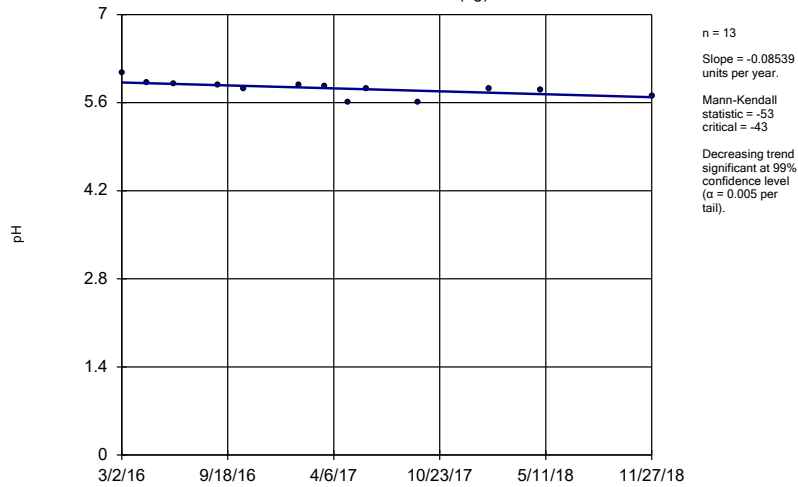
BY-AP-MW-16



Constituent: Chloride Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

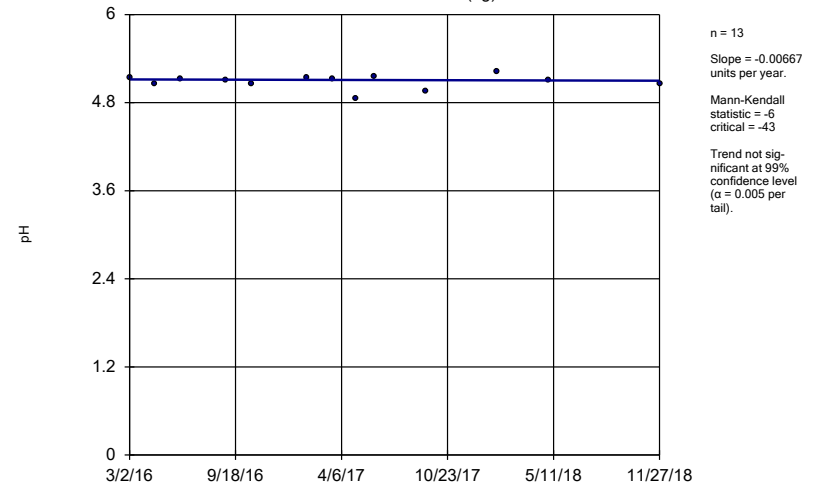
BY-AP-MW-2 (bg)



Constituent: pH Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

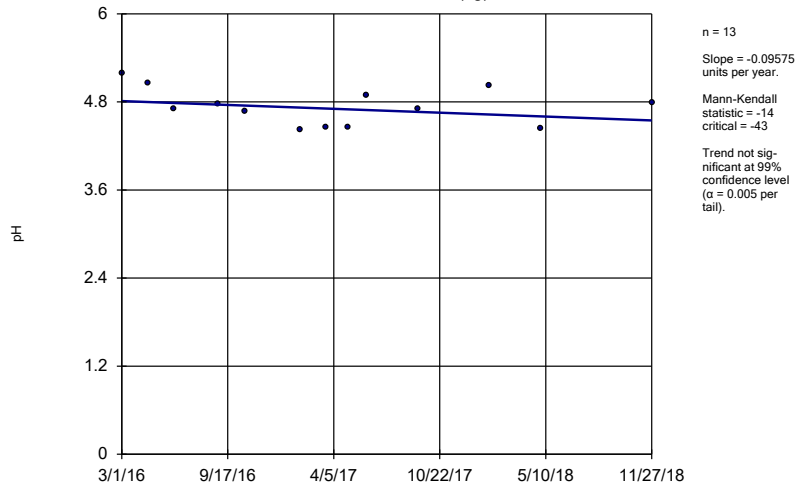
BY-AP-MW-3 (bg)



Constituent: pH Analysis Run 1/9/2019 10:26 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

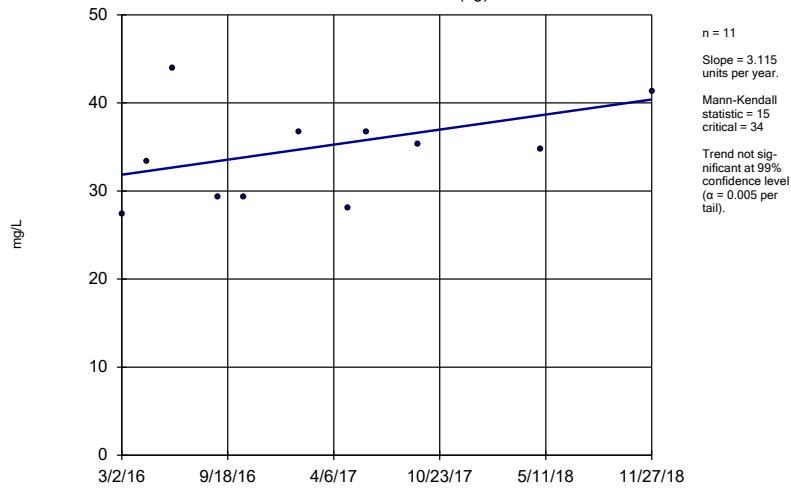
### Sen's Slope Estimator

BY-AP-MW-4 (bg)



### Sen's Slope Estimator

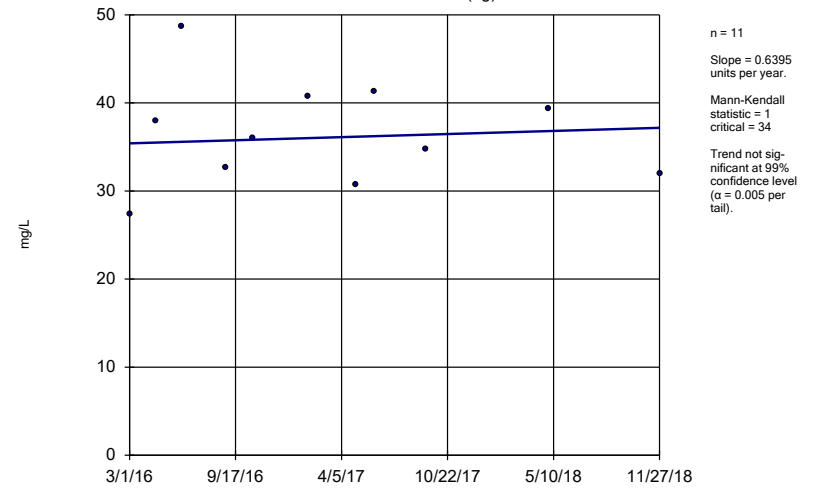
BY-AP-MW-3 (bg)



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

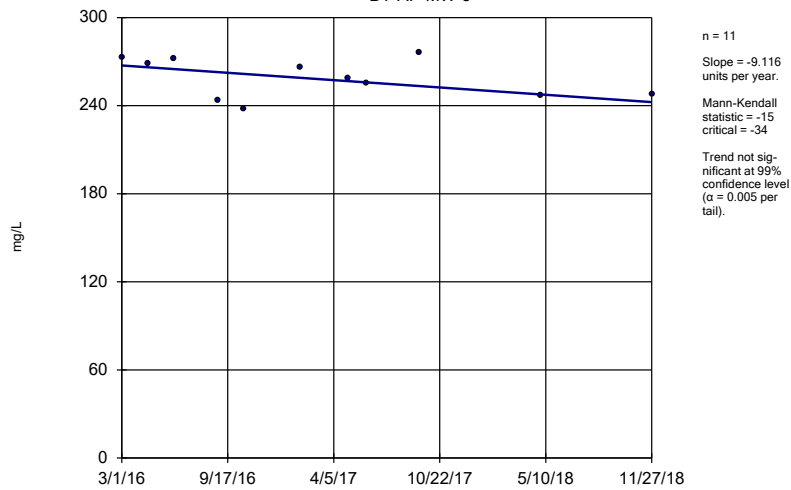
BY-AP-MW-4 (bg)



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

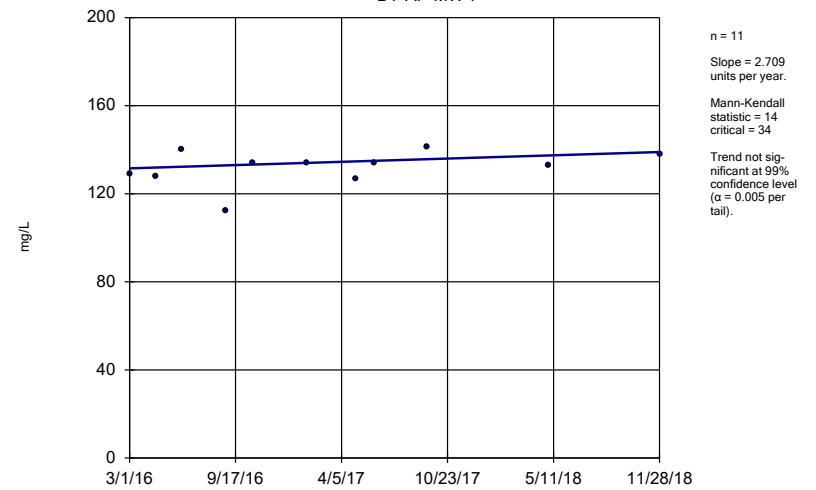
BY-AP-MW-5



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

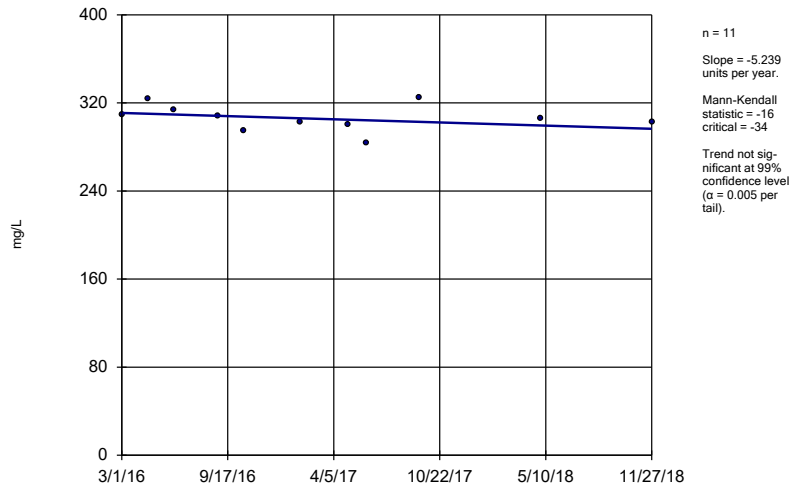
BY-AP-MW-7



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

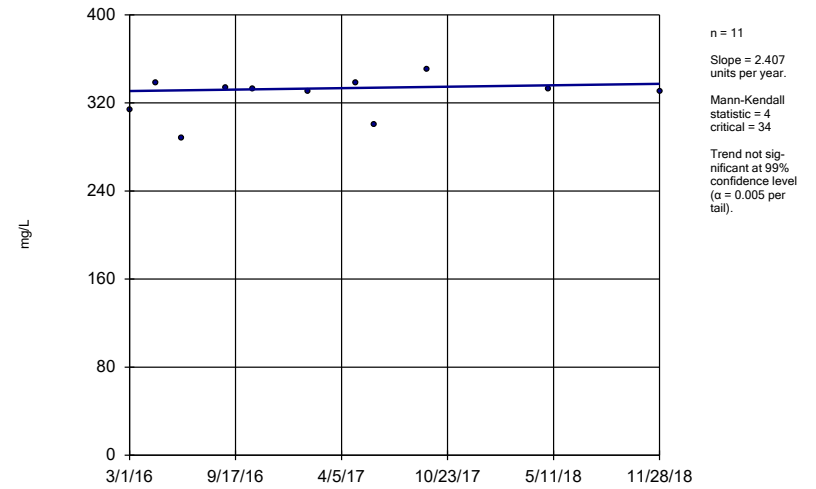
BY-AP-MW-8



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

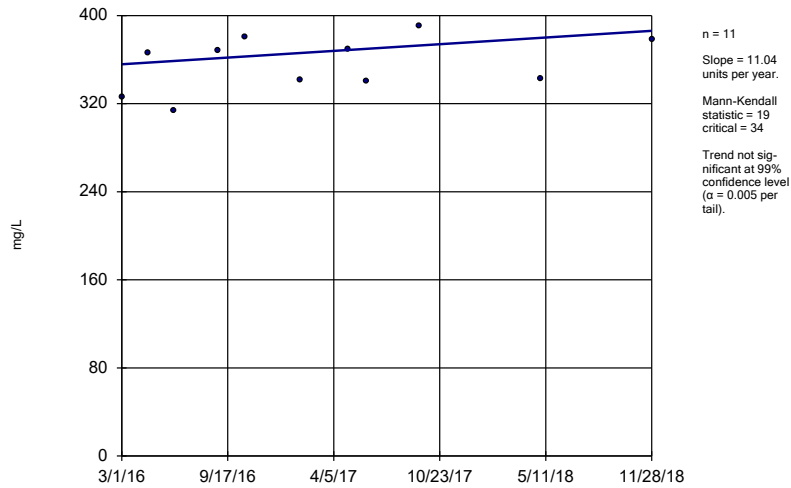
BY-AP-MW-9



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

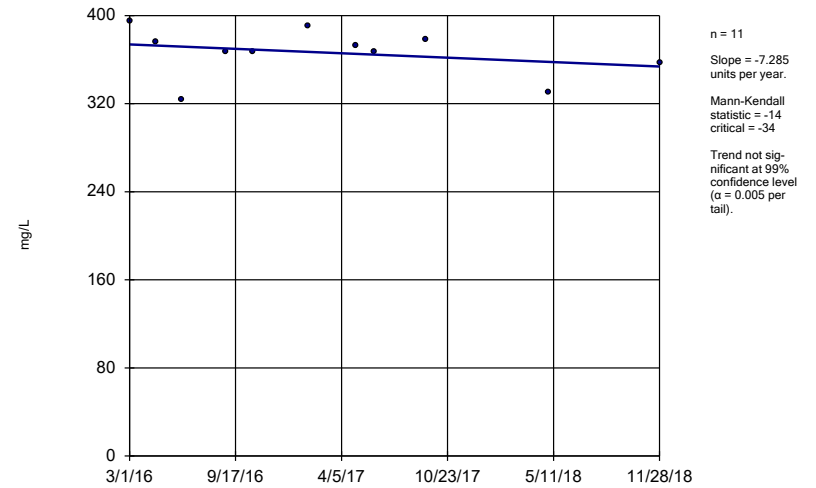
BY-AP-MW-10



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

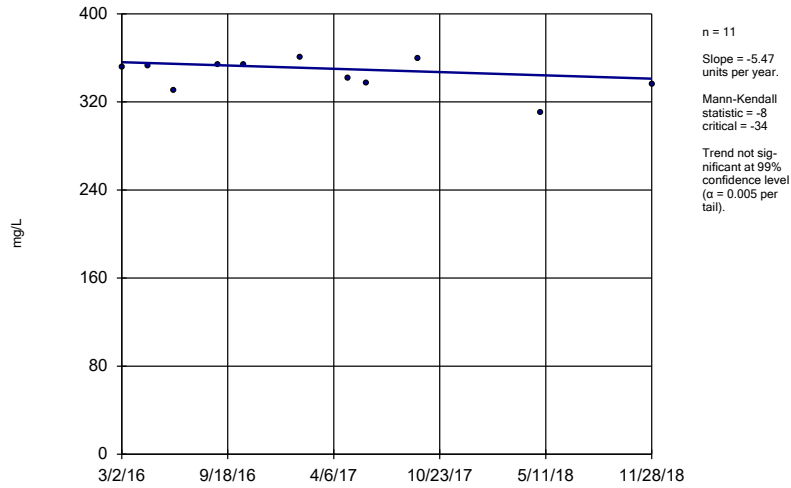
BY-AP-MW-11



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

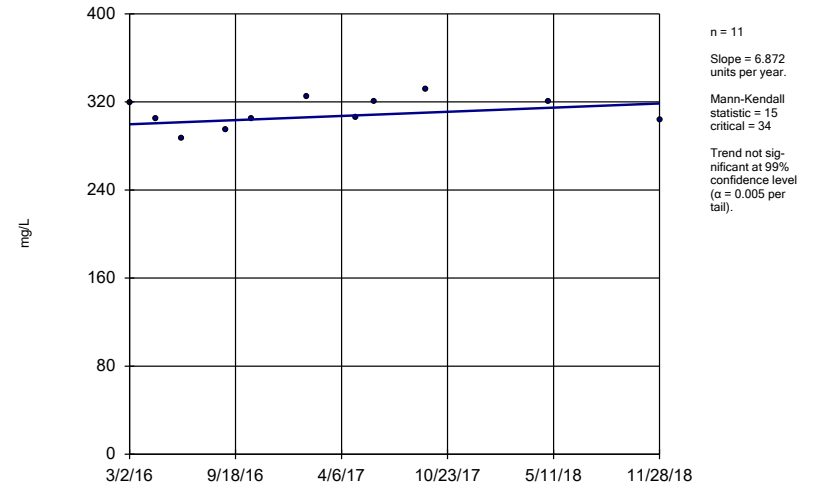
BY-AP-MW-12



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

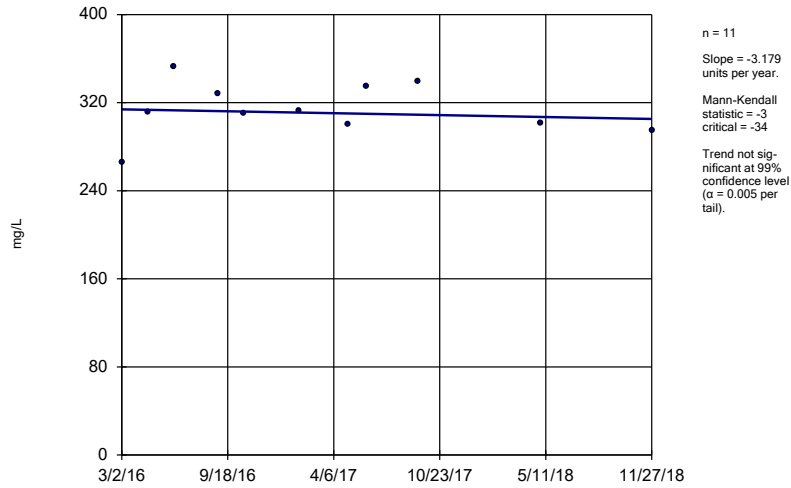
BY-AP-MW-13



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

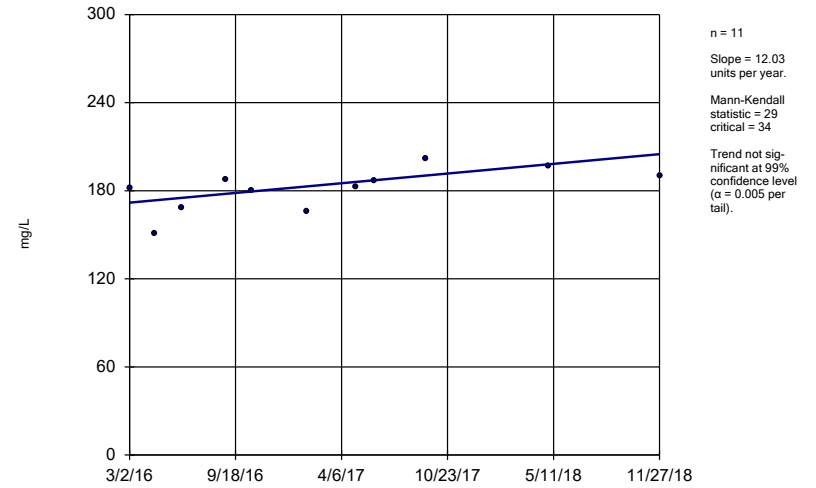
BY-AP-MW-14



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

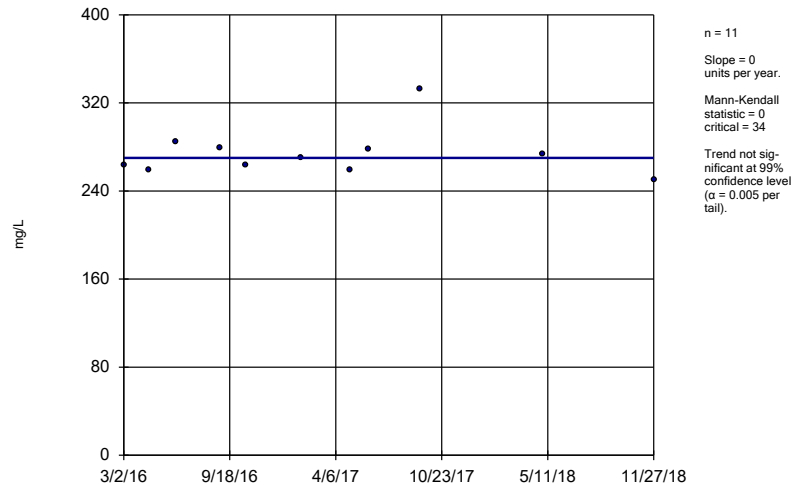
BY-AP-MW-15



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Sen's Slope Estimator

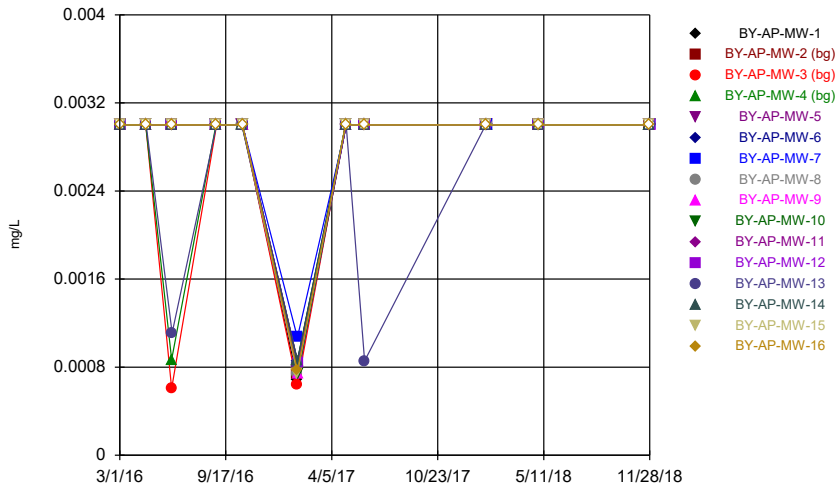
BY-AP-MW-16



Constituent: TDS Analysis Run 1/9/2019 10:27 AM View: Trend Tests - PL Exceedances  
Plant Barry Client: Southern Company Data: Barry Ash Pond

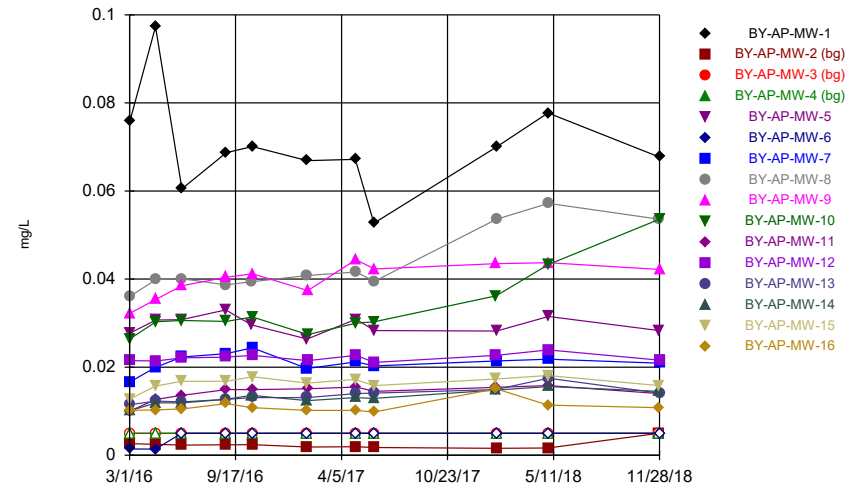


Time Series



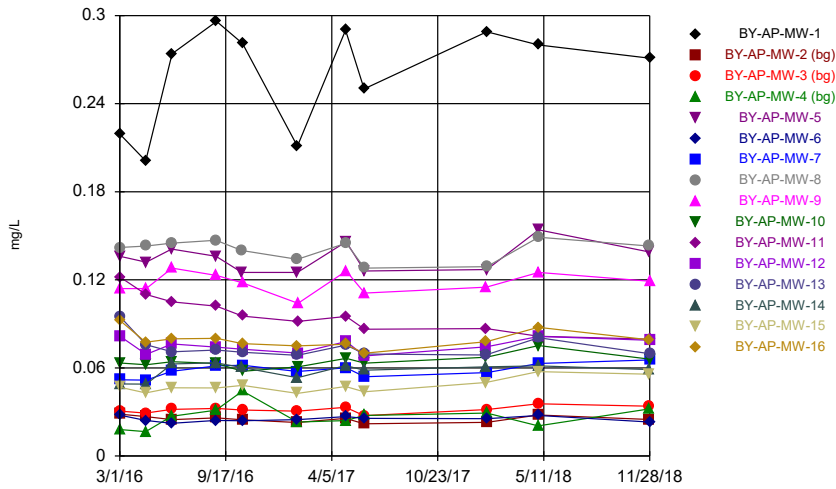
Constituent: Antimony Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



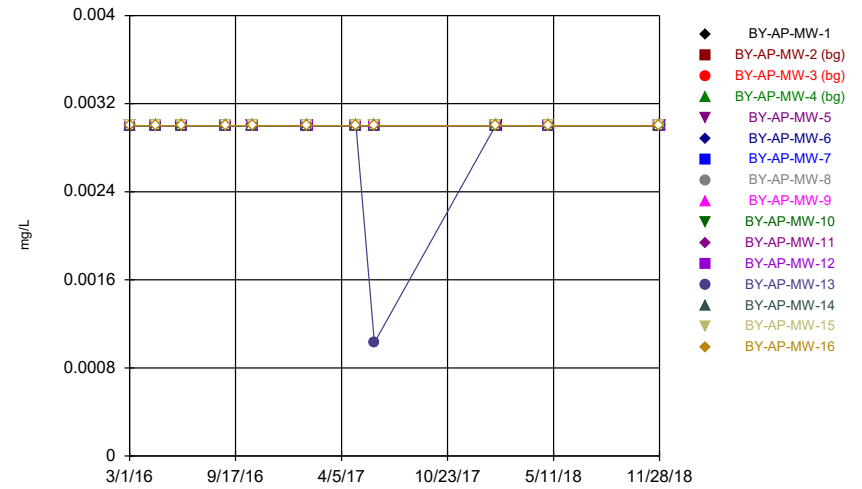
Constituent: Arsenic Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



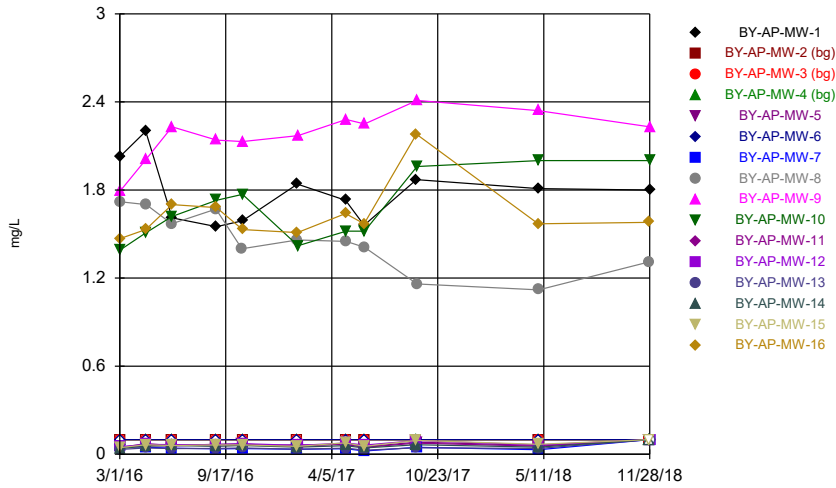
Constituent: Barium Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



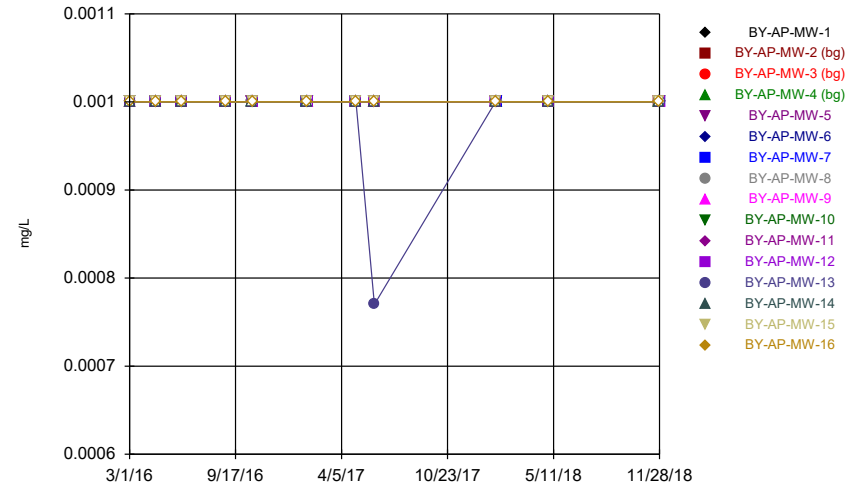
Constituent: Beryllium Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



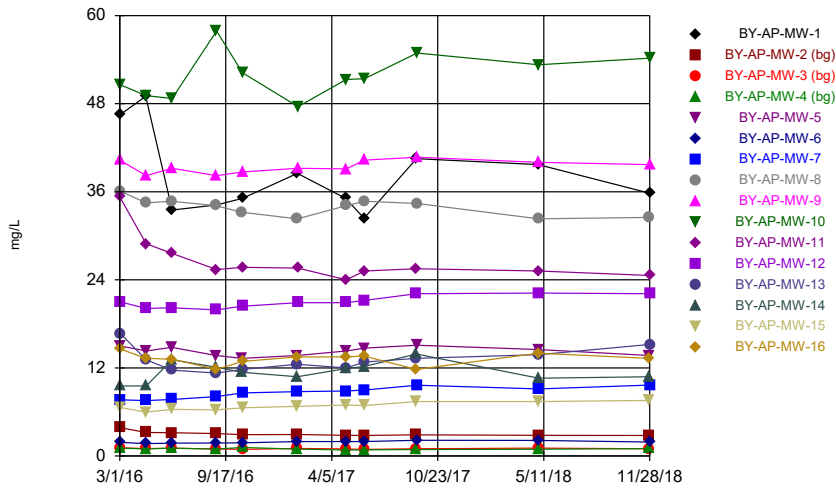
Constituent: Boron Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



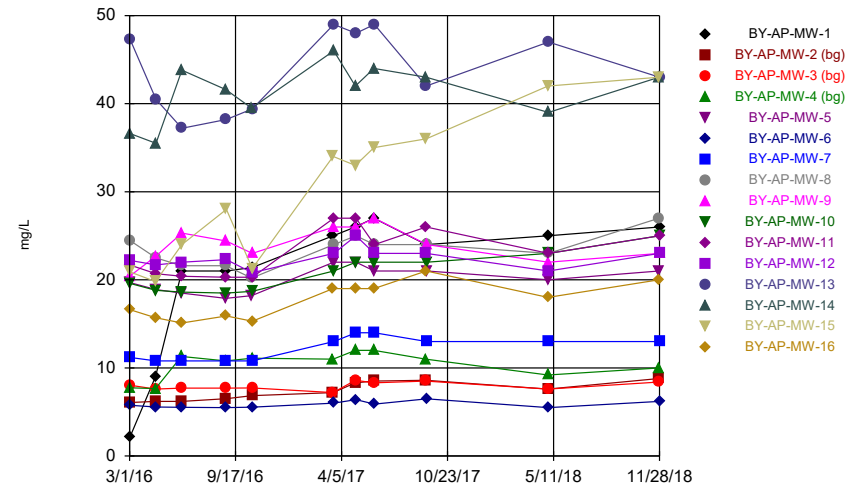
Constituent: Cadmium Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



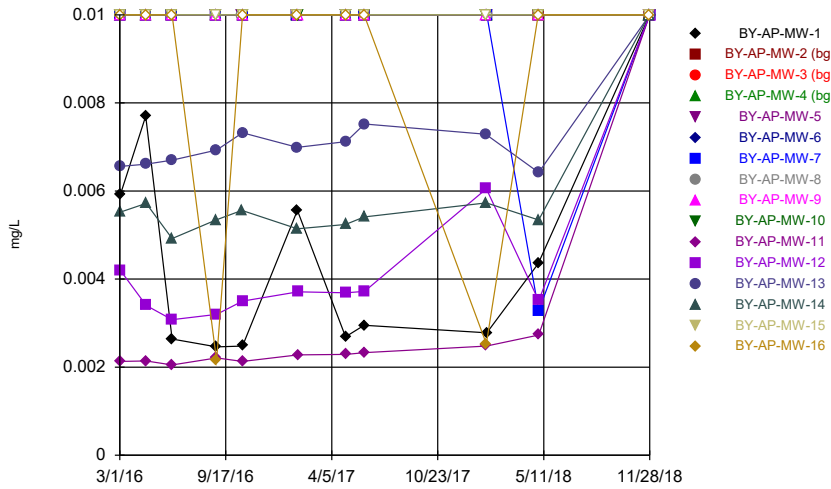
Constituent: Calcium Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



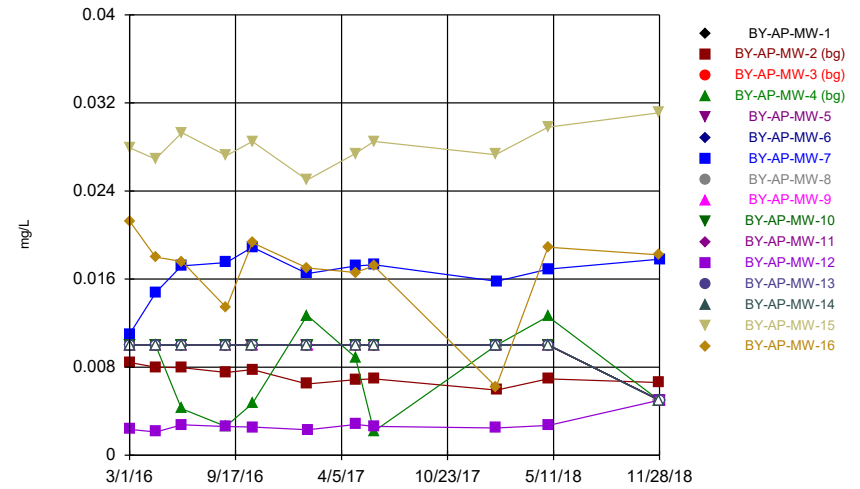
Constituent: Chloride Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



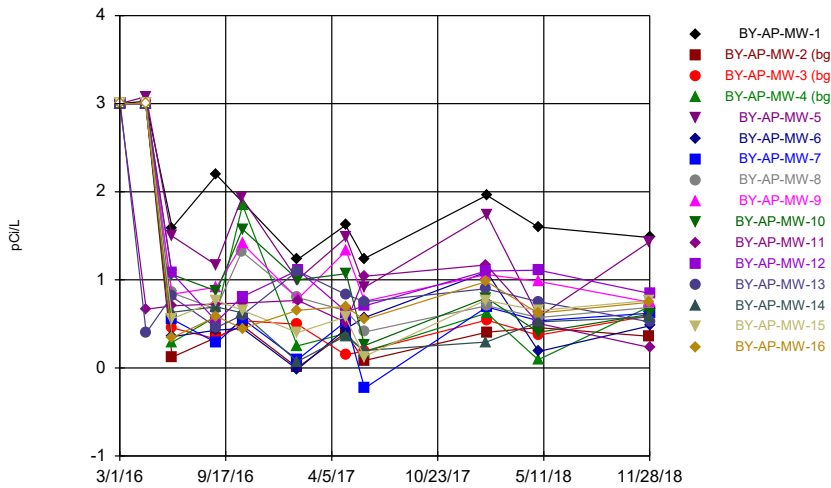
Constituent: Chromium Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



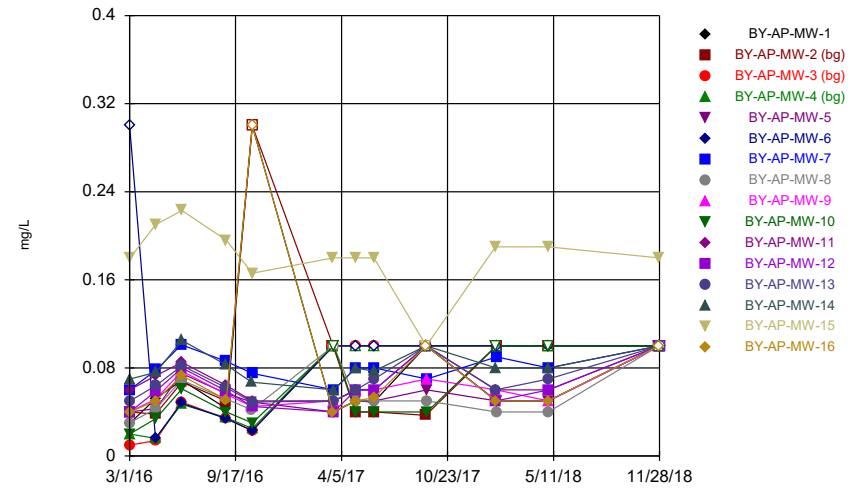
Constituent: Cobalt Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



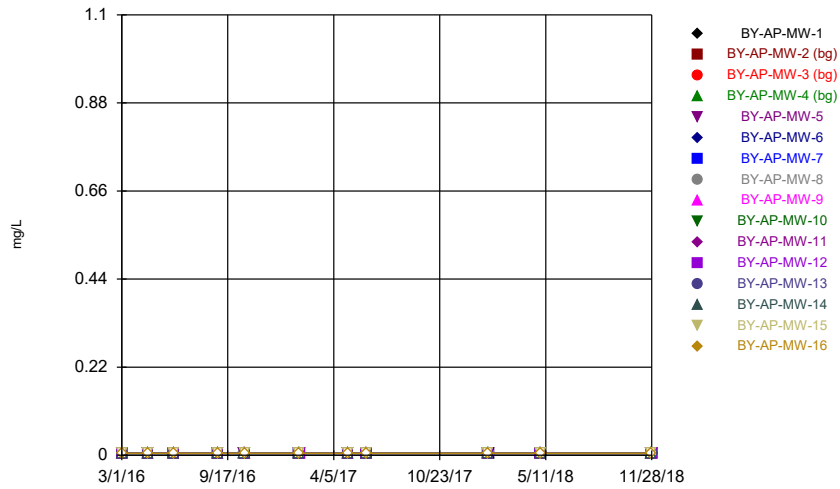
Constituent: Combined Radium 226 + 228 Analysis Run 1/9/2019 10:21 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



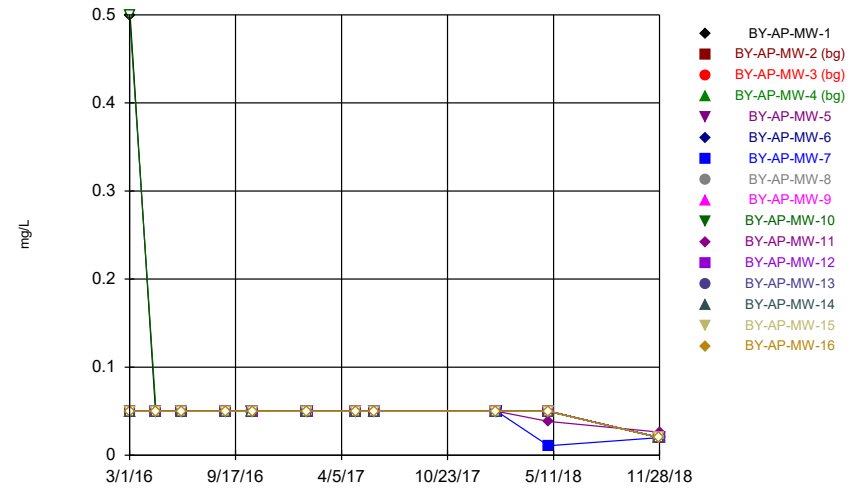
Constituent: Fluoride Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



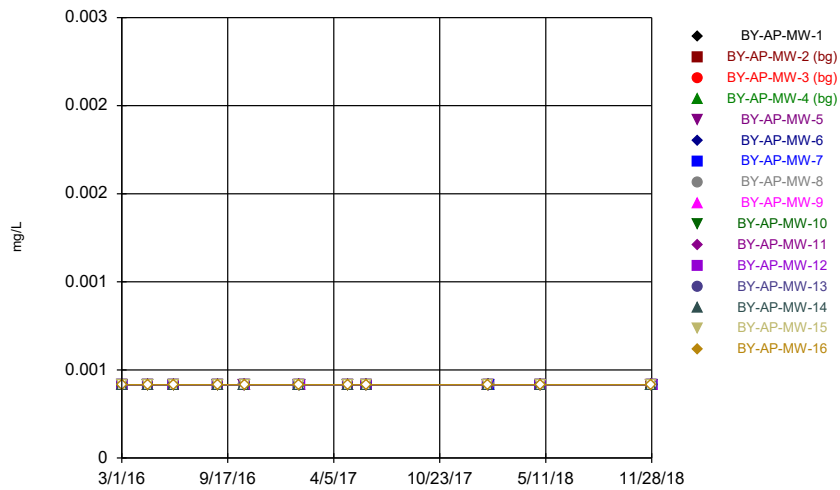
Constituent: Lead Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



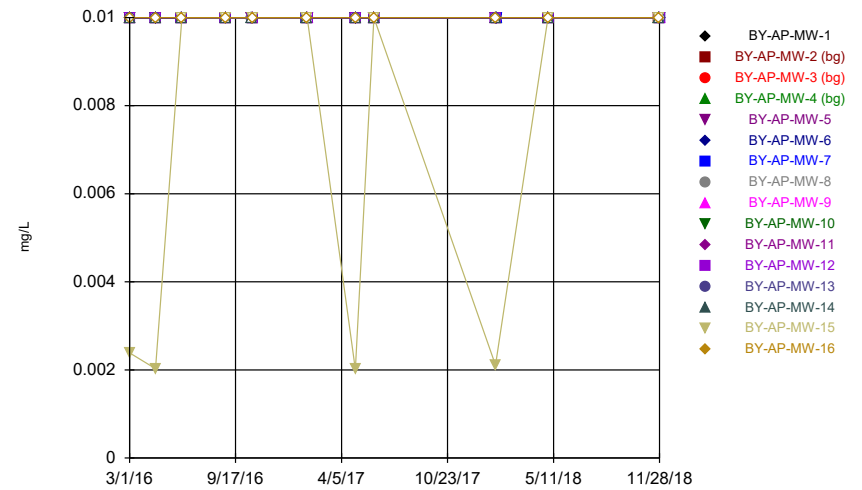
Constituent: Lithium Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



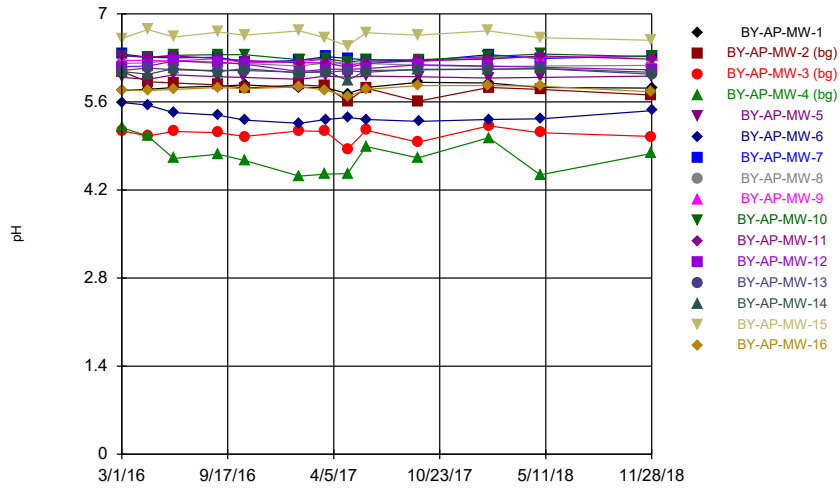
Constituent: Mercury Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



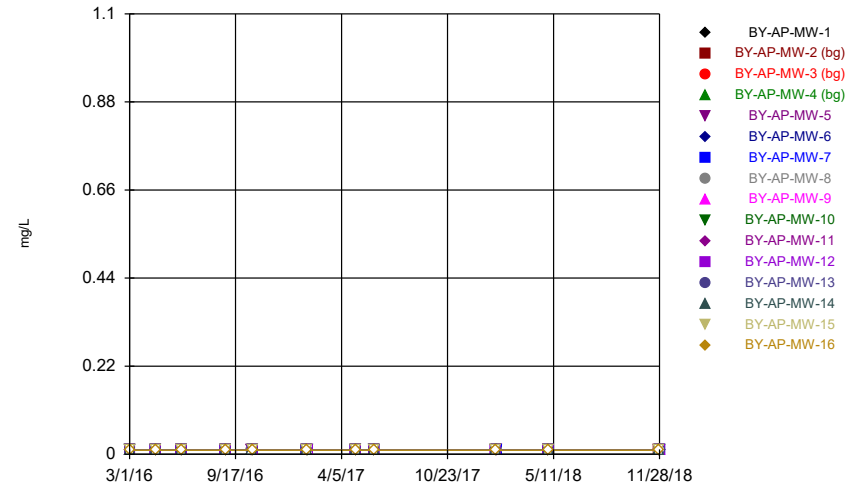
Constituent: Molybdenum Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



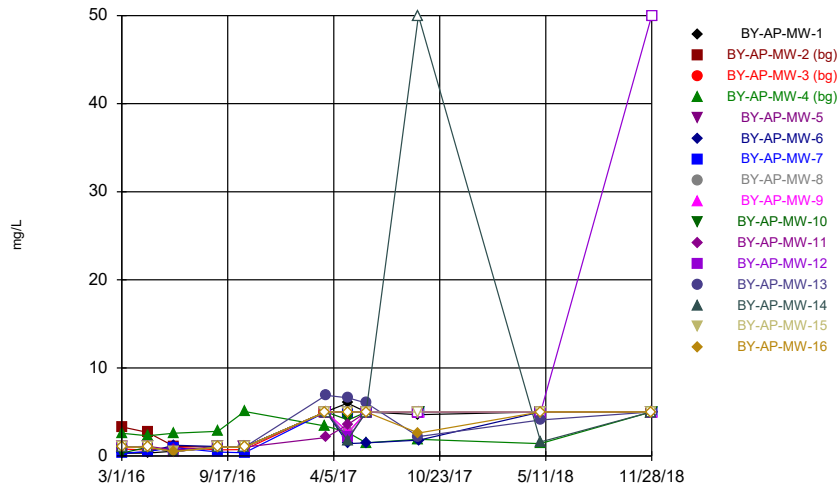
Constituent: pH Analysis Run 1/9/2019 10:22 AM View: Time Series  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



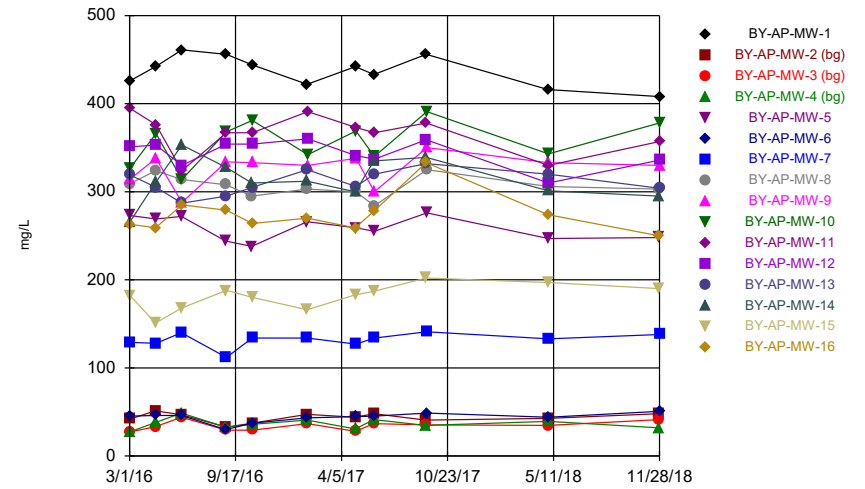
Constituent: Selenium Analysis Run 1/9/2019 10:22 AM View: Time Series  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



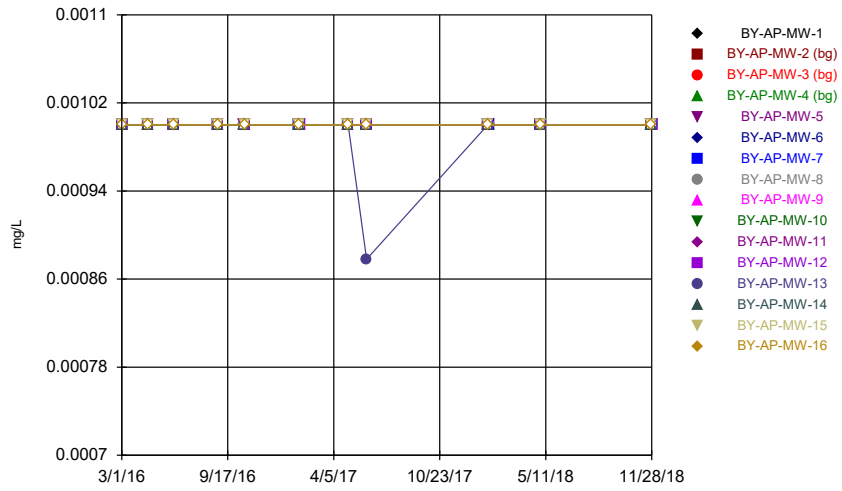
Constituent: Sulfate Analysis Run 1/9/2019 10:22 AM View: Time Series  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series



Constituent: TDS Analysis Run 1/9/2019 10:22 AM View: Time Series  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Time Series



Constituent: Thallium Analysis Run 1/9/2019 10:22 AM View: Time Series  
Plant Barry Client: Southern Company Data: Barry Ash Pond

# Upper Tolerance Limits - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/9/2019, 10:47 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	33	n/a	n/a	84.85	n/a	n/a	0.184	NP Inter(NDs)
Arsenic (mg/L)	0.005	33	n/a	n/a	69.7	n/a	n/a	0.184	NP Inter(normal...
Barium (mg/L)	0.03973	33	0.02784	0.005435	0	None	No	0.05	Inter
Beryllium (mg/L)	0.003	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Boron (mg/L)	0.1	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Cadmium (mg/L)	0.001	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Chromium (mg/L)	0.01	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Cobalt (mg/L)	0.01845	33	0.009806	0.00395	45.45	Cohen`s	No	0.05	Inter
Combined Radium 226 + 228 (pCi/L)	3	33	n/a	n/a	18.18	n/a	n/a	0.184	NP Inter(normal...
Fluoride (mg/L)	0.3	36	n/a	n/a	52.78	n/a	n/a	0.1578	NP Inter(normal...
Lead (mg/L)	0.005	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Lithium (mg/L)	0.02	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Mercury (mg/L)	0.0005	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Molybdenum (mg/L)	0.01	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Selenium (mg/L)	0.01	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)
Thallium (mg/L)	0.001	33	n/a	n/a	100	n/a	n/a	0.184	NP Inter(NDs)

# Confidence Intervals - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/31/2019, 10:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BY-AP-MW-1	0.07976	0.06111	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-5	0.03122	0.02794	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-7	0.02275	0.01938	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-8	0.0536	0.036	0.01	Yes	11	0	No	0.006	NP (normality)
Arsenic (mg/L)	BY-AP-MW-9	0.04331	0.0369	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-10	0.0433	0.0264	0.01	Yes	11	0	No	0.006	NP (normality)
Arsenic (mg/L)	BY-AP-MW-11	0.01552	0.01298	0.01	Yes	11	0	x^2	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-12	0.02282	0.02145	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-13	0.01496	0.01221	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-14	0.01433	0.01176	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-15	0.01761	0.01521	0.01	Yes	11	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-15	0.02944	0.02672	0.01845	Yes	11	0	No	0.01	Param.



# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.0015	0.000687	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.0015	0.000765	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.0015	0.000852	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.0015	0.00107	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.0015	0.00074	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.0015	0.000738	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.0015	0.000743	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.0015	0.000812	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.0015	0.000838	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.0015	0.000834	0.006	No	11	72.73	No	0.006	NP (normality)
Antimony (mg/L)	BY-AP-MW-14	0.0015	0.00086	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.0015	0.000746	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.0015	0.000769	0.006	No	11	90.91	No	0.006	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-1</b>	<b>0.07976</b>	<b>0.06111</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-5</b>	<b>0.03122</b>	<b>0.02794</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	BY-AP-MW-6	0.0025	0.00138	0.01	No	11	81.82	No	0.006	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-7</b>	<b>0.02275</b>	<b>0.01938</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-8</b>	<b>0.0536</b>	<b>0.036</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.006</b>	<b>NP (normality)</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-9</b>	<b>0.04331</b>	<b>0.0369</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-10</b>	<b>0.0433</b>	<b>0.0264</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.006</b>	<b>NP (normality)</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-11</b>	<b>0.01552</b>	<b>0.01298</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>x^2</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-12</b>	<b>0.02282</b>	<b>0.02145</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-13</b>	<b>0.01496</b>	<b>0.01221</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-14</b>	<b>0.01433</b>	<b>0.01176</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>0.01761</b>	<b>0.01521</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	BY-AP-MW-16	0.0117	0.00982	0.01	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	BY-AP-MW-1	0.2882	0.2335	2	No	11	0	x^2	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.143	0.1273	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02655	0.02359	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06207	0.05455	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1464	0.1346	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1239	0.1119	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.06822	0.06077	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.1067	0.08521	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.07887	0.07108	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0686	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.06226	0.05421	2	No	11	0	x^3	0.01	Param.
Barium (mg/L)	BY-AP-MW-15	0.052	0.04397	2	No	11	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.08429	0.07425	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-1	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-5	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-6	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-7	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-8	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-9	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-10	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-11	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-12	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-13	0.0015	0.00103	0.004	No	11	90.91	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-14	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-15	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-16	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Boron (mg/L)	BY-AP-MW-1	1.952	1.61	4	No	11	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-5	0.07196	0.05253	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-6	0.05	0.05	4	No	11	100	No	0.006	NP (NDs)
Boron (mg/L)	BY-AP-MW-7	0.04774	0.03235	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-8	1.622	1.282	4	No	11	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-9	2.32	2.04	4	No	11	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-10	1.868	1.485	4	No	11	0	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-11	0.06575	0.05149	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-12	0.07596	0.05609	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-13	0.04462	0.03441	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-14	0.05911	0.04621	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-15	0.07433	0.05147	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	BY-AP-MW-16	1.7	1.47	4	No	11	0	No	0.006	NP (normality)
Cadmium (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)

# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.005	No	11	90.91	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.005401	0.002617	0.1	No	11	9.091	sqrt(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-5	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-6	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.005	0.00328	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-8	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-9	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-11	0.00273	0.00205	0.1	No	11	9.091	No	0.006	NP (normality)
Chromium (mg/L)	BY-AP-MW-12	0.004536	0.003248	0.1	No	11	9.091	ln(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-13	0.007306	0.006254	0.1	No	11	9.091	x^2	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.00558	0.005133	0.1	No	11	9.091	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BY-AP-MW-16	0.005	0.00215	0.1	No	11	81.82	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-7	0.01806	0.01492	0.01845	No	11	0	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-12	0.002699	0.002357	0.01845	No	11	9.091	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.0025	0.01845	No	11	100	No	0.006	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>BY-AP-MW-15</b>	<b>0.02944</b>	<b>0.02672</b>	<b>0.01845</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	BY-AP-MW-16	0.01956	0.01426	0.01845	No	11	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.182	1.298	5	No	10	10	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.03	0.9383	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	2.038	-0.02463	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	2.022	-0.06979	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.5	0.408	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	2.242	0.61	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	2.236	0.4198	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.068	0.4888	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	2.198	0.4975	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.046	0.5227	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.5	0.0723	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	2.075	0.1566	5	No	11	18.18	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.5	0.344	5	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	BY-AP-MW-1	0.069	0.04	4	No	12	25	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-5	0.05824	0.04384	4	No	12	8.333	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.15	0.023	4	No	12	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-7	0.08692	0.06474	4	No	12	8.333	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.07786	0.03688	4	No	12	16.67	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-9	0.06398	0.04769	4	No	12	8.333	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.102	0.03276	4	No	12	33.33	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-11	0.073	0.05	4	No	12	16.67	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-12	0.083	0.04599	4	No	12	16.67	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.08554	0.05365	4	No	12	16.67	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.0954	0.07035	4	No	12	16.67	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.2029	0.1617	4	No	12	8.333	x^3	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-16	0.073	0.04	4	No	12	25	No	0.01	NP (normality)
Lead (mg/L)	BY-AP-MW-1	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-5	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-6	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-7	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-8	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-9	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)

# Confidence Intervals - All Results

Plant Barry    Client: Southern Company    Data: Barry Ash Pond    Printed 1/31/2019, 10:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	BY-AP-MW-10	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-12	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-15	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BY-AP-MW-16	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-1	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-5	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-6	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-7	0.025	0.01	0.04	No	11	90.91	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-8	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-9	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-10	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.0262	0.025	0.04	No	11	81.82	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-12	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-13	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-14	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-15	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	BY-AP-MW-16	0.025	0.01	0.04	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-1	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-5	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-6	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-7	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-8	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-9	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-10	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-11	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-12	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-13	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-14	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-15	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BY-AP-MW-16	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-7	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-8	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-9	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-12	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-13	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-14	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.005	0.00201	0.1	No	11	63.64	No	0.006	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-1	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-5	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-6	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-7	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-8	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-9	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-10	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-11	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-12	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-13	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-14	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-15	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BY-AP-MW-16	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)

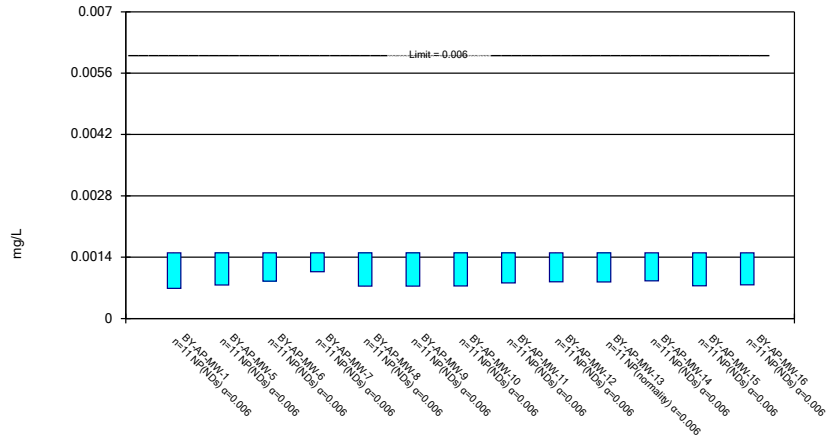
# Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 1/31/2019, 10:48 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.002	No	11	90.91	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)

### Non-Parametric Confidence Interval

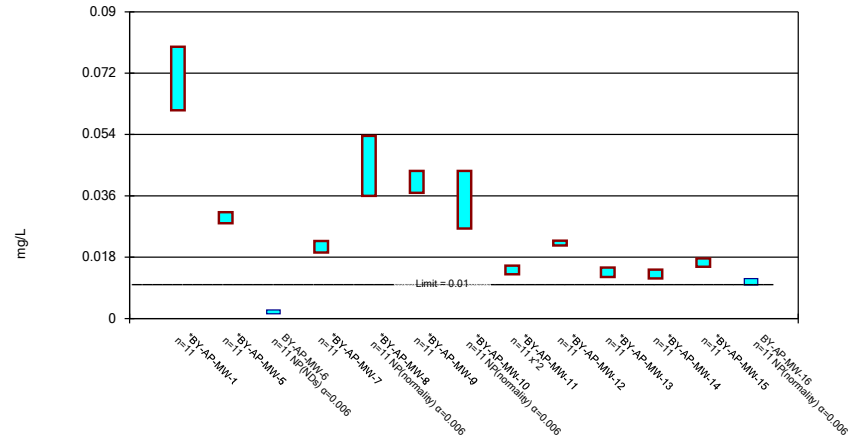
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

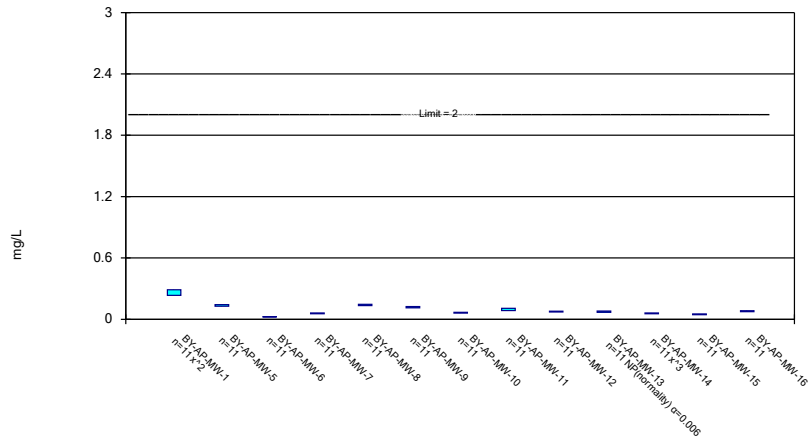
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

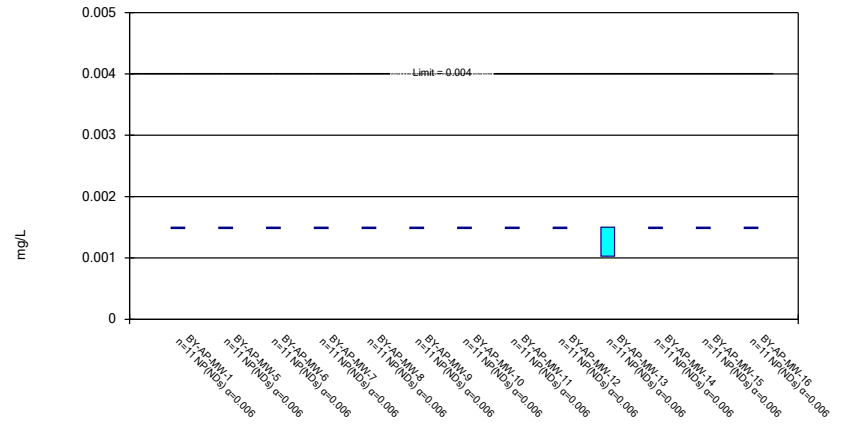
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

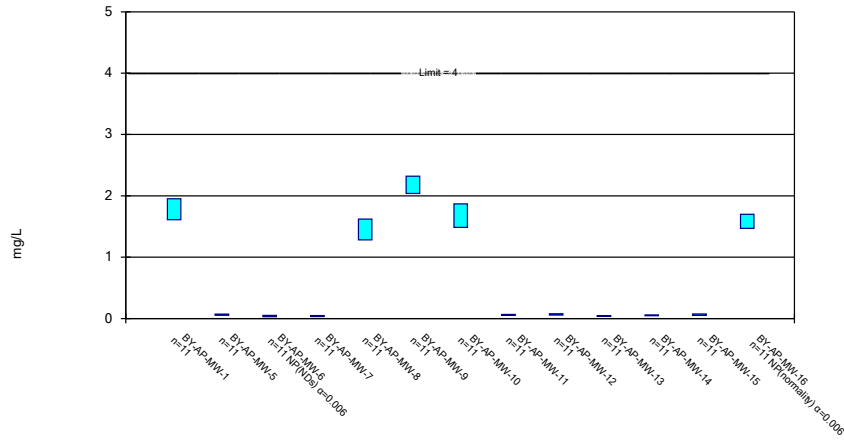
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

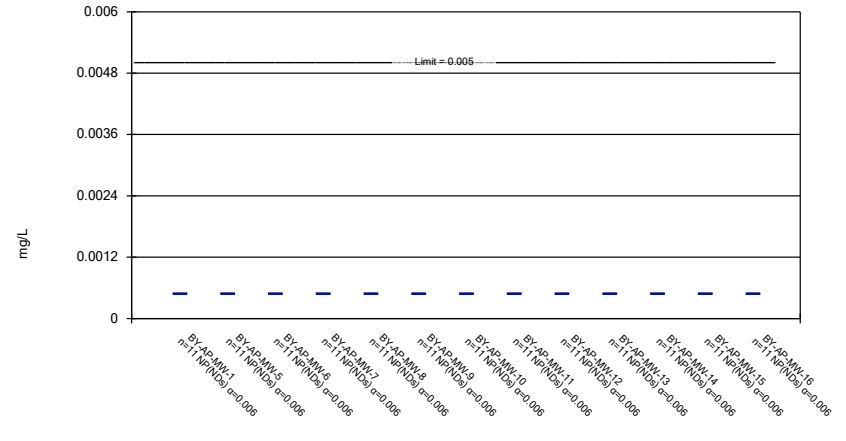
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

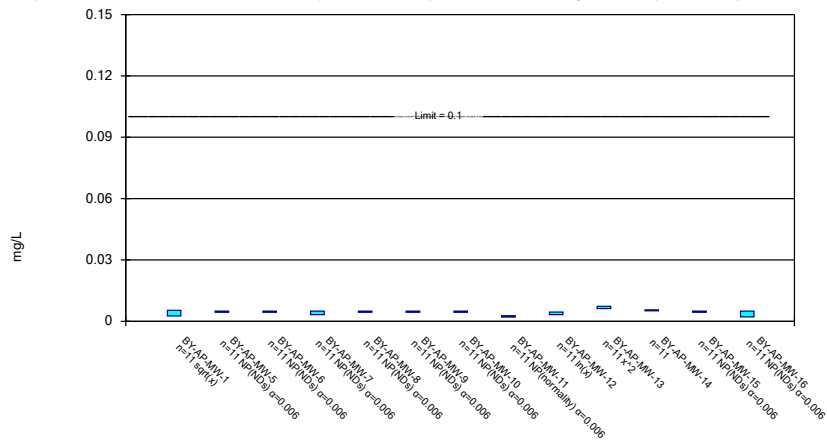
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

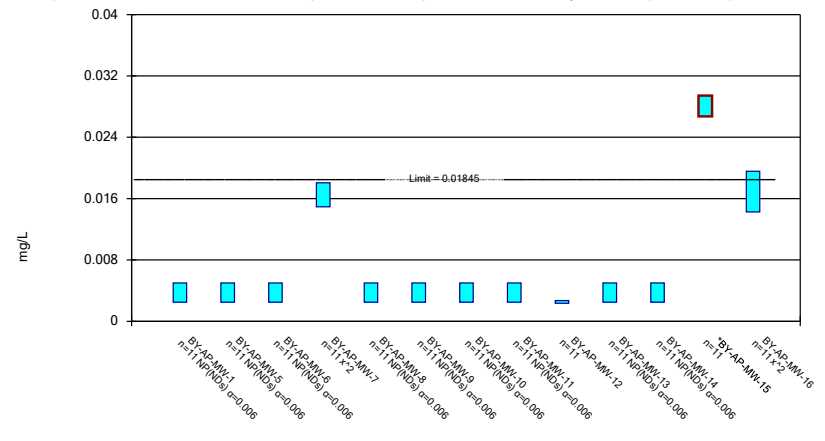
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

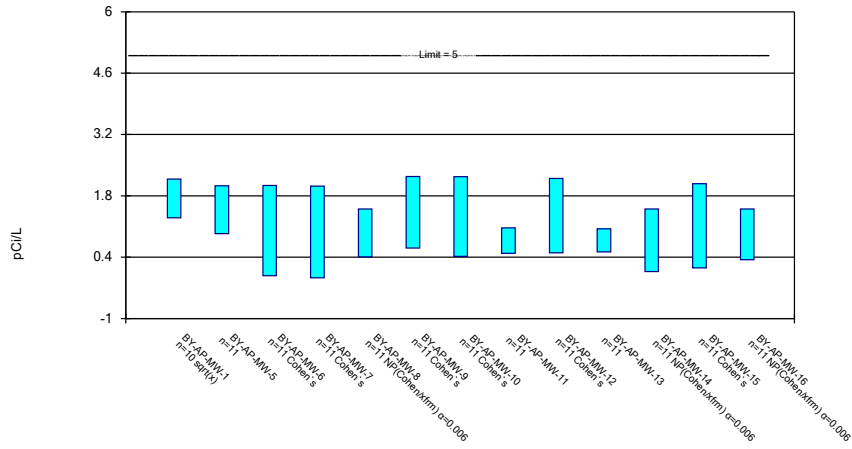
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

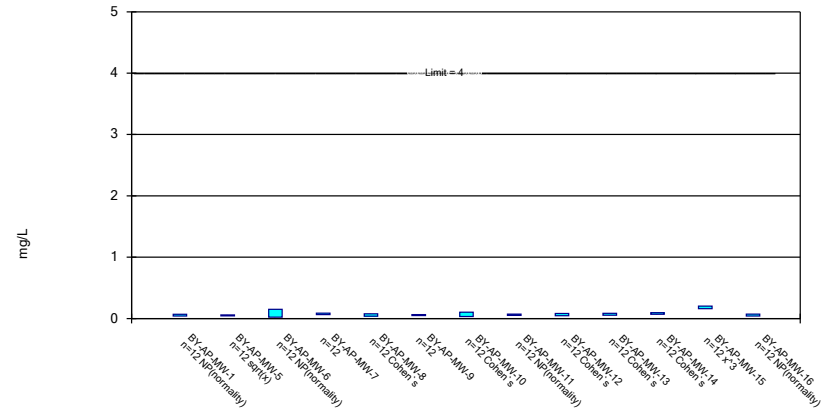
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

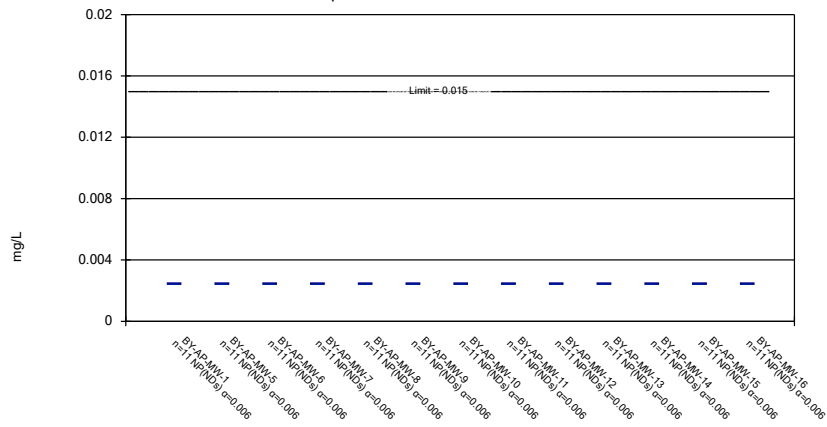
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

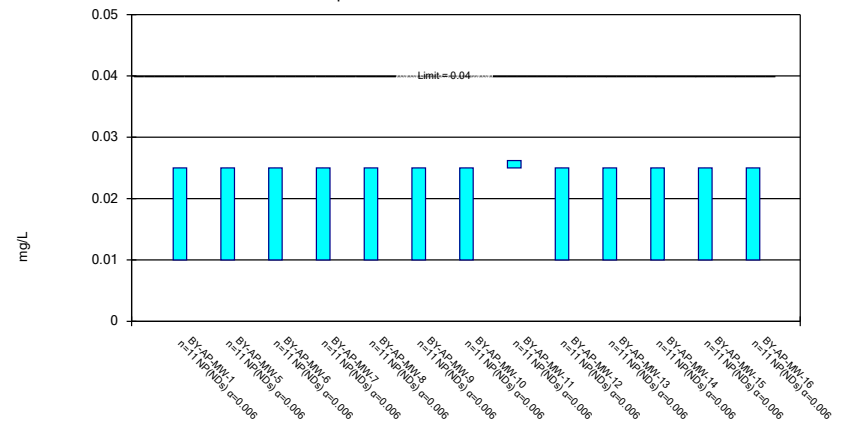
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

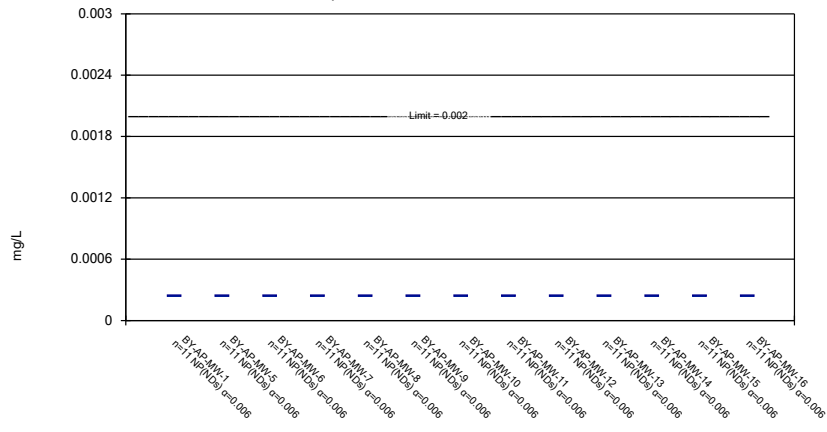
Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 1/31/2019 10:34 AM View: Confidence Intervals  
 Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

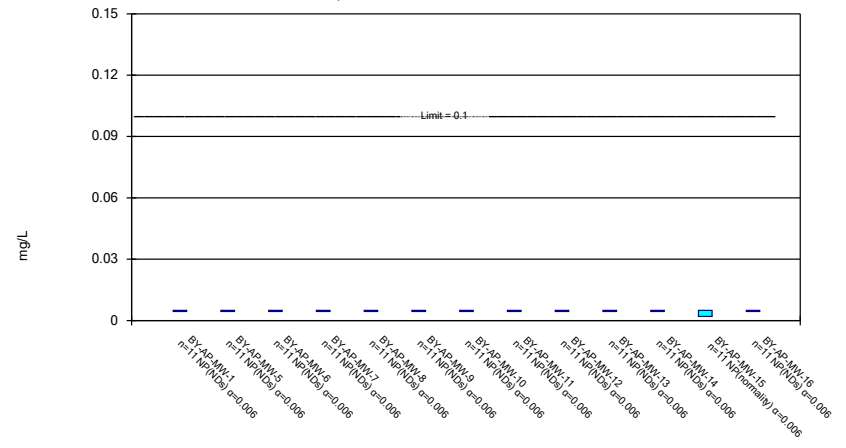
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 10:35 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

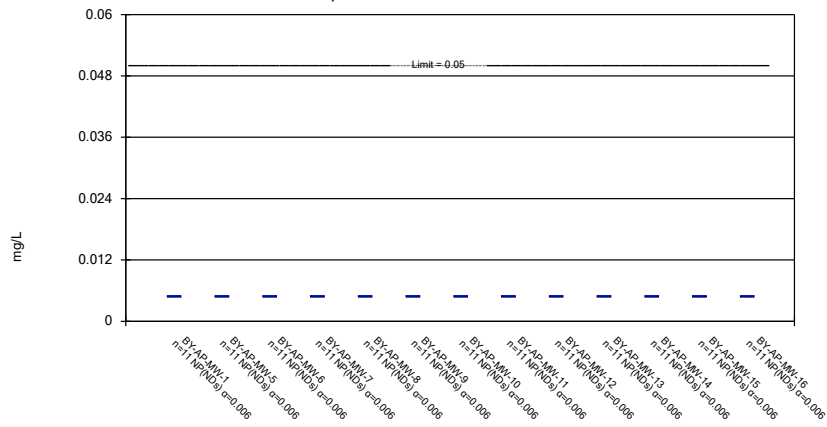
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/31/2019 10:35 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

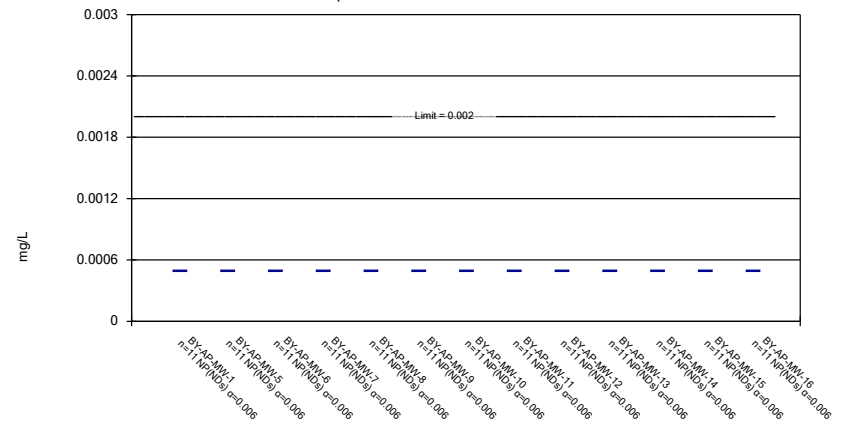
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/31/2019 10:35 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 10:35 AM View: Confidence Intervals  
Plant Barry Client: Southern Company Data: Barry Ash Pond