

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

**MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
GYPSUM STORAGE AREA**

January 31, 2019

Prepared for

Mississippi Power Company
Gulfport, Mississippi

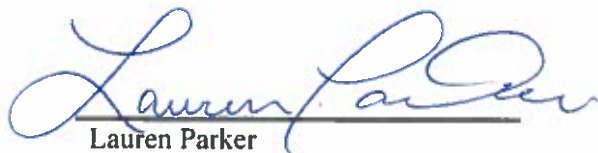
By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This 2018 Annual Groundwater Monitoring and Corrective Action Report, Mississippi Power Company – Plant Daniel Gypsum Storage Area has been prepared to comply with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations (CFR) Part 257, Subpart D) under the supervision of a licensed Professional Geologist with Southern Company Services.



Lauren Parker

Originator

Geologist



Eric E. Wallis, JD, PG

Supervising Principal Hydrogeologist

MS Registered PG No. 0926



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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR §257 Subpart D), this 2018 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the 2018 detection groundwater monitoring activities at the Plant Daniel Gypsum Storage Area (GSA) and to satisfy the requirements of §257.90(e). Detection monitoring, and associated reporting for Plant Daniel GSA is performed in accordance with the monitoring requirements §257.90 through §257.94.

2.0 SITE DESCRIPTION

Mississippi Power Company's (MPC)'s Plant Daniel is located within Section 35, Township 5 South, Range 6 West, Sections 37, 10, 15, East half of Section 9, Southwest ¼ of Section 2, NW ¼ and south half of Section 11, and the north half and NW ¼ of the SW ¼ of Section 14, all of Township 6 South, Range 6 West. Plant Daniel is situated immediately northwest of the intersection of Mississippi State Highways 63 and 613, between the Pascagoula River to the west and Highway 63 to the east. The site address is 13201 Highway 63 N, Escatawpa, Mississippi 39562. **Figure 1, Site Location Map**, depicts the location of Plant Daniel relative to site features and the surrounding area.

2.1 Regional Geology & Hydrogeologic Setting

Jackson County lies in the Pascagoula River Drainage Basin in the Gulf Coastal Plain physiographic province. Topographically, the province is gently rolling to flat with local salt marshes. Rock outcrops are sedimentary in origin and range in age from late Miocene to Recent (Gandl, 1982). A dominant regional structural feature which affects the sediments of Miocene and younger age is the Gulf Coast geosyncline. The sediments dip toward the Gulf of Mexico. Where formations are near the surface, dips are from 15 to 35 feet/mile. Further from the outcrop, dips increase dramatically with depth. Fresh-water aquifers in the Pascagoula area are sand or sand and gravel beds of Miocene age or younger, generally less than 1,000 feet below the surface.

The surface geology of soils near Plant Daniel results from present-day weathering processes dictated by southern Mississippi's semi-tropical climate and the parent geologic materials. The soil profile formed from a wide variety of sediments of recent age, and from Pleistocene terrace deposits. The soils therefore contain sand, silt, clay, gravel and organics.

Studies prepared by Southern Company Services, establish five geologic units underlying the immediate Plant Daniel property:

- Unit 1 is a sandy clay aquitard. The unit is discontinuous across the Plant Daniel site and extends from the surface to approximately 32 feet deep in some areas.
- Unit 2 is a sand aquifer, which extends to approximately 70 feet and is considered the uppermost aquifer for groundwater monitoring purposes.
- Unit 3 is a clay aquitard underlying Unit 2 with thicknesses ranging from 2.5 to 9.5 feet at Plant Daniel.
- Unit 4 is a sand and gravel aquifer with a thickness of 34 feet or greater.
- Unit 5 is a clay aquitard.

2.2 Uppermost Aquifer

Two aquifers supply water to the Pascagoula area. These are the Pliocene-age Citronelle and the Miocene Aquifer System, which includes the Graham Ferry Aquifer. Plant Daniel is located in the Citronelle outcrop area.

The Citronelle Aquifers are the shallowest aquifers in the Pascagoula area. Although principally a sand and gravel formation, the Citronelle is characterized by occasional lenses and layers of clay which may cause semi-artesian conditions. Sediments become coarse near the irregular contact with the underlying Pascagoula or Graham Ferry Formation. Also, the Citronelle and overlying coastal deposits are generally considered one hydrogeologic unit. The Citronelle is primarily a water table aquifer with a saturated thickness of about 45 feet. Recharge is primarily by rainfall which moves vertically and down dip to recharge underlying aquifers and to sustain local streams (Wasson, 1978).

3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to §257.91, Plant Daniel has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The PE-certified groundwater monitoring system for the Plant Daniel GSA is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. As required by §257.90(e), the following also describes monitoring-related activities performed during the preceding year.

3.1 Groundwater Monitoring System

The groundwater monitoring network is comprised of 10 monitoring wells. Monitoring well locations are presented on **Figure 2, Monitoring Well Location Map. Table 1, Monitoring Well Network Summary**, summarizes the monitoring well construction details and design purpose for the Plant Daniel GSA.

Monitoring well locations MW-1, MW-2, and MW-10 serve as upgradient locations for the GSA. 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-3 through MW-9 are utilized as downgradient locations for the GSA. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

Table 1
Monitoring Well Network Summary

Well ID	Purpose	Installation Date	Northing	Easting	Total Depth (feet)	Top of Casing Elevation (feet MSL)	Ground Elevation (feet MSL)	Top of Screen Elevation (feet MSL)	Bottom of Screen Elevation (feet MSL)
MW-1	Upgradient	6/10/2014	384802.921	1073787.149	50	38.89	35.85	-3.65	-13.65
MW-2	Upgradient	6/9/2014	383916.552	1074555.579	50	37.46	34.39	-5.11	-15.11
MW-3	Downgradient	3/5/2014	383579.364	1071953.225	50	37.71	34.67	-4.83	-14.83
MW-4	Downgradient	6/12/2014	384613.762	1072612.786	50	39.16	36.56	-2.94	-12.94
MW-5	Downgradient	7/28/2015	384749.995	1073113.220	68	39.28	36.64	-6.86	-16.86
MW-6	Downgradient	7/27/2015	384283.652	1071955.290	67	37.60	35.2	-8.3	-18.3
MW-7	Downgradient	7/26/2015	383260.900	1072367.375	63	34.60	32.1	-10	-20
MW-8	Downgradient	7/26/2015	383295.405	1073246.928	68	35.39	32.8	-10.3	-20.3
MW-9	Downgradient	7/26/2015	383525.662	1074005.616	68	36.10	33.48	-10.02	-20.02
MW-10	Upgradient	7/27/2015	384504.884	1074481.862	68	39.12	36.08	-7.12	-17.12

Notes:

1. Northing and Easting are referenced to MS SPCS (NAD 83) East Zone U.S. Survey Feet (2301).
2. Elevations shown are referenced Mean Sea Level (MSL) to NAVD 88 (G12) U.S. Survey Feet.

3.2 Detection Monitoring

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, the GSA remains in detection monitoring. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on *Figure 2*. A summary of groundwater sampling events completed in 2018 is provided in **Table 2, Compliance Sampling Events Summary**.

Analytical data from the semi-annual monitoring events are included as **Appendix A, Laboratory Analytical and Field Sampling Reports**, in accordance with the requirements of §257.90(e)(3).

Table 2. Compliance Sampling Events Summary			
	Sampling Purpose	Constituents Sampled	Laboratory Receipt Date
Compliance Event 1	Detection Monitoring	Appendix III	7/16/2018
Compliance Event 2	Detection Monitoring	Appendix III	12/14/2018

3.3 Monitoring Well Installation and Maintenance

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

4.0 SAMPLE METHODOLOGY & ANALYSIS

The following describes the methods used to complete groundwater monitoring at Plant Daniel GSA.

4.1 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 3 and 4, Potentiometric Surface Contour Map(s)**. The general direction of groundwater flow is southwest. The groundwater flow pattern observed during the 2018 monitoring events is consistent with historic observations.

**Table 3
 Groundwater Elevations Summary 2018**

Well ID	Top of Casing Elevation	Groundwater Elevations	
		(feet MSL)	
	(feet MSL)	June 2018	November 2018
MW-1	38.89	19.72	18.63
MW-2	37.46	19.96	18.97
MW-3	37.71	16.23	15.61
MW-4	39.16	18.02	17.08
MW-5	39.28	18.86	17.86
MW-6	37.60	16.97	16.10
MW-7	34.60	16.40	15.83
MW-8	35.39	17.51	16.77
MW-9	36.10	18.72	17.92
MW-10	39.12	20.49	19.45

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. Based on slug test data at the site, hydraulic conductivity ranges from 25.09 feet per day, which is used in the flow calculations. The hydraulic gradient was calculated between well pairs shown on **Table 4, Groundwater Flow Velocity Calculations - 2018**. An effective porosity of 0.2 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (U.S. USEPA, 1996).

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.

TABLE 4: Groundwater Flow Velocity Calculations – 2018

Flow Path		Hydraulic Gradient (I) (feet/feet)	Average Hydraulic Conductivity (K) (feet/day)	Assumed Effective Porosity (n _e)	Calculated Groundwater Flow Velocity (feet/day)	Calculated Groundwater Flow Velocity (feet/year)
June 2018	A	0.0015912	25.09	0.2	0.200	72.86
	B	0.0013853	25.09	0.2	0.174	63.43
November 2018	A	0.0013420	25.09	0.2	0.168	61.45
	B	0.0013184	25.09	0.2	0.165	60.37

Groundwater monitoring wells MW-1 and MW-7 were used as points for calculating Flow Path A and MW-10 and MW-6 were used to calculate Flow Path B. As shown in **Table 4**, horizontal hydraulic gradients range from 0.00132 ft/ft to 0.00159 ft/ft. As presented on **Table 4** groundwater flow velocity at the site ranges from approximately 0.165 feet/day (or approximately 60.37 feet/year) to 0.200 feet/day (or approximately 72.86 feet/year) across the GSA. These calculated groundwater flow velocities across the site are consistent with historical calculations and with expected velocities.

4.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with §257.93(a). All monitoring wells at Plant Daniel 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.

4.3 Laboratory Analysis

Laboratory analyses was performed by Test America, Inc. (TAL) of Pensacola, Florida. TAL is accredited by National Environmental Laboratory Accreditation Program (NELAP). TestAmerica maintains a NELAP certification for all parameters analyzed for this project. Groundwater analytical data and chain-of-custody records for the monitoring events are presented in **Appendix A**.

4.4 Quality Assurance and 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 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.

5.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR §257.93 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) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009) in **Appendix B, Statistical Data Evaluation**.

5.1 Statistical Method

At Plant Daniel, intrawell prediction limits (PL) are used to compare the most recent sample to prediction limits constructed from carefully screened historical data from within the same well for each of the Appendix III parameters and determine whether any concentrations exceed background levels. The selected statistical method includes a 1-of-2 verification resample plan. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified.

5.2 Statistical Analysis Results

Analytical data from the 2018 semi-annual monitoring events in May-June and November were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017). Based on the statistical analysis, SSIs of monitored constituents were observed; however, none of the reported SSIs was the result of a release from the GSA. As discussed in the following section, Alternate Source Demonstrations (ASDs) have been completed in accordance with 40 CFR §257.94(e)(2). The statistical analysis and comparison to prediction limits are included as **Appendix B**.

5.2.1 First Semi-Annual Groundwater Monitoring Event

Review of the Sanitas results presented in **Appendix B** identified the following SSIs during the first semi-annual detection monitoring event:

- Sulfate: MW-1
- Total Dissolved Solids (TDS): MW-8

5.2.2 Second Semi-Annual Groundwater Monitoring Event

Review of the Sanitas results presented in **Appendix B** identified the following SSIs during the second semi-annual detection monitoring event:

- Calcium: MW-3 and MW-4

- Chloride: MW-3 and MW-8
- Sulfate: MW-1
- TDS: MW-2

5.3 Alternate Source Demonstration

Section 257.94(e)(2) allows the owner or operator to demonstrate that a source other than the CCR Unit has caused an SSI and that the SSI was the result of an alternate source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. An ASD report for SSIs identified during the first and second semi-annual detection monitoring event is included as **Appendix C, Alternate Source Demonstration**. As discussed in the ASD report, the apparent SSIs are the result of natural groundwater chemistry variation, sampling, or analytical error. In accordance with §257.94(e)(2), the ASDs demonstrates that the SSIs are not the result of a release from the GSA. Therefore, in accordance with §257.94(e)(2), the GSA will remain in detection monitoring.

6.0 MONITORING PROGRAM STATUS

Presently, Plant Daniel GSA is in detection monitoring. Statistical analysis of groundwater quality data has identified SSIs; however, each SSI was addressed by an ASD demonstrating the source was not the GSA and the site will continue detection monitoring.

7.0 CONCLUSIONS & FUTURE ACTIONS

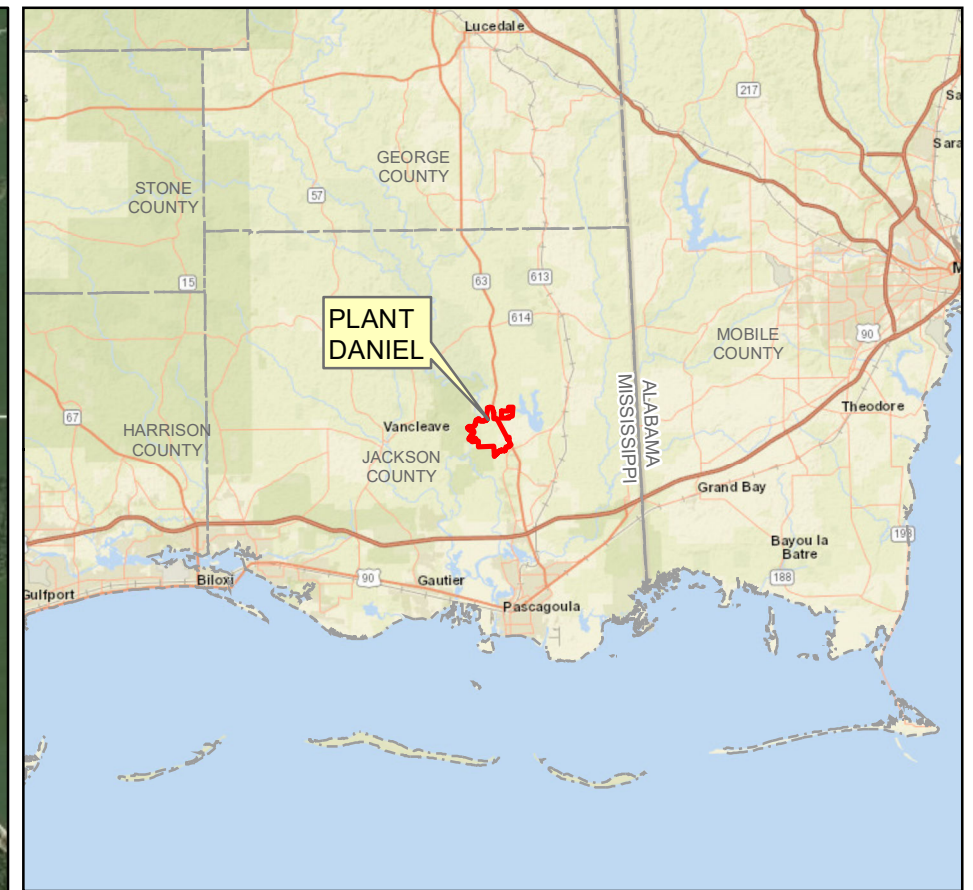
Statistical evaluations of the groundwater monitoring data for Plant Daniel GSA identified apparent SSIs of Appendix III groundwater monitoring parameters. In accordance with §257.94(e)(2), ASDs were prepared to demonstrate that the SSIs are not the result of a release from the GSA. Therefore, in accordance with §257.94(e)(2), the GSA will remain in detection monitoring.

The next regularly scheduled semi-annual sampling event is tentatively scheduled for May 2019.

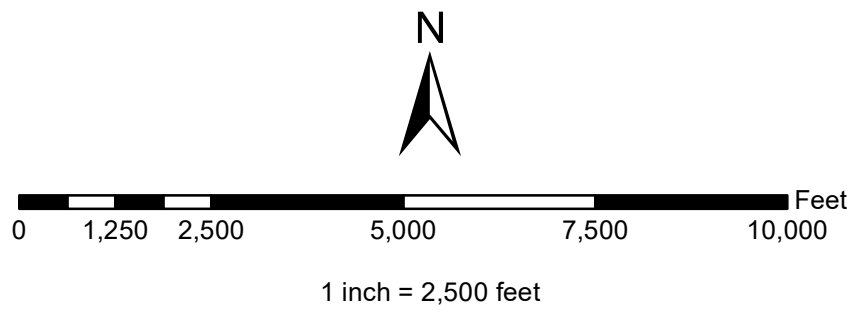
8.0 REFERENCES

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Figures



Legend	
	North Ash Management Unit (NAMU) Boundary
	Gypsum Storage Area (GSA) Boundary
	Ash Pond B Boundary
	Property Boundary (Approximate)



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FIGURE 1
SITE LOCATION MAP
PLANT DANIEL
GYP SUM STORAGE AREA

Southern Company Services
Earth Science and Environmental Engineering




FOR

Mississippi Power Company


Drawing Number ES4117S1



Legend

-  Monitoring Well Location
-  Gypsum Storage Area (GSA) Boundary
-  Property Boundary (Approximate)

N



0 125 250 500 750 1,000 Feet

1 inch = 250 feet

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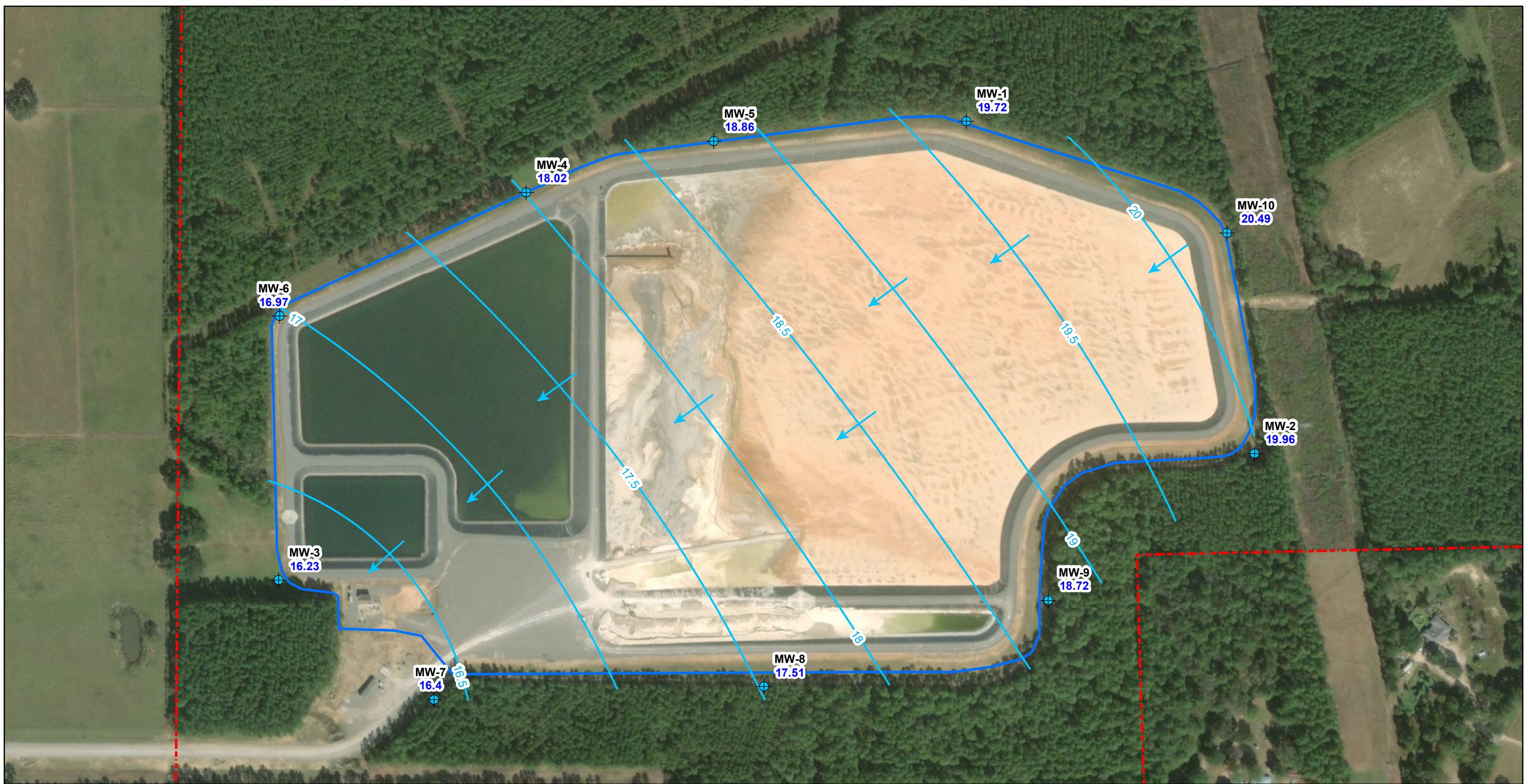
FIGURE 2
MONITORING WELL LOCATION MAP
PLANT DANIEL
GYPSUM STORAGE AREA

Southern Company Services
Earth Science and Environmental Engineering






FOR

Mississippi Power Company


Drawing Number ES4117S2



Legend

-  Monitoring Well Location
-  Estimated Potentiometric Surface Contour (ft NAVD88)
-  Approximate Direction of Groundwater Flow
-  Gypsum Storage Area (GSA) Boundary
-  Property Boundary (Approximate)

N



0 125 250 500 750 1,000 Feet

1 inch = 250 feet

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FIGURE 3
POTENTIOMETRIC SURFACE CONTOUR MAP
 JUNE 2018
 PLANT DANIEL
 GYPSUM STORAGE AREA

Southern Company Services
Earth Science and Environmental Engineering

FOR

Mississippi Power Company

Drawing Number ES4117S3



Legend

- Monitoring Well Location
- Estimated Potentiometric Surface Contour (ft NAVD88)
- Approximate Direction of Groundwater Flow
- Gypsum Storage Area (GSA) Boundary
- Property Boundary (Approximate)

N

0 125 250 500 750 1,000
Feet

1 inch = 250 feet

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FIGURE 4
POTENTIOMETRIC SURFACE CONTOUR MAP
 NOVEMBER 2018
 PLANT DANIEL
 GYPSUM STORAGE AREA

Southern Company Services
Earth Science and Environmental Engineering

FOR

Mississippi Power Company

Drawing Number ES4117S4

Appendix A

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: 400-154588-1

TestAmerica SDG: Gypsum Storage Area App III

Client Project/Site: CCR -Plant Daniel

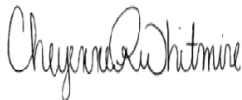
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Mr. Cale B. Sellers



Authorized for release by:

7/16/2018 2:01:38 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-1

Lab Sample ID: 400-154588-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	4.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	20		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	2.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.18				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 400-154588-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.81		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	6.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.88				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 400-154588-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	8.8		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
Field pH	4.51				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 400-154588-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.9	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 400-154588-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	7.3		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 400-154588-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Chloride	6.2		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.75				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-7

Lab Sample ID: 400-154588-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.54				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 400-154588-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.0		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	60		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.0		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
Field pH	4.66				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 400-154588-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.98		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.02				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 400-154588-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.022	J	0.050	0.021	mg/L	5		6020	Total Recoverable
Calcium	0.70		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.07				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 400-154588-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	38		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.8		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.5	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: DUP-02

Lab Sample ID: 400-154588-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: DUP-02 (Continued)

Lab Sample ID: 400-154588-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.8		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: EB-01

Lab Sample ID: 400-154588-13

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

Client Sample ID: FB-01

Lab Sample ID: 400-154588-14

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

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
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
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-154588-1	MW-1	Water	06/02/18 08:45	06/04/18 09:25
400-154588-2	MW-2	Water	06/02/18 15:38	06/04/18 09:25
400-154588-3	MW-3	Water	06/02/18 13:20	06/04/18 09:25
400-154588-4	MW-4	Water	06/02/18 10:50	06/04/18 09:25
400-154588-5	MW-5	Water	06/02/18 09:44	06/04/18 09:25
400-154588-6	MW-6	Water	06/02/18 12:11	06/04/18 09:25
400-154588-7	MW-7	Water	06/01/18 13:23	06/04/18 09:25
400-154588-8	MW-8	Water	06/01/18 15:58	06/04/18 09:25
400-154588-9	MW-9	Water	06/01/18 14:51	06/04/18 09:25
400-154588-10	MW-10	Water	06/01/18 17:51	06/04/18 09:25
400-154588-11	DUP-01	Water	06/01/18 06:00	06/04/18 09:25
400-154588-12	DUP-02	Water	06/02/18 06:00	06/04/18 09:25
400-154588-13	EB-01	Water	06/01/18 15:28	06/04/18 09:25
400-154588-14	FB-01	Water	06/01/18 15:25	06/04/18 09:25

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: MW-1
Date Collected: 06/02/18 08:45
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 19:48	5
Calcium	4.5		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 19:48	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	2.9		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 13:56	1
Sulfate	12		5.0	1.4	mg/L			06/25/18 11:17	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.18				SU			06/02/18 08:45	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: MW-2
Date Collected: 06/02/18 15:38
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:15	5
Calcium	0.81		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:15	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	6.8		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:08	1
Sulfate	<1.4		5.0	1.4	mg/L			06/27/18 09:48	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.88				SU			06/02/18 15:38	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: MW-3
Date Collected: 06/02/18 13:20
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:20	5
Calcium	1.2		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:20	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	8.8		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	0.050	J	0.10	0.032	mg/L			06/06/18 14:12	1
Sulfate	<1.4		5.0	1.4	mg/L			06/27/18 09:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.51				SU			06/02/18 13:20	1

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Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-4
Date Collected: 06/02/18 10:50
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:24	5
Calcium	2.0		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:24	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	8.2		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:14	1
Sulfate	1.9	J	5.0	1.4	mg/L			06/27/18 09:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.92				SU			06/02/18 10:50	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: MW-5
Date Collected: 06/02/18 09:44
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:29	5
Calcium	1.8		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:29	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	7.3		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:18	1
Sulfate	3.4	J	5.0	1.4	mg/L			06/27/18 09:55	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.87				SU			06/02/18 09:44	1

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Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-6
Date Collected: 06/02/18 12:11
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:33	5
Calcium	1.1		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:33	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	6.2		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:21	1
Sulfate	1.8	J	5.0	1.4	mg/L			06/27/18 09:55	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.75				SU			06/02/18 12:11	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: MW-7
Date Collected: 06/01/18 13:23
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:38	5
Calcium	1.6		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:38	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	13		2.0	0.60	mg/L			06/14/18 13:49	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:25	1
Sulfate	<1.4		5.0	1.4	mg/L			06/14/18 11:09	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.54				SU			06/01/18 13:23	1

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Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-8
Date Collected: 06/01/18 15:58
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:42	5
Calcium	2.0		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:42	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	60		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	9.0		2.0	0.60	mg/L			06/14/18 13:49	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:35	1
Sulfate	1.4	J	5.0	1.4	mg/L			06/14/18 11:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.66				SU			06/01/18 15:58	1

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Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-9
Date Collected: 06/01/18 14:51
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:47	5
Calcium	0.98		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:47	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	6.9		2.0	0.60	mg/L			06/14/18 13:49	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:41	1
Sulfate	3.3	J	5.0	1.4	mg/L			06/14/18 11:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.02				SU			06/01/18 14:51	1

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-10
Date Collected: 06/01/18 17:51
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-10
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.022	J	0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:51	5
Calcium	0.70		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:51	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	28		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	4.0		2.0	0.60	mg/L			06/14/18 13:49	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:43	1
Sulfate	2.1	J	5.0	1.4	mg/L			06/14/18 11:15	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.07				SU			06/01/18 17:51	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: DUP-01
Date Collected: 06/01/18 06:00
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 20:56	5
Calcium	2.2		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 20:56	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	38		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	8.8		2.0	0.60	mg/L			06/14/18 13:49	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:47	1
Sulfate	1.5 J		5.0	1.4	mg/L			06/14/18 11:15	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: DUP-02
Date Collected: 06/02/18 06:00
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-12
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 21:23	5
Calcium	1.1		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 21:23	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L			06/08/18 12:55	1
Chloride	8.8		2.0	0.60	mg/L			06/26/18 14:35	1
Fluoride	0.050	J	0.10	0.032	mg/L			06/06/18 14:51	1
Sulfate	<1.4		5.0	1.4	mg/L			06/27/18 09:55	1

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- 12
- 13

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: EB-01
Date Collected: 06/01/18 15:28
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-13
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 21:27	5
Calcium	<0.13		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 21:27	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	<0.60		2.0	0.60	mg/L			06/14/18 15:33	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:54	1
Sulfate	1.4	J	5.0	1.4	mg/L			06/14/18 11:15	1

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Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
 SDG: Gypsum Storage Area App III

Client Sample ID: FB-01
Date Collected: 06/01/18 15:25
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-14
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 21:32	5
Calcium	<0.13		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 21:32	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/07/18 15:33	1
Chloride	<0.60		2.0	0.60	mg/L			06/14/18 15:33	1
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 14:58	1
Sulfate	1.4	J	5.0	1.4	mg/L			06/14/18 11:16	1



Definitions/Glossary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Qualifiers

Metals

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.

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: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-1
Date Collected: 06/02/18 08:45
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 19:48	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 13:56	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402406	06/25/18 11:17	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 08:45	CDH	TAL PEN

Client Sample ID: MW-2
Date Collected: 06/02/18 15:38
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:08	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:48	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 15:38	CDH	TAL PEN

Client Sample ID: MW-3
Date Collected: 06/02/18 13:20
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:20	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:49	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 13:20	CDH	TAL PEN

Client Sample ID: MW-4
Date Collected: 06/02/18 10:50
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:24	DRE	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-4
Date Collected: 06/02/18 10:50
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:14	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:49	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 10:50	CDH	TAL PEN

Client Sample ID: MW-5
Date Collected: 06/02/18 09:44
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:29	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:18	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:55	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 09:44	CDH	TAL PEN

Client Sample ID: MW-6
Date Collected: 06/02/18 12:11
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:33	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:21	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:55	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/02/18 12:11	CDH	TAL PEN

Client Sample ID: MW-7
Date Collected: 06/01/18 13:23
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:38	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	401135	06/14/18 13:49	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-7
Date Collected: 06/01/18 13:23
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-7
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	400227	06/06/18 14:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:09	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/01/18 13:23	CDH	TAL PEN

Client Sample ID: MW-8
Date Collected: 06/01/18 15:58
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	401135	06/14/18 13:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:35	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/01/18 15:58	CDH	TAL PEN

Client Sample ID: MW-9
Date Collected: 06/01/18 14:51
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:47	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	401135	06/14/18 13:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:15	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	404328	06/01/18 14:51	CDH	TAL PEN

Client Sample ID: MW-10
Date Collected: 06/01/18 17:51
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	401135	06/14/18 13:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:15	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: MW-10
Date Collected: 06/01/18 17:51
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	404328	06/01/18 17:51	CDH	TAL PEN

Client Sample ID: DUP-01
Date Collected: 06/01/18 06:00
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 20:56	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	401135	06/14/18 13:49	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:47	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:15	RRC	TAL PEN

Client Sample ID: DUP-02
Date Collected: 06/02/18 06:00
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 21:23	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400417	06/08/18 12:55	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	402581	06/26/18 14:35	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402758	06/27/18 09:55	RRC	TAL PEN

Client Sample ID: EB-01
Date Collected: 06/01/18 15:28
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 21:27	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	401145	06/14/18 15:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:15	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Client Sample ID: FB-01
Date Collected: 06/01/18 15:25
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154588-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			400015	06/05/18 10:37	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 21:32	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400336	06/07/18 15:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	401145	06/14/18 15:33	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400227	06/06/18 14:58	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	401096	06/14/18 11:16	RRC	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Metals

Prep Batch: 400015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total Recoverable	Water	3005A	
400-154588-2	MW-2	Total Recoverable	Water	3005A	
400-154588-3	MW-3	Total Recoverable	Water	3005A	
400-154588-4	MW-4	Total Recoverable	Water	3005A	
400-154588-5	MW-5	Total Recoverable	Water	3005A	
400-154588-6	MW-6	Total Recoverable	Water	3005A	
400-154588-7	MW-7	Total Recoverable	Water	3005A	
400-154588-8	MW-8	Total Recoverable	Water	3005A	
400-154588-9	MW-9	Total Recoverable	Water	3005A	
400-154588-10	MW-10	Total Recoverable	Water	3005A	
400-154588-11	DUP-01	Total Recoverable	Water	3005A	
400-154588-12	DUP-02	Total Recoverable	Water	3005A	
400-154588-13	EB-01	Total Recoverable	Water	3005A	
400-154588-14	FB-01	Total Recoverable	Water	3005A	
MB 400-400015/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-400015/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-154578-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-154578-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 400109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total Recoverable	Water	6020	400015
400-154588-2	MW-2	Total Recoverable	Water	6020	400015
400-154588-3	MW-3	Total Recoverable	Water	6020	400015
400-154588-4	MW-4	Total Recoverable	Water	6020	400015
400-154588-5	MW-5	Total Recoverable	Water	6020	400015
400-154588-6	MW-6	Total Recoverable	Water	6020	400015
400-154588-7	MW-7	Total Recoverable	Water	6020	400015
400-154588-8	MW-8	Total Recoverable	Water	6020	400015
400-154588-9	MW-9	Total Recoverable	Water	6020	400015
400-154588-10	MW-10	Total Recoverable	Water	6020	400015
400-154588-11	DUP-01	Total Recoverable	Water	6020	400015
400-154588-12	DUP-02	Total Recoverable	Water	6020	400015
400-154588-13	EB-01	Total Recoverable	Water	6020	400015
400-154588-14	FB-01	Total Recoverable	Water	6020	400015
MB 400-400015/1-A ^5	Method Blank	Total Recoverable	Water	6020	400015
LCS 400-400015/2-A	Lab Control Sample	Total Recoverable	Water	6020	400015
400-154578-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	400015
400-154578-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	400015

General Chemistry

Analysis Batch: 400039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-7	MW-7	Total/NA	Water	SM 2540C	
400-154588-8	MW-8	Total/NA	Water	SM 2540C	
400-154588-9	MW-9	Total/NA	Water	SM 2540C	
400-154588-10	MW-10	Total/NA	Water	SM 2540C	
400-154588-11	DUP-01	Total/NA	Water	SM 2540C	
400-154588-13	EB-01	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

General Chemistry (Continued)

Analysis Batch: 400039 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-400039/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-400039/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-154588-9 DU	MW-9	Total/NA	Water	SM 2540C	

Analysis Batch: 400227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total/NA	Water	SM 4500 F C	
400-154588-2	MW-2	Total/NA	Water	SM 4500 F C	
400-154588-3	MW-3	Total/NA	Water	SM 4500 F C	
400-154588-4	MW-4	Total/NA	Water	SM 4500 F C	
400-154588-5	MW-5	Total/NA	Water	SM 4500 F C	
400-154588-6	MW-6	Total/NA	Water	SM 4500 F C	
400-154588-7	MW-7	Total/NA	Water	SM 4500 F C	
400-154588-8	MW-8	Total/NA	Water	SM 4500 F C	
400-154588-9	MW-9	Total/NA	Water	SM 4500 F C	
400-154588-10	MW-10	Total/NA	Water	SM 4500 F C	
400-154588-11	DUP-01	Total/NA	Water	SM 4500 F C	
400-154588-12	DUP-02	Total/NA	Water	SM 4500 F C	
400-154588-13	EB-01	Total/NA	Water	SM 4500 F C	
400-154588-14	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-400227/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-400227/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-154588-1 MS	MW-1	Total/NA	Water	SM 4500 F C	
400-154588-1 MSD	MW-1	Total/NA	Water	SM 4500 F C	
400-154588-8 DU	MW-8	Total/NA	Water	SM 4500 F C	

Analysis Batch: 400336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-14	FB-01	Total/NA	Water	SM 2540C	
MB 400-400336/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-400336/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-154586-B-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 400417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total/NA	Water	SM 2540C	
400-154588-2	MW-2	Total/NA	Water	SM 2540C	
400-154588-3	MW-3	Total/NA	Water	SM 2540C	
400-154588-4	MW-4	Total/NA	Water	SM 2540C	
400-154588-5	MW-5	Total/NA	Water	SM 2540C	
400-154588-6	MW-6	Total/NA	Water	SM 2540C	
400-154588-12	DUP-02	Total/NA	Water	SM 2540C	
MB 400-400417/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-400417/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-154588-4 DU	MW-4	Total/NA	Water	SM 2540C	

Analysis Batch: 401096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-7	MW-7	Total/NA	Water	SM 4500 SO4 E	
400-154588-8	MW-8	Total/NA	Water	SM 4500 SO4 E	
400-154588-9	MW-9	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

General Chemistry (Continued)

Analysis Batch: 401096 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-10	MW-10	Total/NA	Water	SM 4500 SO4 E	
400-154588-11	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-154588-13	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-154588-14	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-401096/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-401096/18	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-401096/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-154588-7 MS	MW-7	Total/NA	Water	SM 4500 SO4 E	
400-154588-7 MSD	MW-7	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 401135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-7	MW-7	Total/NA	Water	SM 4500 Cl- E	
400-154588-8	MW-8	Total/NA	Water	SM 4500 Cl- E	
400-154588-9	MW-9	Total/NA	Water	SM 4500 Cl- E	
400-154588-10	MW-10	Total/NA	Water	SM 4500 Cl- E	
400-154588-11	DUP-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-401135/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-401135/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-401135/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-154180-B-47 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-154180-B-47 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 401145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-13	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-154588-14	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-401145/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-401145/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-401145/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-154180-B-15 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-154180-B-15 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-154586-B-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-154586-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 402406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-402406/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-402406/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-402406/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-154556-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-154556-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 402581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total/NA	Water	SM 4500 Cl- E	
400-154588-2	MW-2	Total/NA	Water	SM 4500 Cl- E	
400-154588-3	MW-3	Total/NA	Water	SM 4500 Cl- E	
400-154588-4	MW-4	Total/NA	Water	SM 4500 Cl- E	
400-154588-5	MW-5	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

General Chemistry (Continued)

Analysis Batch: 402581 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-6	MW-6	Total/NA	Water	SM 4500 CI- E	
400-154588-12	DUP-02	Total/NA	Water	SM 4500 CI- E	
MB 400-402581/6	Method Blank	Total/NA	Water	SM 4500 CI- E	
LCS 400-402581/7	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
MRL 400-402581/3	Lab Control Sample	Total/NA	Water	SM 4500 CI- E	
400-154556-A-2 MS	Matrix Spike	Total/NA	Water	SM 4500 CI- E	
400-154556-A-2 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 CI- E	

Analysis Batch: 402758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-2	MW-2	Total/NA	Water	SM 4500 SO4 E	
400-154588-3	MW-3	Total/NA	Water	SM 4500 SO4 E	
400-154588-4	MW-4	Total/NA	Water	SM 4500 SO4 E	
400-154588-5	MW-5	Total/NA	Water	SM 4500 SO4 E	
400-154588-6	MW-6	Total/NA	Water	SM 4500 SO4 E	
400-154588-12	DUP-02	Total/NA	Water	SM 4500 SO4 E	
MB 400-402758/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-402758/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-402758/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-154588-2 MS	MW-2	Total/NA	Water	SM 4500 SO4 E	
400-154588-2 MSD	MW-2	Total/NA	Water	SM 4500 SO4 E	
400-155116-A-5 DU	Duplicate	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 404328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154588-1	MW-1	Total/NA	Water	Field Sampling	
400-154588-2	MW-2	Total/NA	Water	Field Sampling	
400-154588-3	MW-3	Total/NA	Water	Field Sampling	
400-154588-4	MW-4	Total/NA	Water	Field Sampling	
400-154588-5	MW-5	Total/NA	Water	Field Sampling	
400-154588-6	MW-6	Total/NA	Water	Field Sampling	
400-154588-7	MW-7	Total/NA	Water	Field Sampling	
400-154588-8	MW-8	Total/NA	Water	Field Sampling	
400-154588-9	MW-9	Total/NA	Water	Field Sampling	
400-154588-10	MW-10	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-400015/1-A ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 400015

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/05/18 10:37	06/05/18 18:32	5
Calcium	<0.13		0.25	0.13	mg/L		06/05/18 10:37	06/05/18 18:32	5

Lab Sample ID: LCS 400-400015/2-A
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 400015

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0995		mg/L		99	80 - 120
Calcium	5.00	5.11		mg/L		102	80 - 120

Lab Sample ID: 400-154578-B-1-B MS ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 400015

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.122		mg/L		122	75 - 125
Calcium	4.2		5.00	9.61		mg/L		107	75 - 125

Lab Sample ID: 400-154578-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 400015

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.124		mg/L		124	75 - 125	2	20
Calcium	4.2		5.00	9.54		mg/L		106	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-400039/1
Matrix: Water
Analysis Batch: 400039

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/05/18 17:38	1

Lab Sample ID: LCS 400-400039/2
Matrix: Water
Analysis Batch: 400039

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	294		mg/L		100	78 - 122

Lab Sample ID: 400-154588-9 DU
Matrix: Water
Analysis Batch: 400039

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	42		42.0		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-400336/1
Matrix: Water
Analysis Batch: 400336

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/07/18 15:33	1

Lab Sample ID: LCS 400-400336/2
Matrix: Water
Analysis Batch: 400336

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	250		mg/L		85	78 - 122

Lab Sample ID: 400-154586-B-2 DU
Matrix: Water
Analysis Batch: 400336

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	26		26.0		mg/L		0	5

Lab Sample ID: MB 400-400417/1
Matrix: Water
Analysis Batch: 400417

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			06/08/18 12:55	1

Lab Sample ID: LCS 400-400417/2
Matrix: Water
Analysis Batch: 400417

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	252		mg/L		86	78 - 122

Lab Sample ID: 400-154588-4 DU
Matrix: Water
Analysis Batch: 400417

Client Sample ID: MW-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	32		32.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-401135/6
Matrix: Water
Analysis Batch: 401135

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/14/18 13:39	1

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

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

Lab Sample ID: LCS 400-401135/7
Matrix: Water
Analysis Batch: 401135

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.8		mg/L		103	90 - 110

Lab Sample ID: MRL 400-401135/3
Matrix: Water
Analysis Batch: 401135

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.61	J	mg/L		80	50 - 150

Lab Sample ID: 400-154180-B-47 MS
Matrix: Water
Analysis Batch: 401135

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	9.4		10.0	19.8		mg/L		104	73 - 120

Lab Sample ID: 400-154180-B-47 MSD
Matrix: Water
Analysis Batch: 401135

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	9.4		10.0	19.6		mg/L		102	73 - 120	1	8

Lab Sample ID: MB 400-401145/6
Matrix: Water
Analysis Batch: 401145

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/14/18 15:30	1

Lab Sample ID: LCS 400-401145/7
Matrix: Water
Analysis Batch: 401145

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	31.3		mg/L		104	90 - 110

Lab Sample ID: MRL 400-401145/3
Matrix: Water
Analysis Batch: 401145

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	1.44	J	mg/L		72	50 - 150

Lab Sample ID: 400-154180-B-15 MS
Matrix: Water
Analysis Batch: 401145

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	14		10.0	24.0		mg/L		100	73 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Lab Sample ID: 400-154180-B-15 MSD
Matrix: Water
Analysis Batch: 401145

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	14		10.0	24.0		mg/L		99	73 - 120	0	8

Lab Sample ID: 400-154586-B-3 MS
Matrix: Water
Analysis Batch: 401145

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	RPD	RPD Limit
Chloride	7.7		10.0	18.5		mg/L		108	73 - 120		

Lab Sample ID: 400-154586-B-3 MSD
Matrix: Water
Analysis Batch: 401145

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	7.7		10.0	18.4		mg/L		107	73 - 120	1	8

Lab Sample ID: MB 400-402581/6
Matrix: Water
Analysis Batch: 402581

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/26/18 14:25	1

Lab Sample ID: LCS 400-402581/7
Matrix: Water
Analysis Batch: 402581

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	30.0	30.9		mg/L		103	90 - 110		

Lab Sample ID: MRL 400-402581/3
Matrix: Water
Analysis Batch: 402581

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	2.00	1.39	J	mg/L		70	50 - 150		

Lab Sample ID: 400-154556-A-2 MS
Matrix: Water
Analysis Batch: 402581

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	RPD	RPD Limit
Chloride	15		10.0	24.8		mg/L		101	73 - 120		

Lab Sample ID: 400-154556-A-2 MSD
Matrix: Water
Analysis Batch: 402581

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	15		10.0	24.4		mg/L		98	73 - 120	1	8

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-400227/3
Matrix: Water
Analysis Batch: 400227

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			06/06/18 13:42	1

Lab Sample ID: LCS 400-400227/4
Matrix: Water
Analysis Batch: 400227

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.79		mg/L		95	90 - 110

Lab Sample ID: 400-154588-1 MS
Matrix: Water
Analysis Batch: 400227

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

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

Lab Sample ID: 400-154588-1 MSD
Matrix: Water
Analysis Batch: 400227

Client Sample ID: 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	<0.032		1.00	1.02		mg/L		102	75 - 125	2	4

Lab Sample ID: 400-154588-8 DU
Matrix: Water
Analysis Batch: 400227

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

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

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-401096/17
Matrix: Water
Analysis Batch: 401096

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/14/18 10:53	1

Lab Sample ID: LCS 400-401096/18
Matrix: Water
Analysis Batch: 401096

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.3		mg/L		102	90 - 110

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

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

Lab Sample ID: MRL 400-401096/14
Matrix: Water
Analysis Batch: 401096

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	4.99	J	mg/L		100	50 - 150

Lab Sample ID: 400-154588-7 MS
Matrix: Water
Analysis Batch: 401096

Client Sample ID: 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	9.54		mg/L		95	77 - 128

Lab Sample ID: 400-154588-7 MSD
Matrix: Water
Analysis Batch: 401096

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	<1.4		10.0	9.47		mg/L		95	77 - 128	1	5

Lab Sample ID: MB 400-402406/6
Matrix: Water
Analysis Batch: 402406

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/25/18 11:06	1

Lab Sample ID: LCS 400-402406/7
Matrix: Water
Analysis Batch: 402406

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	16.0		mg/L		107	90 - 110

Lab Sample ID: MRL 400-402406/3
Matrix: Water
Analysis Batch: 402406

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.55		mg/L		111	50 - 150

Lab Sample ID: 400-154556-A-2 MS
Matrix: Water
Analysis Batch: 402406

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	7.9		10.0	18.7		mg/L		108	77 - 128

Lab Sample ID: 400-154556-A-2 MSD
Matrix: Water
Analysis Batch: 402406

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	7.9		10.0	18.4		mg/L		105	77 - 128	1	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

Lab Sample ID: MB 400-402758/6
Matrix: Water
Analysis Batch: 402758

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/27/18 09:48	1

Lab Sample ID: LCS 400-402758/7
Matrix: Water
Analysis Batch: 402758

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.3		mg/L		102	90 - 110

Lab Sample ID: MRL 400-402758/3
Matrix: Water
Analysis Batch: 402758

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

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.36		mg/L		107	50 - 150

Lab Sample ID: 400-154588-2 MS
Matrix: Water
Analysis Batch: 402758

Client Sample ID: 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	11.6		mg/L		116	77 - 128

Lab Sample ID: 400-154588-2 MSD
Matrix: Water
Analysis Batch: 402758

Client Sample ID: 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	11.7		mg/L		117	77 - 128	1	5

Lab Sample ID: 400-155116-A-5 DU
Matrix: Water
Analysis Batch: 402758

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	5.7		5.73		mg/L		0.3	5

Chain of Custody Record

Client Information Sample: <i>R. W. Hagedorn</i> Lab Pmt: Whitmire, Cheyenne R Client Contact: <i>850-336-0192</i> E-Mail: cheyenne.whitmire@testamericainc.com Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-7762(Tel) Email: CBSSELLER@SOUTHERNCO.COM Project Name: CCR - Plant Daniel Site: Gypsum App III		Carrier Tracking No(s): COC No: 400-74694-27818.2 Page: Page 2 of 2 Job #:	
Analysis Requested Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40006621 SSON#:		Total Number of containers:	
Sample Identification Sample ID: <i>DWP-02</i> <i>EB-01</i> <i>FB-01</i>		Matrix (Water, Soil, Sewage, Other): Water Water Water	
Sample Date: <i>6/2/18</i> <i>6-1-18</i> <i>6-1-18</i>		Sample Type (C=Comp, G=grab): G G G	
Sample Time: <i>0600</i> <i>1528</i> <i>1525</i>		Preservation Code:	
Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No 4500 F, C - Fluoride, 2540C - Total Dissolved Solids 6020 - Boron & Calcium		Special Instructions/Note: X X X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: <i>[Signature]</i> Date/Time: <i>6-3-18 1300</i>		Received by: <i>[Signature]</i> Date/Time: <i>6-3-18 1300</i>	
Relinquished by: <i>[Signature]</i> Date/Time: <i>6-4-18 0925</i>		Received by: <i>[Signature]</i> Date/Time: <i>6-4-18 0925</i>	
Relinquished by: <i>[Signature]</i> Date/Time:		Received by: <i>[Signature]</i> Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks:	



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-154588-1
SDG Number: Gypsum Storage Area App III

Login Number: 154588

List Number: 1

Creator: Perez, Trina M

List Source: TestAmerica Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 0.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	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: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-154588-1
SDG: Gypsum Storage Area App III

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	09-01-18
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	09-30-18
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	08-31-18
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	06-30-19
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-16-00172	05-24-19
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.

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: 400-161922-1

TestAmerica Sample Delivery Group: Gypsum App III

Client Project/Site: CCR -Plant Daniel

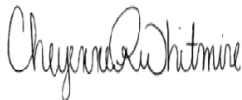
For:

Southern Company

PO BOX 2641 GSC8

Birmingham, Alabama 35291

Attn: Mr. Cale B. Sellers



Authorized for release by:

12/14/2018 2:53:01 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

cheyenne.whitmire@testamericainc.com

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

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

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

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Case Narrative

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Job ID: 400-161922-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative 400-161922-1

General Chemistry

Method(s) SM 4500 F C: The matrix spike / matrix spike duplicate(MS/MSD) precision for analytical batch 420482 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample(LCS) was within acceptance limits.

Method(s) SM 4500 Cl- E: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-3 (400-161922-3). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 420414 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-1

Lab Sample ID: 400-161922-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	4.1		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	3.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	10		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.15				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 400-161922-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.95		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.4		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.92				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 400-161922-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	42		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	25		4.0	2.8	mg/L	2		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.46				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 400-161922-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.2		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	14		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.5		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.91				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 400-161922-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	22		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.8		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.9				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 400-161922-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.1		0.25	0.13	mg/L	5		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-6 (Continued)

Lab Sample ID: 400-161922-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	12		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.4		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
Field pH	4.69				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 400-161922-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.6		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	54		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	13		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.48				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 400-161922-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.8		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	40		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	11		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	4.54				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 400-161922-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.93		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	30		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.98				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 400-161922-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.59		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	68		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	4.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Field pH	5.09				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01

Lab Sample ID: 400-161922-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	1.5		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	48		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.6		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

Detection Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: DUP-02

Lab Sample ID: 400-161922-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.93		0.25	0.13	mg/L	5		6020	Total
Total Dissolved Solids	28		5.0	3.4	mg/L	1		SM 2540C	Recoverable Total/NA
Chloride	7.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.8	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: EB-01

Lab Sample ID: 400-161922-13

No Detections.

Client Sample ID: FB-01

Lab Sample ID: 400-161922-14

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

Method Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL PEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PEN
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
Field Sampling	Field Sampling	EPA	TAL PEN
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

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

Laboratory References:

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

Sample Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-161922-1	MW-1	Water	11/08/18 11:30	11/09/18 09:10
400-161922-2	MW-2	Water	11/08/18 14:50	11/09/18 09:10
400-161922-3	MW-3	Water	11/07/18 14:52	11/09/18 09:10
400-161922-4	MW-4	Water	11/08/18 09:45	11/09/18 09:10
400-161922-5	MW-5	Water	11/08/18 10:35	11/09/18 09:10
400-161922-6	MW-6	Water	11/08/18 08:55	11/09/18 09:10
400-161922-7	MW-7	Water	11/07/18 13:40	11/09/18 09:10
400-161922-8	MW-8	Water	11/07/18 12:37	11/09/18 09:10
400-161922-9	MW-9	Water	11/08/18 16:00	11/09/18 09:10
400-161922-10	MW-10	Water	11/08/18 12:35	11/09/18 09:10
400-161922-11	DUP-01	Water	11/07/18 13:52	11/09/18 09:10
400-161922-12	DUP-02	Water	11/08/18 15:00	11/09/18 09:10
400-161922-13	EB-01	Water	11/08/18 13:01	11/09/18 09:10
400-161922-14	FB-01	Water	11/08/18 13:05	11/09/18 09:10

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: MW-1
Date Collected: 11/08/18 11:30
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-1
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 16:54	5
Calcium	4.1		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 16:54	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30		5.0	3.4	mg/L			11/14/18 13:17	1
Chloride	3.0		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:49	1
Sulfate	10		5.0	1.4	mg/L			11/21/18 13:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.15				SU			11/08/18 11:30	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-2
Date Collected: 11/08/18 14:50
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-2
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 16:57	5
Calcium	0.95		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 16:57	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	8.4		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:53	1
Sulfate	<1.4		5.0	1.4	mg/L			11/21/18 13:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.92				SU			11/08/18 14:50	1

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-3
Date Collected: 11/07/18 14:52
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-3
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:01	5
Calcium	1.5		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:01	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	42		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	25		4.0	2.8	mg/L			11/20/18 15:39	2
Fluoride	0.050	J	0.10	0.032	mg/L			11/21/18 13:12	1
Sulfate	2.1	J	5.0	1.4	mg/L			11/20/18 13:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.46				SU			11/07/18 14:52	1

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-4
Date Collected: 11/08/18 09:45
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-4
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:04	5
Calcium	2.2		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:04	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	14		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	9.5		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:05	1
Sulfate	1.8	J	5.0	1.4	mg/L			11/21/18 13:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.91				SU			11/08/18 09:45	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: MW-5
Date Collected: 11/08/18 10:35
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-5
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:08	5
Calcium	1.9		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	22		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	7.8		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:12	1
Sulfate	3.1	J	5.0	1.4	mg/L			11/21/18 13:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.9				SU			11/08/18 10:35	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-6
Date Collected: 11/08/18 08:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-6
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:11	5
Calcium	1.1		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	12		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	6.4		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:16	1
Sulfate	1.6	J	5.0	1.4	mg/L			11/21/18 13:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.69				SU			11/08/18 08:55	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: MW-7
Date Collected: 11/07/18 13:40
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-7
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:15	5
Calcium	1.6		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:15	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	54		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	13		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 13:16	1
Sulfate	<1.4		5.0	1.4	mg/L			11/20/18 13:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.48				SU			11/07/18 13:40	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: MW-8
Date Collected: 11/07/18 12:37
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-8
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:18	5
Calcium	2.8		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:18	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	40		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	11		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 13:20	1
Sulfate	<1.4		5.0	1.4	mg/L			11/20/18 13:01	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.54				SU			11/07/18 12:37	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-9
Date Collected: 11/08/18 16:00
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-9
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:40	5
Calcium	0.93		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:40	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	7.1		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:20	1
Sulfate	1.8	J	5.0	1.4	mg/L			11/21/18 13:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	4.98				SU			11/08/18 16:00	1

Client Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-10
Date Collected: 11/08/18 12:35
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-10
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:43	5
Calcium	0.59		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:43	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	68		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	4.6		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:24	1
Sulfate	<1.4		5.0	1.4	mg/L			11/21/18 13:27	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	5.09				SU			11/08/18 12:35	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: DUP-01
Date Collected: 11/07/18 13:52
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-11
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:47	5
Calcium	1.5		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:47	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	48		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	9.6		2.0	1.4	mg/L			11/21/18 09:02	1
Fluoride	0.050	J	0.10	0.032	mg/L			11/21/18 13:24	1
Sulfate	<1.4		5.0	1.4	mg/L			11/20/18 13:01	1



Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: DUP-02
Date Collected: 11/08/18 15:00
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-12
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:51	5
Calcium	0.93		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:51	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	28		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	7.2		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:26	1
Sulfate	1.8	J	5.0	1.4	mg/L			11/21/18 13:27	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: EB-01
Date Collected: 11/08/18 13:01
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-13
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:54	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:54	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	<1.4		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:30	1
Sulfate	<1.4		5.0	1.4	mg/L			11/21/18 13:27	1

Client Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Client Sample ID: FB-01
Date Collected: 11/08/18 13:05
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-14
Matrix: Water

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 17:58	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 17:58	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			11/15/18 08:29	1
Chloride	<1.4		2.0	1.4	mg/L			11/21/18 09:12	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 15:32	1
Sulfate	<1.4		5.0	1.4	mg/L			11/21/18 13:27	1

Definitions/Glossary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.

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: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-1
Date Collected: 11/08/18 11:30
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 16:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:49	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:22	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 11:30	CDH	TAL PEN

Client Sample ID: MW-2
Date Collected: 11/08/18 14:50
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 16:57	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:53	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:22	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 14:50	CDH	TAL PEN

Client Sample ID: MW-3
Date Collected: 11/07/18 14:52
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:01	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419237	11/12/18 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		2	420316	11/20/18 15:39	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420455	11/21/18 13:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420275	11/20/18 13:01	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/07/18 14:52	CDH	TAL PEN

Client Sample ID: MW-4
Date Collected: 11/08/18 09:45
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:04	DRE	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-4
Date Collected: 11/08/18 09:45
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:05	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:22	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 09:45	CDH	TAL PEN

Client Sample ID: MW-5
Date Collected: 11/08/18 10:35
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:08	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:12	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 10:35	CDH	TAL PEN

Client Sample ID: MW-6
Date Collected: 11/08/18 08:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:11	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:16	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 08:55	CDH	TAL PEN

Client Sample ID: MW-7
Date Collected: 11/07/18 13:40
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:15	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419237	11/12/18 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	420316	11/20/18 15:16	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-7
Date Collected: 11/07/18 13:40
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-7
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	420455	11/21/18 13:16	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420275	11/20/18 13:01	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/07/18 13:40	CDH	TAL PEN

Client Sample ID: MW-8
Date Collected: 11/07/18 12:37
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:18	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419237	11/12/18 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420316	11/20/18 15:16	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420455	11/21/18 13:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420275	11/20/18 13:01	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/07/18 12:37	CDH	TAL PEN

Client Sample ID: MW-9
Date Collected: 11/08/18 16:00
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:40	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 16:00	CDH	TAL PEN

Client Sample ID: MW-10
Date Collected: 11/08/18 12:35
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:43	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN

TestAmerica Pensacola

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: MW-10

Lab Sample ID: 400-161922-10

Date Collected: 11/08/18 12:35

Matrix: Water

Date Received: 11/09/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 12:35	CDH	TAL PEN

Client Sample ID: DUP-01

Lab Sample ID: 400-161922-11

Date Collected: 11/07/18 13:52

Matrix: Water

Date Received: 11/09/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:47	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419237	11/12/18 13:58	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:02	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420455	11/21/18 13:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420275	11/20/18 13:01	RRC	TAL PEN

Client Sample ID: DUP-02

Lab Sample ID: 400-161922-12

Date Collected: 11/08/18 15:00

Matrix: Water

Date Received: 11/09/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:51	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:26	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN

Client Sample ID: EB-01

Lab Sample ID: 400-161922-13

Date Collected: 11/08/18 13:01

Matrix: Water

Date Received: 11/09/18 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:54	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:30	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN

Lab Chronicle

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Client Sample ID: FB-01
Date Collected: 11/08/18 13:05
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161922-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420577	11/23/18 11:52	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 17:58	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419644	11/15/18 08:29	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:12	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 15:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:27	RRC	TAL PEN

Laboratory References:

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

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Metals

Prep Batch: 420577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total Recoverable	Water	3005A	
400-161922-2	MW-2	Total Recoverable	Water	3005A	
400-161922-3	MW-3	Total Recoverable	Water	3005A	
400-161922-4	MW-4	Total Recoverable	Water	3005A	
400-161922-5	MW-5	Total Recoverable	Water	3005A	
400-161922-6	MW-6	Total Recoverable	Water	3005A	
400-161922-7	MW-7	Total Recoverable	Water	3005A	
400-161922-8	MW-8	Total Recoverable	Water	3005A	
400-161922-9	MW-9	Total Recoverable	Water	3005A	
400-161922-10	MW-10	Total Recoverable	Water	3005A	
400-161922-11	DUP-01	Total Recoverable	Water	3005A	
400-161922-12	DUP-02	Total Recoverable	Water	3005A	
400-161922-13	EB-01	Total Recoverable	Water	3005A	
400-161922-14	FB-01	Total Recoverable	Water	3005A	
MB 400-420577/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-420577/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-161813-H-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-161813-H-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 420920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total Recoverable	Water	6020	420577
400-161922-2	MW-2	Total Recoverable	Water	6020	420577
400-161922-3	MW-3	Total Recoverable	Water	6020	420577
400-161922-4	MW-4	Total Recoverable	Water	6020	420577
400-161922-5	MW-5	Total Recoverable	Water	6020	420577
400-161922-6	MW-6	Total Recoverable	Water	6020	420577
400-161922-7	MW-7	Total Recoverable	Water	6020	420577
400-161922-8	MW-8	Total Recoverable	Water	6020	420577
400-161922-9	MW-9	Total Recoverable	Water	6020	420577
400-161922-10	MW-10	Total Recoverable	Water	6020	420577
400-161922-11	DUP-01	Total Recoverable	Water	6020	420577
400-161922-12	DUP-02	Total Recoverable	Water	6020	420577
400-161922-13	EB-01	Total Recoverable	Water	6020	420577
400-161922-14	FB-01	Total Recoverable	Water	6020	420577
MB 400-420577/1-A ^5	Method Blank	Total Recoverable	Water	6020	420577
LCS 400-420577/2-A	Lab Control Sample	Total Recoverable	Water	6020	420577
400-161813-H-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	420577
400-161813-H-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	420577

General Chemistry

Analysis Batch: 419237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-3	MW-3	Total/NA	Water	SM 2540C	
400-161922-7	MW-7	Total/NA	Water	SM 2540C	
400-161922-8	MW-8	Total/NA	Water	SM 2540C	
400-161922-11	DUP-01	Total/NA	Water	SM 2540C	
MB 400-419237/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-419237/2	Lab Control Sample	Total/NA	Water	SM 2540C	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

General Chemistry (Continued)

Analysis Batch: 419237 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-A-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 419512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total/NA	Water	SM 2540C	
MB 400-419512/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-419512/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-161879-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 419644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-2	MW-2	Total/NA	Water	SM 2540C	
400-161922-4	MW-4	Total/NA	Water	SM 2540C	
400-161922-5	MW-5	Total/NA	Water	SM 2540C	
400-161922-6	MW-6	Total/NA	Water	SM 2540C	
400-161922-9	MW-9	Total/NA	Water	SM 2540C	
400-161922-10	MW-10	Total/NA	Water	SM 2540C	
400-161922-12	DUP-02	Total/NA	Water	SM 2540C	
400-161922-13	EB-01	Total/NA	Water	SM 2540C	
400-161922-14	FB-01	Total/NA	Water	SM 2540C	
MB 400-419644/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-419644/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-161922-6 DU	MW-6	Total/NA	Water	SM 2540C	

Analysis Batch: 420275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-3	MW-3	Total/NA	Water	SM 4500 SO4 E	
400-161922-7	MW-7	Total/NA	Water	SM 4500 SO4 E	
400-161922-8	MW-8	Total/NA	Water	SM 4500 SO4 E	
400-161922-11	DUP-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-420275/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-420275/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-420275/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-161761-D-7 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-161761-D-7 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 420316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-3	MW-3	Total/NA	Water	SM 4500 Cl- E	
400-161922-7	MW-7	Total/NA	Water	SM 4500 Cl- E	
400-161922-8	MW-8	Total/NA	Water	SM 4500 Cl- E	
MB 400-420316/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-420316/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-420316/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-161836-D-5 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-161836-D-5 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 420414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total/NA	Water	SM 4500 Cl- E	
400-161922-2	MW-2	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

General Chemistry (Continued)

Analysis Batch: 420414 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-4	MW-4	Total/NA	Water	SM 4500 Cl- E	
400-161922-5	MW-5	Total/NA	Water	SM 4500 Cl- E	
400-161922-6	MW-6	Total/NA	Water	SM 4500 Cl- E	
400-161922-9	MW-9	Total/NA	Water	SM 4500 Cl- E	
400-161922-10	MW-10	Total/NA	Water	SM 4500 Cl- E	
400-161922-11	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-161922-12	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-161922-13	EB-01	Total/NA	Water	SM 4500 Cl- E	
400-161922-14	FB-01	Total/NA	Water	SM 4500 Cl- E	
MB 400-420414/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-420414/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-420414/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-161920-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-161920-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	
400-161921-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-161921-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 420451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total/NA	Water	SM 4500 SO4 E	
400-161922-2	MW-2	Total/NA	Water	SM 4500 SO4 E	
400-161922-4	MW-4	Total/NA	Water	SM 4500 SO4 E	
400-161922-5	MW-5	Total/NA	Water	SM 4500 SO4 E	
400-161922-6	MW-6	Total/NA	Water	SM 4500 SO4 E	
400-161922-9	MW-9	Total/NA	Water	SM 4500 SO4 E	
400-161922-10	MW-10	Total/NA	Water	SM 4500 SO4 E	
400-161922-12	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-161922-13	EB-01	Total/NA	Water	SM 4500 SO4 E	
400-161922-14	FB-01	Total/NA	Water	SM 4500 SO4 E	
MB 400-420451/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-420451/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-420451/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-161920-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-161920-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
400-161946-B-4 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-161946-B-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 420455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-3	MW-3	Total/NA	Water	SM 4500 F C	
400-161922-7	MW-7	Total/NA	Water	SM 4500 F C	
400-161922-8	MW-8	Total/NA	Water	SM 4500 F C	
400-161922-11	DUP-01	Total/NA	Water	SM 4500 F C	
MB 400-420455/15	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-420455/14	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-161765-C-1 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-161765-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-161920-A-2 DU	Duplicate	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

General Chemistry (Continued)

Analysis Batch: 420482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total/NA	Water	SM 4500 F C	
400-161922-2	MW-2	Total/NA	Water	SM 4500 F C	
400-161922-4	MW-4	Total/NA	Water	SM 4500 F C	
400-161922-5	MW-5	Total/NA	Water	SM 4500 F C	
400-161922-6	MW-6	Total/NA	Water	SM 4500 F C	
400-161922-9	MW-9	Total/NA	Water	SM 4500 F C	
400-161922-10	MW-10	Total/NA	Water	SM 4500 F C	
400-161922-12	DUP-02	Total/NA	Water	SM 4500 F C	
400-161922-13	EB-01	Total/NA	Water	SM 4500 F C	
400-161922-14	FB-01	Total/NA	Water	SM 4500 F C	
MB 400-420482/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-420482/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-161920-A-4 MS	Matrix Spike	Total/NA	Water	SM 4500 F C	
400-161920-A-4 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 F C	
400-161922-4 DU	MW-4	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 422957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161922-1	MW-1	Total/NA	Water	Field Sampling	
400-161922-2	MW-2	Total/NA	Water	Field Sampling	
400-161922-3	MW-3	Total/NA	Water	Field Sampling	
400-161922-4	MW-4	Total/NA	Water	Field Sampling	
400-161922-5	MW-5	Total/NA	Water	Field Sampling	
400-161922-6	MW-6	Total/NA	Water	Field Sampling	
400-161922-7	MW-7	Total/NA	Water	Field Sampling	
400-161922-8	MW-8	Total/NA	Water	Field Sampling	
400-161922-9	MW-9	Total/NA	Water	Field Sampling	
400-161922-10	MW-10	Total/NA	Water	Field Sampling	

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-420577/1-A ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 420577

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		11/23/18 11:52	11/26/18 15:48	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/18 11:52	11/26/18 15:48	5

Lab Sample ID: LCS 400-420577/2-A
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 420577

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0985		mg/L		98	80 - 120
Calcium	5.00	5.46		mg/L		109	80 - 120

Lab Sample ID: 400-161813-H-2-B MS ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 420577

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.12		0.100	0.240		mg/L		118	75 - 125
Calcium	180	E	5.00	190	E 4	mg/L		222	75 - 125

Lab Sample ID: 400-161813-H-2-C MSD ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 420577

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.12		0.100	0.235		mg/L		113	75 - 125	2	20
Calcium	180	E	5.00	190	E 4	mg/L		218	75 - 125	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 400-419237/1
Matrix: Water
Analysis Batch: 419237

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			11/12/18 13:58	1

Lab Sample ID: LCS 400-419237/2
Matrix: Water
Analysis Batch: 419237

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	246		mg/L		84	78 - 122

Lab Sample ID: 400-161920-A-2 DU
Matrix: Water
Analysis Batch: 419237

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	26		26.0		mg/L		0	5

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 400-419512/1
Matrix: Water
Analysis Batch: 419512

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			11/14/18 13:17	1

Lab Sample ID: LCS 400-419512/2
Matrix: Water
Analysis Batch: 419512

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	334		mg/L		114	78 - 122

Lab Sample ID: 400-161879-A-4 DU
Matrix: Water
Analysis Batch: 419512

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	34		34.0		mg/L		0	5

Lab Sample ID: MB 400-419644/1
Matrix: Water
Analysis Batch: 419644

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<3.4		5.0	3.4	mg/L			11/15/18 08:29	1

Lab Sample ID: LCS 400-419644/2
Matrix: Water
Analysis Batch: 419644

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	293	262		mg/L		89	78 - 122

Lab Sample ID: 400-161922-6 DU
Matrix: Water
Analysis Batch: 419644

Client Sample ID: MW-6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	12		12.0		mg/L		0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-420316/6
Matrix: Water
Analysis Batch: 420316

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			11/20/18 15:06	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

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

Lab Sample ID: LCS 400-420316/7
Matrix: Water
Analysis Batch: 420316

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	31.5		mg/L		105	90 - 110

Lab Sample ID: MRL 400-420316/3
Matrix: Water
Analysis Batch: 420316

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	1.40	J	mg/L		70	50 - 150

Lab Sample ID: 400-161836-D-5 MS
Matrix: Water
Analysis Batch: 420316

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	7.3	F1	10.0	20.2	F1	mg/L		129	73 - 120

Lab Sample ID: 400-161836-D-5 MSD
Matrix: Water
Analysis Batch: 420316

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	7.3	F1	10.0	19.9	F1	mg/L		126	73 - 120	1	8

Lab Sample ID: MB 400-420414/6
Matrix: Water
Analysis Batch: 420414

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			11/21/18 09:02	1

Lab Sample ID: LCS 400-420414/7
Matrix: Water
Analysis Batch: 420414

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 400-420414/3
Matrix: Water
Analysis Batch: 420414

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	1.59	J	mg/L		79	50 - 150

Lab Sample ID: 400-161920-A-4 MS
Matrix: Water
Analysis Batch: 420414

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	7.6		10.0	19.1		mg/L		115	73 - 120

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Lab Sample ID: 400-161920-A-4 MSD
Matrix: Water
Analysis Batch: 420414

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	7.6		10.0	18.5		mg/L		109	73 - 120	3	8

Lab Sample ID: 400-161921-D-1 MS
Matrix: Water
Analysis Batch: 420414

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	RPD	RPD Limit
Chloride	4.0	F1	10.0	16.4	F1	mg/L		125	73 - 120		

Lab Sample ID: 400-161921-D-1 MSD
Matrix: Water
Analysis Batch: 420414

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	4.0	F1	10.0	16.5	F1	mg/L		125	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-420455/15
Matrix: Water
Analysis Batch: 420455

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			11/21/18 10:21	1

Lab Sample ID: LCS 400-420455/14
Matrix: Water
Analysis Batch: 420455

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	4.00	3.75		mg/L		94	90 - 110		

Lab Sample ID: 400-161765-C-1 MS
Matrix: Water
Analysis Batch: 420455

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	RPD	RPD Limit
Fluoride	34	F1	10.0	82.2	F1	mg/L		478	75 - 125		

Lab Sample ID: 400-161765-C-1 MSD
Matrix: Water
Analysis Batch: 420455

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	34	F1	10.0	82.2	F1	mg/L		478	75 - 125	0	4

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 400-161920-A-2 DU
Matrix: Water
Analysis Batch: 420455

Client Sample ID: Duplicate
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 400-420482/3
Matrix: Water
Analysis Batch: 420482

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			11/21/18 14:00	1

Lab Sample ID: LCS 400-420482/4
Matrix: Water
Analysis Batch: 420482

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.82		mg/L		96	90 - 110

Lab Sample ID: 400-161920-A-4 MS
Matrix: Water
Analysis Batch: 420482

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032	F1 F2	1.00	0.980		mg/L		98	75 - 125

Lab Sample ID: 400-161920-A-4 MSD
Matrix: Water
Analysis Batch: 420482

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	<0.032	F1 F2	1.00	0.690	F1 F2	mg/L		69	75 - 125	35	4

Lab Sample ID: 400-161922-4 DU
Matrix: Water
Analysis Batch: 420482

Client Sample ID: 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

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-420275/6
Matrix: Water
Analysis Batch: 420275

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			11/20/18 12:50	1

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
SDG: Gypsum App III

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

Lab Sample ID: LCS 400-420275/7
Matrix: Water
Analysis Batch: 420275

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	14.5		mg/L		97	90 - 110

Lab Sample ID: MRL 400-420275/3
Matrix: Water
Analysis Batch: 420275

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	4.68	J	mg/L		94	50 - 150

Lab Sample ID: 400-161761-D-7 MS
Matrix: Water
Analysis Batch: 420275

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	6.4		10.0	14.8		mg/L		85	77 - 128

Lab Sample ID: 400-161761-D-7 MSD
Matrix: Water
Analysis Batch: 420275

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	6.4		10.0	14.4		mg/L		80	77 - 128	3	5

Lab Sample ID: MB 400-420451/6
Matrix: Water
Analysis Batch: 420451

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			11/21/18 13:16	1

Lab Sample ID: LCS 400-420451/7
Matrix: Water
Analysis Batch: 420451

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 400-420451/3
Matrix: Water
Analysis Batch: 420451

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	4.42	J	mg/L		88	50 - 150

Lab Sample ID: 400-161920-A-4 MS
Matrix: Water
Analysis Batch: 420451

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.7	J	10.0	11.4		mg/L		97	77 - 128

TestAmerica Pensacola

QC Sample Results

Client: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

Lab Sample ID: 400-161920-A-4 MSD
Matrix: Water
Analysis Batch: 420451

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.7	J	10.0	11.3		mg/L		96	77 - 128	1	5

Lab Sample ID: 400-161946-B-4 MS
Matrix: Water
Analysis Batch: 420451

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	RPD	RPD Limit
Sulfate	2.7	J	10.0	12.0		mg/L		93	77 - 128		


Lab Sample ID: 400-161946-B-4 MSD
Matrix: Water
Analysis Batch: 420451

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	2.7	J	10.0	12.1		mg/L		94	77 - 128	0	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record

Client Information Client Contact: Mr. Calle Sellers Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State, Zip: AL, 35291 Phone: 205-992-7762(Tel) Email: CBSELLER@SOUTHERNCO.COM Project Name: CCR -Plant Daniel Gypsum App III Site: Mississippi		Lab PI: Whitmire, Cheyenne R. E-Mail: cheyenne.whitmire@testamericainc.com Camer Tracking No(s): 400-78470-27818.1 Page: Page 1 of 2 Job #:																																																																							
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #:		Analysis Requested  400-161922 COC																																																																							
Sample Identification		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)																																																																							
Special Instructions/Note:		Special Instructions/Note:																																																																							
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MW-2	11-8-18	1450	G	Water																																																																					
MW-3	11-7-18	1452	G	Water																																																																					
MW-4	11-8-18	0945	G	Water																																																																					
MW-5	11-8-18	1035	G	Water																																																																					
MW-6	11-8-18	0855	G	Water																																																																					
MW-7	11-7-18	1340	G	Water																																																																					
MW-8	11-7-18	1237	G	Water																																																																					
MW-9	11-8-18	1600	G	Water																																																																					
MW-10	11-8-18	1235	G	Water																																																																					
DUP-01	11-7-18	1352	G	Water																																																																					
Analysis	Result																																																																								
SM4500 Cl, E, SM4500, SO4, F	X X X X																																																																								
6020 - Boron & Calcium	X X X X																																																																								
2540C - Total Dissolved Solids	X X X X																																																																								
4500 F, C - Fluoride	X X X X																																																																								
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																							
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:																																																																							
Empty Kit Reinquished by:		Method of Shipment:																																																																							
Relinquished by: <i>Judy Hagan</i> Relinquished by: <i>TM Roman</i> Relinquished by:		Received by: <i>AM EM</i> Received by: <i>ADIT</i> Received by:																																																																							
Date/Time: 11-8-18 Date/Time: 11-9-18 Date/Time:		Date/Time: 11/9/18 0910 Date/Time: Date/Time:																																																																							
Company: <i>AM EM</i> Company: <i>ADIT</i> Company:		Company: <i>AM EM</i> Company: Company:																																																																							
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.9°C, 1.9°C, 7.0°C																																																																							



Chain of Custody Record

Client Information Client Contact: Mr. Cale Sellers Company: Southern Company Address: PO BOX 2641 GSC8 City: Birmingham State/Zip: AL, 35291 Phone: 205-992-7762(Tel) Email: CBSELLER@SOUTHERNCO.COM Project Name: CCR -Plant Daniel Gypsum App III Site: Mississippi		Sampler: <i>Rick Heydenster / Trevor Baddock</i> Lab PM: Whitmore, Cheyenne R Phone: <i>850-336-0192</i> E-Mail: cheyenne.whitmore@testamericainc.com		Carrier Tracking No(s): COC No: 400-78470-27818.2 Page: Page 2 of 2 Job #:	
Due Date Requested: TAT Requested (days): PO #: SCS10347656 WO #: Project #: 40006621 SSO#:		Analysis Requested SM4500 Cl ₂ SM4500 SO ₄ F 6020 - Boron & Calcium 2540C - Total Dissolved Solids 4500 F ₂ C - Fluoride			
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=wastewat, BT=Tissue, A=Air)		Preservation Codes: A - HCl B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO ₄ F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO ₂ P - Na ₂ O ₄ S Q - Na ₂ SO ₃ R - Na ₂ SO ₃ S - H ₂ SO ₄ T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)			
Sample Date Sample Time Sample Type Matrix		Special Instructions/Note: 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:			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by: Relinquished by: <i>Kevin Hester</i> Date/Time: 11-8-18 Relinquished by: <i>Travis R. Mander</i> Date/Time: 11-9-18 9:10 Relinquished by: _____ Date/Time: _____			
Relinquished by: _____ Date/Time: 11-8-18 Relinquished by: _____ Date/Time: 11-9-18 9:10 Relinquished by: _____ Date/Time: _____		Method of Shipment: Received by: <i>RKH EM</i> Date/Time: 11/9/18 09:10 Company: <i>TAI</i> Received by: _____ Date/Time: _____ Company: _____ 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:			



Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-161922-1
SDG Number: Gypsum App III

Login Number: 161922

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	0.9°C, 1.9°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: Southern Company
 Project/Site: CCR -Plant Daniel

TestAmerica Job ID: 400-161922-1
 SDG: Gypsum App III

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

Product Name: Low-Flow System

Date: 2018-06-02 08:44:56

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 56 ft

Pump placement from TOC 48.3 ft

Well Information:

Well ID MW-1
Well diameter 2 in
Well Total Depth 53.3 ft
Screen Length 10 ft
Depth to Water 19.17 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7299517 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:22:43	1199.80	21.10	5.32	75.71	4.83	19.27	8.21	129.06
Last 5	08:27:43	1499.80	21.07	5.28	75.08	3.14	19.27	8.25	129.27
Last 5	08:32:43	1799.80	21.10	5.26	74.70	2.59	19.27	8.26	129.34
Last 5	08:37:43	2099.80	21.19	5.24	74.76	2.19	19.27	8.26	129.46
Last 5	08:42:43	2399.80	21.28	5.18	73.71	1.91	19.27	8.30	130.62
Variance 0			0.03	-0.02	-0.38			0.01	0.07
Variance 1			0.09	-0.02	0.07			-0.01	0.12
Variance 2			0.09	-0.06	-1.05			0.04	1.15

Notes

Sample time 0845. Sunny 82.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-02 15:37:11

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 57 ft

Pump placement from TOC 48.2 ft

Well Information:

Well ID MW-2
Well diameter 2 in
Well Total Depth 53.2 ft
Screen Length 10 ft
Depth to Water 17.50 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.34444151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.01 in
Total Volume Pumped 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:13:32	1800.02	22.75	4.89	37.13	0.24	17.51	6.07	141.01
Last 5	15:18:32	2100.02	22.50	4.89	37.45	0.25	17.51	6.19	140.78
Last 5	15:23:32	2400.02	22.19	4.88	37.34	0.24	17.51	6.11	140.80
Last 5	15:28:32	2699.90	22.17	4.89	37.48	0.22	17.51	6.15	139.19
Last 5	15:33:32	2999.90	22.08	4.88	37.32	0.27	17.51	6.17	138.09
Variance 0			-0.31	-0.00	-0.11			-0.08	0.01
Variance 1			-0.02	0.01	0.13			0.04	-1.61
Variance 2			-0.09	-0.01	-0.15			0.02	-1.10

Notes

Sample time 1538. PC 90.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-02 13:24:50

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 56 ft

Pump placement from TOC 49.3 ft

Well Information:

Well ID MW-3
Well diameter 2 in
Well Total Depth 54.3 ft
Screen Length 10 ft
Depth to Water 21.48 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7299517 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.7 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:57:46	300.02	23.19	4.47	51.42	1.16	21.61	6.14	146.60
Last 5	13:02:46	600.02	22.84	4.48	55.42	1.50	21.65	5.91	136.24
Last 5	13:07:46	900.02	22.63	4.50	57.77	1.37	21.65	5.85	132.75
Last 5	13:12:46	1200.02	22.53	4.50	59.61	1.59	21.65	5.77	131.93
Last 5	13:17:46	1500.02	22.66	4.51	60.12	1.83	21.65	5.72	131.91
Variance 0			-0.21	0.02	2.35			-0.06	-3.49
Variance 1			-0.10	0.00	1.84			-0.08	-0.81
Variance 2			0.13	0.01	0.51			-0.05	-0.03

Notes

Sample time 1320. Dup-02 (CCR)fake sample time 0600. PC 88. Dup-01(GSA-quarterly) fake time 0700.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-02 10:51:13

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 46.8 ft

Well Information:

Well ID MW-4
Well diameter 2 in
Well Total Depth 51.8 ft
Screen Length 10 ft
Depth to Water 21.14 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7165614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.01 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:24:12	900.02	22.13	4.95	52.12	3.02	21.25	2.79	111.67
Last 5	10:29:12	1200.02	22.26	4.93	50.93	1.92	21.25	2.93	113.19
Last 5	10:34:12	1500.02	22.35	4.92	50.33	1.27	21.25	3.07	114.81
Last 5	10:39:12	1800.02	22.28	4.92	49.83	1.04	21.25	3.16	116.15
Last 5	10:44:12	2100.02	22.35	4.92	49.45	0.75	21.25	3.19	116.42
Variance 0			0.09	-0.01	-0.60			0.14	1.62
Variance 1			-0.07	-0.00	-0.50			0.09	1.34
Variance 2			0.07	0.00	-0.38			0.03	0.27

Notes

Sample time 1050. PC 90.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-02 09:44:02

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 51.3 ft

Well Information:

Well ID MW-5
Well diameter 2 in
Well Total Depth 56.3 ft
Screen Length 10 ft
Depth to Water 20.42 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7388785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:21:55	300.03	23.65	4.83	49.24	0.40	20.45	3.48	133.40
Last 5	09:26:55	600.02	22.94	4.84	49.81	0.77	20.48	3.42	124.13
Last 5	09:31:55	900.02	21.94	4.86	50.62	0.60	20.48	3.26	122.38
Last 5	09:36:55	1200.02	21.82	4.87	51.60	0.68	20.48	3.27	122.91
Last 5	09:41:55	1500.02	21.74	4.87	51.52	0.65	20.48	3.25	122.89
Variance 0			-1.00	0.02	0.81			-0.16	-1.76
Variance 1			-0.12	0.01	0.98			0.02	0.54
Variance 2			-0.08	-0.00	-0.09			-0.02	-0.02

Notes

Sample time 0944. PC 85.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-02 12:11:16

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 51 ft

Well Information:

Well ID MW-6
Well diameter 2 in
Well Total Depth 56.0 ft
Screen Length 10 ft
Depth to Water 20.63 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7388785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.8 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:49:25	300.03	24.78	4.72	40.89	1.09	20.71	1.94	147.08
Last 5	11:54:25	599.92	22.53	4.72	41.50	1.01	20.71	1.96	120.46
Last 5	11:59:25	899.92	22.13	4.74	41.86	0.69	20.71	1.97	110.48
Last 5	12:04:25	1199.92	22.04	4.75	42.04	0.66	20.71	1.94	106.74
Last 5	12:09:25	1499.92	21.98	4.75	42.09	0.50	20.71	1.93	104.70
Variance 0			-0.40	0.02	0.36			0.01	-9.97
Variance 1			-0.09	0.01	0.18			-0.02	-3.74
Variance 2			-0.06	0.00	0.05			-0.01	-2.04

Notes

Sample time 1211. PC 91.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 13:22:33

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 59 ft

Pump placement from TOC 49.8 ft

Well Information:

Well ID MW-7
Well diameter 2 in
Well Total Depth 54.8 ft
Screen Length 10 ft
Depth to Water 18.20 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7433419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.7 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:04:42	300.07	22.44	4.52	70.39	1.73	18.28	7.18	171.03
Last 5	13:09:42	599.91	21.86	4.53	69.91	0.87	18.27	7.23	155.25
Last 5	13:14:42	899.91	21.96	4.54	70.43	0.55	18.27	7.22	153.26
Last 5	13:19:42	1199.91	21.93	4.54	70.86	0.65	18.27	7.24	152.38
Last 5									
Variance 0			-0.58	0.01	-0.48			0.05	-15.77
Variance 1			0.11	0.01	0.52			-0.01	-2.00
Variance 2			-0.04	0.01	0.42			0.02	-0.88

Notes

Sample time 1323. PC 89.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 16:01:00

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 50.8 ft

Well Information:

Well ID MW-8
Well diameter 2 in
Well Total Depth 55.8 ft
Screen Length 10 ft
Depth to Water 17.88 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.02 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:39:53	300.07	22.98	4.60	61.28	16.10	17.90	5.48	147.55
Last 5	15:44:53	600.02	22.66	4.63	61.56	1.45	17.90	5.41	134.22
Last 5	15:49:53	900.02	22.53	4.66	61.40	0.91	17.90	5.38	130.46
Last 5	15:54:53	1200.02	22.53	4.66	61.43	0.62	17.90	5.37	130.18
Last 5									
Variance 0			-0.31	0.03	0.28			-0.07	-13.33
Variance 1			-0.13	0.03	-0.15			-0.02	-3.76
Variance 2			0.00	0.00	0.03			-0.02	-0.28

Notes

Sample time 1558. Dup-01 fake time 0600. FB-01 sample time 1525. EB-01 sample time 1528. PC 88.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 14:52:16

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 59 ft

Pump placement from TOC 51.2 ft

Well Information:

Well ID MW-9
Well diameter 2 in
Well Total Depth 56.2 ft
Screen Length 10 ft
Depth to Water 17.38 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3533419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:30:06	900.02	22.27	4.99	44.57	0.77	17.38	1.54	108.47
Last 5	14:35:06	1200.02	22.30	5.00	44.62	0.59	17.38	1.79	113.80
Last 5	14:40:06	1500.07	22.22	5.03	44.55	0.73	17.38	2.02	117.88
Last 5	14:45:06	1799.94	22.13	5.02	44.56	0.38	17.38	2.04	120.39
Last 5	14:50:06	2099.93	22.20	5.02	44.51	0.40	17.38	2.11	123.66
Variance 0			-0.08	0.03	-0.07			0.23	4.08
Variance 1			-0.09	-0.01	0.01			0.02	2.51
Variance 2			0.07	0.00	-0.05			0.07	3.27

Notes

Sample time 1451. PC 90.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 17:51:15

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 51.4 ft

Well Information:

Well ID MW-10
Well diameter 2 in
Well Total Depth 56.4 ft
Screen Length 10 ft
Depth to Water 18.63 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.01 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	17:34:16	300.03	23.56	5.11	28.84	0.27	18.64	4.30	124.57
Last 5	17:39:16	600.02	22.75	5.09	28.11	0.31	18.64	4.32	111.16
Last 5	17:44:16	900.02	22.66	5.07	27.60	0.22	18.64	4.25	109.32
Last 5	17:49:16	1200.02	22.62	5.07	27.31	0.19	18.64	4.23	108.70
Last 5									
Variance 0			-0.81	-0.02	-0.73			0.01	-13.41
Variance 1			-0.09	-0.02	-0.51			-0.07	-1.85
Variance 2			-0.05	0.00	-0.30			-0.02	-0.62

Notes

Sample time 1751. PC 88.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 11:29:27

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 56 ft

Pump placement from TOC 48.3 ft

Well Information:

Well ID MW-1
Well diameter 2 in
Well Total Depth 53.3 ft
Screen Length 10 ft
Depth to Water 20.26 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7299517 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:06:41	299.93	21.45	5.45	73.72	8.97	20.26	7.99	115.23
Last 5	11:11:41	599.92	21.23	5.34	70.95	6.45	20.26	8.23	117.12
Last 5	11:16:41	899.92	21.09	5.24	70.04	6.72	20.26	8.38	117.61
Last 5	11:21:41	1199.92	21.06	5.19	69.81	6.11	20.26	8.46	118.18
Last 5	11:26:41	1499.92	21.04	5.15	69.48	4.69	20.26	8.51	118.62
Variance 0			-0.14	-0.09	-0.91			0.16	0.49
Variance 1			-0.03	-0.05	-0.23			0.07	0.57
Variance 2			-0.02	-0.04	-0.34			0.05	0.44

Notes

Cloudy 72. Sample time 1130

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 14:52:48

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 48.2 ft

Well Information:

Well ID MW-2
Well diameter 2 in
Well Total Depth 53.2 ft
Screen Length 10 ft
Depth to Water 18.49 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.04 in
Total Volume Pumped 38 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:25:20	4504.95	21.10	4.93	41.16	0.70	18.53	6.86	82.54
Last 5	14:30:20	4804.95	21.06	4.92	41.18	0.66	18.53	6.84	83.89
Last 5	14:35:20	5104.95	21.01	4.92	41.13	0.63	18.53	6.46	84.63
Last 5	14:40:20	5404.90	20.98	4.92	41.17	0.39	18.53	6.39	85.53
Last 5	14:45:21	5705.90	20.97	4.92	41.08	0.21	18.53	6.63	86.34
Variance 0			-0.04	-0.00	-0.05			-0.38	0.73
Variance 1			-0.04	0.00	0.04			-0.07	0.91
Variance 2			-0.01	-0.00	-0.09			0.24	0.81

Notes

Sample time 1450. Cloudy 78. EB-01 sample time 1301. FB-01 sample time 1305. D.O. Not completely stable but Cale Sellers said we could sample. Everything else was stable.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-07 14:55:03

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 56 ft

Pump placement from TOC 49.3 ft

Well Information:

Well ID MW-3
Well diameter 2 in
Well Total Depth 54.3 ft
Screen Length 10 ft
Depth to Water 22.10 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7299517 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.08 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:30:57	300.08	22.67	4.42	58.10	1.30	22.20	5.93	86.65
Last 5	14:35:57	600.02	22.58	4.44	60.41	1.45	22.20	5.85	85.50
Last 5	14:40:57	900.02	22.55	4.44	62.94	1.50	22.20	5.81	85.98
Last 5	14:45:57	1200.02	22.53	4.45	64.63	1.21	22.20	5.79	87.12
Last 5	14:50:57	1500.02	22.49	4.46	65.79	1.02	22.20	5.76	88.83
Variance 0			-0.02	0.00	2.53			-0.04	0.49
Variance 1			-0.02	0.01	1.69			-0.02	1.14
Variance 2			-0.04	0.01	1.16			-0.03	1.71

Notes

Cloudy 80. Sample time 1452. Dup-01 time 1352.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 09:43:48

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 46.8 ft

Well Information:

Well ID MW-4
Well diameter 2 in
Well Total Depth 51.8 ft
Screen Length 10 ft
Depth to Water 22.08 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7165614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.18 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:20:53	300.03	21.28	4.90	61.09	2.48	22.15	2.99	88.71
Last 5	09:25:53	600.02	21.19	4.90	59.62	2.31	22.15	2.87	87.69
Last 5	09:30:53	900.01	21.19	4.90	57.31	2.60	22.15	2.96	87.26
Last 5	09:35:53	1200.01	21.19	4.90	55.50	2.31	22.15	3.00	86.67
Last 5	09:40:53	1500.01	21.21	4.91	54.66	2.14	22.15	3.13	86.94
Variance 0			-0.00	0.00	-2.31			0.09	-0.44
Variance 1			0.00	0.00	-1.81			0.04	-0.59
Variance 2			0.02	0.00	-0.84			0.13	0.27

Notes

Cloudy 72. Sampling time 0945.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 10:32:43

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 51.3 ft

Well Information:

Well ID MW-5
Well diameter 2 in
Well Total Depth 56.3 ft
Screen Length 10 ft
Depth to Water 21.42 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7388785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:14:42	300.02	21.00	4.89	50.47	0.55	21.42	3.27	92.13
Last 5	10:19:42	600.02	20.79	4.88	50.38	0.62	21.42	3.14	91.21
Last 5	10:24:42	900.02	20.74	4.89	50.39	0.67	21.42	3.14	90.84
Last 5	10:29:42	1200.02	20.73	4.90	50.44	0.56	21.42	3.14	90.72
Last 5									
Variance 0			-0.21	-0.01	-0.09			-0.13	-0.92
Variance 1			-0.05	0.01	0.01			0.01	-0.38
Variance 2			-0.01	0.01	0.05			-0.01	-0.12

Notes

Cloudy 72. Sample time 1035

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 08:54:10

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 51 ft

Well Information:

Well ID MW-6
Well diameter 2 in
Well Total Depth 56 ft
Screen Length 10 ft
Depth to Water 21.50 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7388785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.07 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:40:57	300.08	20.83	4.67	42.82	0.95	21.57	2.10	84.73
Last 5	08:45:57	600.01	20.79	4.69	42.63	0.55	21.57	2.03	82.63
Last 5	08:50:57	900.01	20.77	4.69	42.56	0.50	21.57	2.04	81.49
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.05	0.02	-0.19			-0.07	-2.10
Variance 2			-0.02	0.00	-0.07			0.01	-1.15

Notes

Cloudy 72. Sampling time 0855.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-07 13:40:30

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 57 ft

Pump placement from TOC 49.8 ft

Well Information:

Well ID MW-7
Well diameter 2 in
Well Total Depth 54.8 ft
Screen Length 10 ft
Depth to Water 18.77 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.7344151 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.06 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:20:46	300.04	21.64	4.43	69.97	1.11	18.83	7.32	138.20
Last 5	13:25:46	600.02	21.46	4.45	70.18	0.66	18.83	7.30	136.23
Last 5	13:30:46	900.02	21.41	4.48	70.35	1.46	18.83	7.32	135.97
Last 5	13:35:46	1200.02	21.39	4.48	70.83	1.03	18.83	7.34	137.18
Last 5									
Variance 0			-0.18	0.02	0.22			-0.02	-1.97
Variance 1			-0.04	0.02	0.17			0.02	-0.26
Variance 2			-0.03	0.01	0.48			0.02	1.21

Notes

Cloudy 82. Sample time 1349

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-07 12:38:12

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 50.8 ft

Well Information:

Well ID MW-8
Well diameter 2 in
Well Total Depth 55.8 ft
Screen Length 10 ft
Depth to Water 18.62 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:18:51	300.08	22.59	4.42	81.01	1.93	18.62	5.73	131.41
Last 5	12:23:51	600.02	22.26	4.50	80.57	1.91	18.62	5.61	130.45
Last 5	12:28:51	900.02	22.20	4.52	80.79	0.92	18.62	5.61	132.20
Last 5	12:33:51	1199.58	22.17	4.54	80.24	0.52	18.62	5.54	134.19
Last 5									
Variance 0			-0.33	0.08	-0.44			-0.12	-0.97
Variance 1			-0.07	0.03	0.22			0.00	1.75
Variance 2			-0.02	0.01	-0.55			-0.07	1.99

Notes

Cloudy 82. Sample time 1237

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 16:02:54

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 59 ft

Pump placement from TOC 51.2 ft

Well Information:

Well ID MW-9
Well diameter 2 in
Well Total Depth 56.2 ft
Screen Length 10 ft
Depth to Water 18.18 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3533419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.01 in
Total Volume Pumped 16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:38:57	1200.02	20.97	4.98	45.57	0.31	18.19	1.89	101.74
Last 5	15:43:57	1500.02	20.96	4.98	45.55	0.29	18.19	2.02	101.43
Last 5	15:48:57	1800.02	20.93	4.98	45.66	0.18	18.19	2.14	101.46
Last 5	15:53:57	2100.02	20.96	4.98	45.61	0.18	18.19	2.28	101.28
Last 5	15:58:57	2399.95	20.95	4.98	45.57	0.19	18.19	2.33	101.25
Variance 0			-0.03	-0.00	0.11			0.12	0.02
Variance 1			0.04	0.00	-0.05			0.14	-0.18
Variance 2			-0.01	0.00	-0.04			0.05	-0.03

Notes

Cloudy 71. Sample time 1600. DUP-02 sample time 1500

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 12:35:55

Project Information:

Operator Name Rick Hagendorfer
Company Name RDH Env
Project Name Gypsum stacking area CCR
Site Name Plant Daniel
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 424893
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type peristaltic
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 59 ft

Pump placement from TOC 51.4 ft

Well Information:

Well ID MW-10
Well diameter 2 in
Well Total Depth 56.4 ft
Screen Length 10 ft
Depth to Water 19.67 ft

Pumping Information:

Final Pumping Rate 400 mL/min
Total System Volume 0.3533419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:17:16	300.02	21.73	5.08	34.17	1.59	19.67	4.30	75.81
Last 5	12:22:16	600.02	21.57	5.08	31.55	0.95	19.67	4.31	71.03
Last 5	12:27:16	899.94	21.46	5.08	30.78	0.60	19.67	4.20	68.82
Last 5	12:32:16	1199.93	21.46	5.09	30.65	0.23	19.67	4.15	67.55
Last 5									
Variance 0			-0.16	0.00	-2.62			0.01	-4.78
Variance 1			-0.11	0.01	-0.77			-0.11	-2.21
Variance 2			0.00	0.00	-0.12			-0.06	-1.27

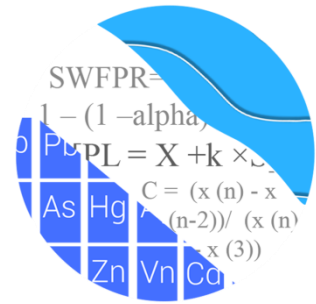
Notes

Cloudy 78. Sample time 1235

Grab Samples

Appendix B

GROUNDWATER STATS CONSULTING



January 22, 2019

Southern Company Services
Attn: Ms. Lauren Parker
3550 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Daniel Gypsum Storage Area
Detection Monitoring Event – November 2018

Dear Ms. Parker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the evaluation of groundwater data for the November 2018 Detection Monitoring event for Mississippi Power Company's Plant Daniel Gypsum Storage Area. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** MW-1, MW-2 and MW-10
- **Downgradient wells:** MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, and MW-9

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS;
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium.

Time series plots for Appendix III parameters are provided for all wells and constituents; and are used to evaluate concentrations over the entire record. No statistical analysis was required for Appendix IV parameters as this unit is in Detection Monitoring. Values in background which have previously been flagged as outliers may be seen in a lighter font and disconnected symbol on the graphs.

Evaluation of Appendix III Parameters

Intrawell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, chloride, fluoride, pH, sulfate and TDS. In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. The results of those findings show statistically significant increases (SSIs) for calcium in wells MW-3 and MW-4; chloride in wells MW-3 and MW-8; and TDS in well MW-2. The Prediction Limit Summary tables follow this letter.

When a statistically significant increase was identified, the data were further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether data are statistically increasing, decreasing or stable. No statistically significant increasing trends were noted in any of the downgradient wells. An increasing trend was noted for sulfate in upgradient well MW-1 which is typically an indication of natural variation in groundwater. Statistically significant decreasing trends were noted for calcium and chloride in upgradient wells MW-10 and MW-1. The Trend Test Summary Table follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Daniel Gypsum Storage Area. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,

A handwritten signature in black ink that reads "Kristina Rayner". The signature is written in a cursive, flowing style.

Kristina L. Rayner
Groundwater Statistician

1st Semi-Annual

Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 1/15/2019, 9:25 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>
Sulfate (mg/L)	MW-1	7.068	n/a	6/2/2018	12	Yes	17	5.882	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	57.86	n/a	6/1/2018	60	Yes	8	12.5	x^2	0.001075	Param Intra 1 of 2

Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 1/15/2019, 9:25 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-1	0.05	n/a	6/2/2018	0.021ND	No	7	85.71	n/a	0.02765	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-2	0.05	n/a	6/2/2018	0.021ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-3	0.021	n/a	6/2/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-4	0.021	n/a	6/2/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-5	0.021	n/a	6/2/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-6	0.021	n/a	6/2/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-7	0.021	n/a	6/1/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-8	0.021	n/a	6/1/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-9	0.05	n/a	6/1/2018	0.021ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-10	0.05	n/a	6/1/2018	0.022	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-1	8.293	n/a	6/2/2018	4.5	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-2	1.162	n/a	6/2/2018	0.81	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-3	1.31	n/a	6/2/2018	1.2	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-4	2.113	n/a	6/2/2018	2	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-5	2.606	n/a	6/2/2018	1.8	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-6	1.763	n/a	6/2/2018	1.1	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-7	2.082	n/a	6/1/2018	1.6	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-8	3.389	n/a	6/1/2018	2	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-9	1.047	n/a	6/1/2018	0.98	No	8	0	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-10	4.778	n/a	6/1/2018	0.7	No	8	0	sqrt(x)	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-1	12.54	n/a	6/2/2018	2.9	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-2	9.842	n/a	6/2/2018	6.8	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-3	11	n/a	6/2/2018	8.8	No	8	0	n/a	0.02144	NP Intra (normality) ...
Chloride (mg/L)	MW-4	14.63	n/a	6/2/2018	8.2	No	8	0	n/a	0.02144	NP Intra (normality) ...
Chloride (mg/L)	MW-5	11.34	n/a	6/2/2018	7.3	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-6	9.581	n/a	6/2/2018	6.2	No	8	12.5	x^2	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-7	17.75	n/a	6/1/2018	13	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-8	10.23	n/a	6/1/2018	9	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-9	8.998	n/a	6/1/2018	6.9	No	8	0	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-10	7.793	n/a	6/1/2018	4	No	8	12.5	No	0.001075	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	0.1	n/a	6/2/2018	0.032ND	No	8	50	n/a	0.02144	NP Intra (normality) ...
Fluoride (mg/L)	MW-2	0.032	n/a	6/2/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-3	0.1	n/a	6/2/2018	0.05	No	8	25	n/a	0.02144	NP Intra (normality) ...
Fluoride (mg/L)	MW-4	0.032	n/a	6/2/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-5	0.032	n/a	6/2/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-6	0.1	n/a	6/2/2018	0.032ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-7	0.1	n/a	6/1/2018	0.032ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-8	0.032	n/a	6/1/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-9	0.032	n/a	6/1/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-10	0.032	n/a	6/1/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
pH (pH)	MW-1	5.912	4.402	10/18/2017	5.55	No	17	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-2	5.755	4.417	10/18/2017	4.92	No	17	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-3	4.856	4.185	10/17/2017	4.51	No	17	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-4	5.17	4.593	10/18/2017	4.78	No	17	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-5	4.928	4.527	12/15/2017	4.86	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-6	4.858	4.4	10/18/2017	4.63	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-7	5.329	3.681	10/18/2017	4.49	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-8	7.14	4.49	10/18/2017	4.81	No	8	0	n/a	0.04288	NP Intra (normality) ...
pH (pH)	MW-9	5.063	4.722	10/18/2017	4.96	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-10	5.744	4.416	10/18/2017	4.97	No	8	0	No	0.000...	Param Intra 1 of 2

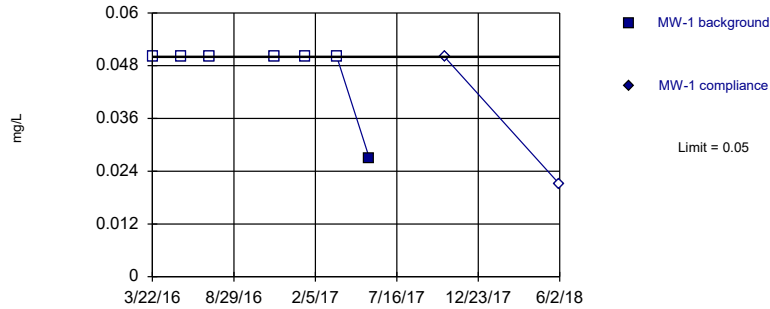
Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 1/15/2019, 9:25 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>
Sulfate (mg/L)	MW-1	7.068	n/a	6/2/2018	12	Yes	17	5.882	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	5	n/a	6/2/2018	1.4ND	No	17	94.12	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-3	1.4	n/a	6/2/2018	1.4ND	No	16	100	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-4	1.4	n/a	6/2/2018	1.9	No	16	100	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-5	1.4	n/a	6/2/2018	3.4	No	7	100	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-6	3.883	n/a	6/2/2018	1.8	No	7	14.29	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	1.4	n/a	6/1/2018	1.4ND	No	7	100	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-8	1.4	n/a	6/1/2018	1.4	No	7	100	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-9	5	n/a	6/1/2018	3.3	No	7	57.14	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-10	5	n/a	6/1/2018	2.1	No	7	85.71	n/a	0.02765	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	136.8	n/a	6/2/2018	20	No	8	0	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	54.26	n/a	6/2/2018	1.7ND	No	8	12.5	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	71.98	n/a	6/2/2018	1.7ND	No	8	0	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4	81.27	n/a	6/2/2018	32	No	8	12.5	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-5	63.98	n/a	6/2/2018	1.7ND	No	8	0	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-6	58.87	n/a	6/2/2018	1.7ND	No	8	12.5	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	78.68	n/a	6/1/2018	42	No	8	0	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	57.86	n/a	6/1/2018	60	Yes	8	12.5	x^2	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-9	71.67	n/a	6/1/2018	42	No	8	12.5	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-10	69.92	n/a	6/1/2018	28	No	8	12.5	No	0.001075	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

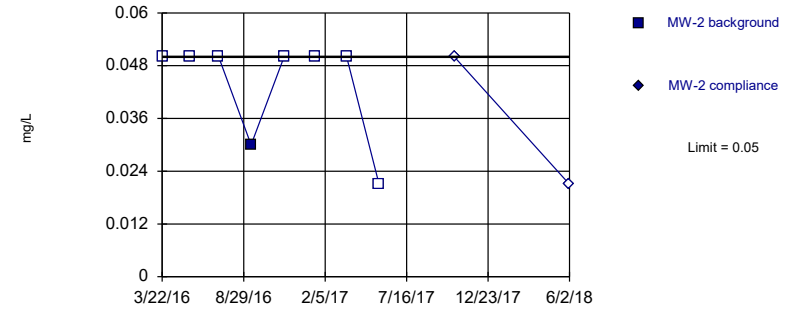


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

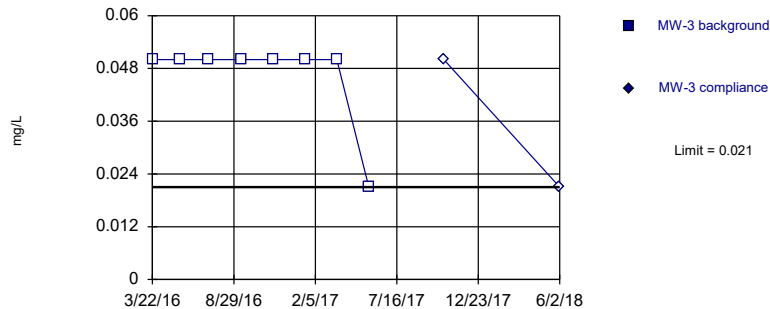


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

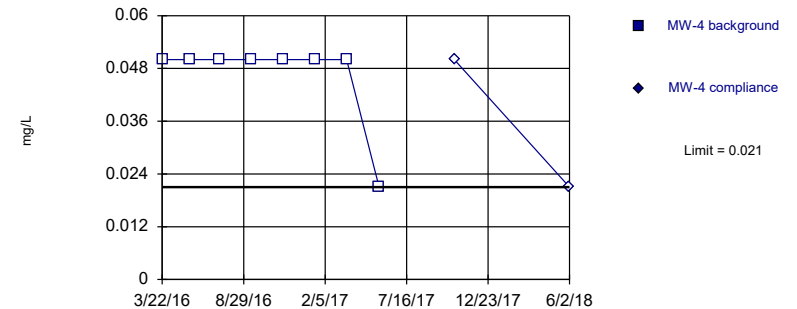


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

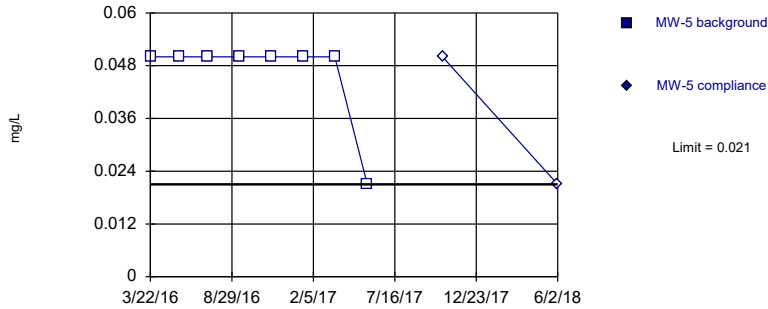


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

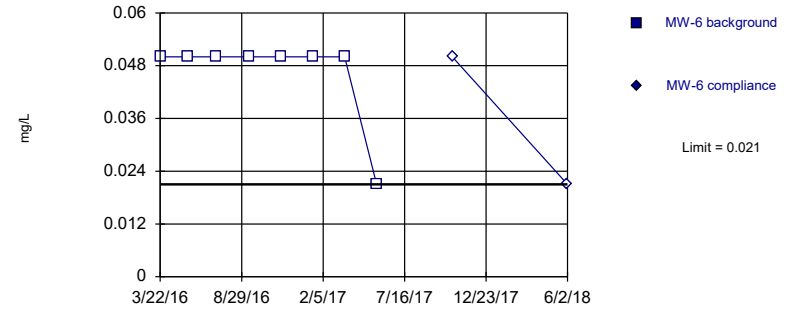


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

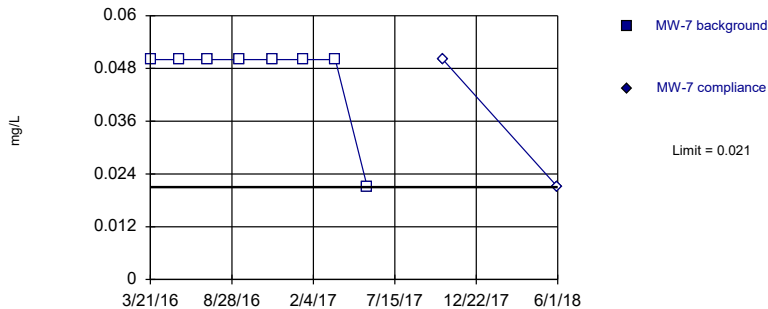


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

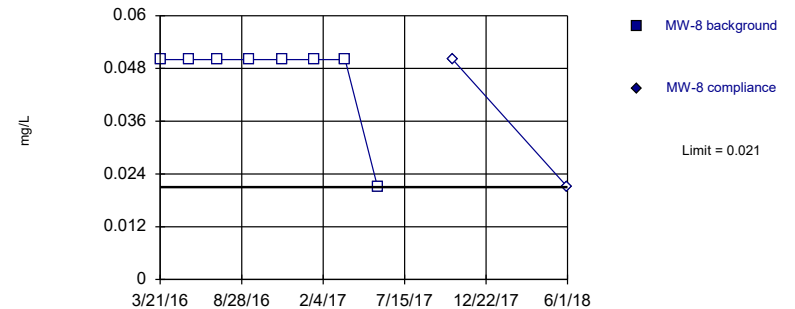


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

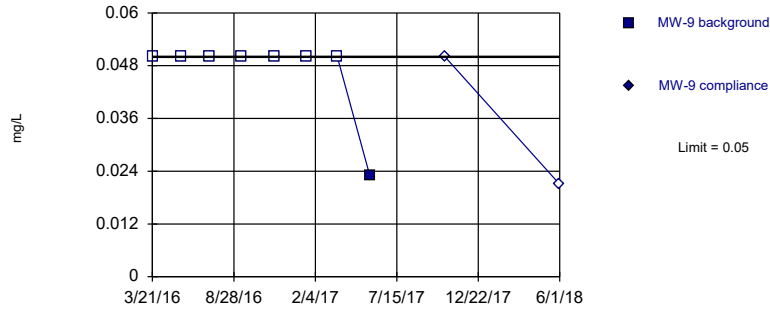


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

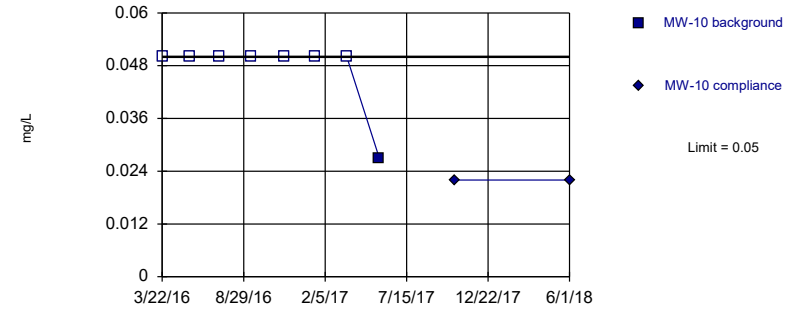


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

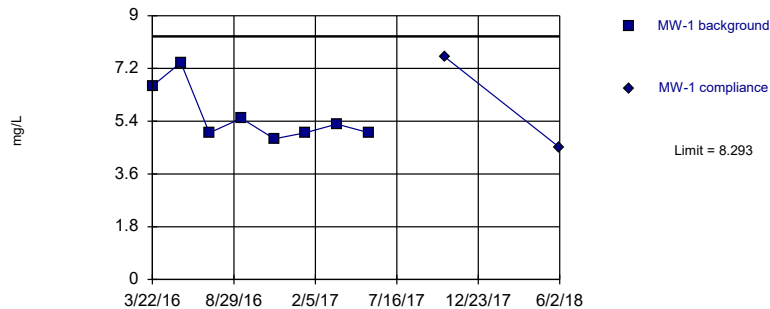


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

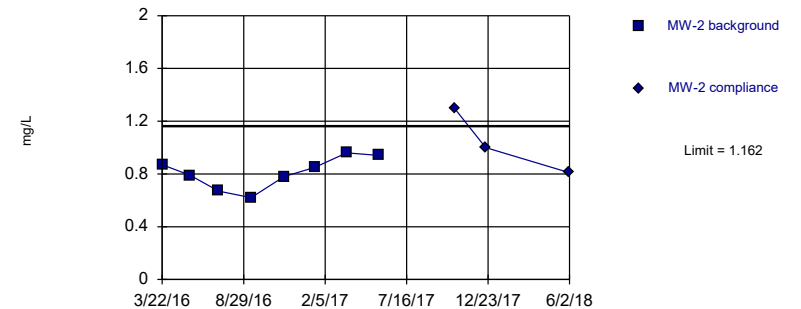


Background Data Summary: Mean=5.575, Std. Dev.=0.9301, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7876, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

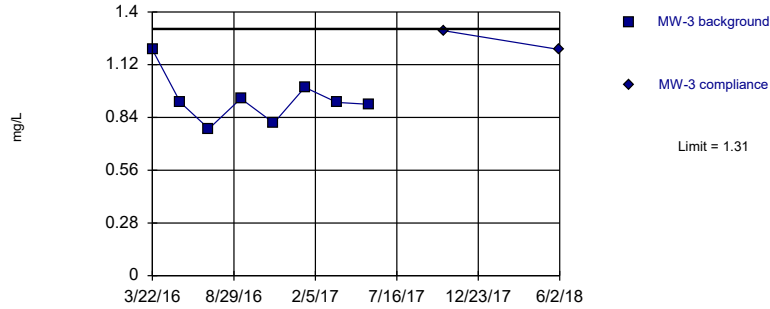


Background Data Summary: Mean=0.81, Std. Dev.=0.1205, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9474, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

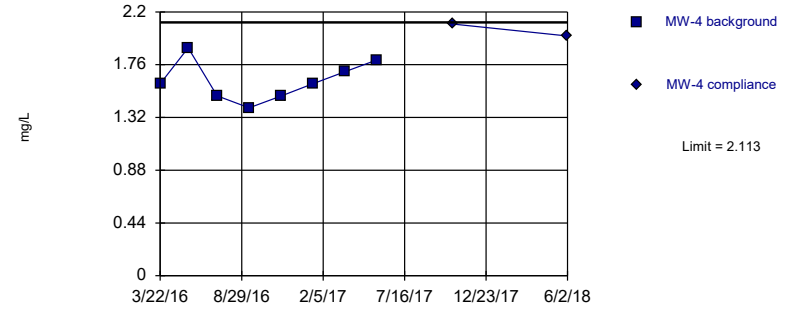


Background Data Summary: Mean=0.935, Std. Dev.=0.1283, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8863, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

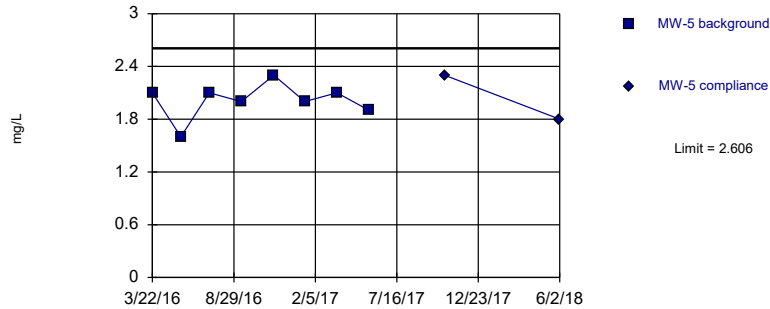


Background Data Summary: Mean=1.625, Std. Dev.=0.1669, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9587, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

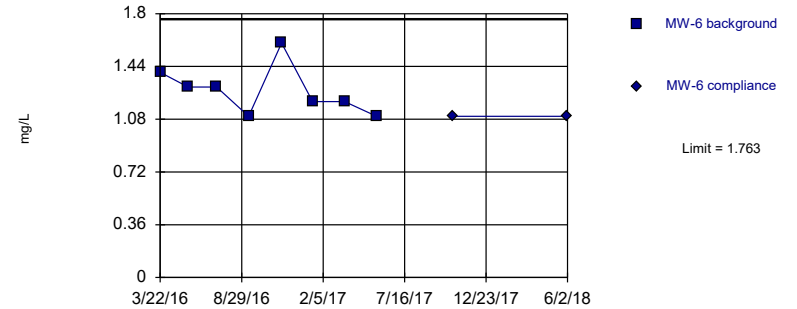


Background Data Summary: Mean=2.013, Std. Dev.=0.2031, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9006, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

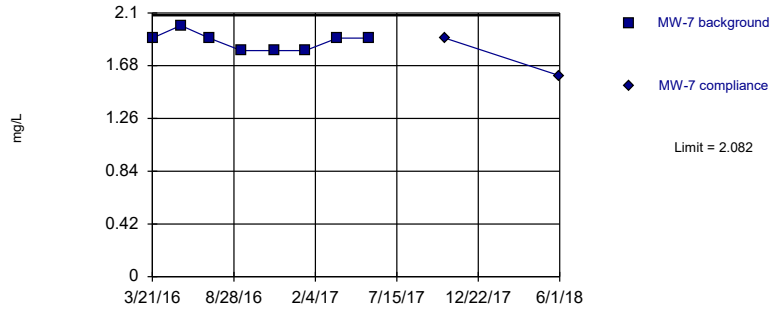


Background Data Summary: Mean=1.275, Std. Dev.=0.1669, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.907, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

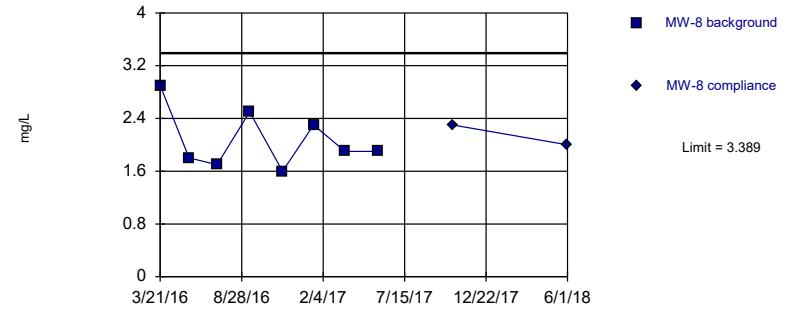


Background Data Summary: Mean=1.875, Std. Dev.=0.07071, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8268, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

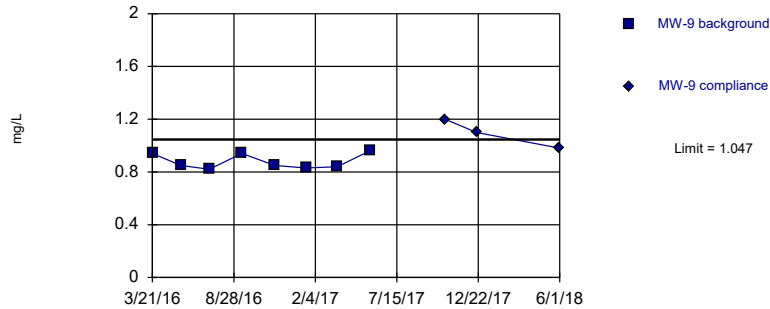


Background Data Summary: Mean=2.075, Std. Dev.=0.4496, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8977, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

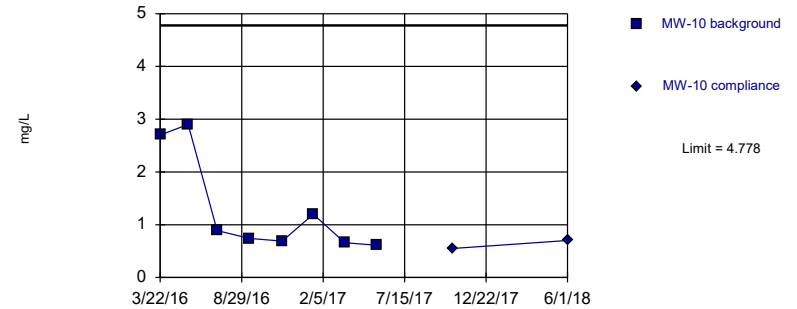


Background Data Summary: Mean=0.8788, Std. Dev.=0.05743, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8125, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

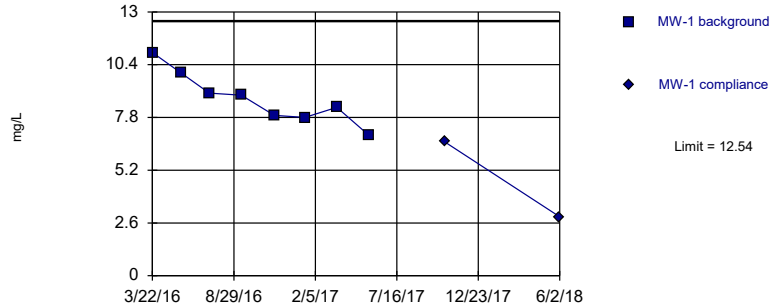


Background Data Summary (based on square root transformation): Mean=1.084, Std. Dev.=0.3771, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7632, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

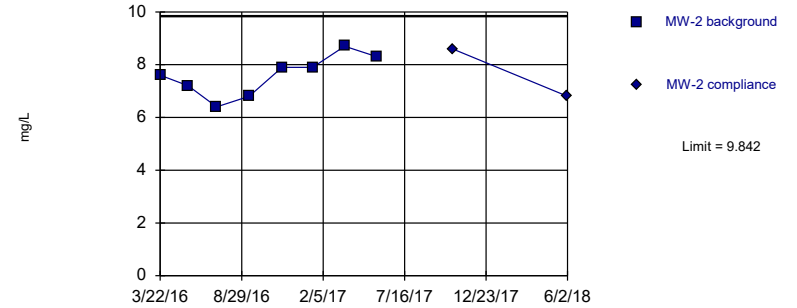


Background Data Summary: Mean=8.725, Std. Dev.=1.307, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9685, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

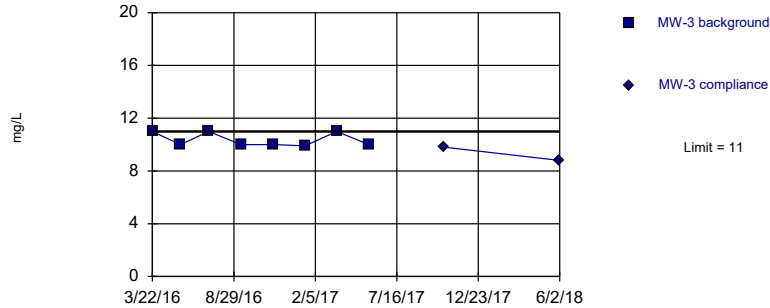


Background Data Summary: Mean=7.6, Std. Dev.=0.7672, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9761, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

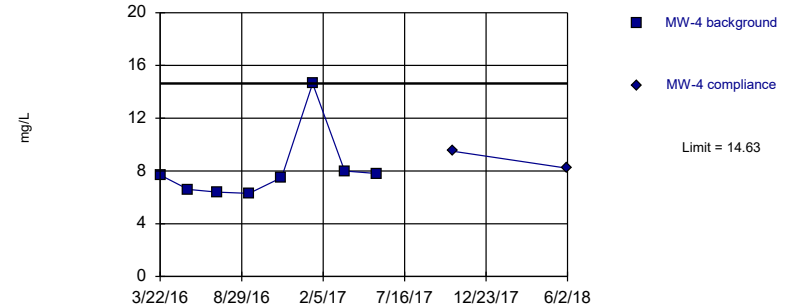


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

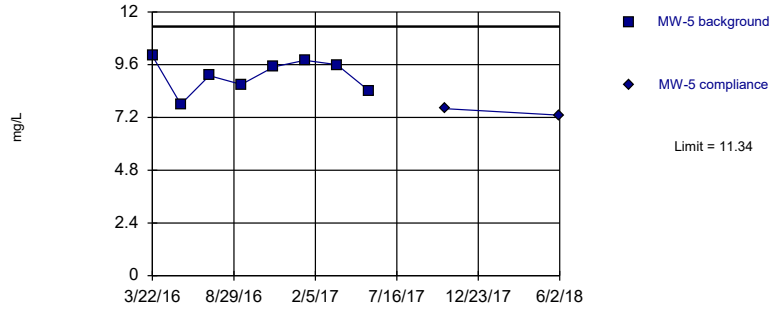


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

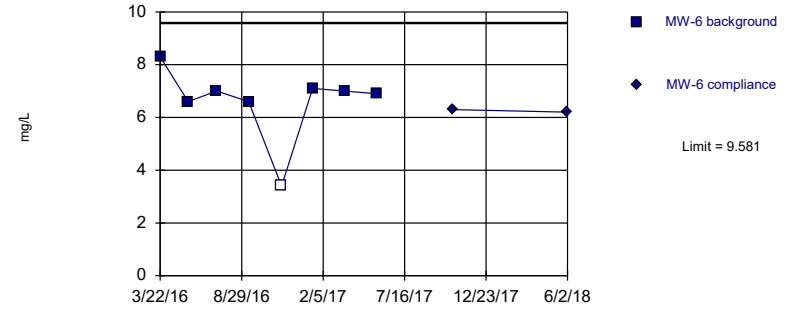


Background Data Summary: Mean=9.113, Std. Dev.=0.7605, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

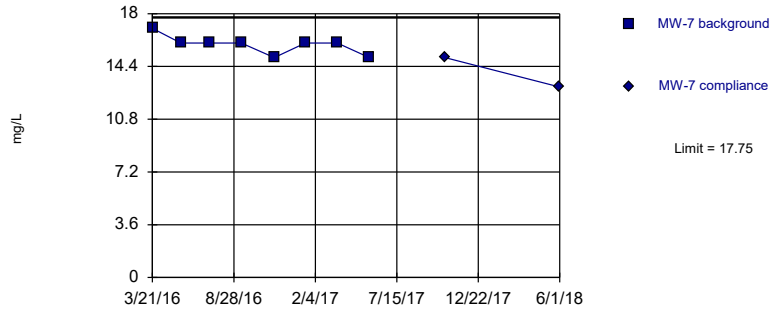


Background Data Summary (based on square transformation): Mean=45.45, Std. Dev.=15.85, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8159, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:22 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

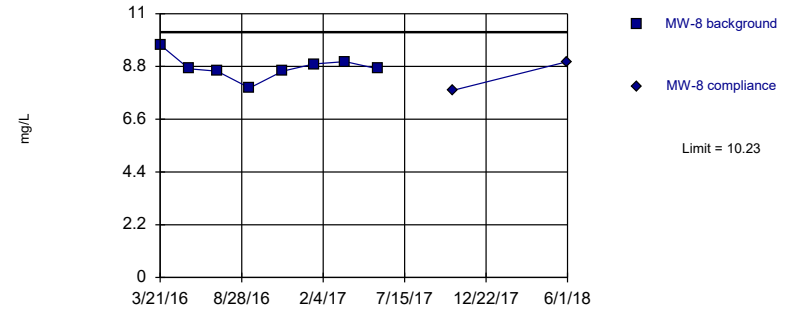


Background Data Summary: Mean=15.88, Std. Dev.=0.6409, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8108, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

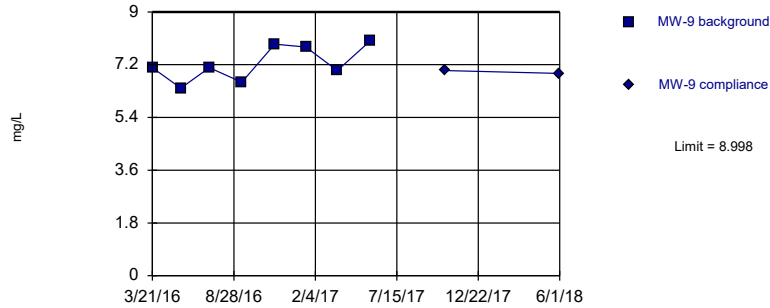


Background Data Summary: Mean=8.763, Std. Dev.=0.5012, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9145, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

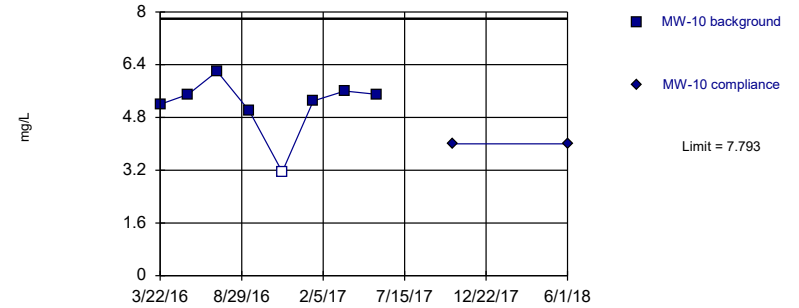


Background Data Summary: Mean=7.238, Std. Dev.=0.6022, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.909, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

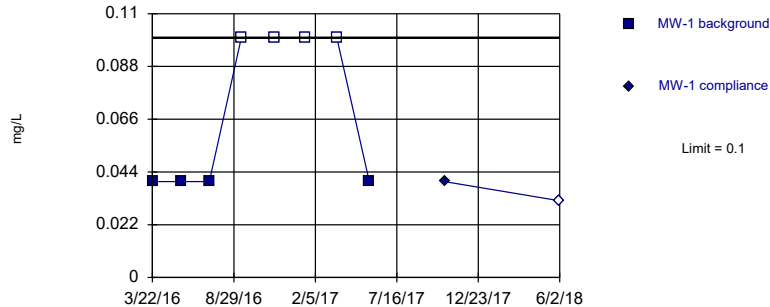


Background Data Summary: Mean=5.181, Std. Dev.=0.8936, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7884, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

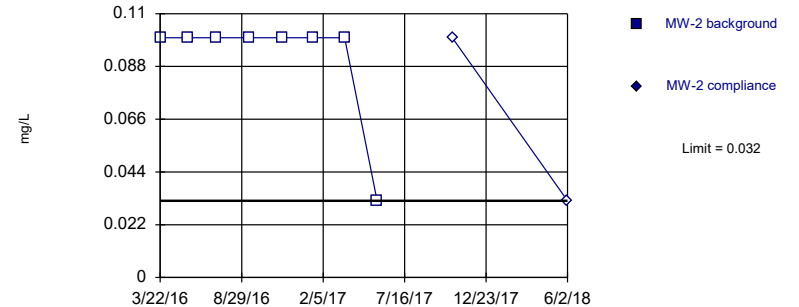


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 50% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

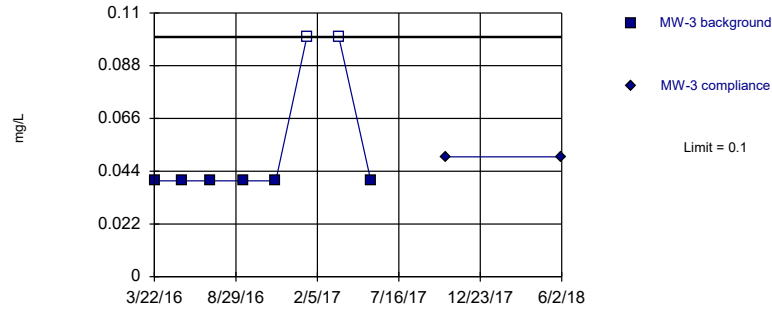


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

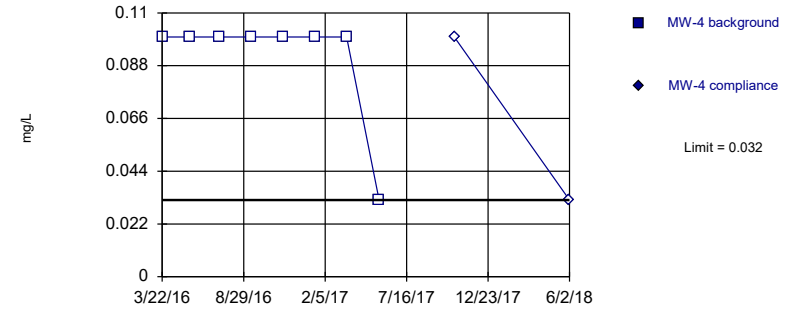


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 25% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

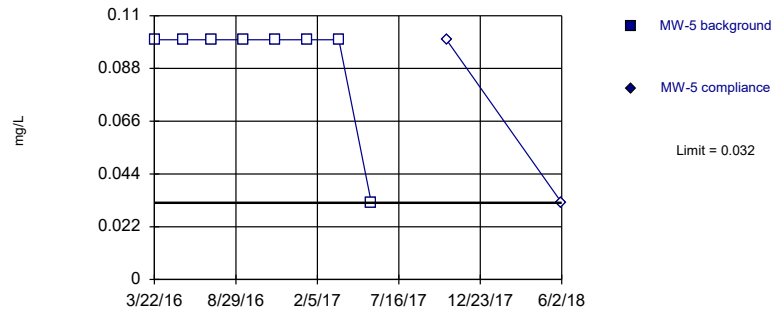


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

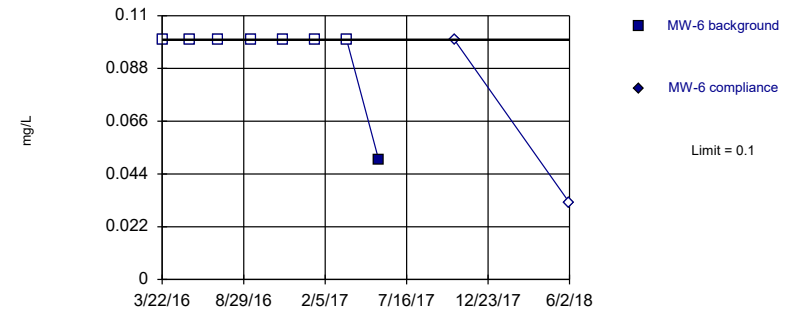


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

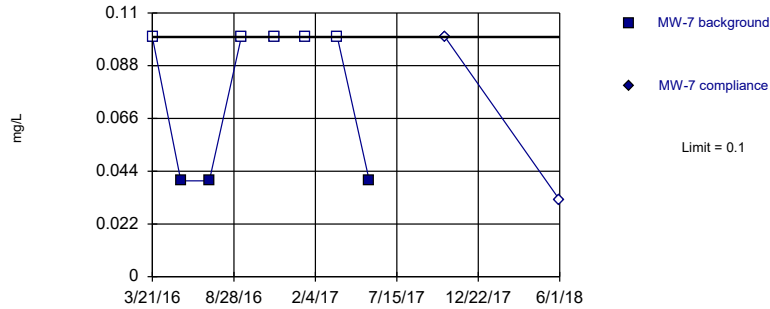


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

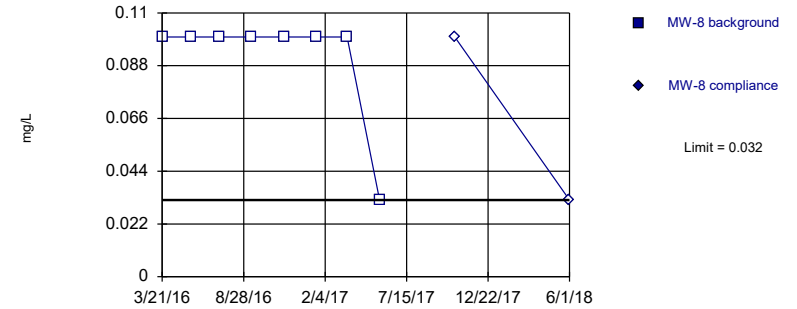


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

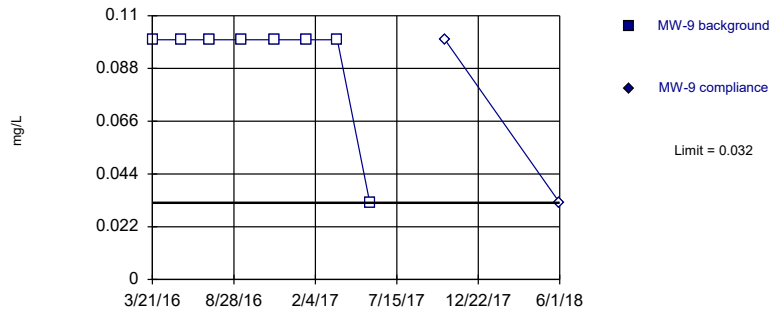


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

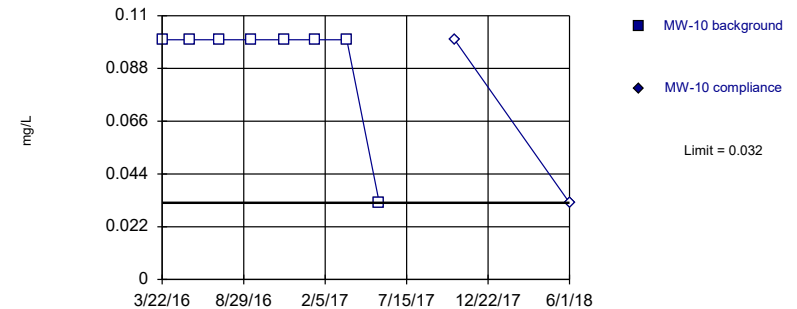


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

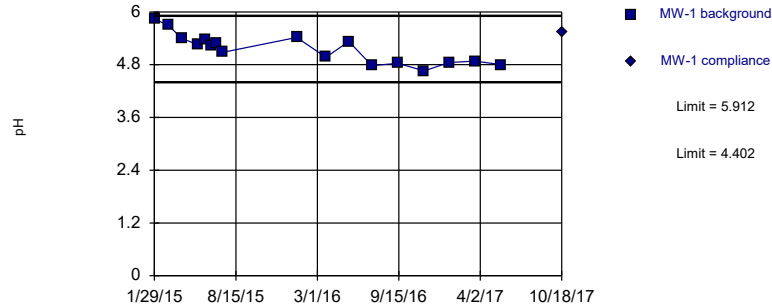


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

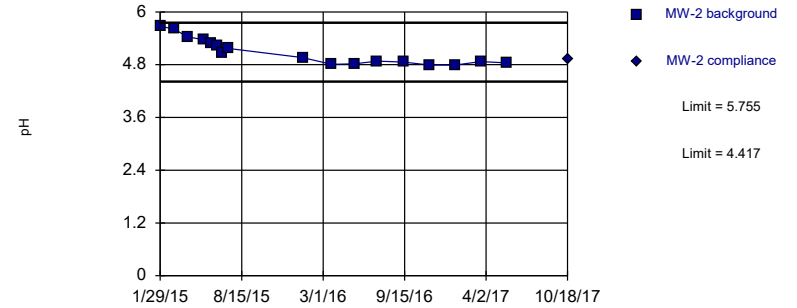


Background Data Summary: Mean=5.157, Std. Dev.=0.3379, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

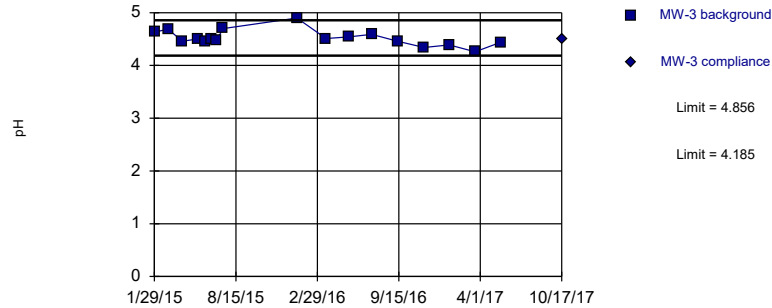


Background Data Summary: Mean=5.086, Std. Dev.=0.2992, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8673, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

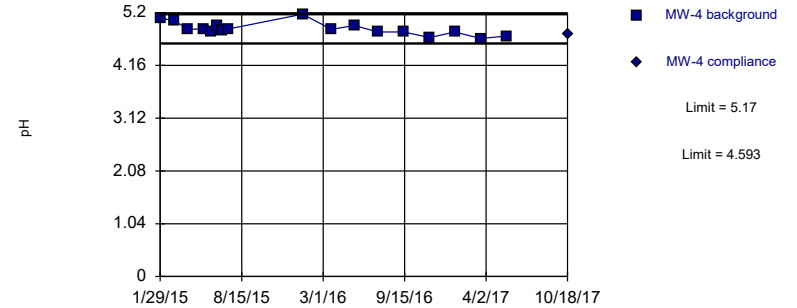


Background Data Summary: Mean=4.521, Std. Dev.=0.1501, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

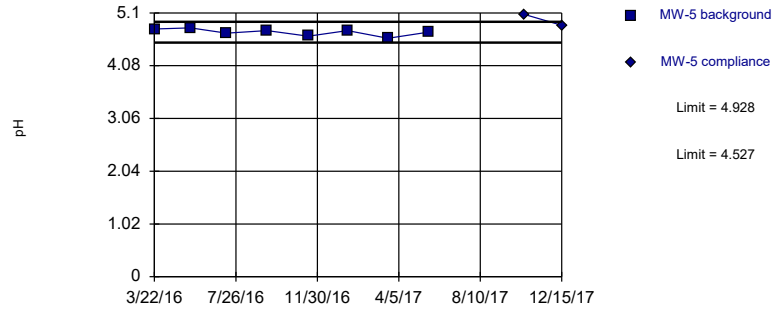


Background Data Summary: Mean=4.882, Std. Dev.=0.129, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

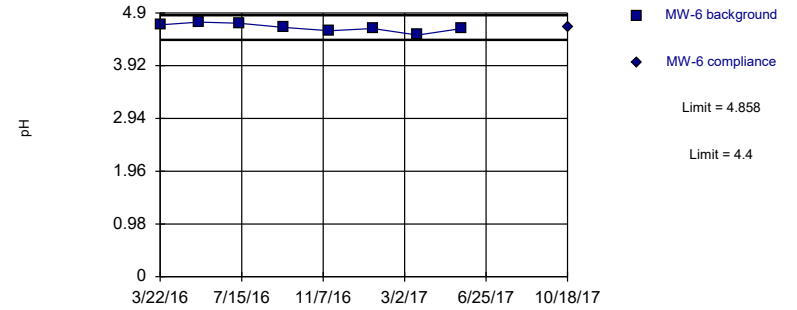


Background Data Summary: Mean=4.728, Std. Dev.=0.06861, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9373, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

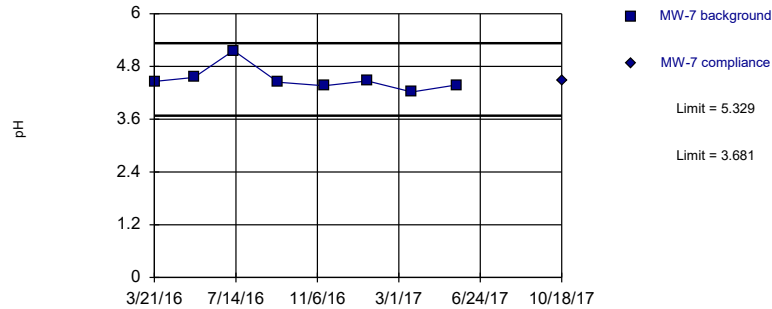


Background Data Summary: Mean=4.629, Std. Dev.=0.07827, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

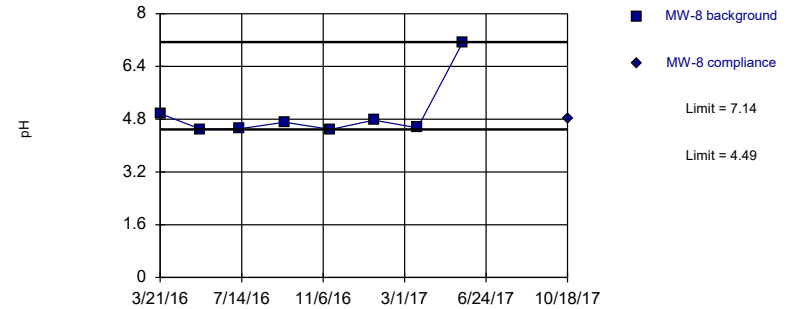


Background Data Summary: Mean=4.505, Std. Dev.=0.2819, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7496, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Non-parametric

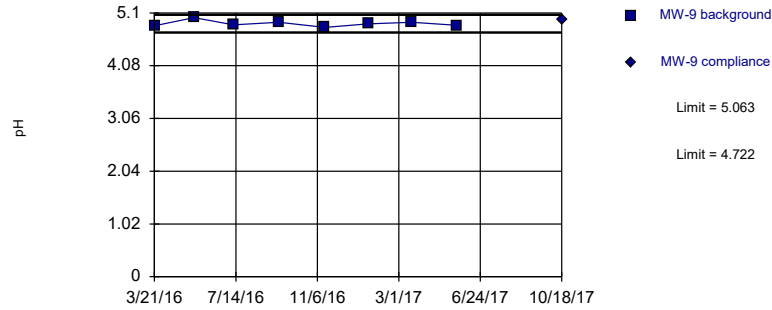


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2).

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

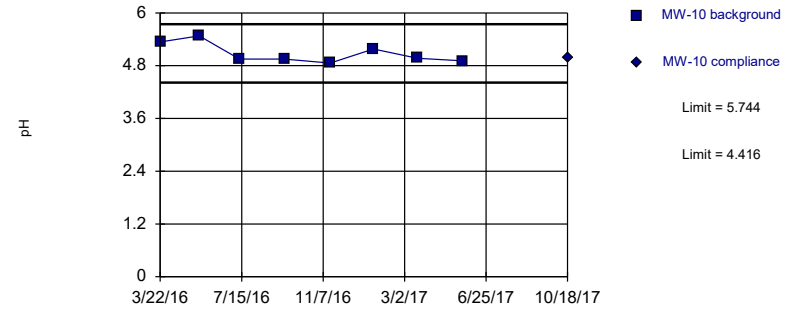


Background Data Summary: Mean=4.893, Std. Dev.=0.05849, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9234, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

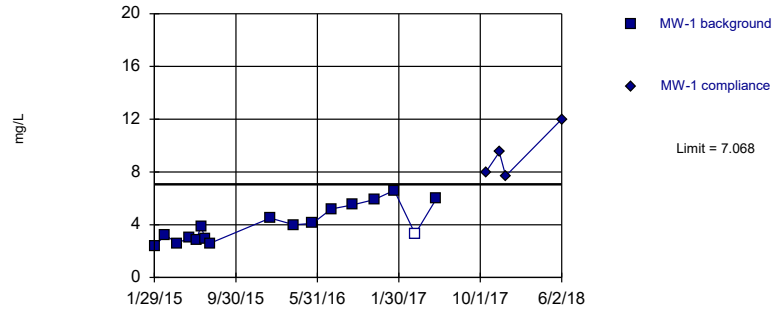


Background Data Summary: Mean=5.08, Std. Dev.=0.227, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.846, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

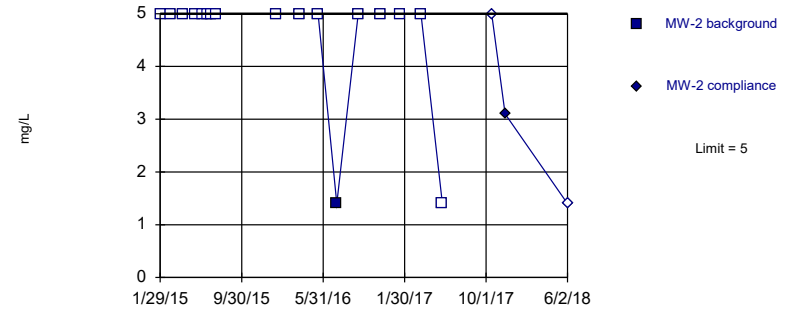


Background Data Summary: Mean=4.029, Std. Dev.=1.36, n=17, 5.882% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9078, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

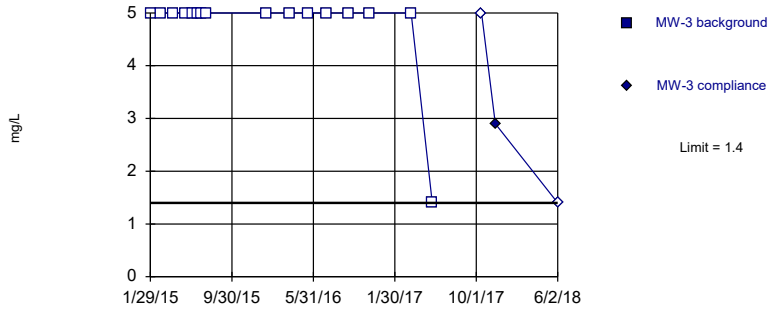


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 94.12% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

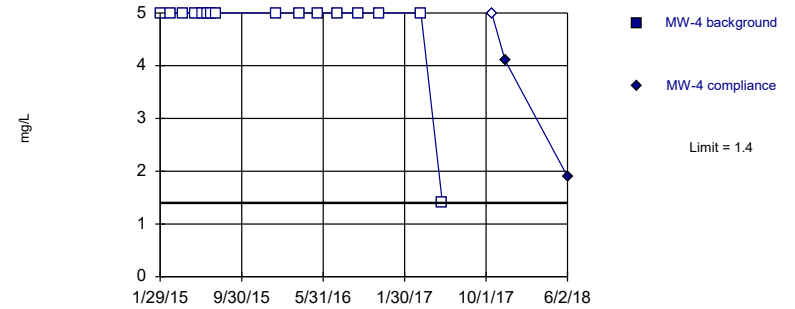


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 16) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

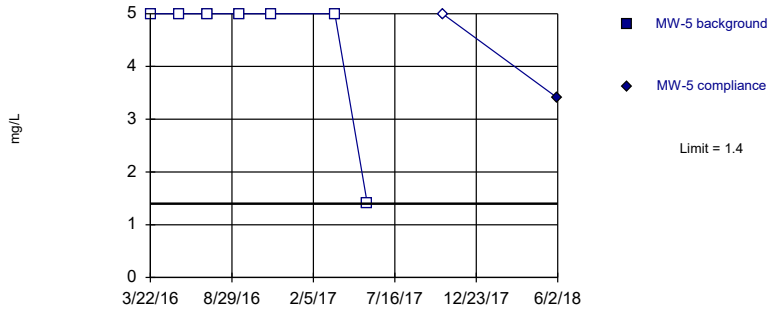


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 16) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

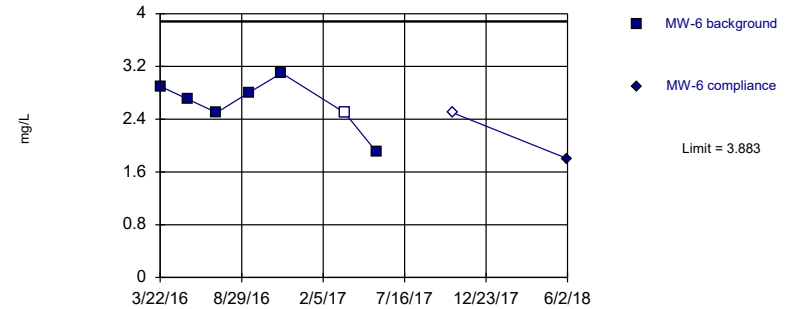


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

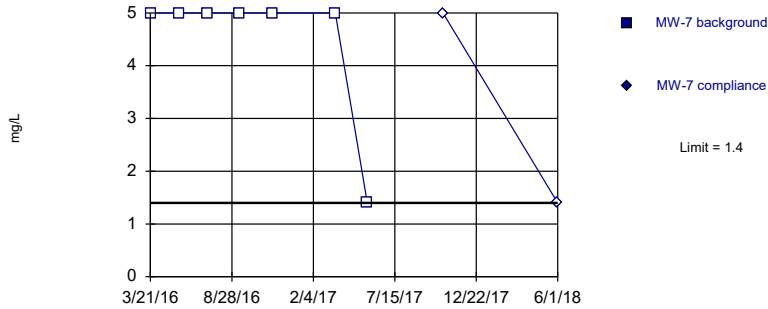


Background Data Summary: Mean=2.629, Std. Dev.=0.3861, n=7, 14.29% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.73. Kappa = 3.249 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

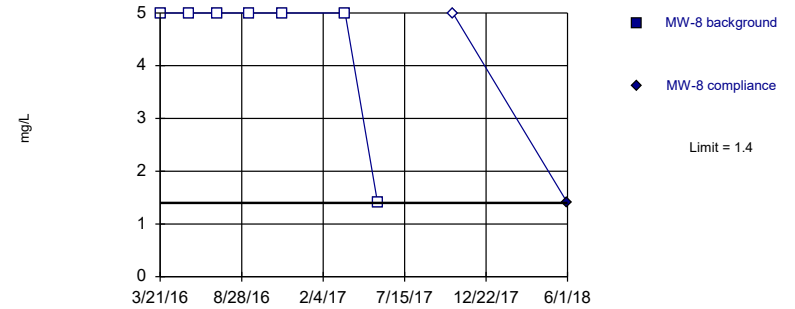


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

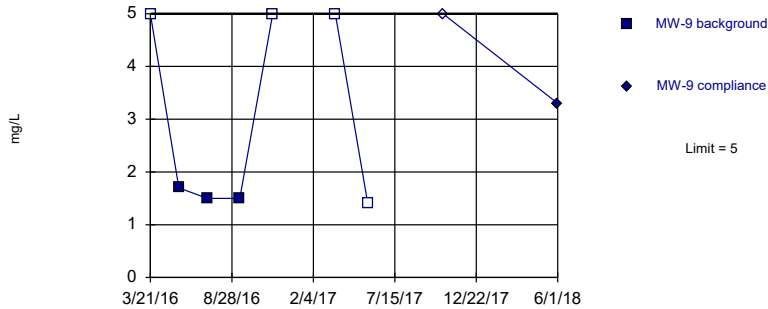


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

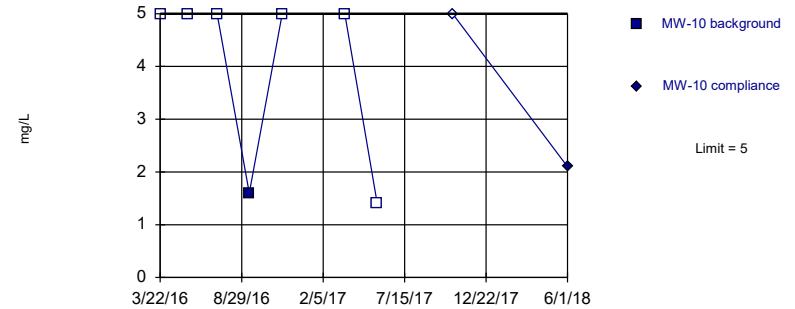


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 57.14% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

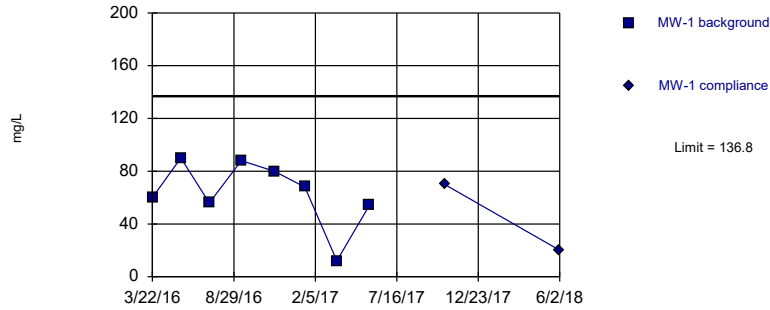


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

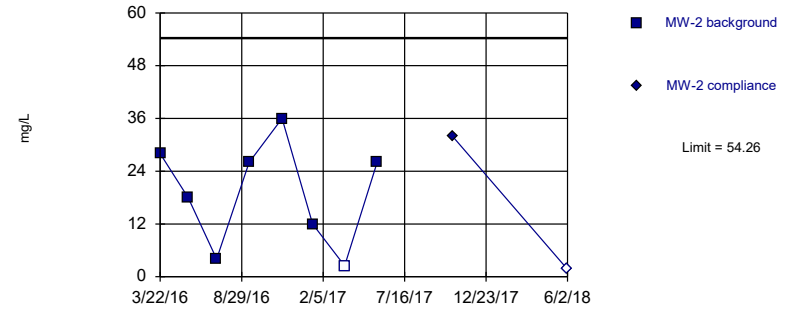


Background Data Summary: Mean=63.5, Std. Dev.=25.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8893, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:23 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

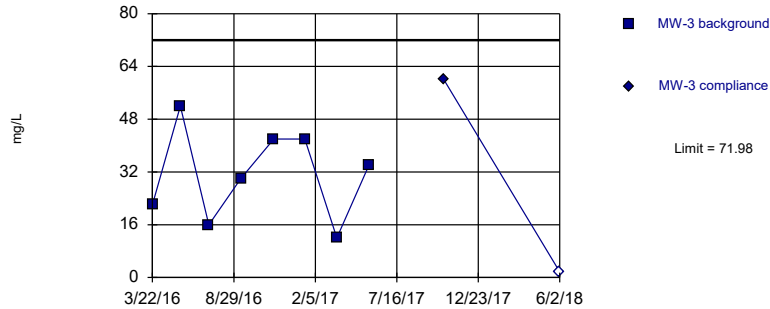


Background Data Summary: Mean=19.06, Std. Dev.=12.04, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9318, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

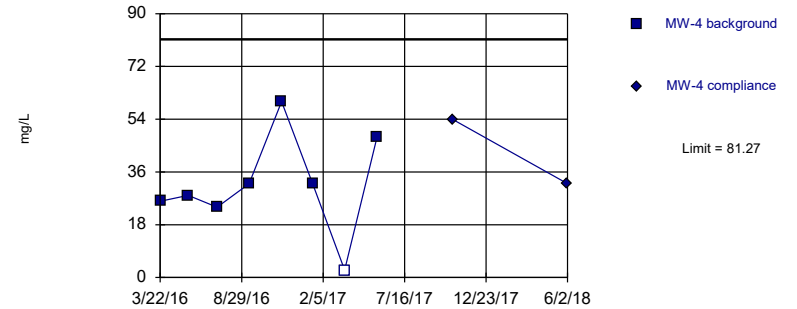


Background Data Summary: Mean=31.25, Std. Dev.=13.94, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.961, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

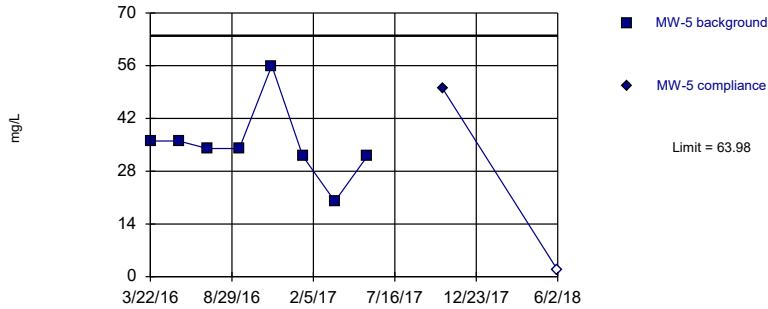


Background Data Summary: Mean=31.56, Std. Dev.=17.01, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

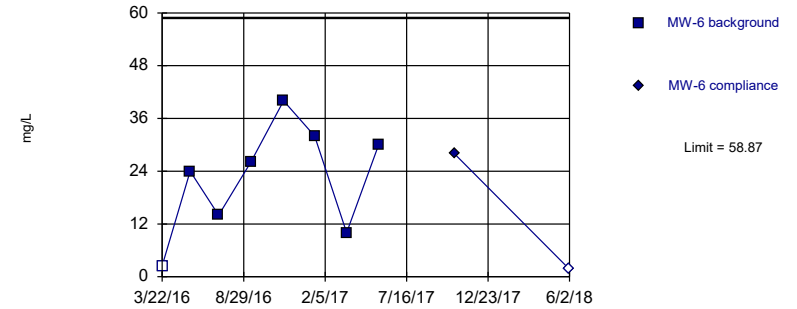


Background Data Summary: Mean=35, Std. Dev.=9.914, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8199, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

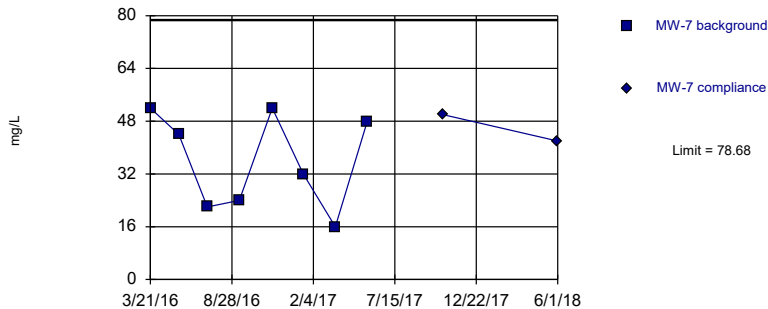


Background Data Summary: Mean=22.31, Std. Dev.=12.51, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9676, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

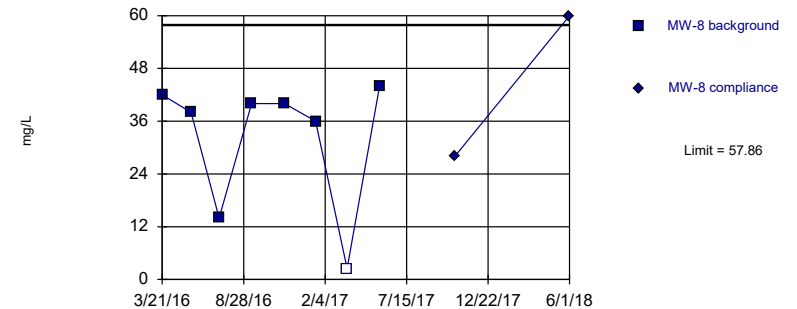


Background Data Summary: Mean=36.25, Std. Dev.=14.52, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

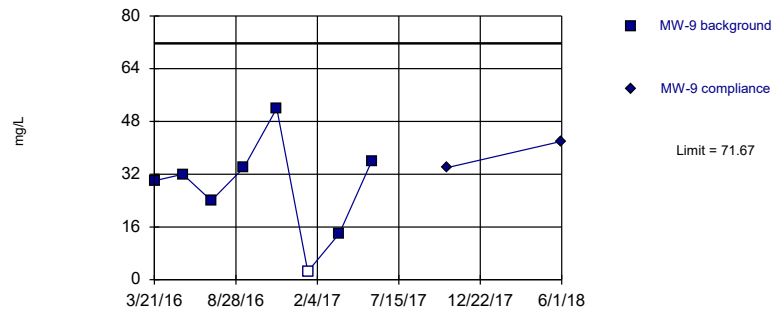


Background Data Summary (based on square transformation): Mean=1230, Std. Dev.=724.5, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8105, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

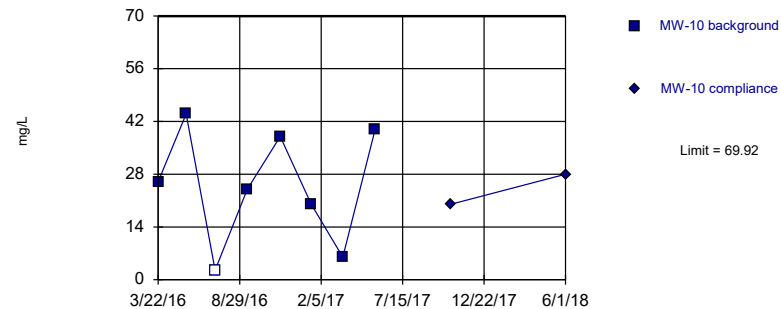


Background Data Summary: Mean=28.06, Std. Dev.=14.92, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

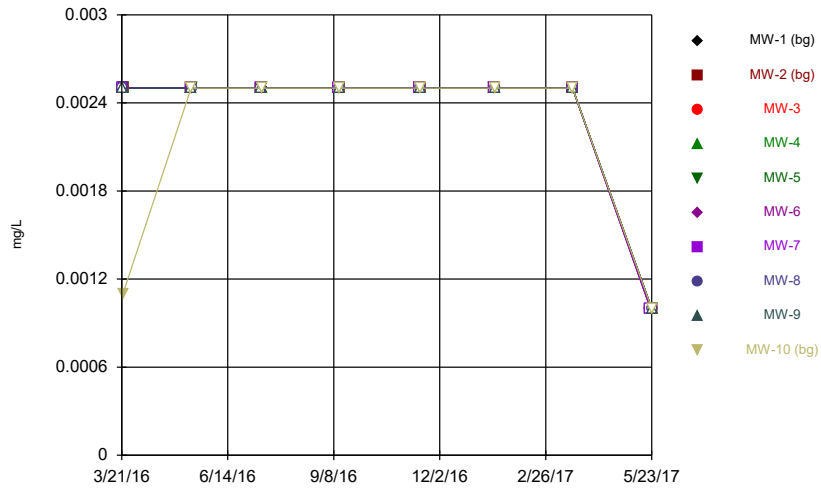
Prediction Limit Intrawell Parametric



Background Data Summary: Mean=25.06, Std. Dev.=15.35, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9281, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

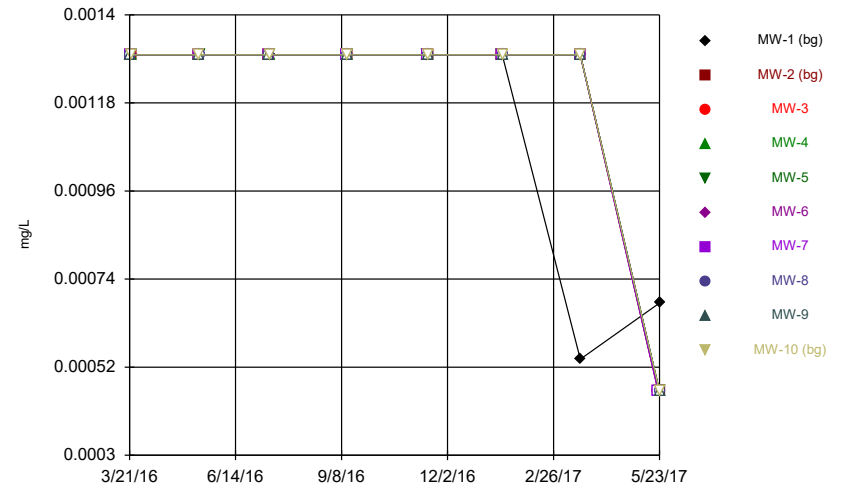
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:24 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



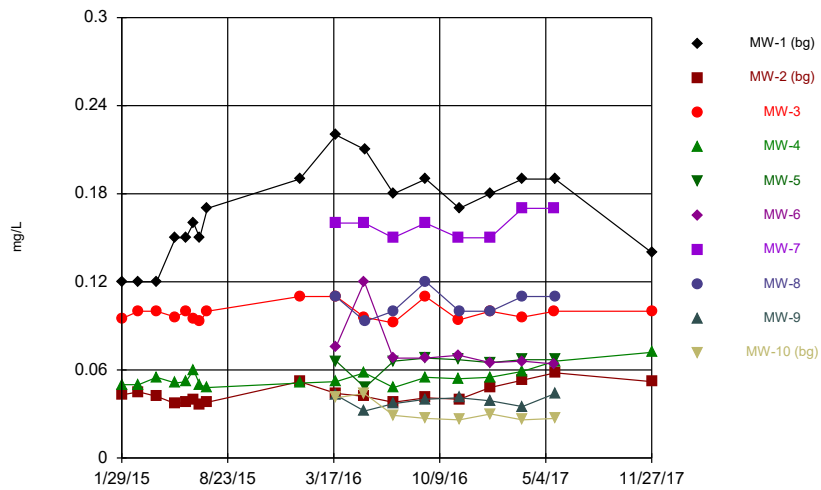
Constituent: Antimony Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



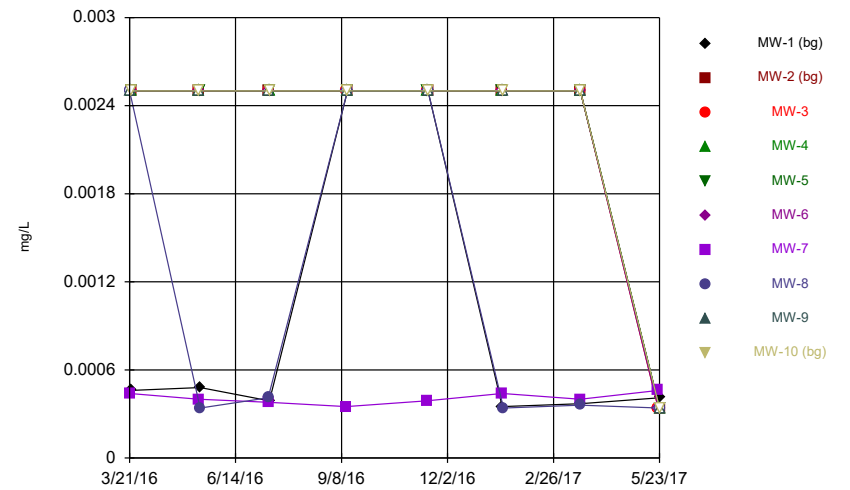
Constituent: Arsenic Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



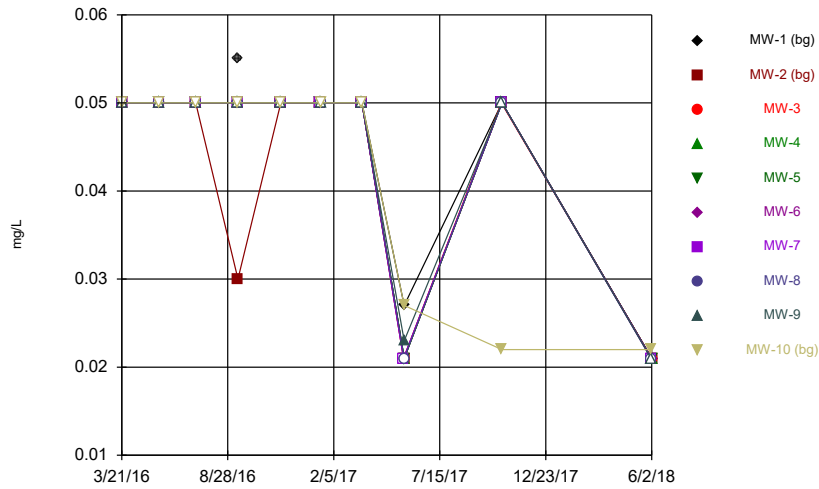
Constituent: Barium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



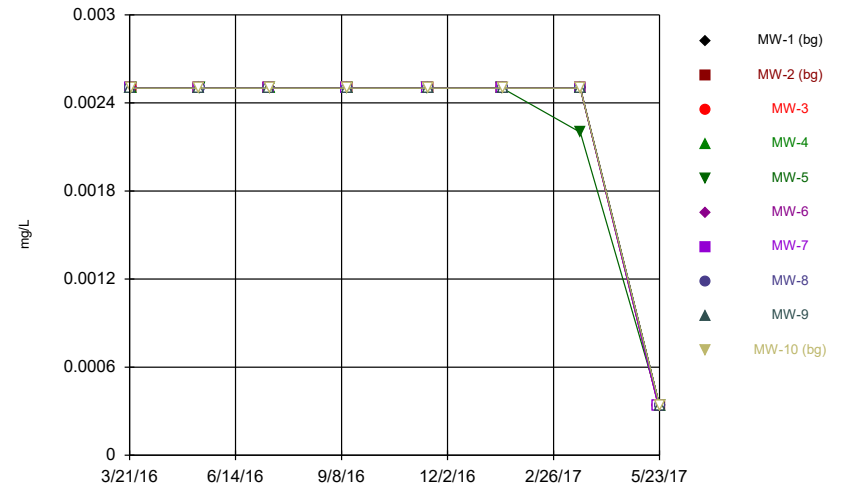
Constituent: Beryllium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



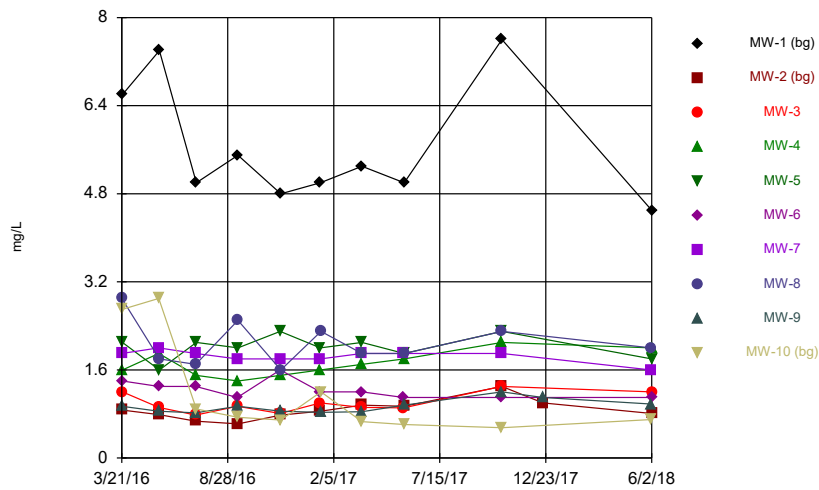
Constituent: Boron Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



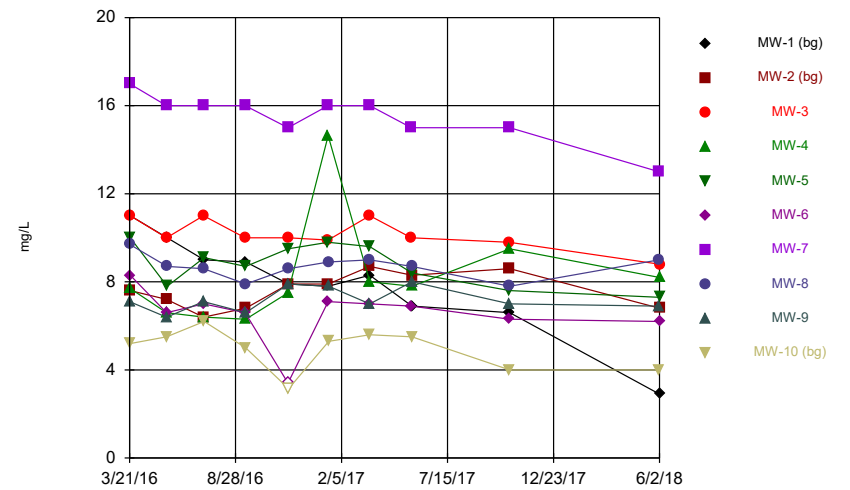
Constituent: Cadmium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



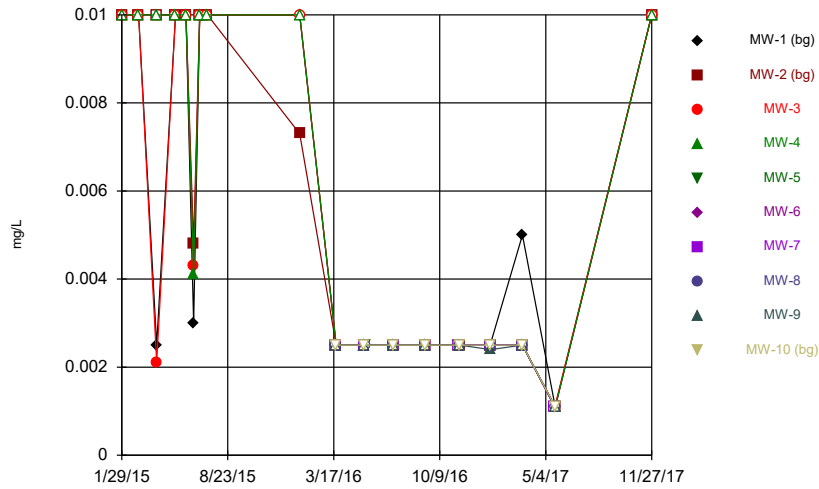
Constituent: Calcium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



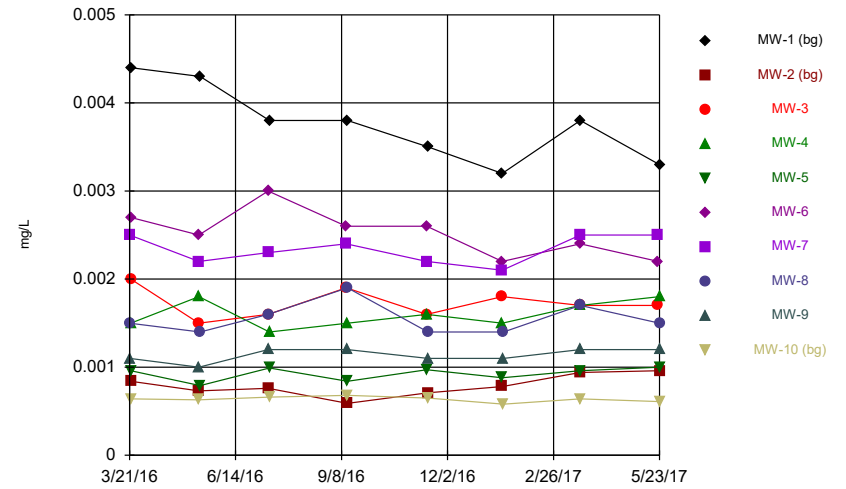
Constituent: Chloride Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



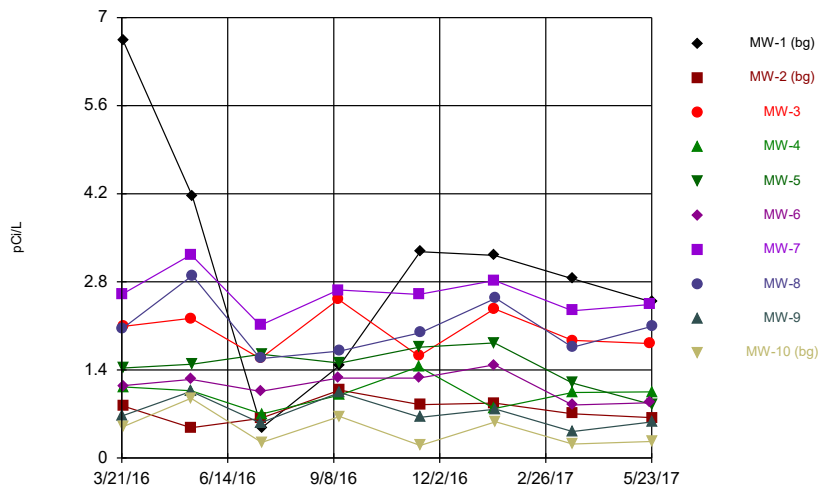
Constituent: Chromium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



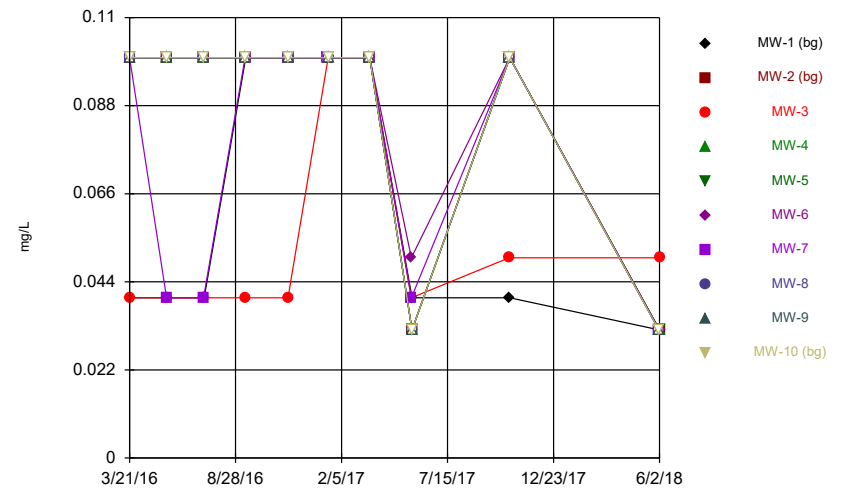
Constituent: Cobalt Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



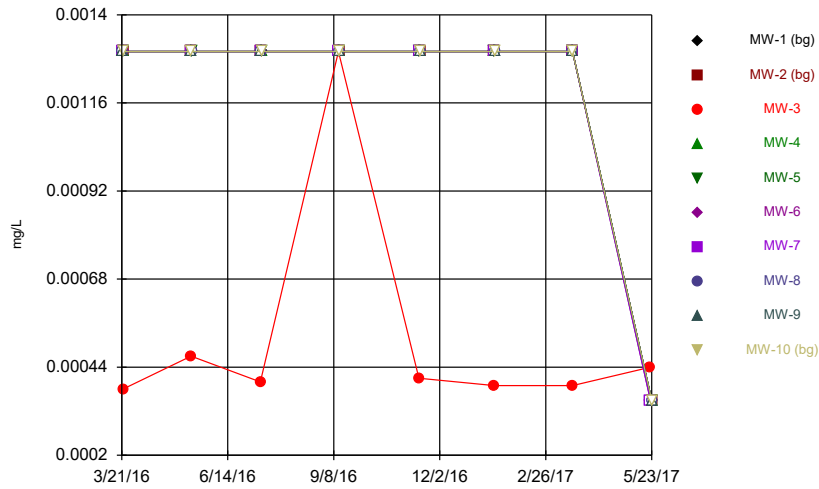
Constituent: Combined Radium 226 + 228 Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



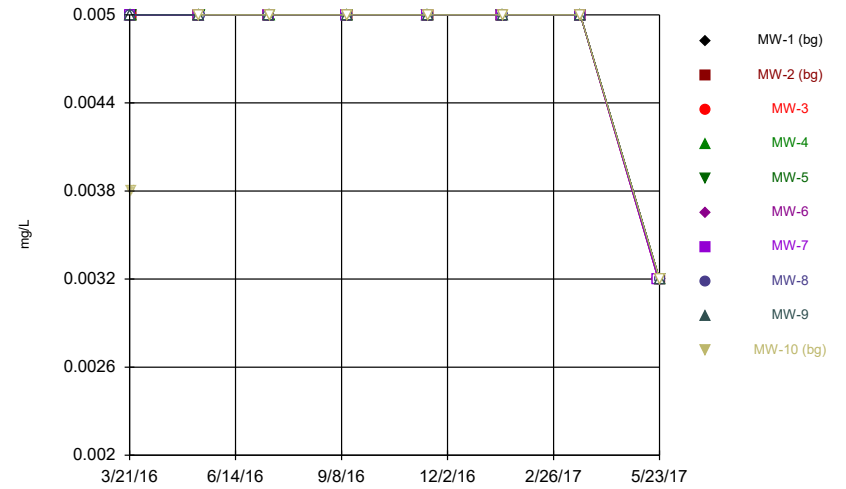
Constituent: Fluoride Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



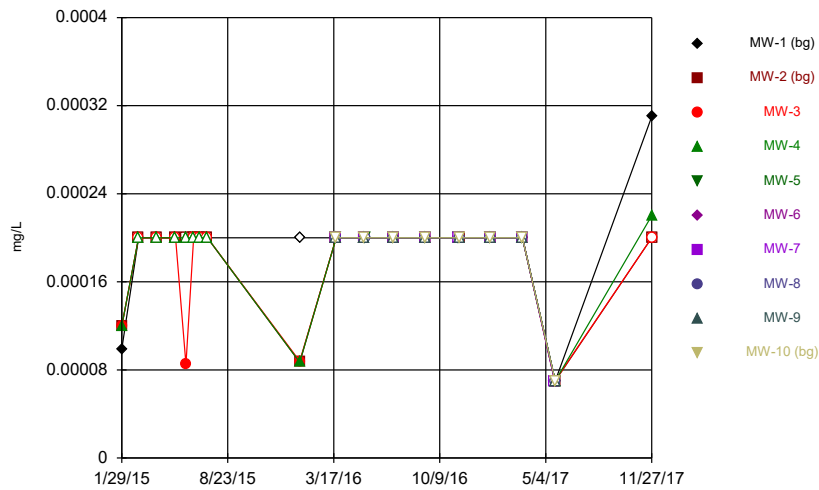
Constituent: Lead Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



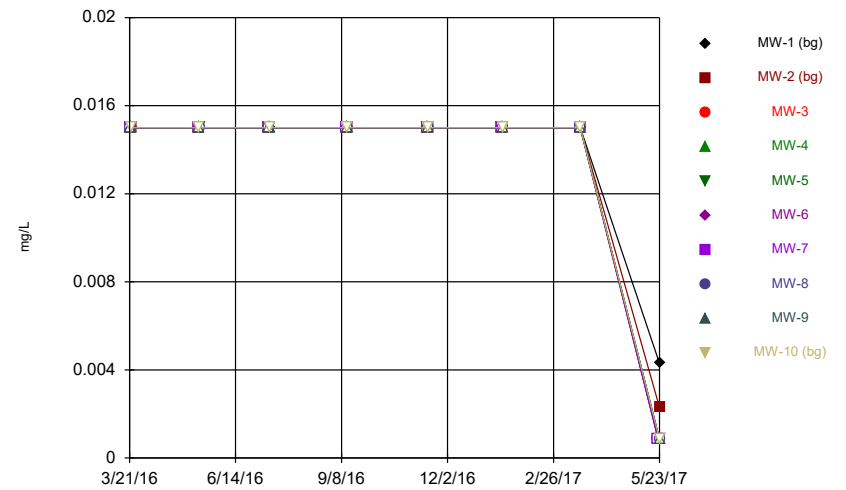
Constituent: Lithium Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



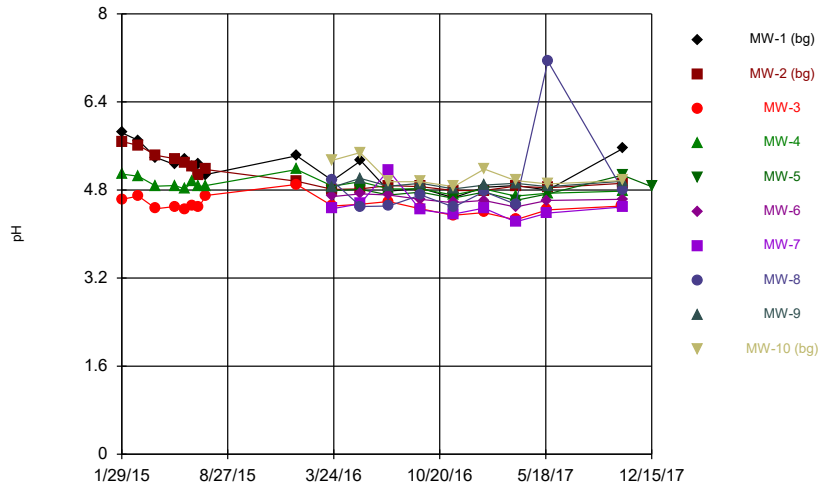
Constituent: Mercury Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



Constituent: Molybdenum Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

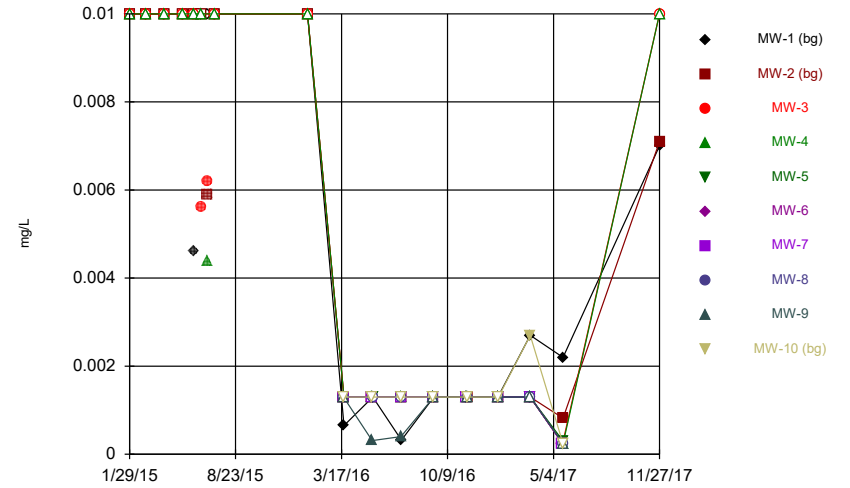
Time Series



Constituent: pH Analysis Run 1/15/2019 1:39 PM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

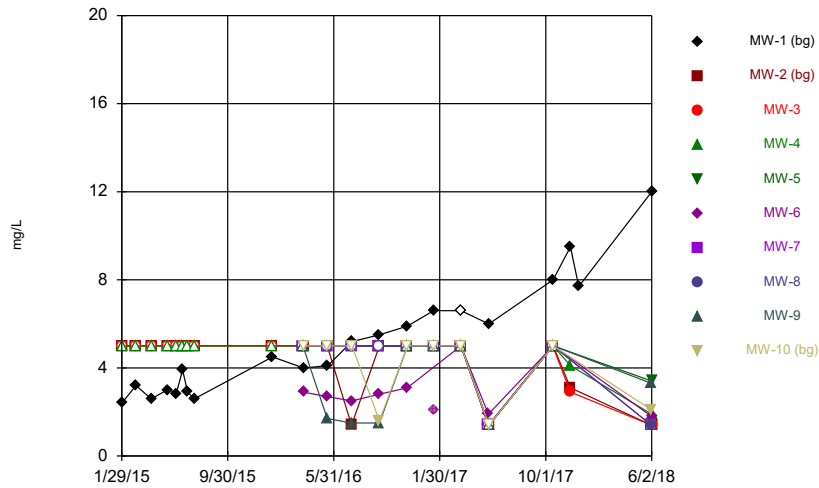
Time Series



Constituent: Selenium Analysis Run 1/15/2019 1:39 PM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

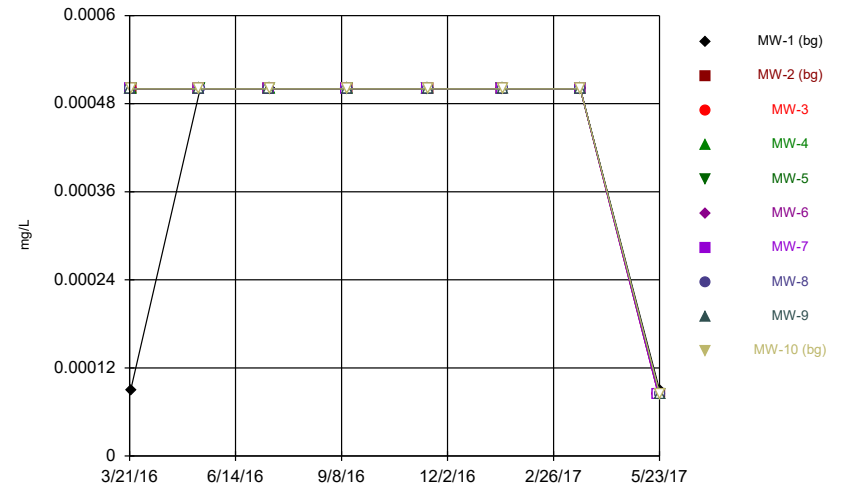
Time Series



Constituent: Sulfate Analysis Run 1/15/2019 1:39 PM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

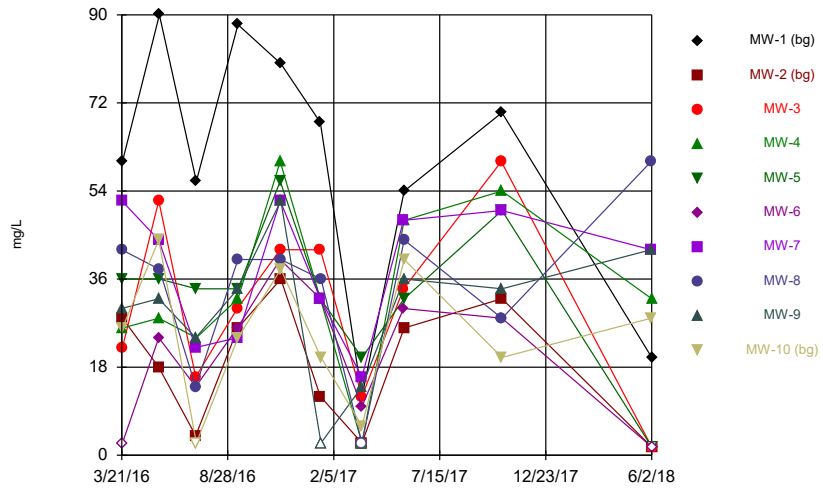
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 1/15/2019 1:39 PM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/15/2019 1:39 PM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

2nd Semi-Annual

Intrawell Prediction Limit Summary Table - Significant Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 12/18/2018, 10:09 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>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-3	1.31	n/a	11/7/2018	1.5	Yes	8	0.935	0.1283	0	None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-4	2.113	n/a	11/8/2018	2.2	Yes	8	1.625	0.1669	0	None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-3	11	n/a	11/7/2018	25	Yes	8	n/a	n/a	0	n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-8	10.23	n/a	11/7/2018	11	Yes	8	8.763	0.5012	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	7.068	n/a	11/8/2018	10	Yes	17	4.029	1.36	5.882	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	54.63	n/a	11/8/2018	68	Yes	8	18.96	12.2	12.5	None	No	0.001075	Param Intra 1 of 2

Intrawell Prediction Limit Summary Table - All Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 12/18/2018, 10:09 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-1	0.05	n/a	11/8/2018	0.05ND	No	7	n/a	n/a	85.71 n/a	n/a	0.02765	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-2	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	87.5 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-3	0.05	n/a	11/7/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-4	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-5	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-6	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-7	0.05	n/a	11/7/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-8	0.05	n/a	11/7/2018	0.05ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-9	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	87.5 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-10	0.05	n/a	11/8/2018	0.05ND	No	8	n/a	n/a	87.5 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-1	8.293	n/a	11/8/2018	4.1	No	8	5.575	0.9301	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-2	1.162	n/a	11/8/2018	0.95	No	8	0.81	0.1205	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-3	1.31	n/a	11/7/2018	1.5	Yes	8	0.935	0.1283	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-4	2.113	n/a	11/8/2018	2.2	Yes	8	1.625	0.1669	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-5	2.606	n/a	11/8/2018	1.9	No	8	2.013	0.2031	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-6	1.763	n/a	11/8/2018	1.1	No	8	1.275	0.1669	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-7	2.082	n/a	11/7/2018	1.6	No	8	1.875	0.07071	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-8	3.389	n/a	11/7/2018	2.8	No	8	2.075	0.4496	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-9	1.047	n/a	11/8/2018	0.93	No	8	0.8788	0.05743	0 None	No	0.001075	Param Intra 1 of 2
Calcium (mg/L)	MW-10	4.778	n/a	11/8/2018	0.59	No	8	1.084	0.3771	0 None	sqrt(x)	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-1	12.54	n/a	11/8/2018	3	No	8	8.725	1.307	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-2	9.842	n/a	11/8/2018	8.4	No	8	7.6	0.7672	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-3	11	n/a	11/7/2018	25	Yes	8	n/a	n/a	0 n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-4	14.63	n/a	11/8/2018	9.5	No	8	n/a	n/a	0 n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Chloride (mg/L)	MW-5	11.34	n/a	11/8/2018	7.8	No	8	9.113	0.7605	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-6	9.581	n/a	11/8/2018	6.4	No	8	45.45	15.85	12.5 None	x^2	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-7	17.75	n/a	11/7/2018	13	No	8	15.88	0.6409	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-8	10.23	n/a	11/7/2018	11	Yes	8	8.763	0.5012	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-9	8.998	n/a	11/8/2018	7.1	No	8	7.238	0.6022	0 None	No	0.001075	Param Intra 1 of 2
Chloride (mg/L)	MW-10	7.793	n/a	11/8/2018	4.6	No	8	5.181	0.8936	12.5 None	No	0.001075	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	50 n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-2	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-3	0.1	n/a	11/7/2018	0.05	No	8	n/a	n/a	25 n/a	n/a	0.02144	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-4	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-5	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-6	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	87.5 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-7	0.1	n/a	11/7/2018	0.1ND	No	8	n/a	n/a	62.5 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-8	0.1	n/a	11/7/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-9	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-10	0.1	n/a	11/8/2018	0.1ND	No	8	n/a	n/a	100 n/a	n/a	0.02144	NP Intra (NDs) 1 of 2
pH (pH)	MW-1	5.912	4.402	11/8/2018	5.15	No	17	5.157	0.3379	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-2	5.755	4.417	11/8/2018	4.92	No	17	5.086	0.2992	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-3	4.856	4.185	11/7/2018	4.46	No	17	4.521	0.1501	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-4	5.17	4.593	11/8/2018	4.91	No	17	4.882	0.129	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-5	4.928	4.527	11/8/2018	4.9	No	8	4.728	0.06861	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-6	4.858	4.4	11/8/2018	4.69	No	8	4.629	0.07827	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-7	5.329	3.681	11/7/2018	4.48	No	8	4.505	0.2819	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-8	7.14	4.49	11/7/2018	4.54	No	8	n/a	n/a	0 n/a	n/a	0.04288	NP Intra (normality) 1 of 2
pH (pH)	MW-9	5.063	4.722	11/8/2018	4.98	No	8	4.893	0.05849	0 None	No	0.0005373	Param Intra 1 of 2
pH (pH)	MW-10	5.744	4.416	11/8/2018	5.09	No	8	5.08	0.227	0 None	No	0.0005373	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	7.068	n/a	11/8/2018	10	Yes	17	4.029	1.36	5.882 None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	5	n/a	11/8/2018	5ND	No	17	n/a	n/a	94.12 n/a	n/a	0.005914	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-3	1.4	n/a	11/7/2018	2.1	No	16	n/a	n/a	100 n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-4	5	n/a	11/8/2018	1.8	No	16	n/a	n/a	100 n/a	n/a	0.006456	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-5	5	n/a	11/8/2018	3.1	No	7	n/a	n/a	100 n/a	n/a	0.02765	NP Intra (NDs) 1 of 2

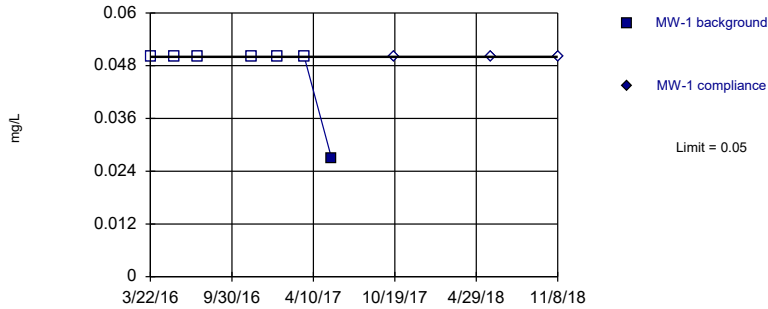
Intrawell Prediction Limit Summary Table - All Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 12/18/2018, 10:09 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate (mg/L)	MW-6	3.883	n/a	11/8/2018	1.6	No	7	2.629	0.3861	14.29	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	5	n/a	11/7/2018	5ND	No	7	n/a	n/a	100	n/a	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-8	5	n/a	11/7/2018	5ND	No	7	n/a	n/a	100	n/a	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-9	5	n/a	11/8/2018	1.8	No	7	n/a	n/a	57.14	n/a	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-10	5	n/a	11/8/2018	5ND	No	7	n/a	n/a	85.71	n/a	n/a	0.02765	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	136.8	n/a	11/8/2018	30	No	8	63.5	25.09	0	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	54.63	n/a	11/8/2018	68	Yes	8	18.96	12.2	12.5	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	71.98	n/a	11/7/2018	42	No	8	31.25	13.94	0	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4	81.27	n/a	11/8/2018	14	No	8	31.56	17.01	12.5	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-5	63.98	n/a	11/8/2018	22	No	8	35	9.914	0	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-6	59.31	n/a	11/8/2018	12	No	8	22.21	12.69	12.5	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	78.68	n/a	11/7/2018	54	No	8	36.25	14.52	0	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	57.86	n/a	11/7/2018	40	No	8	1230	724.5	12.5	None	x^2	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-9	71.67	n/a	11/8/2018	30	No	8	28.06	14.92	12.5	None	No	0.001075	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-10	69.92	n/a	11/8/2018	68	No	8	25.06	15.35	12.5	None	No	0.001075	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Non-parametric

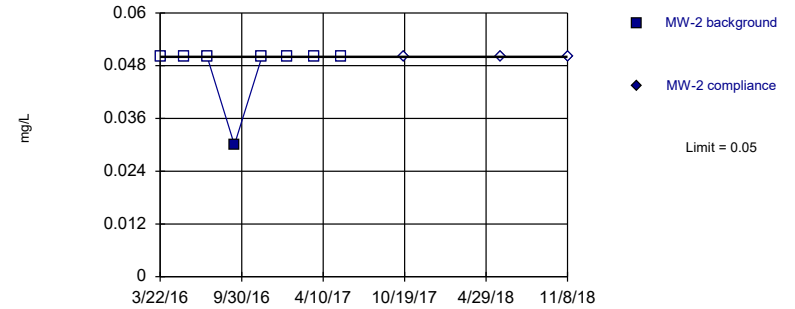


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

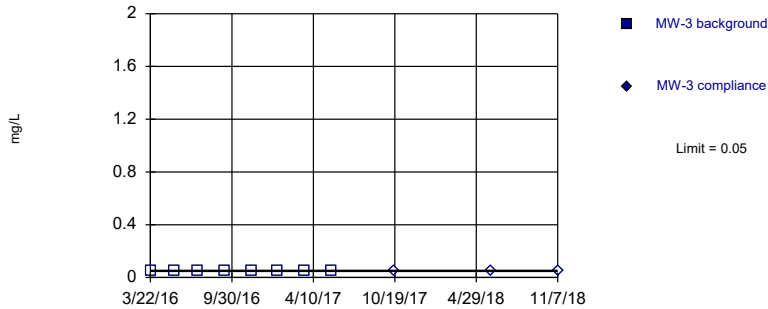


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

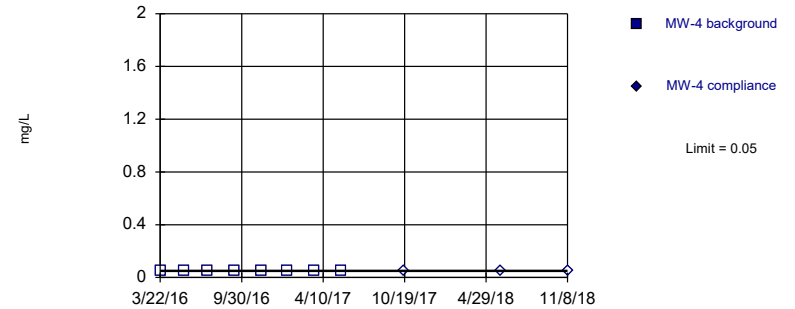


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

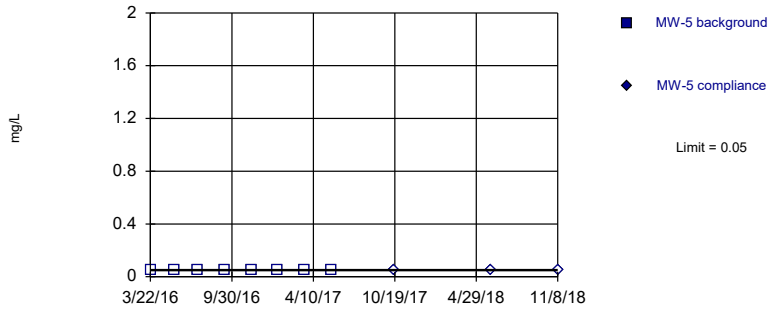


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

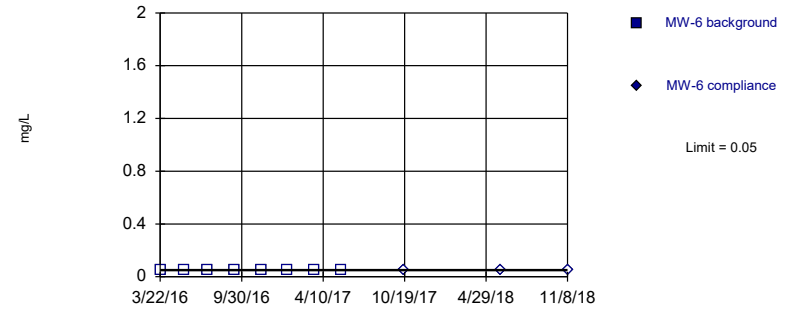


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

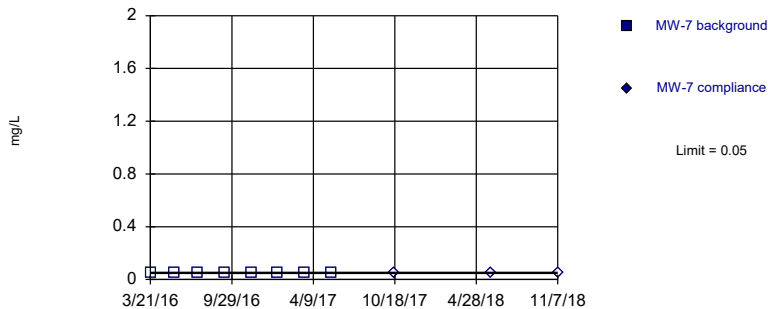


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

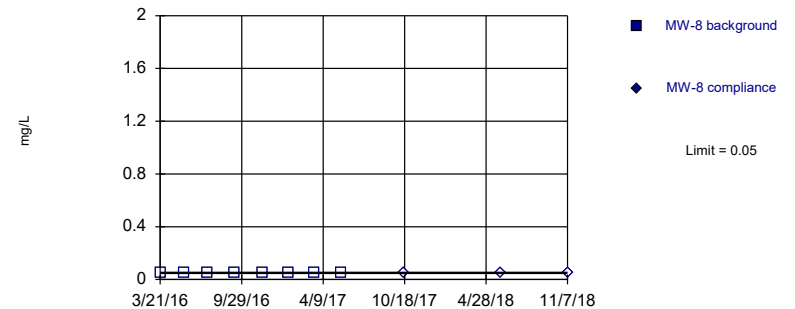


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

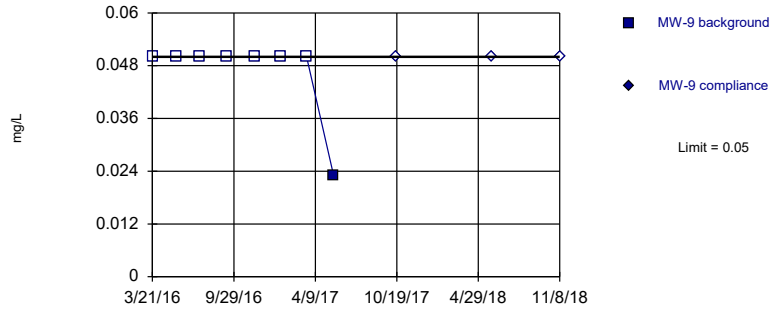


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

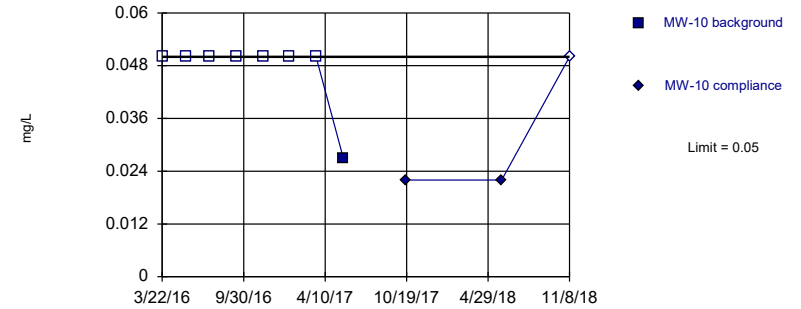


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

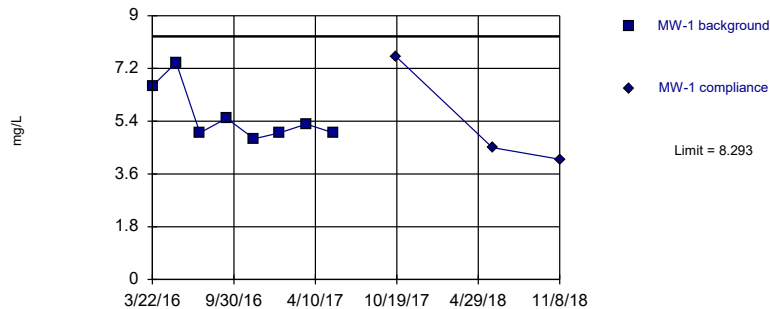


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 12/18/2018 10:05 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

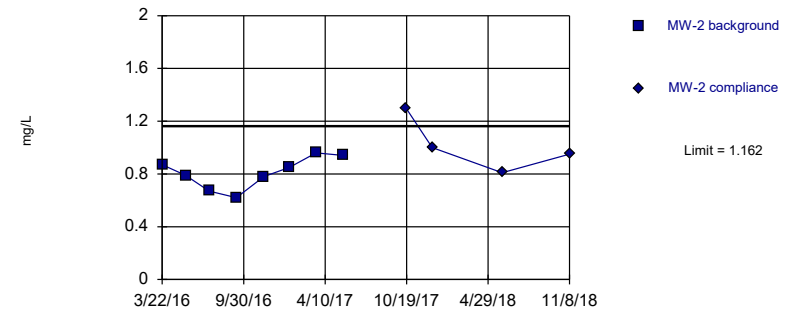


Background Data Summary: Mean=5.575, Std. Dev.=0.9301, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7876, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

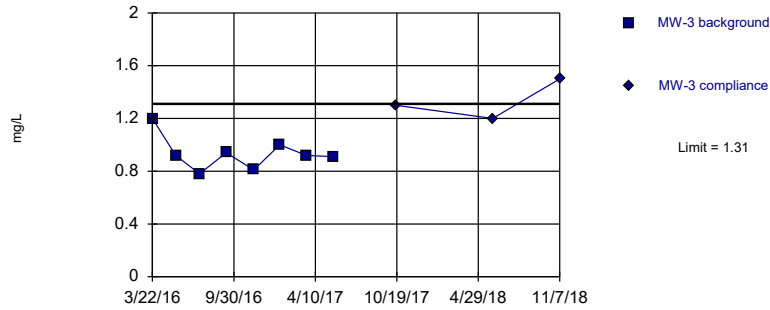


Background Data Summary: Mean=0.81, Std. Dev.=0.1205, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9474, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

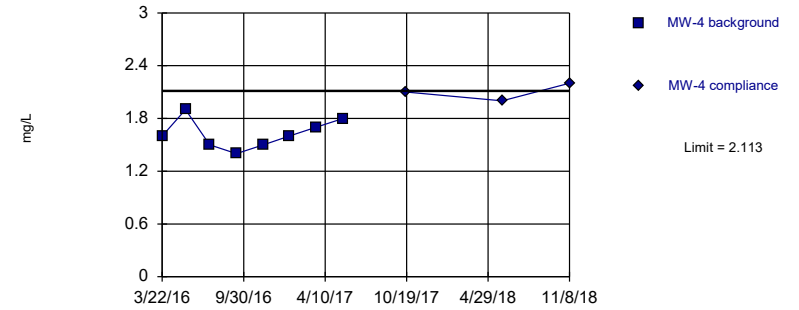


Background Data Summary: Mean=0.935, Std. Dev.=0.1283, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8863, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

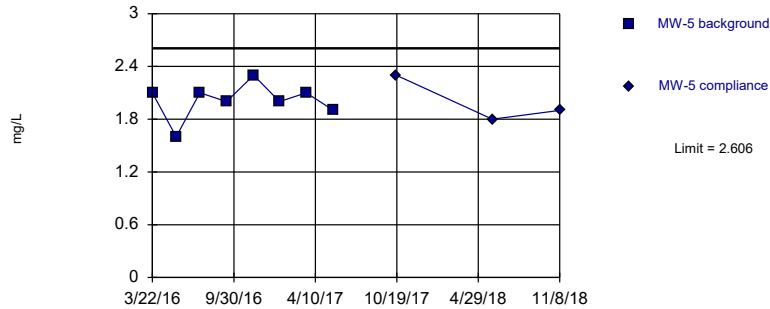


Background Data Summary: Mean=1.625, Std. Dev.=0.1669, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9587, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

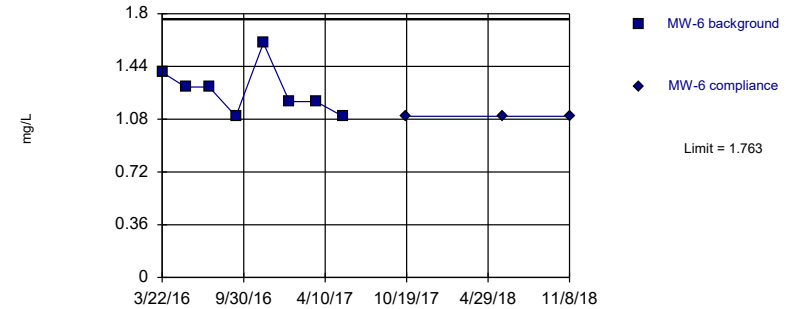


Background Data Summary: Mean=2.013, Std. Dev.=0.2031, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9006, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

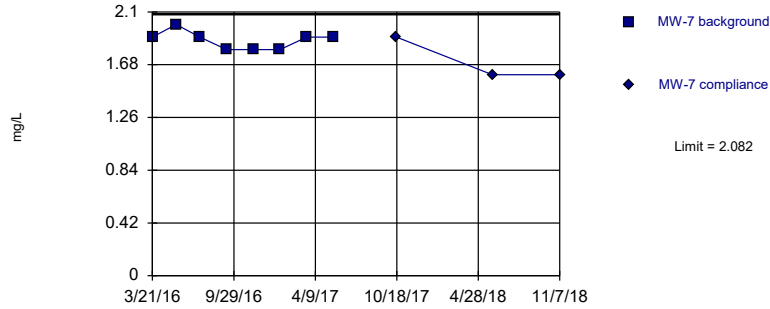
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.275, Std. Dev.=0.1669, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.907, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

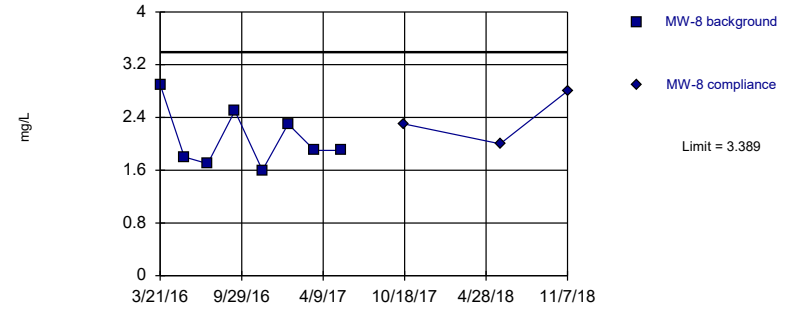
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.875, Std. Dev.=0.07071, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8268, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLS
Plant Daniel Client: Southern Company Data: Gypsum CCR

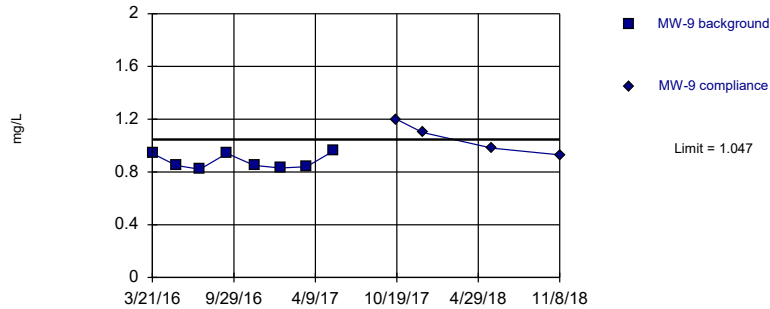
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.075, Std. Dev.=0.4496, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8977, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLS
Plant Daniel Client: Southern Company Data: Gypsum CCR

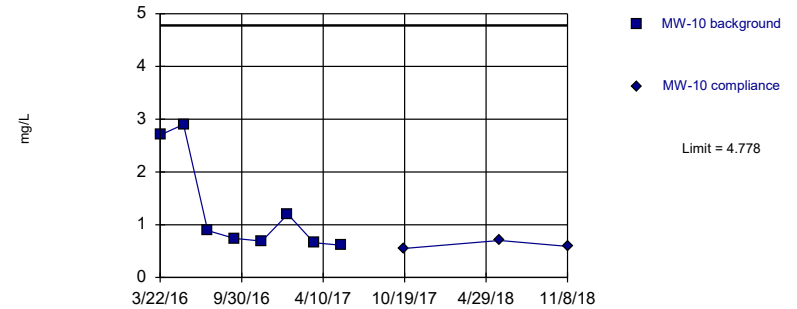
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.8788, Std. Dev.=0.05743, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8125, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLS
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit Prediction Limit
Intrawell Parametric

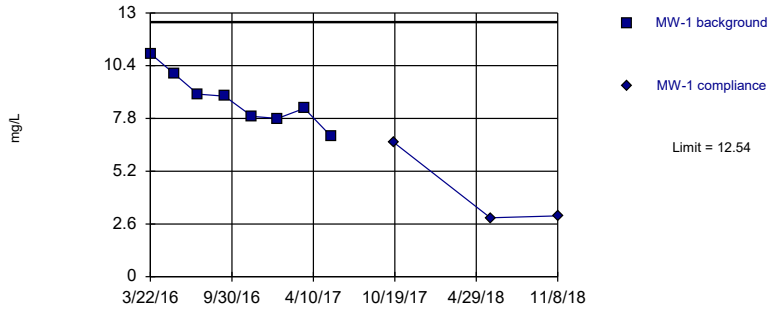


Background Data Summary (based on square root transformation): Mean=1.084, Std. Dev.=0.3771, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7632, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Calcium Analysis Run 12/18/2018 10:06 AM View: Intrawell PLS
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

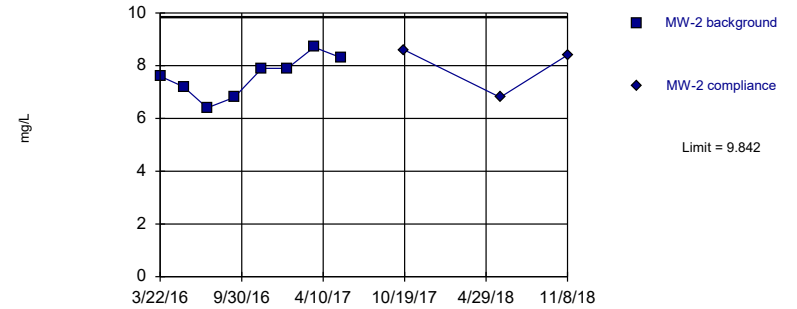


Background Data Summary: Mean=8.725, Std. Dev.=1.307, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9685, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

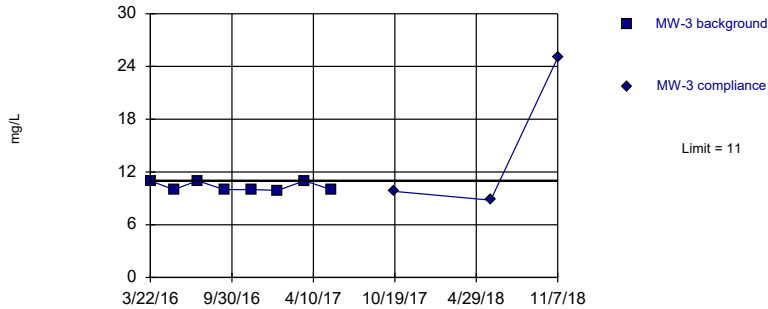


Background Data Summary: Mean=7.6, Std. Dev.=0.7672, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9761, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

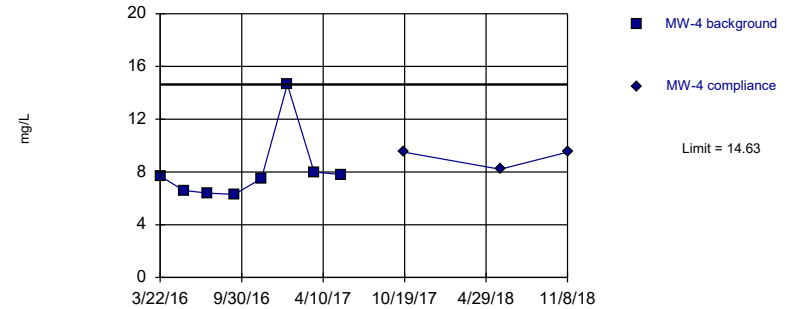


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

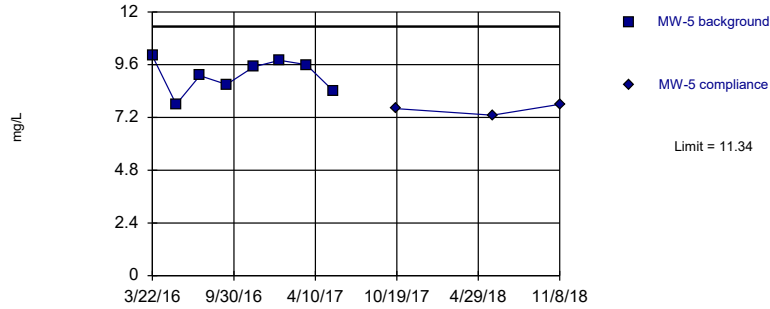


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

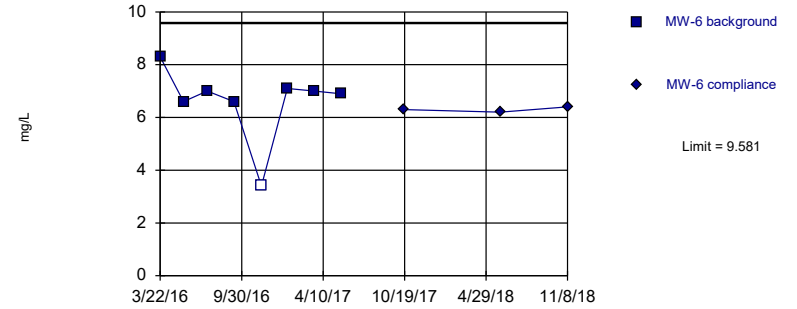


Background Data Summary: Mean=9.113, Std. Dev.=0.7605, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

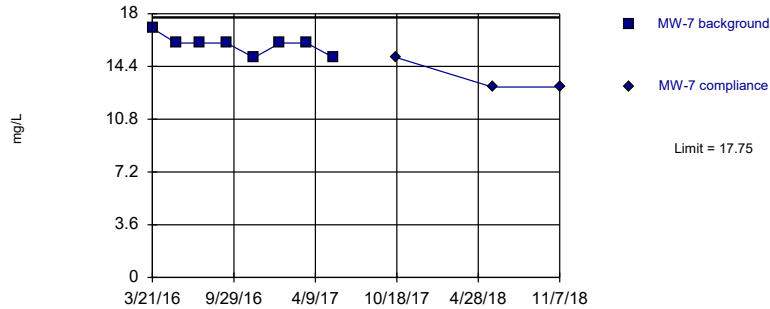


Background Data Summary (based on square transformation): Mean=45.45, Std. Dev.=15.85, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8159, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

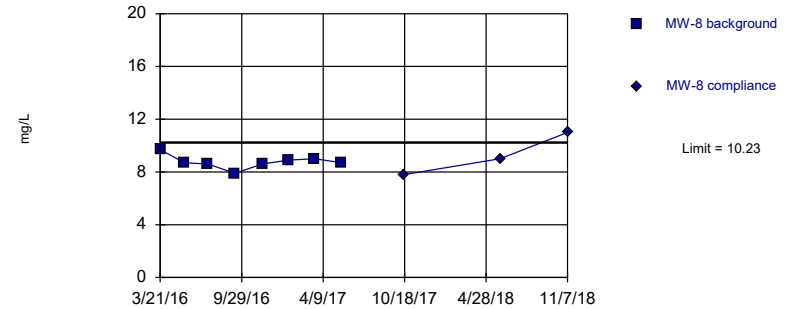


Background Data Summary: Mean=15.88, Std. Dev.=0.6409, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8108, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

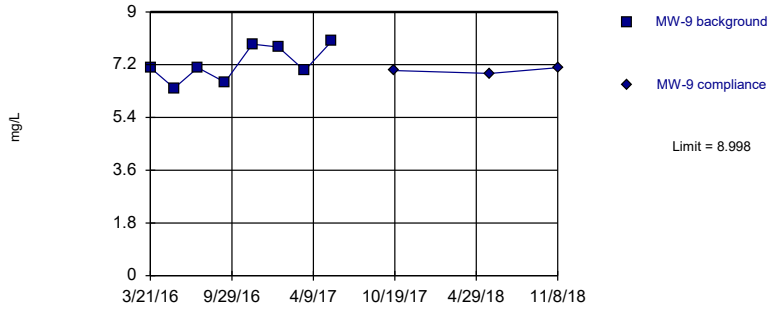


Background Data Summary: Mean=8.763, Std. Dev.=0.5012, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9145, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

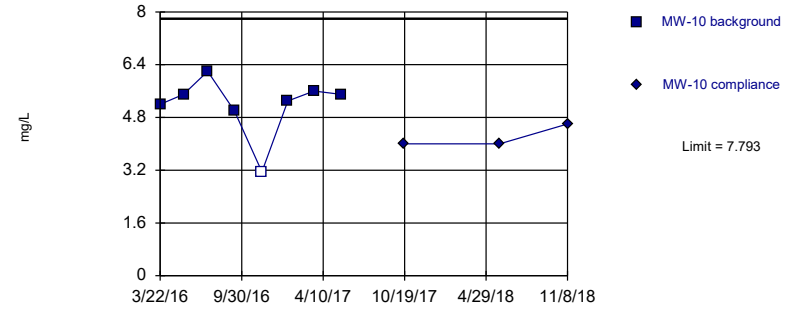


Background Data Summary: Mean=7.238, Std. Dev.=0.6022, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.909, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

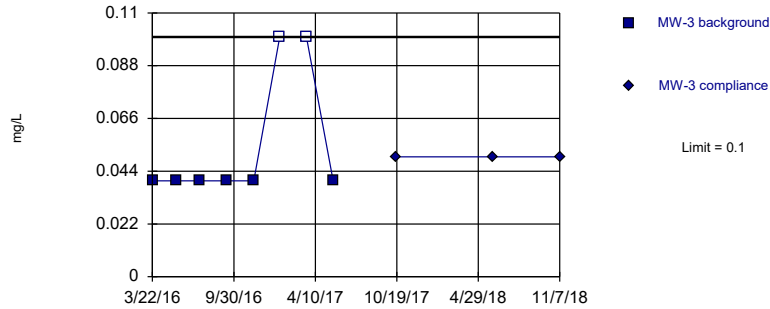
Within Limit

Prediction Limit Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Non-parametric

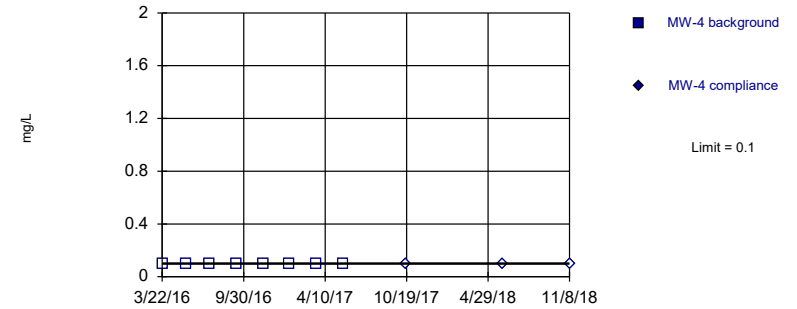


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 25% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

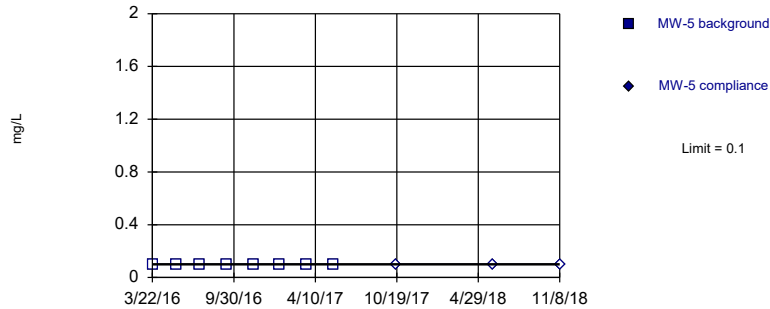


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

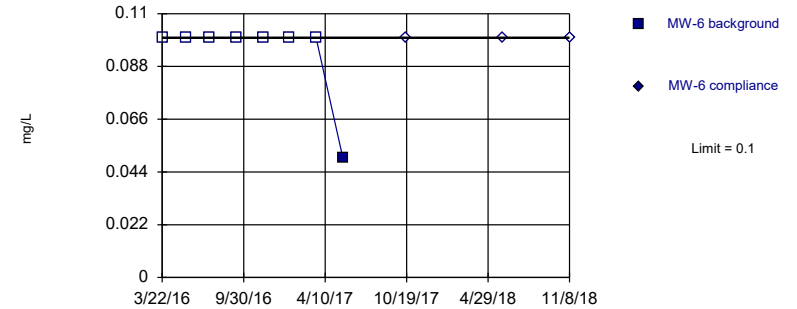


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

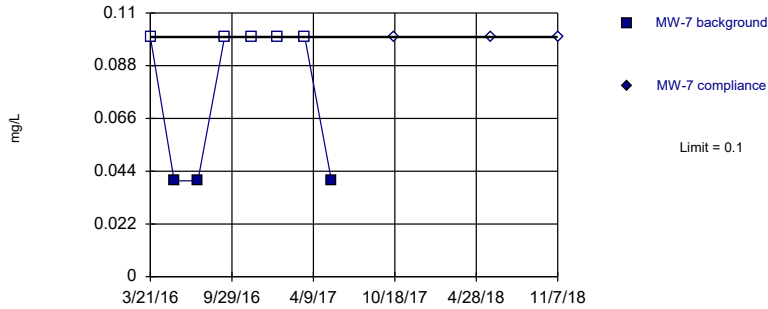


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

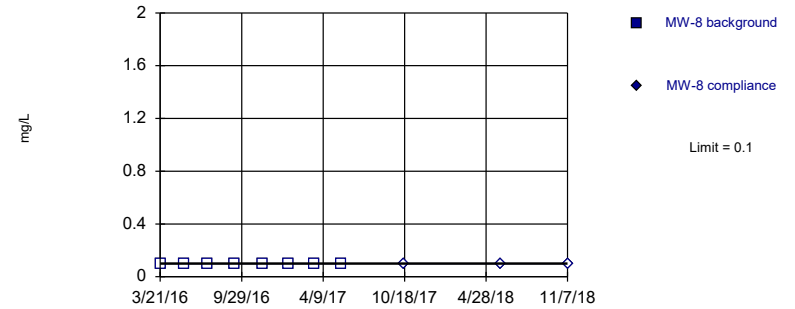


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

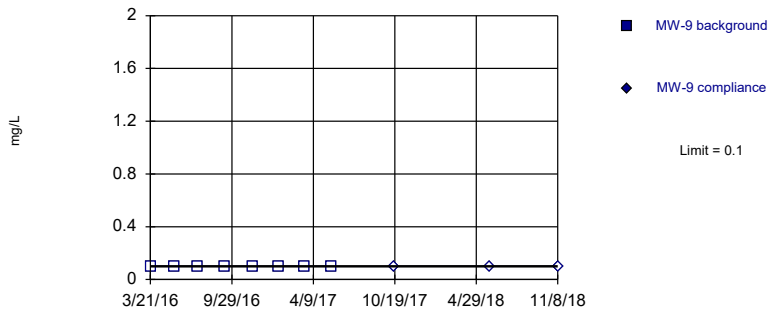


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:06 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

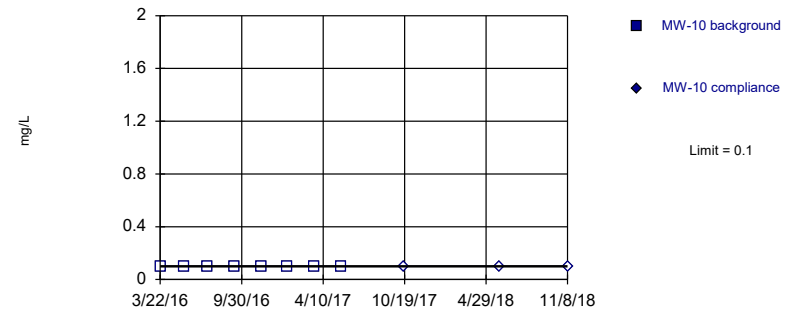


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

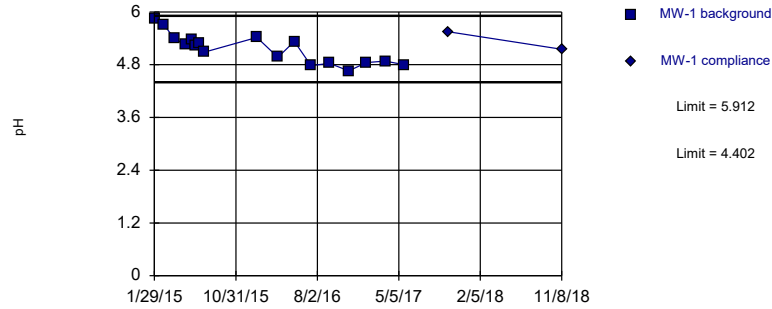


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit Intrawell Parametric

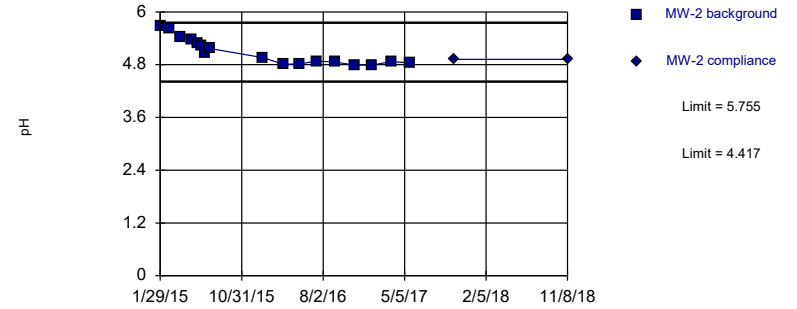


Background Data Summary: Mean=5.157, Std. Dev.=0.3379, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit Intrawell Parametric

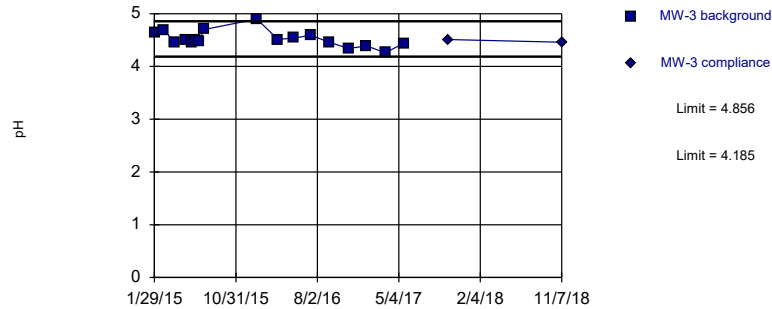


Background Data Summary: Mean=5.086, Std. Dev.=0.2992, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8673, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit Intrawell Parametric

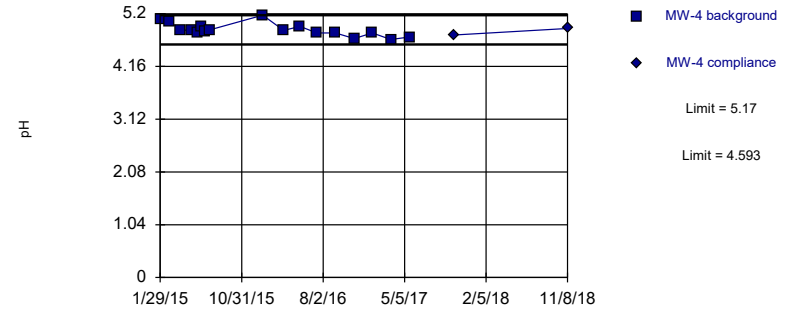


Background Data Summary: Mean=4.521, Std. Dev.=0.1501, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9477, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit Intrawell Parametric

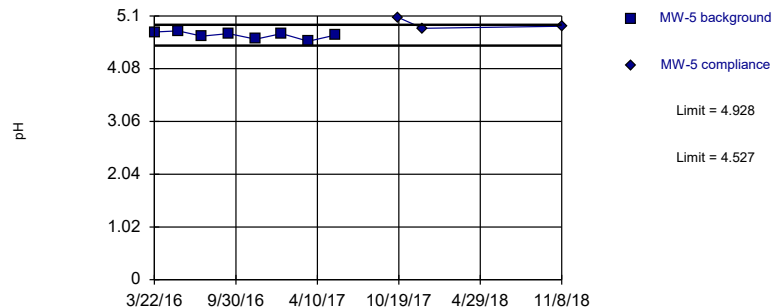


Background Data Summary: Mean=4.882, Std. Dev.=0.129, n=17. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.933, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

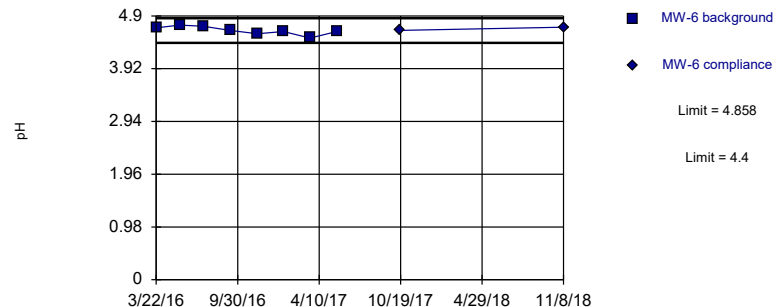


Background Data Summary: Mean=4.728, Std. Dev.=0.06861, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9373, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

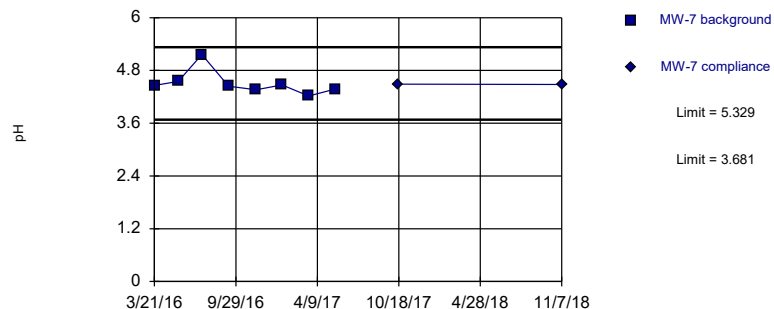


Background Data Summary: Mean=4.629, Std. Dev.=0.07827, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

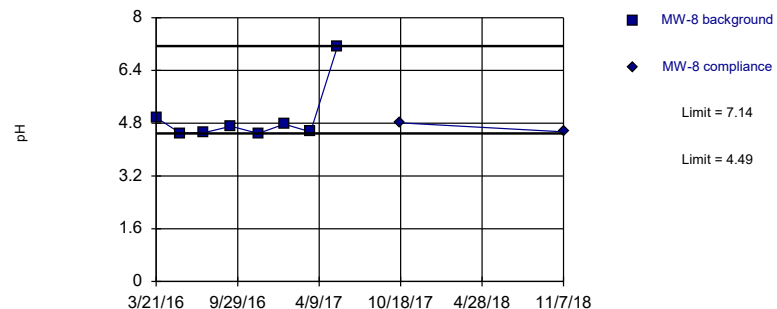


Background Data Summary: Mean=4.505, Std. Dev.=0.2819, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7496, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Non-parametric

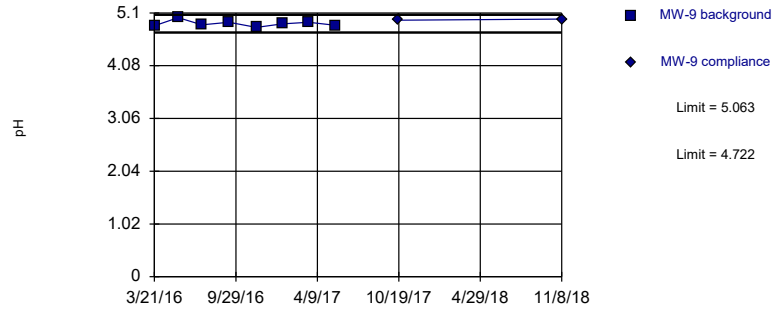


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 8 background values. Well-constituent pair annual alpha = 0.08484. Individual comparison alpha = 0.04288 (1 of 2).

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

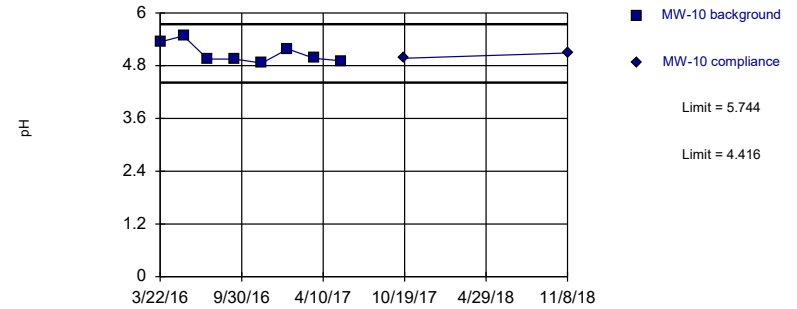


Background Data Summary: Mean=4.893, Std. Dev.=0.05849, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9234, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limits

Prediction Limit
Intrawell Parametric

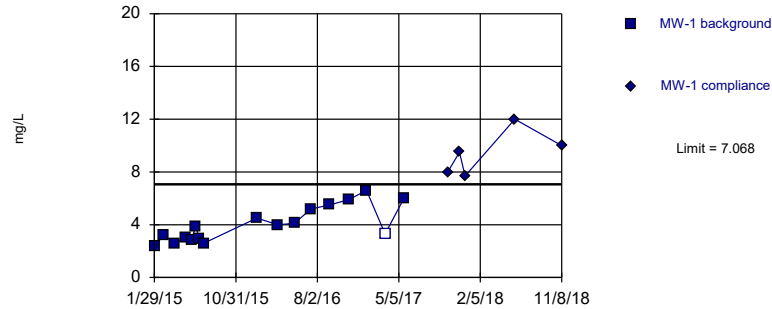


Background Data Summary: Mean=5.08, Std. Dev.=0.227, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.846, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

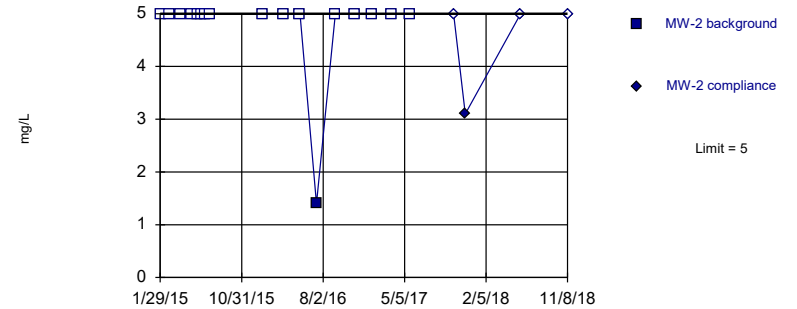


Background Data Summary: Mean=4.029, Std. Dev.=1.36, n=17, 5.882% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9078, critical = 0.851. Kappa = 2.235 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

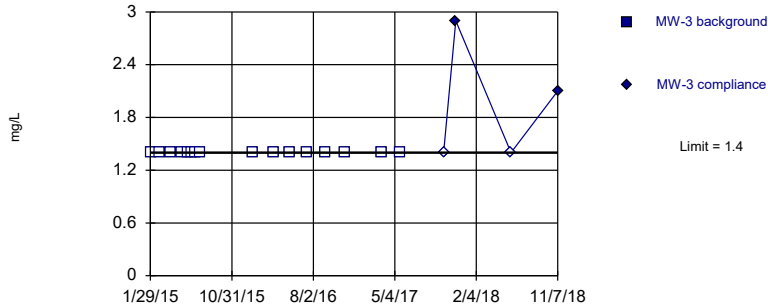


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 94.12% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

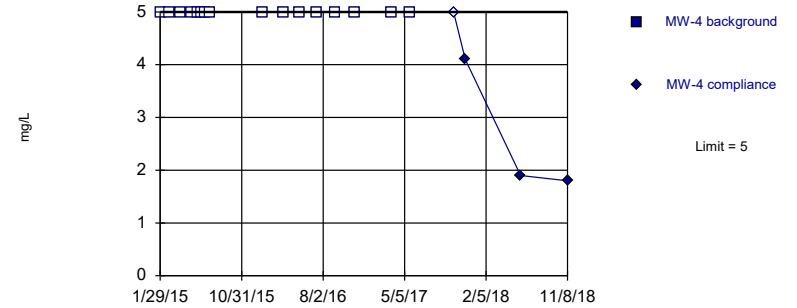


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 16) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

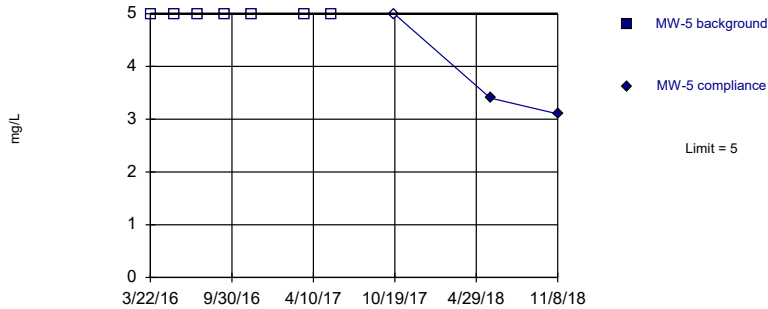


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 16) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Non-parametric

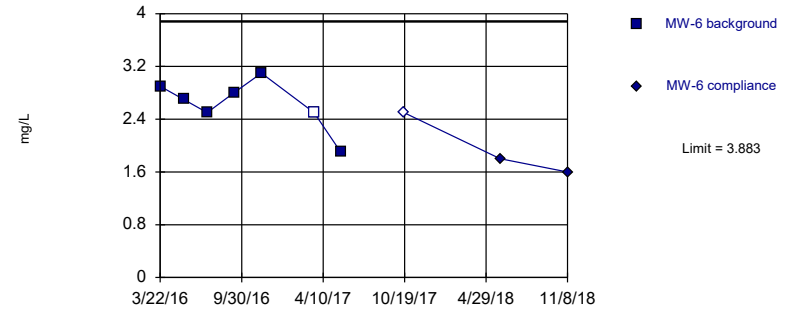


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit Intrawell Parametric

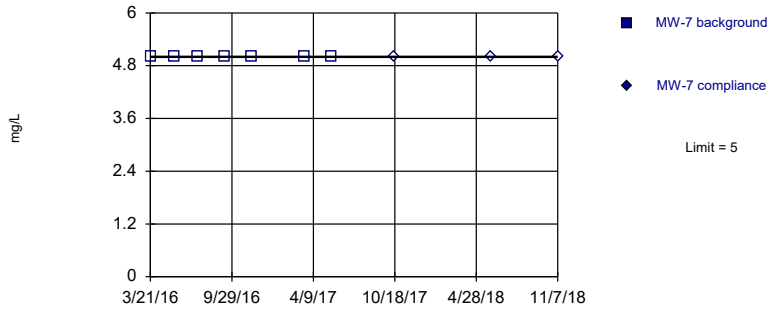


Background Data Summary: Mean=2.629, Std. Dev.=0.3861, n=7, 14.29% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.73. Kappa = 3.249 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

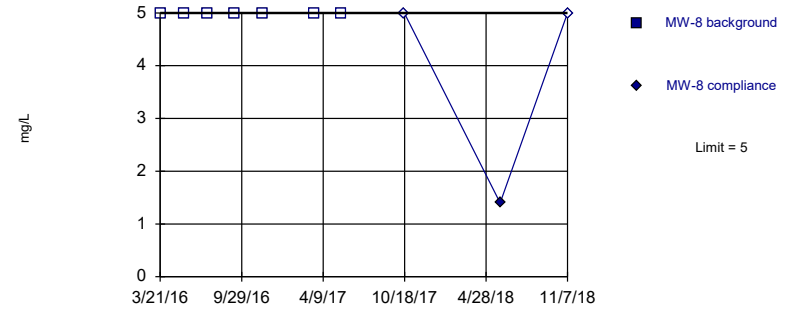


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

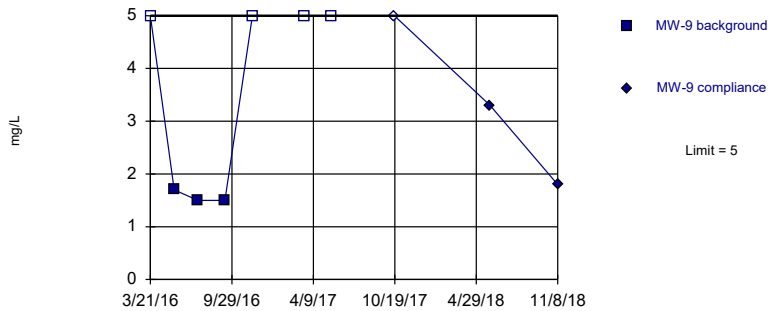


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

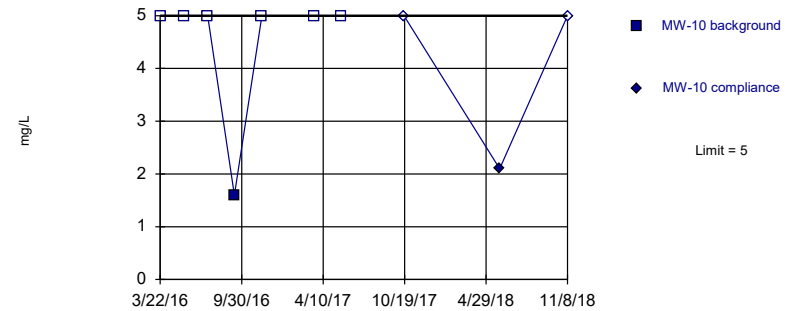


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 57.14% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

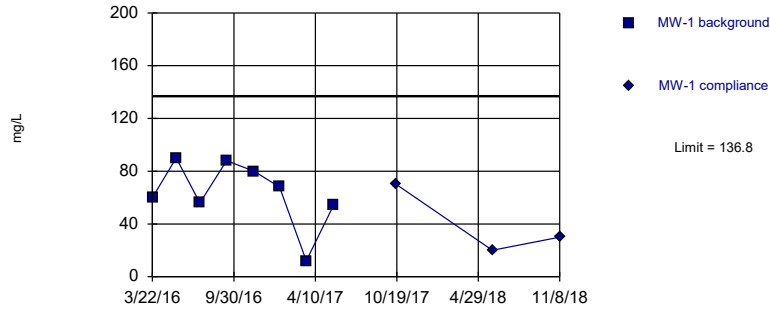


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

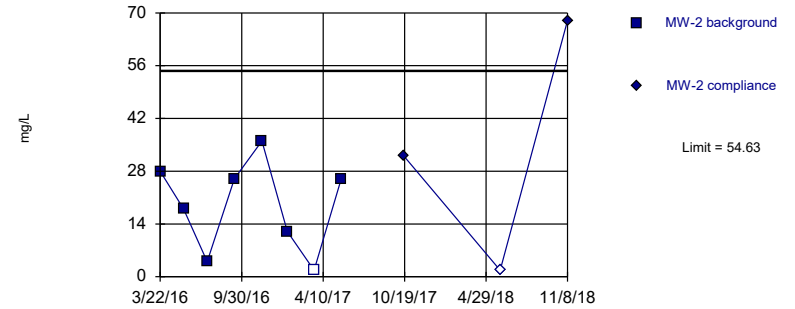


Background Data Summary: Mean=63.5, Std. Dev.=25.09, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8893, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Exceeds Limit

Prediction Limit
Intrawell Parametric

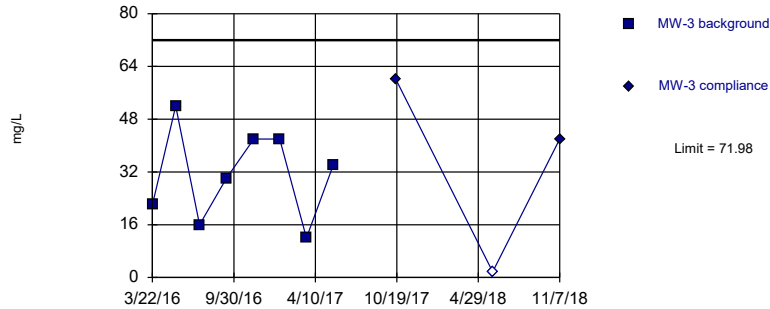


Background Data Summary: Mean=18.96, Std. Dev.=12.2, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

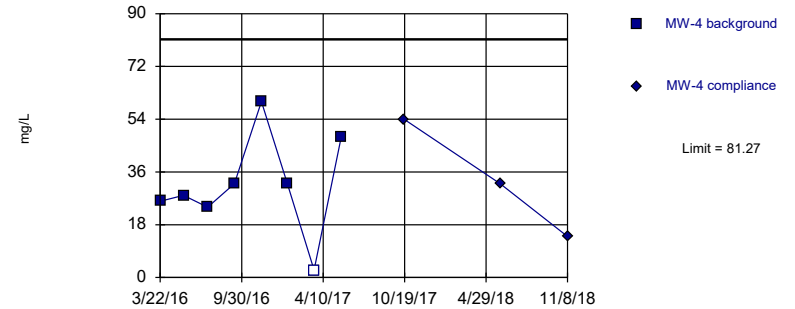


Background Data Summary: Mean=31.25, Std. Dev.=13.94, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.961, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

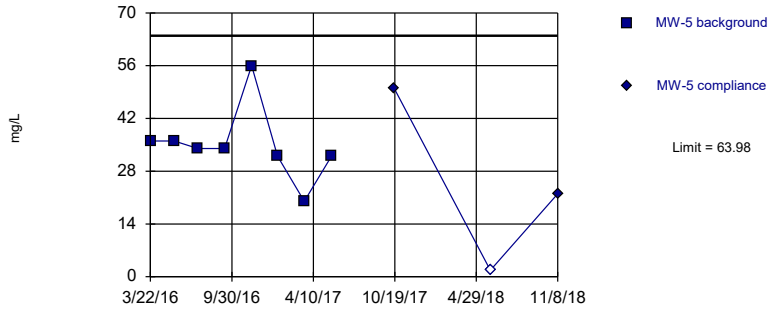


Background Data Summary: Mean=31.56, Std. Dev.=17.01, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

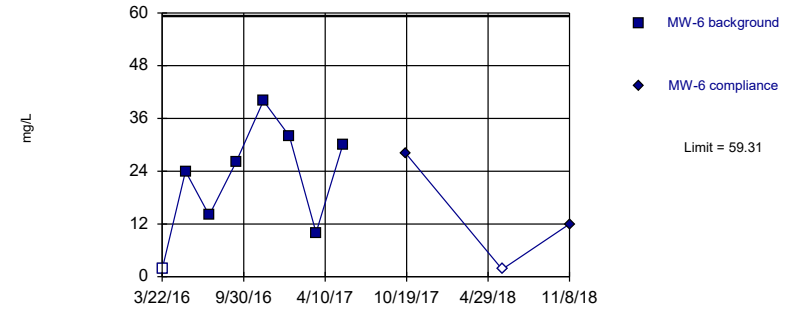


Background Data Summary: Mean=35, Std. Dev.=9.914, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8199, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:07 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

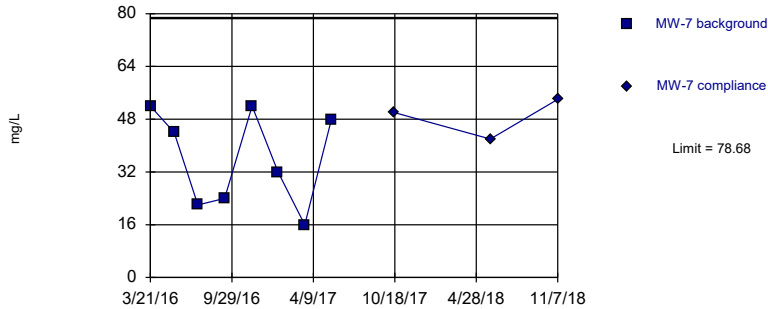


Background Data Summary: Mean=22.21, Std. Dev.=12.69, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9681, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:08 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

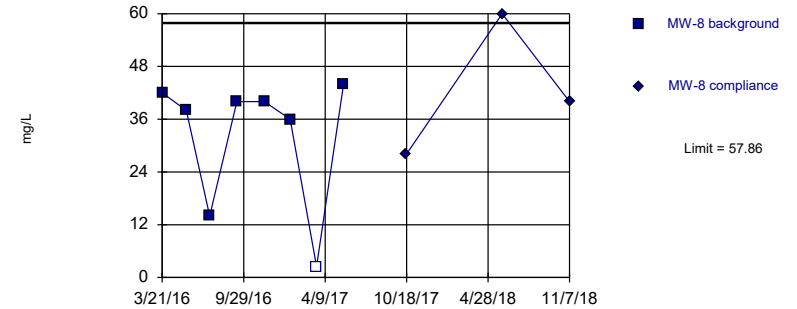


Background Data Summary: Mean=36.25, Std. Dev.=14.52, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:08 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
Intrawell Parametric

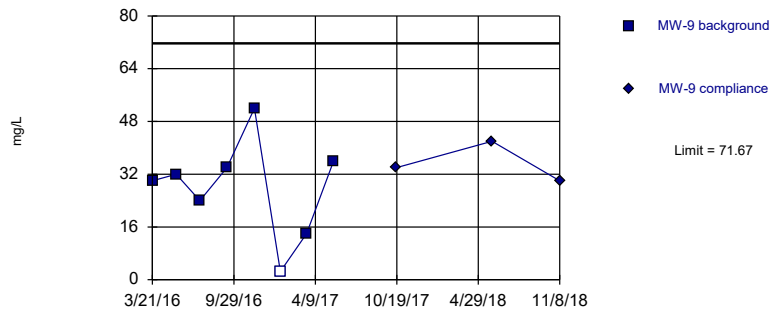


Background Data Summary (based on square transformation): Mean=1230, Std. Dev.=724.5, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8105, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:08 AM View: Intrawell PLs
Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
 Intrawell Parametric

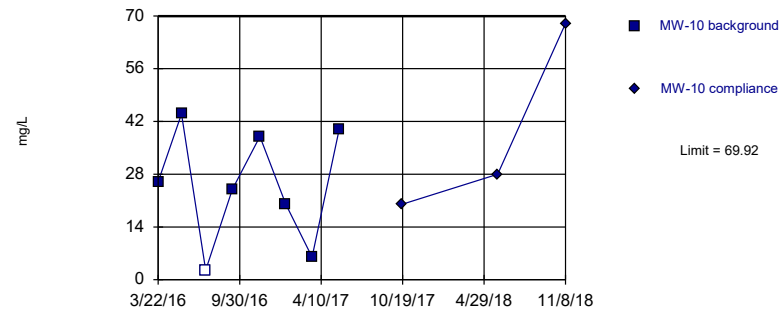


Background Data Summary: Mean=28.06, Std. Dev.=14.92, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:08 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Within Limit

Prediction Limit
 Intrawell Parametric



Background Data Summary: Mean=25.06, Std. Dev.=15.35, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9281, critical = 0.749. Kappa = 2.923 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:08 AM View: Intrawell PLs
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Trend Test Summary Table - Significant Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 1/22/2019, 12:02 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-10 (bg)	-0.2852	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-2.927	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	2.055	191	92	Yes	22	4.545	n/a	n/a	0.01	NP

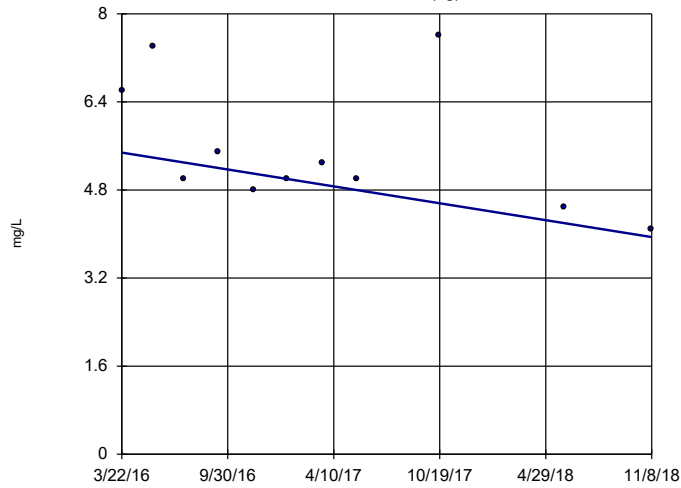
Trend Test Summary Table - All Results

Plant Daniel Client: Southern Company Data: Gypsum CCR Printed 1/22/2019, 12:02 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-1 (bg)	-0.5821	-22	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-2 (bg)	0.09739	26	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-3	0.1511	19	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-4	0.2908	31	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	MW-10 (bg)	-0.2852	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-1 (bg)	-2.927	-49	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-2 (bg)	0.6348	21	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-3	-0.149	-14	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-8	0.147	8	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	MW-10 (bg)	-0.4171	-13	-34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-1 (bg)	2.055	191	92	Yes	22	4.545	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-2 (bg)	0	-17	-87	No	21	90.48	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-10 (bg)	0	-3	-30	No	10	80	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-1 (bg)	-19.04	-23	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-2 (bg)	2.539	3	34	No	11	18.18	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	MW-10 (bg)	5.09	8	34	No	11	9.091	n/a	n/a	0.01	NP

Sen's Slope Estimator

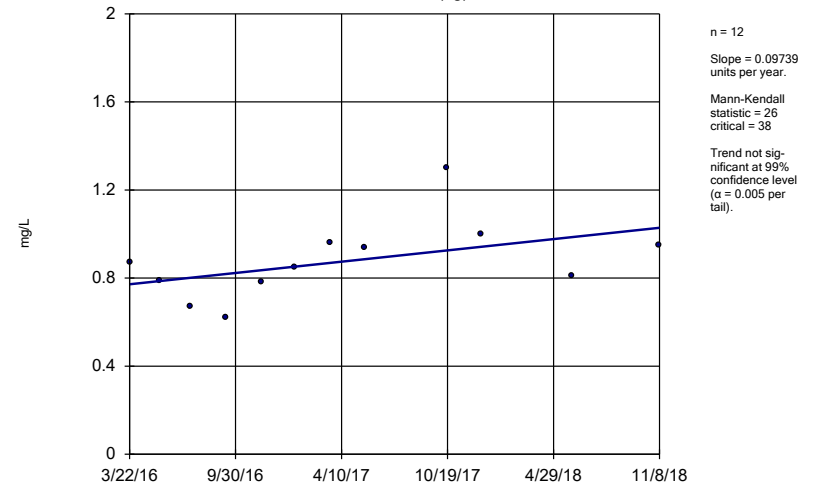
MW-1 (bg)



Constituent: Calcium Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

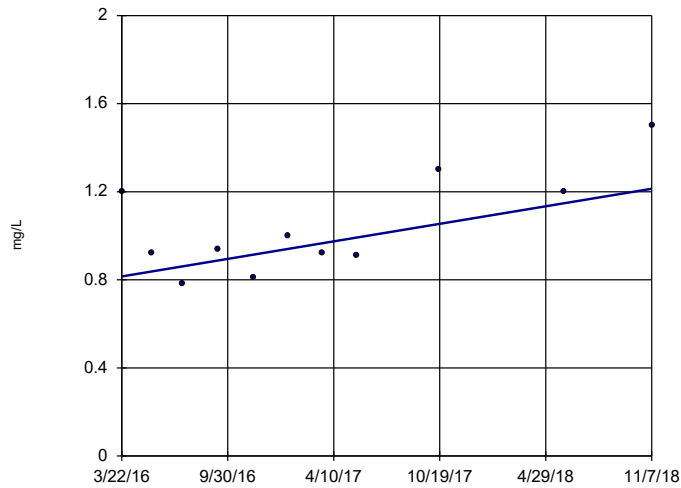
MW-2 (bg)



Constituent: Calcium Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

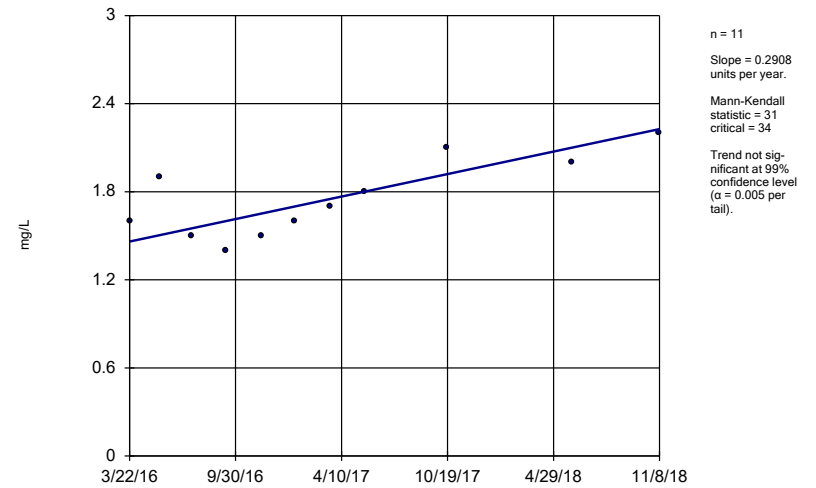
MW-3



Constituent: Calcium Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

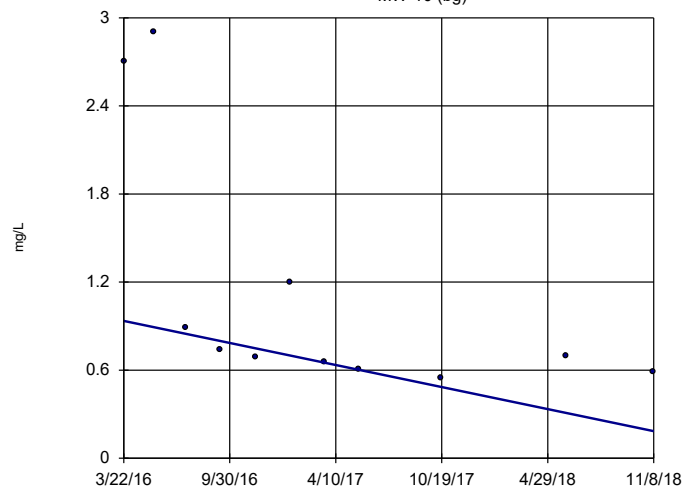
MW-4



Constituent: Calcium Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-10 (bg)

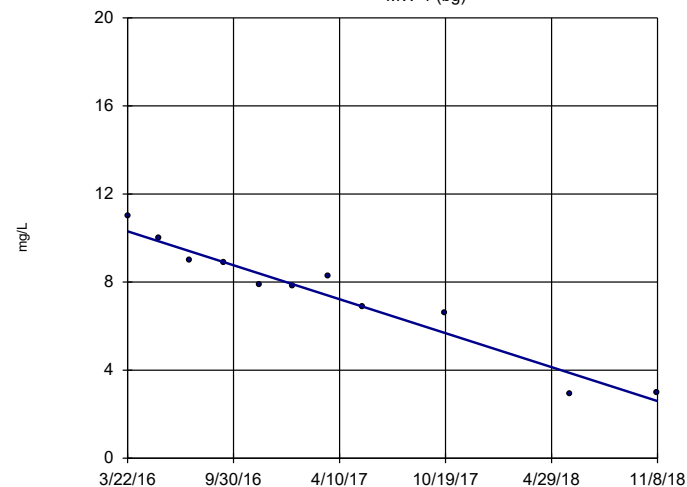


n = 11
Slope = -0.2852
units per year.
Mann-Kendall
statistic = -37
critical = -34
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Calcium Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-1 (bg)

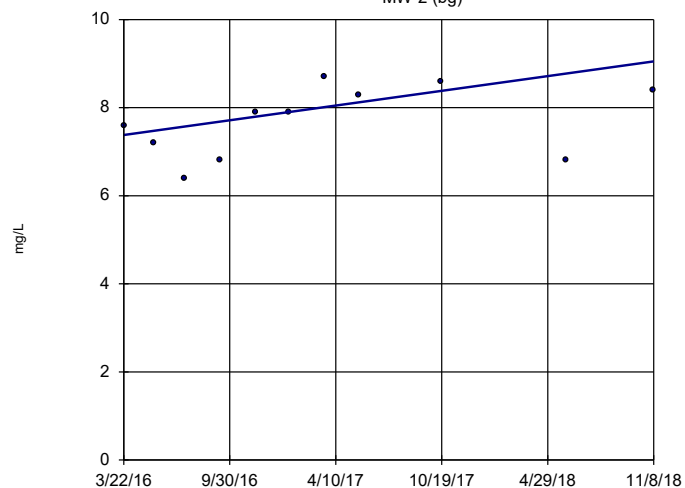


n = 11
Slope = -2.927
units per year.
Mann-Kendall
statistic = -49
critical = -34
Decreasing trend
significant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 1/22/2019 12:00 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-2 (bg)

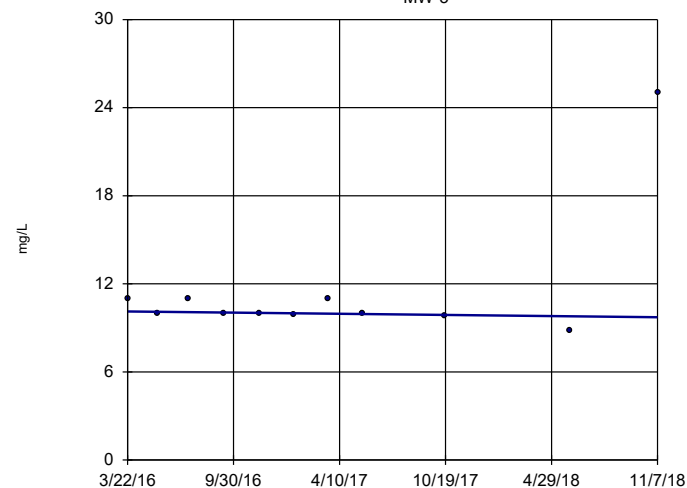


n = 11
Slope = 0.6348
units per year.
Mann-Kendall
statistic = 21
critical = 34
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 1/22/2019 12:01 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-3

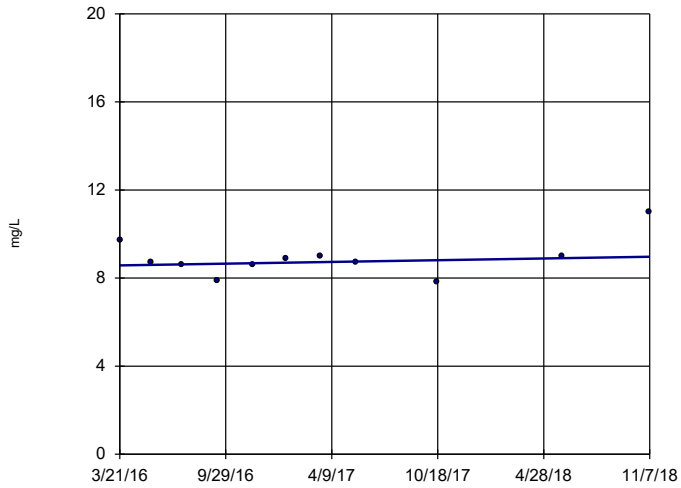


n = 11
Slope = -0.149
units per year.
Mann-Kendall
statistic = -14
critical = -34
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

Constituent: Chloride Analysis Run 1/22/2019 12:01 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-8

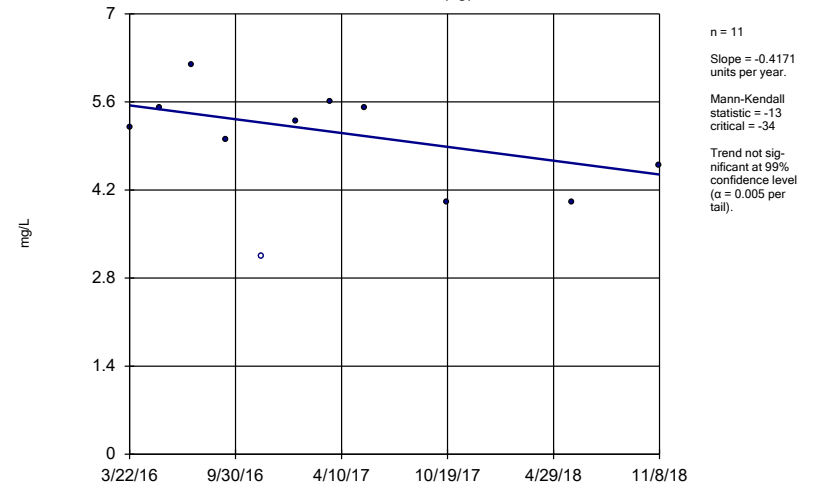


Constituent: Chloride Analysis Run 1/22/2019 12:01 PM View: Trend Tests
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-10 (bg)

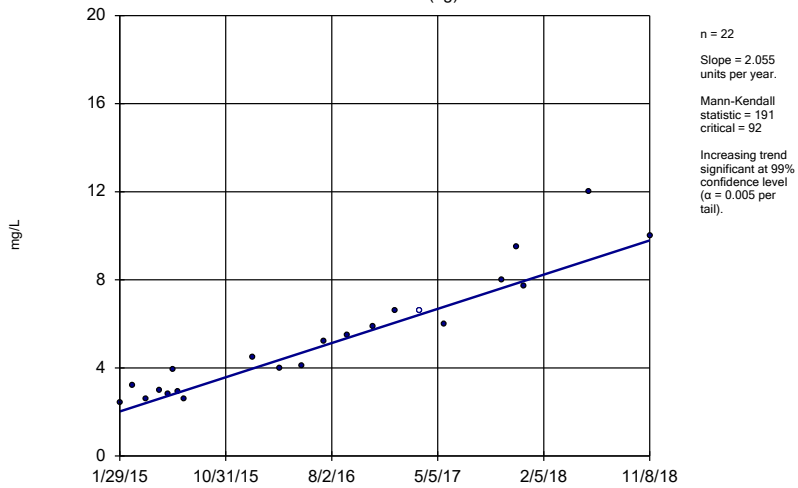


Constituent: Chloride Analysis Run 1/22/2019 12:01 PM View: Trend Tests
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1 (bg)

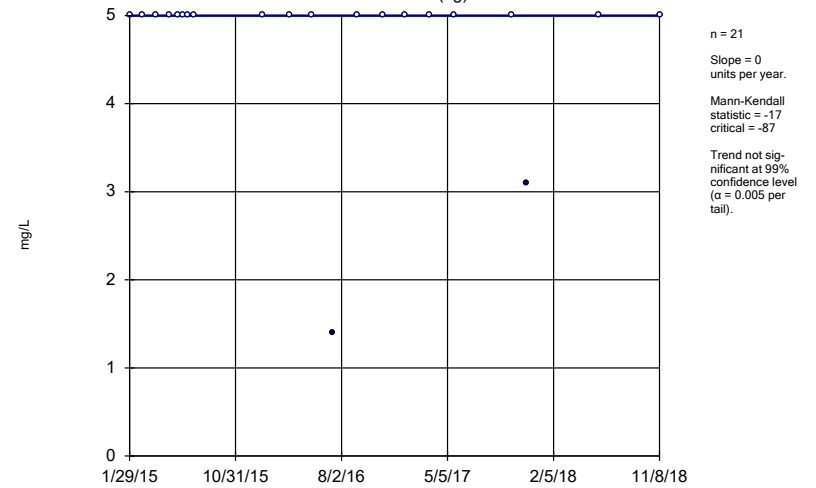


Constituent: Sulfate Analysis Run 1/22/2019 12:01 PM View: Trend Tests
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

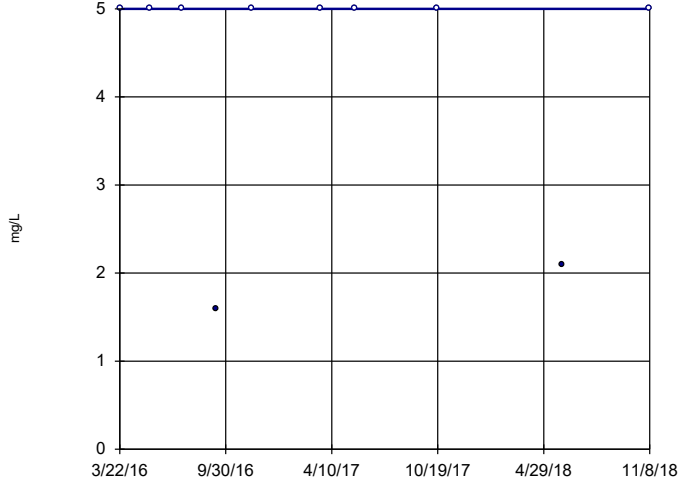
MW-2 (bg)



Constituent: Sulfate Analysis Run 1/22/2019 12:01 PM View: Trend Tests
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-10 (bg)

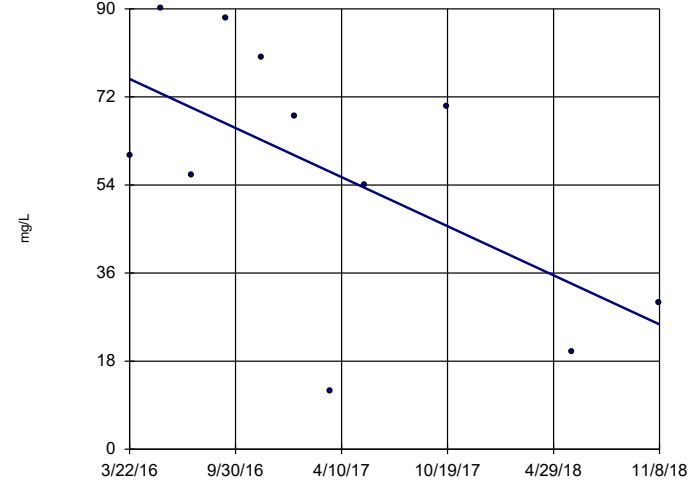


n = 10
Slope = 0
units per year.
Mann-Kendall
statistic = -3
critical = -30
Trend not sig-
nificant at 99%
confidence level
($\alpha = 0.005$ per
tail).

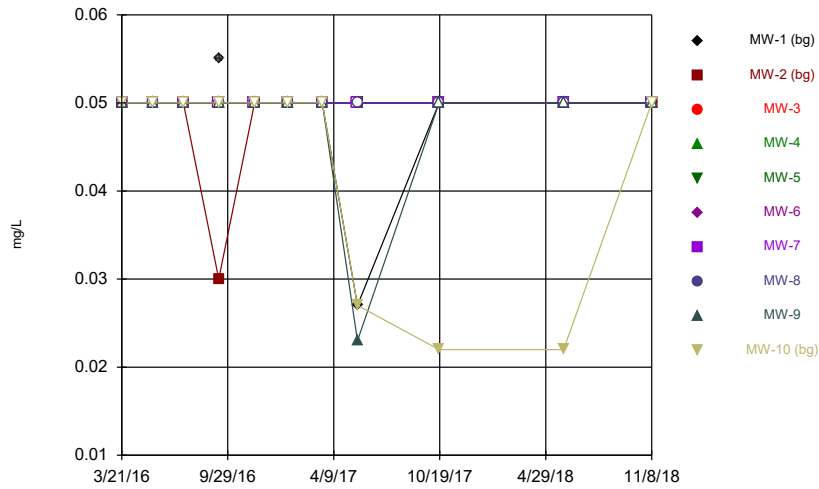
Constituent: Sulfate Analysis Run 1/22/2019 12:01 PM View: Trend Tests
Plant Daniel Client: Southern Company Data: Gypsum CCR

Sen's Slope Estimator

MW-1 (bg)

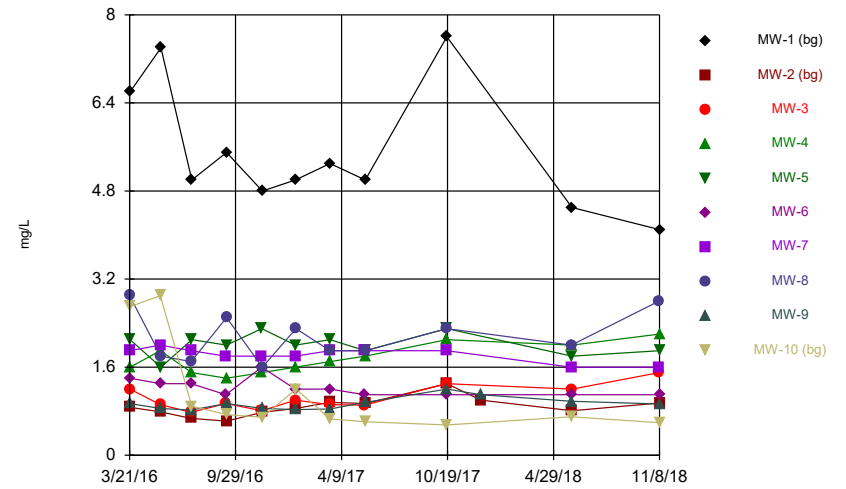


Time Series



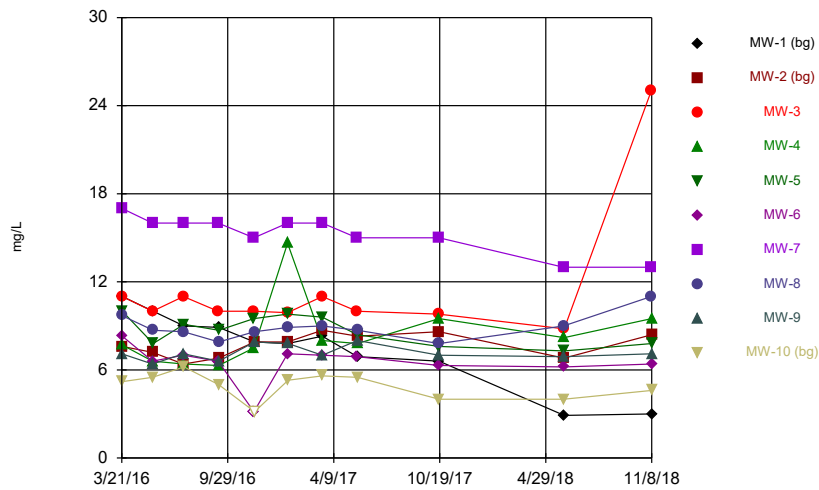
Constituent: Boron Analysis Run 12/18/2018 10:21 AM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



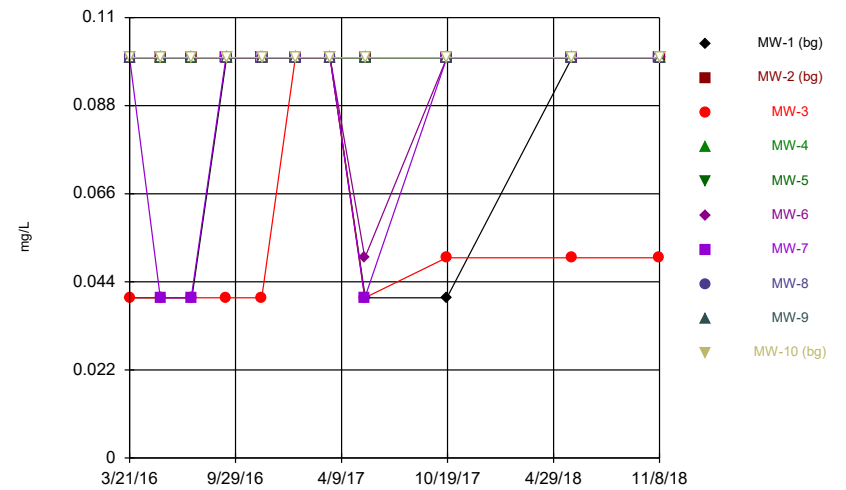
Constituent: Calcium Analysis Run 12/18/2018 10:21 AM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



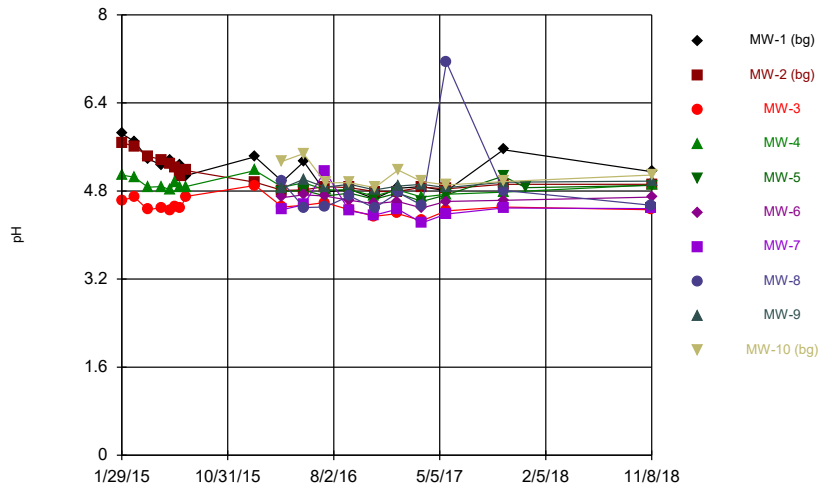
Constituent: Chloride Analysis Run 12/18/2018 10:21 AM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

Time Series



Constituent: Fluoride Analysis Run 12/18/2018 10:21 AM View: Time Series
Plant Daniel Client: Southern Company Data: Gypsum CCR

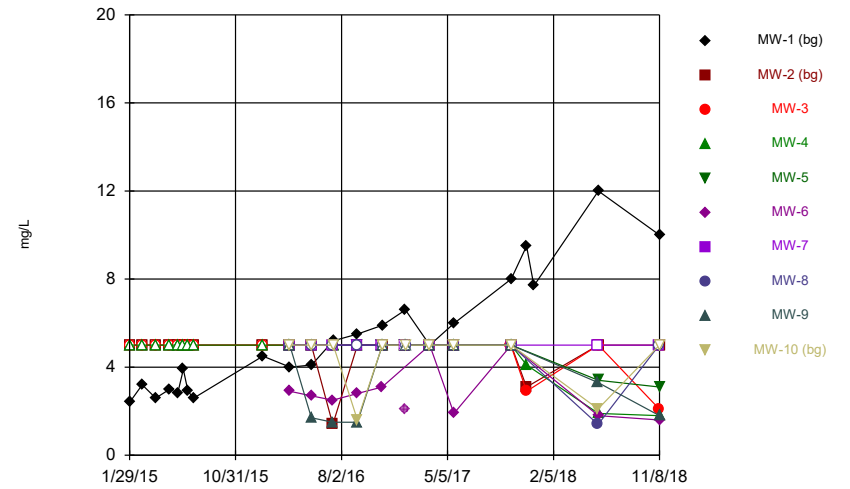
Time Series



Constituent: pH Analysis Run 12/18/2018 10:21 AM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

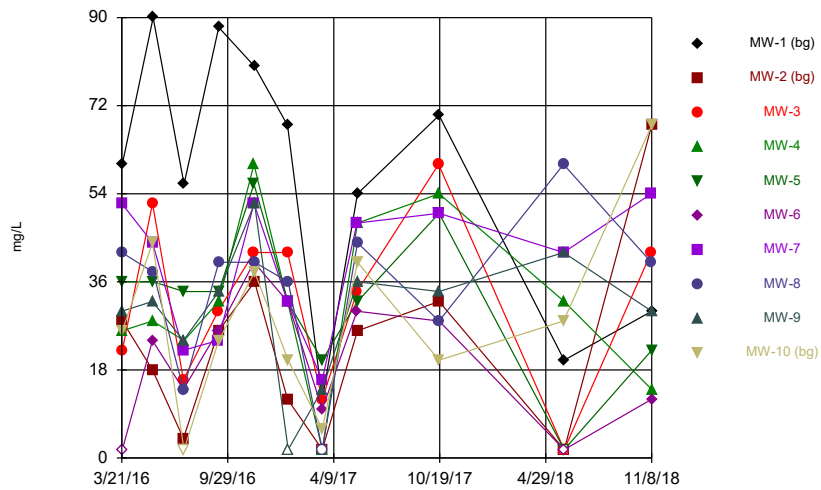
Time Series



Constituent: Sulfate Analysis Run 12/18/2018 10:21 AM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/18/2018 10:21 AM View: Time Series
 Plant Daniel Client: Southern Company Data: Gypsum CCR

Appendix C

ALTERNATE SOURCE DEMONSTRATION REPORT

MISSISSIPPI POWER COMPANY PLANT VICTOR DANIEL GYPSUM STORAGE AREA

January 14, 2019

Prepared for

Mississippi Power Company
Gulfport, Mississippi

By


Southern Company Services
Earth Science and Environmental Engineering

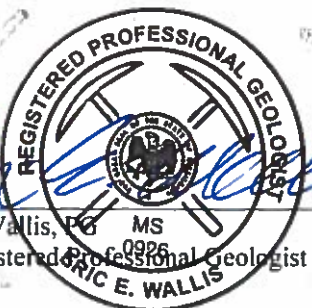


CERTIFICATION STATEMENT

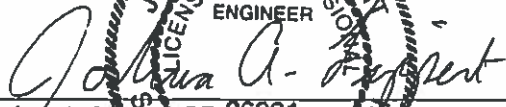
This Alternate Source Demonstration, Mississippi Power Company Plant Victor Daniel Gypsum Storage Area, has been prepared in compliance with applicable United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) under the direction of a licensed professional engineer with Southern Company Services, Inc.

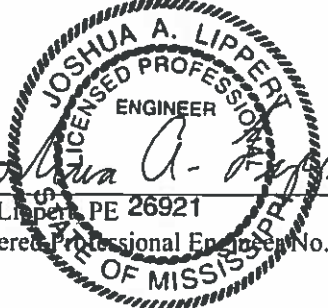
I hereby certify that the information presented in this Alternate Source Demonstration is accurate as required by 40 CFR §257.94(e)(2).


Eric E. Wallis, PG MS
MS Registered Professional Geologist No. 0926



11/14/19
Date


Joshua A. Lippert, PE 26921
MS Registered Professional Engineer No. 26921



11/14/19
Date

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule or The Rule), this Alternate Source Demonstration, Mississippi Power Company Plant Victor Daniel (Plant Daniel) Gypsum Storage Area (GSA), has been prepared to document an alternate source for Statistically Significant Increases (SSIs) observed at the GSA during detection monitoring. This document satisfies the requirements of §257.94(e)(2) which allows the owner or operator to demonstrate that a source other than the CCR Unit has caused an SSI and that the SSI was the result of an alternate source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

As documented by this report, the SSIs for calcium, chloride, sulfate, and total dissolved solids are attributed to natural variability in groundwater quality, error in sampling, or error in analysis and are not caused by a release from the CCR unit.

Groundwater monitoring data and statistical analysis reports discussed herein will be included in the Annual Groundwater Monitoring and Corrective Action Report, posted to Plant Daniel's Operating Record on January 31, 2019.

2.0 BACKGROUND

Plant Daniel GSA is presently in detection monitoring and completed 2 semi-annual groundwater sampling in June and November 2018. As detailed in the GSA's PE-certified statistical analysis plan, intrawell prediction limits (PL) are used to compare the most recent sample to prediction limits constructed from carefully screened historical data from within the same well for each of the Appendix III parameters and determine whether any concentrations exceed background levels. The selected statistical method includes a 1-of-2 verification resample plan.

Statistical analysis of analytical data from the June 2018 groundwater monitoring event identified the following SSIs:

- Sulfate: MW-1
- Total Dissolved Solids (TDS): MW-8

Statistical analysis of analytical data from the November 2018 groundwater monitoring event identified the following SSIs:

- Calcium: MW-3 and MW-4

- Chloride: MW-3 and MW-8
- Sulfate: MW-1
- Total Dissolved Solids (TDS): MW-2

As discussed in the following section, the SSIs identified at the GSA are attributed to natural variability in groundwater quality, error in sampling, or error in analysis and are not caused by a release from the CCR unit.

3.0 ALTERNATE SOURCE DEMONSTRATION

Pursuant to 40 CFR §257.94(e)(2), the following provides a demonstration that the SSIs reported during the 2018 semi-annual detection monitoring events are not the result of a release from the GSA and that assessment monitoring is not required.

3.1 First Semi-Annual Monitoring Event

SSIs identified during the first semi-annual sampling event are not the result of a release from the GSA. Monitoring well MW-1 is a background well located hydraulically upgradient of the GSA that is not in the flowpath of the GSA. Therefore, groundwater quality from this well represents upgradient conditions not affected by the disposal unit and represents natural variation in groundwater quality.

The TDS SSI identified at well MW-8 was a single-parameter exceedance caused by sampling or analytical error. A release from the GSA would be characterized by multiple SSI exceedances, not only a single parameter. The SSI was not confirmed during the subsequent second semi-annual sampling event. Since the SSI was not confirmed in subsequent sampling and was only a single-parameter exceedance, we conclude that the SSI was the result of sampling or analytical error.

In accordance with §257.94(e)(2), this ASD demonstrated that the SSIs are not the result of a release from the GSA.

3.2 Second Semi-Annual Monitoring Event

The following addresses each of the SSIs identified during the second semi-annual groundwater monitoring event.

3.2.1 Calcium at MW-3 and MW-4

Review of statistical analysis for wells MW-3 and MW-4 identified calcium SSIs resulting from concentrations slightly above the intrawell prediction limit. These SSIs are likely the result of natural variability not accommodated by the limited background data for the site. The following lines of evidence

support this conclusion:

- Boron is a primary indicator parameter for a CCR release and it is not detected in these wells. A release from the GSA would result in the detection of boron at statistically significant levels above background concentrations. A release from the GSA would result in significant increases in monitored constituents (i.e. calcium) and the detection of boron at statistically significant levels. Calcium has not exhibited a significant increase in concentration and boron has not been detected.
- Multiple SSIs are not observed. A release from a CCR unit will result in SSIs of multiple monitored parameters. Only one other SSI is observed in well MW-3 (chloride) and no other SSI has been observed at well MW-4. The absence of multiple SSIs supports the conclusion that the SSIs observed for calcium are not the result of a release from the GSA.

Review of the statistical analysis for calcium shows that an SSI was triggered as the result of a slight increase in concentration during the most recent sampling event. Review of time series for calcium in the statistical analysis reports show that not only has a significant increase in concentration not been observed, but that calcium concentrations in wells MW-3 and 4 are well within the range observed across the site.

Based on review of site data, the SSIs for calcium in wells MW-3 and MW-4 are attributed to natural groundwater chemistry variation that is not accommodated by the current statistical method.

3.2.2 Chloride at MW-3 and MW-8

Review of statistical analysis for wells MW-3 and MW-8 identified chloride SSIs resulting from concentrations slightly above the intrawell prediction limit. These SSIs are likely the result of sampling or laboratory error at well MW-3 and natural variability not accommodated by the limited background data for the site at well MW-8. The following lines of evidence support this conclusion:

- Boron is a primary indicator parameter for a CCR release and it is not detected in these wells. A release from the GSA would result in the detection of boron at statistically significant levels above background concentrations. A release from the GSA would result in significant increases in monitored constituents (i.e. calcium) and the detection of boron at statistically significant levels. Chloride has not exhibited a significant increase at MW-8 and boron has not been detected.
- An apparent significant increase in chloride concentration has been observed at well MW-3; however, a corresponding increase has not been observed in any other monitored parameter at this well. A release from the GSA causing a significant chloride increase would also result in significant

increases in other monitored constituents in a similar fashion – that has not occurred. The apparent elevated concentration for chloride in well MW-3 is likely the result of sampling or analytical error and is not representative of actual groundwater quality.

- Multiple SSIs are not observed. A release from a CCR unit will result in SSIs of multiple monitored parameters. Only one other SSI is observed in well MW-3 (calcium at a low concentration) and no other SSI has been observed at well MW-8. The absence of multiple SSIs supports the conclusion that the SSIs observed for chloride are not the result of a release from the GSA.

The apparent elevated concentration at well MW-3 is believed to be the result of sampling or laboratory error and will be verified during the next semi-annual groundwater sampling event. The SSIs for chloride in wells MW-8 are attributed to natural groundwater chemistry variation that is not accommodated by the current statistical method.

3.2.3 MW-1 Sulfate and MW-2 TDS

Review of statistical analysis for wells MW-1 and MW-2 identified SSIs of sulfate and TDS, respectively. MW-1 and MW-2 are upgradient background monitoring wells. The following discussed these SSIs and substantiate the conclusion that the observed SSIs are not the result of a release from the GSA:

- Both wells are background monitoring wells located hydraulically upgradient of the GSA. For these wells to be impacted by the GSA groundwater flow would need to change direction and place these wells in a downgradient flow path from the GSA – this has not occurred. Since the wells are upgradient, they cannot be impacted by a release from the GSA.
- Boron is a primary indicator parameter for a CCR release and it is not detected in these wells. A release from the GSA would result in the detection of boron at statistically significant levels above background concentrations. That has not occurred.
- An apparent significant increase in sulfate has been observed at well MW-1. Review of trend charts for sulfate in the statistical analysis report shows that sulfate is exhibiting a gradual upward trend and that the concentration observed at well MW-1 is the highest observed on site. The gradual upgradient trend indicates that concentrations observed at well MW-1 are the result of changing upgradient groundwater quality and not caused by a release from the GSA.
- The apparent increase in TDS observed in upgradient well MW-2 is likely the result of sampling

or analytical error. As discussed above, the well is located upgradient of the GSA, boron has not been detected, and multiple SSIs have not been observed. Since none of these have occurred, the elevated TDS is not attributed to a release from the GSA and likely caused by sampling or analytical error resulting in analytical results not representative of actual groundwater quality at this location.

Based on the above, the apparent elevated concentrations in upgradient background wells are not the result of a release from the GSA. The SSI at well MW-1 is likely a reflection of changing background chemistry. The SSI at well MW-2 is attributed to sampling or analytical error.

Based on the above, the SSIs are the result of natural groundwater chemistry variation, sampling, or analytical error. In accordance with §257.94(e)(2), the ASDs demonstrates that the SSIs are not the result of a release from the GSA.

4.0 CONCLUSION

This ASD has been prepared in response to SSIs identified for calcium, chloride, sulfate, and TDS in groundwater monitoring wells for the Plant Daniel GSA following the November 2018 sampling event. In accordance with §257.94(e)(2), this ASD demonstrates that the SSIs are not the result of a release from the GSA. Therefore, in accordance with §257.94(e)(2), the GSA will remain in detection monitoring.