2018 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
NORTH ASH MANAGEMENT UNIT

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 North Ash Management Unit 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

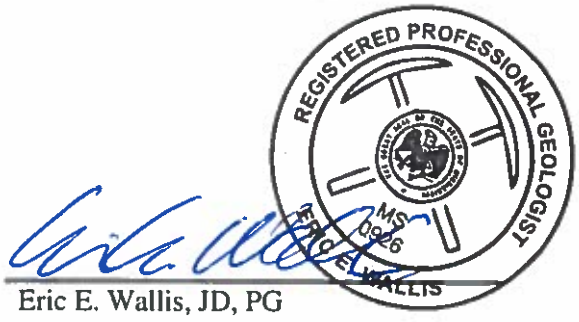

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 SITE DESCRIPTION 2
2.1 Regional Geology & Hydrogeologic Setting 2
2.2 Uppermost Aquifer 3
3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY 4
3.1 Groundwater Monitoring System 4
3.2 Detection Monitoring 6
3.3 Monitoring Well Installation and Maintenance 6
4.0 SAMPLE METHODOLOGY & ANALYSIS 7
4.1 Groundwater Flow Direction, Gradient, and Velocity 7
4.2 Groundwater Sampling 9
4.3 Laboratory Analysis 9
4.4 Quality Assurance and Quality Control 9
5.0 STATISTICAL ANALYSIS 11
5.1 Statistical Method 11
5.2 Statistical Analysis Results 11
5.2.1 First Semi-Annual Groundwater Monitoring Event 11
5.2.2 Second Semi-Annual Groundwater Monitoring Event 11
5.3 Alternate Source Demonstration 12
6.0 MONITORING PROGRAM STATUS 13
7.0 CONCLUSIONS & FUTURE ACTIONS 14
8.0 REFERENCES 15

Tables

Table 1 Monitoring Well Network Summary
Table 2 Compliance Sampling Events Summary
Table 3 Groundwater Elevations Summary 2018
Table 4 Groundwater Flow Velocity Calculations – 2018

Figures

Figure 1 Site Location Map
Figure 2 Monitoring Well Location Map
Figure 3 Potentiometric Surface Contour Map – June 2018
Figure 4 Potentiometric Surface Contour Map – November 2018

Appendices

Appendix A Laboratory Analytical and Field Sampling Reports
Appendix B Statistical Data Evaluation

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 semi-annual detection groundwater monitoring activities at the Plant Daniel North Ash Management Unit (NAMU) and to satisfy the requirements of §257.90(e). Semi-annual monitoring, and associated reporting for Plant Daniel NAMU 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 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 NAMU 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 7 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 NAMU.

Monitoring well locations MW-11, MW-14, and MW-18 serve as upgradient locations for the NAMU. 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-15, MW-16, MW-17 and MW-19 are utilized as downgradient locations. 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-11	Upgradient	5/2/2006	384797.922	1068943.907	32	25.24	23.22	-3.78	-8.78
MW-14	Upgradient	7/24/2015	384048.468	1068916.529	47	23.65	20.87	-11.83	-16.83
MW-15	Downgradient	7/24/2015	383503.877	1068571.153	37	21.53	18.69	-12.61	-17.61
MW-16	Downgradient	7/24/2015	383593.548	1067845.867	28	16.12	13.16	-6.94	-11.94
MW-17	Downgradient	7/24/2015	384781.265	1067808.459	27	15.41	12.59	-7.91	-12.91
MW-18	Upgradient	7/24/2015	385290.588	1068774.386	47	28.86	26.33	-10.27	-15.27
MW-19	Downgradient	7/26/2016	384157.410	1067711.624	30	24.42	21.56	-3.04	-8.04

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 NAMU is performing 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 NAMU.

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)	May-June 2018	November 2018
MW-11	25.24	12.79	12.11
MW-14	23.65	11.69	11.13
MW-15	21.53	9.92	9.66
MW-16	16.12	6.25	5.90
MW-17	15.41	7.97	7.83
MW-18	28.86	12.80	12.11
MW-19	24.42	5.65	5.25

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 $\left(\frac{feet}{day}\right)$

K = Average permeability of the aquifer $\left(\frac{feet}{day}\right)$

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)
May-June 2018	A	0.00461	25.09	0.2	0.579	211.28
	B	0.00510	25.09	0.2	0.640	233.53
November 2018	A	0.00444	25.09	0.2	0.556	203.12
	B	0.00490	25.09	0.2	0.615	224.37

Groundwater monitoring wells MW-14 and MW-16 were used as points for calculating Flow Path A and MW-11 and MW-19 were used to calculate Flow Path B. As shown in **Table 4**, horizontal hydraulic gradients range from 0.00444 ft/ft to 0.00510 ft/ft. As presented on **Table 4** groundwater flow velocity at the site ranges from approximately 0.556 feet/day (or approximately 203.12 feet/year) to 0.640 feet/day (or approximately 233.53 feet/year) across the gypsum storage area. 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 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, a single SSI of a monitored constituent was observed during the first semi-annual monitoring event; however, the reported SSI was not the result of a release from NAMU. As discussed in the following section, an Alternate Source Demonstration (ASD) has 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 SSI during the first semi-annual detection monitoring event:

- Calcium: MW-16

5.2.2 Second Semi-Annual Groundwater Monitoring Event

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

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.

The SSI identified during the first semi-annual sampling event was not the result of a release from the NAMU. The calcium SSI identified at well MW-16 was a single-parameter exceedance caused by natural variability in groundwater chemistry not accommodated by the current background data set.

Review of the statistical report indicates that the SSI was the result of a slightly higher concentration than background and only slightly exceeded the statistical limit. A release from a CCR unit will result in multiple parameter SSIs, not a single low-level exceedance. Other monitored constituents that would be indicative of a release did not exhibit SSIs. Finally, the SSI was not confirmed during the subsequent second semi-annual sampling event. Therefore, the SSI was the result of natural chemistry variability and not caused by a release from NAMU.

In accordance with §257.94(e)(2), this ASD has demonstrated that the SSI was not the result of a release from NAMU and was caused by natural chemistry variability not accommodated by the current statistical background. Therefore, in accordance with §257.94(e)(2), the NAMU remained in detection monitoring.

6.0 MONITORING PROGRAM STATUS

Presently, Plant Daniel NAMU is in detection monitoring. Statistical analysis of groundwater quality data has not identified any verified SSIs that were not addressed with an ASD and the site will continue detection monitoring.

7.0 CONCLUSIONS & FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Plant Daniel NAMU identified in apparent SSI of calcium in 1 well during the first semi-annual groundwater monitoring event. In accordance with §257.94(e)(2), an ASD was prepared to demonstrate that the SSI was not the result of a release from the NAMU. Therefore, in accordance with §257.94(e)(2), the NAMU 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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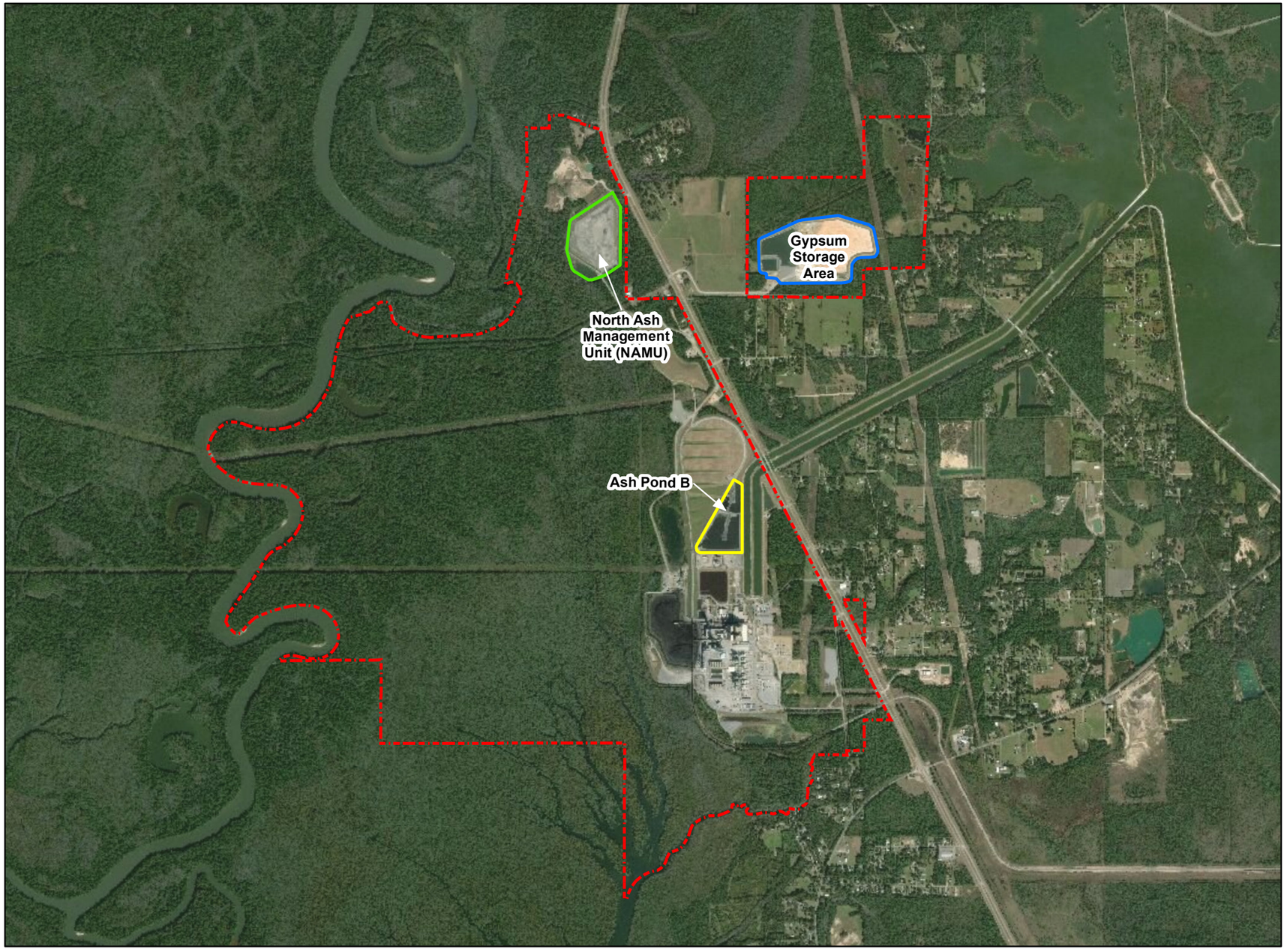
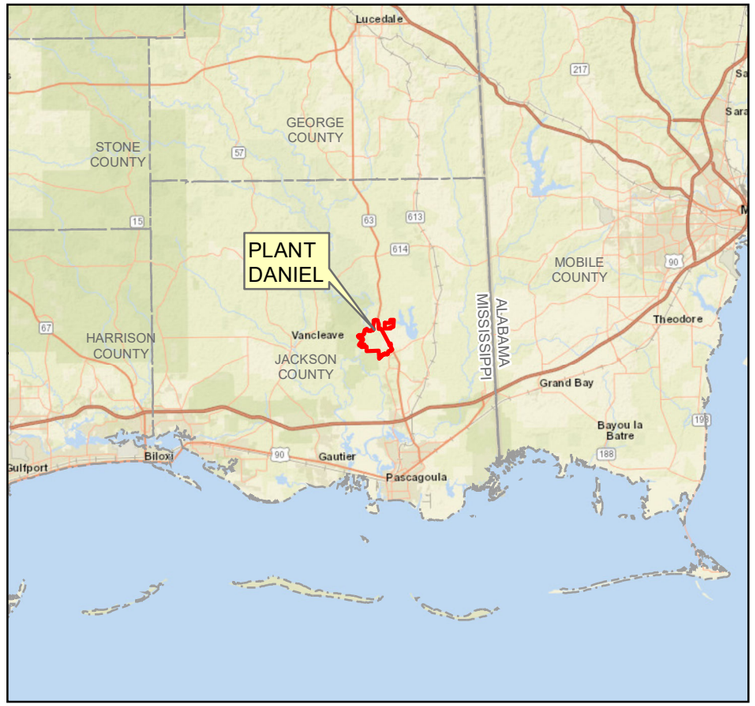
Figures





Legend

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

N

0 1,250 2,500 5,000 7,500 10,000 Feet

1 inch = 2,500 feet

Southern Company Services
Earth Science and Environmental Engineering

FOR

Mississippi Power Company

FIGURE 1
SITE LOCATION MAP
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

Drawing Number ES4118S1

Legend

- Monitoring Well Location
- North Ash Management Unit (NAMU) Boundary
- Property Boundary (Approximate)

N

0 125 250 500 750 1,000 Feet

1 inch = 250 feet

FIGURE 2
MONITORING WELL LOCATION MAP
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

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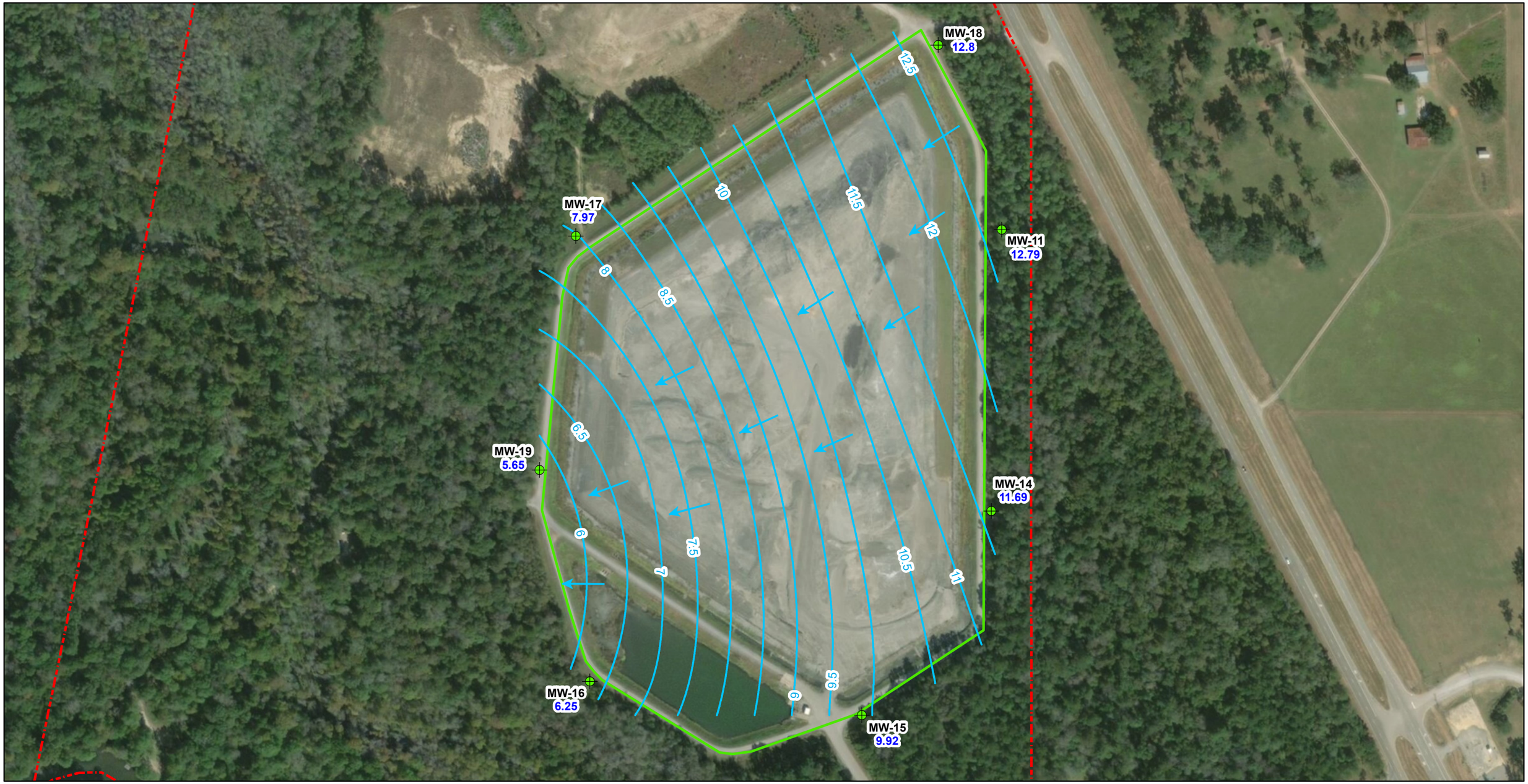
Drawing Number ES4118S2



Legend

- Monitoring Well Location
- Estimated Potentiometric Surface Contour (ft NAVD88)
- Approximate Direction of Groundwater Flow
- North Ash Management Unit (NAMU) Boundary
- Property Boundary (Approximate)

N

0 125 250 500 750 1,000 Feet

1 inch = 250 feet

FIGURE 3
POTENTIOMETRIC SURFACE CONTOUR MAP
JUNE 2018
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

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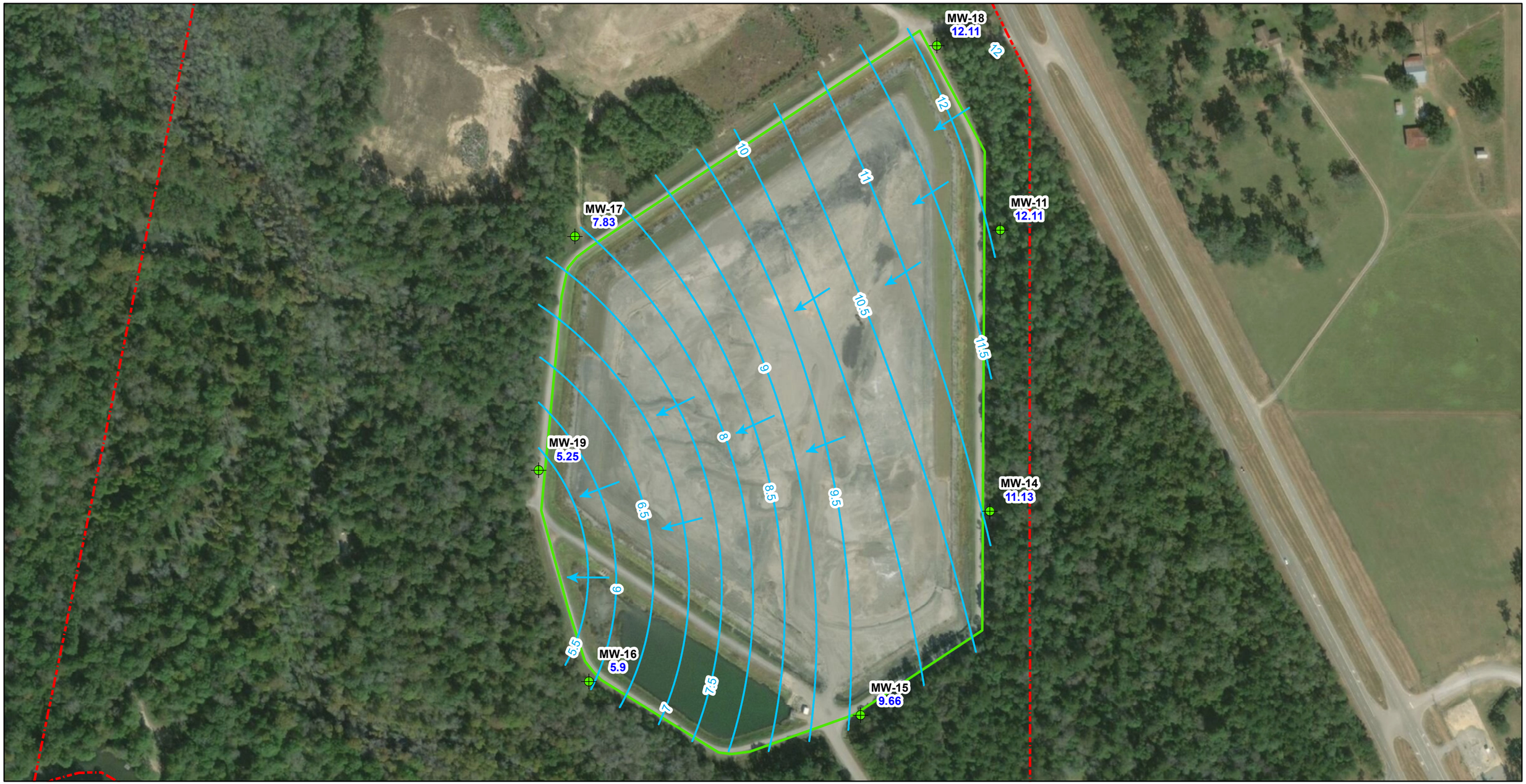
Mississippi Power Company

Drawing Number ES4118S3



Legend

- Monitoring Well Location
- Estimated Potentiometric Surface Contour (ft NAVD88)
- Approximate Direction of Groundwater Flow
- North Ash Management Unit (NAMU) Boundary
- Property Boundary (Approximate)

N

0 125 250 500 750 1,000 Feet

1 inch = 250 feet

FIGURE 4
POTENTIOMETRIC SURFACE CONTOUR MAP
NOVEMBER 2018
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

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FOR

Mississippi Power Company

Drawing Number ES4118S4

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: 400-154559-1
TestAmerica Sample Delivery Group: NAMU App III
Client Project/Site: CCR -Plant Daniel

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Mr. Cale B. Sellers

Cheyenne R Whitmire

Authorized for release by:
7/16/2018 12:02:00 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

Table of Contents

Cover Page 1
Table of Contents 2
Detection Summary 3
Method Summary 5
Sample Summary 6
Client Sample Results 7
Definitions 15
Chronicle 16
QC Association 19
QC Sample Results 22
Chain of Custody 27
Receipt Checklists 29
Certification Summary 30

Detection Summary

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-11 — Lab Sample ID: 400-154559-1

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
Total Dissolved Solids	32		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	12		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.93				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 400-154559-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.97		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.4		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
Field pH	4.87				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 400-154559-3

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
Total Dissolved Solids	24		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.7		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.75				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-17 — Lab Sample ID: 400-154559-4

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	6.5		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.5	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.42				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 400-154559-5

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	0.75		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	6.9		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.040	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	4.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.84				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 400-154559-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-19 (Continued) — Lab Sample ID: 400-154559-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.56		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	5.0		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	5.11				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-154559-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.56		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	34		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.0		2.0	0.60	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 400-154559-8

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	44		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	9.9		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	5				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU 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: 400-154559-1
SDG: NAMU App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-154559-1	MW-11	Water	05/31/18 09:41	06/01/18 13:07
400-154559-2	MW-15	Water	06/01/18 08:06	06/01/18 13:07
400-154559-3	MW-16	Water	05/31/18 14:56	06/01/18 13:07
400-154559-4	MW-17	Water	05/31/18 11:56	06/01/18 13:07
400-154559-5	MW-18	Water	05/31/18 10:57	06/01/18 13:07
400-154559-6	MW-19	Water	05/31/18 13:40	06/01/18 13:07
400-154559-7	DUP-01	Water	05/31/18 06:00	06/01/18 13:07
400-154559-8	MW-14	Water	06/01/18 11:20	06/04/18 09:25

Client Sample Results

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-11
Date Collected: 05/31/18 09:41
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-1
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		06/04/18 09:32	06/04/18 18:04	5
Calcium	1.8		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:04	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	32		5.0	3.4	mg/L			06/05/18 14:52	1
Chloride	12		2.0	0.60	mg/L			06/13/18 08:34	1
Fluoride	0.040	J	0.10	0.032	mg/L			06/05/18 13:40	1
Sulfate	3.0	J	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	4.93				SU			05/31/18 09:41	1

Client Sample Results

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-15
Date Collected: 06/01/18 08:06
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-2
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		06/04/18 09:32	06/04/18 18:08	5
Calcium	**0.97**		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:08	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	**6.4**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 13:47	1
Sulfate	**1.5**	**J**	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	**4.87**				SU			06/01/18 08:06	1

Client Sample Results

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-16
Date Collected: 05/31/18 14:56
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-3
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		06/04/18 09:32	06/04/18 18:13	5
Calcium	**1.1**		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:13	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**24**		5.0	3.4	mg/L			06/05/18 14:52	1
Chloride	**8.7**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 13:51	1
Sulfate	**2.2**	**J**	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	**4.75**				SU			05/31/18 14:56	1

Client Sample Results

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-17
Date Collected: 05/31/18 11:56
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-4
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		06/04/18 09:32	06/04/18 18:17	5
Calcium	**1.1**		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:17	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	**6.5**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 13:53	1
Sulfate	**2.5**	**J**	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	**5.42**				SU			05/31/18 11:56	1

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-18
Date Collected: 05/31/18 10:57
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-5
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		06/04/18 09:32	06/04/18 18:22	5
Calcium	0.75		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:22	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	30		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	6.9		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	0.040	J	0.10	0.032	mg/L			06/05/18 13:57	1
Sulfate	4.1	J	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	4.84				SU			05/31/18 10:57	1

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-19
Date Collected: 05/31/18 13:40
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-6
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		06/04/18 09:32	06/04/18 18:26	5
Calcium	**0.56**		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:26	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	**5.0**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 13:59	1
Sulfate	**1.9**	**J**	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	**5.11**				SU			05/31/18 13:40	1

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: DUP-01
Date Collected: 05/31/18 06:00
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-7
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		06/04/18 09:32	06/04/18 18:31	5
Calcium	**0.56**		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 18:31	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**34**		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	**5.0**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 14:03	1
Sulfate	**2.0**	**J**	5.0	1.4	mg/L			06/25/18 11:17	1

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-14
Date Collected: 06/01/18 11:20
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154559-8
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 09:49	06/05/18 15:43	5
Calcium	**2.8**		0.25	0.13	mg/L		06/05/18 09:49	06/05/18 15:43	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**44**		5.0	3.4	mg/L			06/05/18 17:38	1
Chloride	**9.9**		2.0	0.60	mg/L			06/13/18 08:37	1
Fluoride	<0.032		0.10	0.032	mg/L			06/05/18 14:06	1
Sulfate	**1.8**	**J**	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**				SU			06/01/18 11:20	1

Definitions/Glossary

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU 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.
¤	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: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-11
Date Collected: 05/31/18 09:41
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:04	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400021	06/05/18 14:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	400973	06/13/18 08:34	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:40	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	05/31/18 09:41	CDH	TAL PEN

Client Sample ID: MW-15
Date Collected: 06/01/18 08:06
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:08	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	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:47	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	06/01/18 08:06	CDH	TAL PEN

Client Sample ID: MW-16
Date Collected: 05/31/18 14:56
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:13	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	400021	06/05/18 14:52	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:51	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	05/31/18 14:56	CDH	TAL PEN

Client Sample ID: MW-17
Date Collected: 05/31/18 11:56
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:17	DRE	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: MW-17
Date Collected: 05/31/18 11:56
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	400039	06/05/18 17:38	RRC	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:53	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	05/31/18 11:56	CDH	TAL PEN

Client Sample ID: MW-18
Date Collected: 05/31/18 10:57
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:22	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	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:57	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	05/31/18 10:57	CDH	TAL PEN

Client Sample ID: MW-19
Date Collected: 05/31/18 13:40
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:26	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	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 13:59	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	05/31/18 13:40	CDH	TAL PEN

Client Sample ID: DUP-01
Date Collected: 05/31/18 06:00
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399839	06/04/18 09:32	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	399989	06/04/18 18:31	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	400973	06/13/18 08:37	RRC	TAL PEN

Lab Chronicle

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

TestAmerica Job ID: 400-154559-1
SDG: NAMU App III

Client Sample ID: DUP-01

Date Collected: 05/31/18 06:00
Date Received: 06/01/18 13:07

Lab Sample ID: 400-154559-7
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	400057	06/05/18 14:03	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	402406	06/25/18 11:17	RRC	TAL PEN

Client Sample ID: MW-14

Date Collected: 06/01/18 11:20
Date Received: 06/04/18 09:25

Lab Sample ID: 400-154559-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			399998	06/05/18 09:49	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	400109	06/05/18 15:43	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	400973	06/13/18 08:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	400057	06/05/18 14:06	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	06/01/18 11:20	CDH	TAL PEN

Laboratory References:

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

Metals

Prep Batch: 399839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total Recoverable	Water	3005A	
400-154559-2	MW-15	Total Recoverable	Water	3005A	
400-154559-3	MW-16	Total Recoverable	Water	3005A	
400-154559-4	MW-17	Total Recoverable	Water	3005A	
400-154559-5	MW-18	Total Recoverable	Water	3005A	
400-154559-6	MW-19	Total Recoverable	Water	3005A	
400-154559-7	DUP-01	Total Recoverable	Water	3005A	
MB 400-399839/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-399839/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-154481-D-2-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-154481-D-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 399989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total Recoverable	Water	6020	399839
400-154559-2	MW-15	Total Recoverable	Water	6020	399839
400-154559-3	MW-16	Total Recoverable	Water	6020	399839
400-154559-4	MW-17	Total Recoverable	Water	6020	399839
400-154559-5	MW-18	Total Recoverable	Water	6020	399839
400-154559-6	MW-19	Total Recoverable	Water	6020	399839
400-154559-7	DUP-01	Total Recoverable	Water	6020	399839
MB 400-399839/1-A ^5	Method Blank	Total Recoverable	Water	6020	399839
LCS 400-399839/2-A	Lab Control Sample	Total Recoverable	Water	6020	399839
400-154481-D-2-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	399839
400-154481-D-2-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	399839

Prep Batch: 399998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-8	MW-14	Total Recoverable	Water	3005A	
MB 400-399998/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-399998/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-154558-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-154558-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
400-154559-8	MW-14	Total Recoverable	Water	6020	399998
MB 400-399998/1-A ^5	Method Blank	Total Recoverable	Water	6020	399998
LCS 400-399998/2-A	Lab Control Sample	Total Recoverable	Water	6020	399998
400-154558-B-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	399998
400-154558-B-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	399998

General Chemistry

Analysis Batch: 400021

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total/NA	Water	SM 2540C	
400-154559-3	MW-16	Total/NA	Water	SM 2540C	
MB 400-400021/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-400021/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 400021 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154549-I-2 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 400039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-2	MW-15	Total/NA	Water	SM 2540C	
400-154559-4	MW-17	Total/NA	Water	SM 2540C	
400-154559-5	MW-18	Total/NA	Water	SM 2540C	
400-154559-6	MW-19	Total/NA	Water	SM 2540C	
400-154559-7	DUP-01	Total/NA	Water	SM 2540C	
400-154559-8	MW-14	Total/NA	Water	SM 2540C	
MB 400-400039/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-400039/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-154502-I-4 DU	Duplicate	Total/NA	Water	SM 2540C	
400-154588-A-9 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 400057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total/NA	Water	SM 4500 F C	
400-154559-2	MW-15	Total/NA	Water	SM 4500 F C	
400-154559-3	MW-16	Total/NA	Water	SM 4500 F C	
400-154559-4	MW-17	Total/NA	Water	SM 4500 F C	
400-154559-5	MW-18	Total/NA	Water	SM 4500 F C	
400-154559-6	MW-19	Total/NA	Water	SM 4500 F C	
400-154559-7	DUP-01	Total/NA	Water	SM 4500 F C	
400-154559-8	MW-14	Total/NA	Water	SM 4500 F C	
MB 400-400057/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-400057/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-154559-1 MS	MW-11	Total/NA	Water	SM 4500 F C	
400-154559-1 MSD	MW-11	Total/NA	Water	SM 4500 F C	
400-154582-C-1 DU	Duplicate	Total/NA	Water	SM 4500 F C	

Analysis Batch: 400973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-154559-2	MW-15	Total/NA	Water	SM 4500 Cl- E	
400-154559-3	MW-16	Total/NA	Water	SM 4500 Cl- E	
400-154559-4	MW-17	Total/NA	Water	SM 4500 Cl- E	
400-154559-5	MW-18	Total/NA	Water	SM 4500 Cl- E	
400-154559-6	MW-19	Total/NA	Water	SM 4500 Cl- E	
400-154559-7	DUP-01	Total/NA	Water	SM 4500 Cl- E	
400-154559-8	MW-14	Total/NA	Water	SM 4500 Cl- E	
MB 400-400973/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-400973/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-400973/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-154559-1 MS	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-154559-1 MSD	MW-11	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 402406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total/NA	Water	SM 4500 SO4 E	
400-154559-2	MW-15	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 402406 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-3	MW-16	Total/NA	Water	SM 4500 SO4 E	
400-154559-4	MW-17	Total/NA	Water	SM 4500 SO4 E	
400-154559-5	MW-18	Total/NA	Water	SM 4500 SO4 E	
400-154559-6	MW-19	Total/NA	Water	SM 4500 SO4 E	
400-154559-7	DUP-01	Total/NA	Water	SM 4500 SO4 E	
400-154559-8	MW-14	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	

Field Service / Mobile Lab

Analysis Batch: 404328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-154559-1	MW-11	Total/NA	Water	Field Sampling	
400-154559-2	MW-15	Total/NA	Water	Field Sampling	
400-154559-3	MW-16	Total/NA	Water	Field Sampling	
400-154559-4	MW-17	Total/NA	Water	Field Sampling	
400-154559-5	MW-18	Total/NA	Water	Field Sampling	
400-154559-6	MW-19	Total/NA	Water	Field Sampling	
400-154559-8	MW-14	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-399839/1-A ^5
Matrix: Water
Analysis Batch: 399989

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 399839

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.021		0.050	0.021	mg/L		06/04/18 09:32	06/04/18 17:05	5
Calcium	<0.13		0.25	0.13	mg/L		06/04/18 09:32	06/04/18 17:05	5

Lab Sample ID: LCS 400-399839/2-A
Matrix: Water
Analysis Batch: 399989

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 399839

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.106		mg/L		106	80 - 120
Calcium	5.00	5.41		mg/L		108	80 - 120

Lab Sample ID: 400-154481-D-2-B MS ^5
Matrix: Water
Analysis Batch: 399989

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 399839

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.078		0.100	0.202		mg/L		124	75 - 125
Calcium	1.7		5.00	7.23		mg/L		111	75 - 125

Lab Sample ID: 400-154481-D-2-C MSD ^5
Matrix: Water
Analysis Batch: 399989

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 399839

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.078		0.100	0.197		mg/L		119	75 - 125	2	20
Calcium	1.7		5.00	7.03		mg/L		107	75 - 125	3	20

Lab Sample ID: MB 400-399998/1-A ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 399998

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 09:49	06/05/18 14:26	5
Calcium	<0.13		0.25	0.13	mg/L		06/05/18 09:49	06/05/18 14:26	5

Lab Sample ID: LCS 400-399998/2-A
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 399998

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.105		mg/L		105	80 - 120
Calcium	5.00	5.29		mg/L		106	80 - 120

Lab Sample ID: 400-154558-B-1-B MS ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 399998

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.114		mg/L		114	75 - 125

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 400-154558-B-1-B MS ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 399998

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	1.8		5.00	7.16		mg/L		107	75 - 125

Lab Sample ID: 400-154558-B-1-C MSD ^5
Matrix: Water
Analysis Batch: 400109

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 399998

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.111		mg/L		111	75 - 125	3	20
Calcium	1.8		5.00	7.21		mg/L		108	75 - 125	1	20

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

Lab Sample ID: MB 400-400021/1
Matrix: Water
Analysis Batch: 400021

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 14:52	1

Lab Sample ID: LCS 400-400021/2
Matrix: Water
Analysis Batch: 400021

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: 400-154549-I-2 DU
Matrix: Water
Analysis Batch: 400021

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	480		476		mg/L		0	5

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

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

Lab Sample ID: 400-154502-I-4 DU
Matrix: Water
Analysis Batch: 400039

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	110			110		mg/L				0	5

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

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	42			42.0		mg/L				0	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 400-400973/6
Matrix: Water
Analysis Batch: 400973

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/13/18 08:34	1

Lab Sample ID: LCS 400-400973/7
Matrix: Water
Analysis Batch: 400973

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	30.6		mg/L		102	90 - 110		

Lab Sample ID: MRL 400-400973/3
Matrix: Water
Analysis Batch: 400973

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	1.85	J	mg/L		93	50 - 150		

Lab Sample ID: 400-154559-1 MS
Matrix: Water
Analysis Batch: 400973

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	12		10.0	22.5		mg/L		103	73 - 120		

Lab Sample ID: 400-154559-1 MSD
Matrix: Water
Analysis Batch: 400973

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		10.0	22.5		mg/L		103	73 - 120	0	8

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-400057/3
Matrix: Water
Analysis Batch: 400057

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			06/05/18 13:28	1

Lab Sample ID: LCS 400-400057/4
Matrix: Water
Analysis Batch: 400057

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: 400-154559-1 MS
Matrix: Water
Analysis Batch: 400057

Client Sample ID: MW-11
Prep Type: Total/NA

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

Lab Sample ID: 400-154559-1 MSD
Matrix: Water
Analysis Batch: 400057

Client Sample ID: MW-11
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.040	J	1.00	1.02		mg/L		98	75 - 125	2	4

Lab Sample ID: 400-154582-C-1 DU
Matrix: Water
Analysis Batch: 400057

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.86		0.860		mg/L		0	4

Method: SM 4500 SO4 E - Sulfate, Total

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

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

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
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-74693-27817.1
Client Contact: Mr. Cale Sellers	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Southern Company				Job #:
Address: PO BOX 2641 GSC8	Due Date Requested:			
City: Birmingham	TAT Requested (days):			
State, Zip: AL, 35291				
Phone: 205-992-7762(Tel)	PO #: SCS10347656			
Email: CBSELLER@SOUTHERNCO.COM	WO #:			
Project Name: CCR -Plant Daniel NAMU App III	Project #: 40006621			
Site: NAMU App III	SSOW#:			

Analysis Requested

400-154559 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	D	X	
MW-11	5-31-18	0941	G	Water			X	X	2	
~~MW-14~~	6-1-18		G	Water			X	X	2	NO SAMPLE
MW-15	6-1-18	0806	G	Water			X	X	2	
MW-16	5-31-18	1456	G	Water			X	X	2	
MW-17	5-31-18	1156	G	Water			X	X	2	
MW-18	5-31-18	1057	G	Water			X	X	2	
MW-19	5-31-18	1340	G	Water			X	X	2	
Dup-01	5-31-18	0600	G	Water			X	X	2	
				Water						
				Water						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6-1-18 1038	RDH ENV.	Peirceton Hagendorfer	06/1 10:38	RDH ENV.
2	Peirceton Hagendorfer	06/1 1:07	Company	Received by: [signature]	6-1-18 1307	TA-PEN
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 0.3°C IR

Ver: 08/04/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Rick Hagendorfer	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-74693-27817.1
Client Contact: Mr. Cale Sellers	Phone: 850-336-0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Southern Company				Job #:
Address: PO BOX 2641 GSC8	Due Date Requested:			
City: Birmingham	TAT Requested (days):			
State, Zip: AL, 35291				
Phone: 205-992-7762(Tel)	PO #: SCS10347656			
Email: CBSELLER@SOUTHERNCO.COM	WO #:			
Project Name: CCR -Plant Daniel NAMU App III	Project #: 40006621			
Site: NAMU App III	SSOW#:			

Analysis Requested

400-154559 COC

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_Cl_E - Chloride, SM4500_SO4_E - Sulfate, 4500_F_C - Fluoride, 2540C - Total Dissolved Solids	6020 - Boron & Calcium	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D		
MW-11				Water						
MW-14	6-1-18	1120	G	Water			X	X	2	
MW-15				Water						
MW-16				Water						
MW-17				Water						
MW-18				Water						
MW-19				Water						
				Water						
				Water						
				Water						

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	B. Hagendorfer	6-3-18 1300 EW.	RDH	B. Hagendorfer	6-3-18 1300	RDH
2	B. Hagendorfer	6-4-18 0925	RDH		6/4/18 0925	TAL
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR 7

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-154559-1
SDG Number: NAMU App III

Login Number: 154559
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	0.3°C IR-7, 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 <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: 400-154559-1
SDG: NAMU 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: 400-161920-1
TestAmerica SDG: Plant Daniel NAMU App III
Client Project/Site: CCR -Plant Daniel

For:
Southern Company
PO BOX 2641 GSC8
Birmingham, Alabama 35291

Attn: Mr. Cale B. Sellers

Cheyenne R Whitmire

Authorized for release by:
12/14/2018 2:33:50 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 18
Chronicle 19
QC Association 22
QC Sample Results 25
Chain of Custody 31
Receipt Checklists 32
Certification Summary 33

Job ID: 400-161920-1

Laboratory: TestAmerica Pensacola

Narrative

Job Narrative
400-161920-1

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.

Detection Summary

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-11 — Lab Sample ID: 400-161920-1

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	52		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	14		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.050	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	3.1	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.58				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-14 — Lab Sample ID: 400-161920-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	26		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	10		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	4.81				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-15 — Lab Sample ID: 400-161920-3

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
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	8.0		2.0	1.4	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
Field pH	4.61				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-16 — Lab Sample ID: 400-161920-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.76		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	4.0	J	5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	7.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	1.7	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	4.71				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-17 — Lab Sample ID: 400-161920-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.96		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	6.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.2	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA
Field pH	5.02				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-18 — Lab Sample ID: 400-161920-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-18 (Continued) — Lab Sample ID: 400-161920-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.78		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	8.7		2.0	1.4	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	4.63				SU	1		Field Sampling	Total/NA

Client Sample ID: MW-19 — Lab Sample ID: 400-161920-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.57		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	8.0		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	5.2		2.0	1.4	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
Field pH	5.09				SU	1		Field Sampling	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 400-161920-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	2.9		0.25	0.13	mg/L	5		6020	Total Recoverable
Total Dissolved Solids	36		5.0	3.4	mg/L	1		SM 2540C	Total/NA
Chloride	10		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	2.0	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: DUP-02 — Lab Sample ID: 400-161920-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	0.76		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	8.8		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Sulfate	3.3	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: FB-01 — Lab Sample ID: 400-161920-10

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU 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: 400-161920-1
SDG: Plant Daniel NAMU App III

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-161920-1	MW-11	Water	11/07/18 15:55	11/09/18 09:10
400-161920-2	MW-14	Water	11/07/18 12:42	11/09/18 09:10
400-161920-3	MW-15	Water	11/07/18 09:47	11/09/18 09:10
400-161920-4	MW-16	Water	11/08/18 11:00	11/09/18 09:10
400-161920-5	MW-17	Water	11/08/18 09:02	11/09/18 09:10
400-161920-6	MW-18	Water	11/08/18 07:55	11/09/18 09:10
400-161920-7	MW-19	Water	11/08/18 09:55	11/09/18 09:10
400-161920-8	DUP-01	Water	11/07/18 11:42	11/09/18 09:10
400-161920-9	DUP-02	Water	11/08/18 06:55	11/09/18 09:10
400-161920-10	FB-01	Water	11/08/18 11:05	11/09/18 09:10

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-11
Date Collected: 11/07/18 15:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-1
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 11:55	11/26/18 19:28	5
Calcium	**2.0**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:28	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**52**		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	**14**		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	**0.050**	**J**	0.10	0.032	mg/L			11/21/18 12:46	1
Sulfate	**3.1**	**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	**4.58**				SU			11/07/18 15:55	1

Client Sample Results

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-14
Date Collected: 11/07/18 12:42
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-2
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 11:55	11/26/18 19:32	5
Calcium	**2.9**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:32	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26**		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	**10**		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 12:58	1
Sulfate	**1.8**	**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	**4.81**				SU			11/07/18 12:42	1

Client Sample ID: MW-15

Date Collected: 11/07/18 09:47
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-3

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 11:55	11/26/18 19:35	5
Calcium	**1.1**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:35	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	**8.0**		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 13:04	1
Sulfate	**1.5**	**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	**4.61**				SU			11/07/18 09:47	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

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

Lab Sample ID: 400-161920-4
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 11:55	11/26/18 19:39	5
Calcium	**0.76**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:39	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			11/13/18 16:26	1
Chloride	**7.6**		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032	F1 F2	0.10	0.032	mg/L			11/21/18 14:17	1
Sulfate	**1.7**	**J**	5.0	1.4	mg/L			11/21/18 13:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**4.71**				SU			11/08/18 11:00	1

Client Sample ID: MW-17

Date Collected: 11/08/18 09:02
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-5

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 11:55	11/26/18 19:42	5
Calcium	**0.96**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:42	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			11/14/18 13:17	1
Chloride	**6.9**		2.0	1.4	mg/L			11/21/18 09:02	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:29	1
Sulfate	**2.2**	**J**	5.0	1.4	mg/L			11/21/18 13:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	**5.02**				SU			11/08/18 09:02	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-18
Date Collected: 11/08/18 07:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-6
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 11:55	11/26/18 19:46	5
Calcium	**0.78**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:46	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**22**		5.0	3.4	mg/L			11/14/18 13:17	1
Chloride	**8.7**		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:33	1
Sulfate	**3.3**	**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	**4.63**				SU			11/08/18 07:55	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-19
Date Collected: 11/08/18 09:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-7
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 11:55	11/26/18 19:49	5
Calcium	**0.57**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:49	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**8.0**		5.0	3.4	mg/L			11/14/18 13:17	1
Chloride	**5.2**		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:37	1
Sulfate	**1.5**	**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	**5.09**				SU			11/08/18 09:55	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: DUP-01
Date Collected: 11/07/18 11:42
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-8
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 11:55	11/26/18 19:53	5
Calcium	**2.9**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 19:53	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**36**		5.0	3.4	mg/L			11/12/18 13:58	1
Chloride	**10**		2.0	1.4	mg/L			11/20/18 15:16	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 13:08	1
Sulfate	**2.0**	**J**	5.0	1.4	mg/L			11/20/18 13:01	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: DUP-02
Date Collected: 11/08/18 06:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-9
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 11:55	11/26/18 20:11	5
Calcium	**0.76**		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 20:11	5

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**48**		5.0	3.4	mg/L			11/14/18 13:17	1
Chloride	**8.8**		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:41	1
Sulfate	**3.3**	**J**	5.0	1.4	mg/L			11/21/18 13:22	1

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

TestAmerica Job ID: 400-161920-1
SDG: Plant Daniel NAMU App III

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

Lab Sample ID: 400-161920-10
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 11:55	11/26/18 20:14	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 20:14	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			11/14/18 13:17	1
Chloride	<1.4		2.0	1.4	mg/L			11/21/18 09:05	1
Fluoride	<0.032		0.10	0.032	mg/L			11/21/18 14:45	1
Sulfate	<1.4		5.0	1.4	mg/L			11/21/18 13:22	1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: 400-161920-1
SDG: Plant Daniel NAMU App III

Client Sample ID: MW-11
Date Collected: 11/07/18 15:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:28	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 12:46	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 15:55	CDH	TAL PEN

Client Sample ID: MW-14
Date Collected: 11/07/18 12:42
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:32	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 12:58	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 12:42	CDH	TAL PEN

Client Sample ID: MW-15
Date Collected: 11/07/18 09:47
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:35	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 13:04	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 09:47	CDH	TAL PEN

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

Lab Sample ID: 400-161920-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:39	DRE	TAL PEN

Client Sample ID: MW-16

Date Collected: 11/08/18 11:00
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	419426	11/13/18 16:26	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 11:00	CDH	TAL PEN

Client Sample ID: MW-17

Date Collected: 11/08/18 09:02
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:42	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	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	420482	11/21/18 14:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	422957	11/08/18 09:02	CDH	TAL PEN

Client Sample ID: MW-18

Date Collected: 11/08/18 07:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:46	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:33	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 07:55	CDH	TAL PEN

Client Sample ID: MW-19

Date Collected: 11/08/18 09:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:49	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:05	RRC	TAL PEN

Client Sample ID: MW-19
Date Collected: 11/08/18 09:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-7
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	420482	11/21/18 14:37	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 09:55	CDH	TAL PEN

Client Sample ID: DUP-01
Date Collected: 11/07/18 11:42
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 19:53	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 13:08	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
Date Collected: 11/08/18 06:55
Date Received: 11/09/18 09:10

Lab Sample ID: 400-161920-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 20:11	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:22	RRC	TAL PEN

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

Lab Sample ID: 400-161920-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			420580	11/23/18 11:55	DRE	TAL PEN
Total Recoverable	Analysis	6020		5	420920	11/26/18 20:14	DRE	TAL PEN
Total/NA	Analysis	SM 2540C		1	419512	11/14/18 13:17	CLB	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	420414	11/21/18 09:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	420482	11/21/18 14:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	420451	11/21/18 13:22	RRC	TAL PEN

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

Metals

Prep Batch: 420580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-1	MW-11	Total Recoverable	Water	3005A	
400-161920-2	MW-14	Total Recoverable	Water	3005A	
400-161920-3	MW-15	Total Recoverable	Water	3005A	
400-161920-4	MW-16	Total Recoverable	Water	3005A	
400-161920-5	MW-17	Total Recoverable	Water	3005A	
400-161920-6	MW-18	Total Recoverable	Water	3005A	
400-161920-7	MW-19	Total Recoverable	Water	3005A	
400-161920-8	DUP-01	Total Recoverable	Water	3005A	
400-161920-9	DUP-02	Total Recoverable	Water	3005A	
400-161920-10	FB-01	Total Recoverable	Water	3005A	
MB 400-420580/1-A ^5	Method Blank	Total Recoverable	Water	3005A	
LCS 400-420580/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
400-161946-C-1-B MS ^5	Matrix Spike	Total Recoverable	Water	3005A	
400-161946-C-1-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
400-161920-1	MW-11	Total Recoverable	Water	6020	420580
400-161920-2	MW-14	Total Recoverable	Water	6020	420580
400-161920-3	MW-15	Total Recoverable	Water	6020	420580
400-161920-4	MW-16	Total Recoverable	Water	6020	420580
400-161920-5	MW-17	Total Recoverable	Water	6020	420580
400-161920-6	MW-18	Total Recoverable	Water	6020	420580
400-161920-7	MW-19	Total Recoverable	Water	6020	420580
400-161920-8	DUP-01	Total Recoverable	Water	6020	420580
400-161920-9	DUP-02	Total Recoverable	Water	6020	420580
400-161920-10	FB-01	Total Recoverable	Water	6020	420580
MB 400-420580/1-A ^5	Method Blank	Total Recoverable	Water	6020	420580
LCS 400-420580/2-A	Lab Control Sample	Total Recoverable	Water	6020	420580
400-161946-C-1-B MS ^5	Matrix Spike	Total Recoverable	Water	6020	420580
400-161946-C-1-C MSD ^5	Matrix Spike Duplicate	Total Recoverable	Water	6020	420580

General Chemistry

Analysis Batch: 419237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-1	MW-11	Total/NA	Water	SM 2540C	
400-161920-2	MW-14	Total/NA	Water	SM 2540C	
400-161920-3	MW-15	Total/NA	Water	SM 2540C	
400-161920-8	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	
400-161920-2 DU	MW-14	Total/NA	Water	SM 2540C	

Analysis Batch: 419426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-4	MW-16	Total/NA	Water	SM 2540C	
MB 400-419426/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 400-419426/2	Lab Control Sample	Total/NA	Water	SM 2540C	
400-161865-E-2 DU	Duplicate	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 419512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-5	MW-17	Total/NA	Water	SM 2540C	
400-161920-6	MW-18	Total/NA	Water	SM 2540C	
400-161920-7	MW-19	Total/NA	Water	SM 2540C	
400-161920-9	DUP-02	Total/NA	Water	SM 2540C	
400-161920-10	FB-01	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	
400-161920-5 DU	MW-17	Total/NA	Water	SM 2540C	

Analysis Batch: 420275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-1	MW-11	Total/NA	Water	SM 4500 SO4 E	
400-161920-2	MW-14	Total/NA	Water	SM 4500 SO4 E	
400-161920-3	MW-15	Total/NA	Water	SM 4500 SO4 E	
400-161920-8	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
400-161920-1	MW-11	Total/NA	Water	SM 4500 Cl- E	
400-161920-2	MW-14	Total/NA	Water	SM 4500 Cl- E	
400-161920-3	MW-15	Total/NA	Water	SM 4500 Cl- E	
400-161920-8	DUP-01	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
400-161920-4	MW-16	Total/NA	Water	SM 4500 Cl- E	
400-161920-5	MW-17	Total/NA	Water	SM 4500 Cl- E	
400-161920-6	MW-18	Total/NA	Water	SM 4500 Cl- E	
400-161920-7	MW-19	Total/NA	Water	SM 4500 Cl- E	
400-161920-9	DUP-02	Total/NA	Water	SM 4500 Cl- E	
400-161920-10	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	
400-161920-4 MS	MW-16	Total/NA	Water	SM 4500 Cl- E	
400-161920-4 MSD	MW-16	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 420451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-4	MW-16	Total/NA	Water	SM 4500 SO4 E	
400-161920-5	MW-17	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 420451 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-6	MW-18	Total/NA	Water	SM 4500 SO4 E	
400-161920-7	MW-19	Total/NA	Water	SM 4500 SO4 E	
400-161920-9	DUP-02	Total/NA	Water	SM 4500 SO4 E	
400-161920-10	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	
400-161920-4 MS	MW-16	Total/NA	Water	SM 4500 SO4 E	
400-161920-4 MSD	MW-16	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 420455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-1	MW-11	Total/NA	Water	SM 4500 F C	
400-161920-2	MW-14	Total/NA	Water	SM 4500 F C	
400-161920-3	MW-15	Total/NA	Water	SM 4500 F C	
400-161920-8	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	
400-161920-2 DU	MW-14	Total/NA	Water	SM 4500 F C	

Analysis Batch: 420482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-161920-4	MW-16	Total/NA	Water	SM 4500 F C	
400-161920-5	MW-17	Total/NA	Water	SM 4500 F C	
400-161920-6	MW-18	Total/NA	Water	SM 4500 F C	
400-161920-7	MW-19	Total/NA	Water	SM 4500 F C	
400-161920-9	DUP-02	Total/NA	Water	SM 4500 F C	
400-161920-10	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	
400-161920-4 MS	MW-16	Total/NA	Water	SM 4500 F C	
400-161920-4 MSD	MW-16	Total/NA	Water	SM 4500 F C	
400-161922-A-4 DU	Duplicate	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
400-161920-1	MW-11	Total/NA	Water	Field Sampling	
400-161920-2	MW-14	Total/NA	Water	Field Sampling	
400-161920-3	MW-15	Total/NA	Water	Field Sampling	
400-161920-4	MW-16	Total/NA	Water	Field Sampling	
400-161920-5	MW-17	Total/NA	Water	Field Sampling	
400-161920-6	MW-18	Total/NA	Water	Field Sampling	
400-161920-7	MW-19	Total/NA	Water	Field Sampling	

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 400-420580/1-A ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 420580

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 11:55	11/26/18 18:01	5
Calcium	<0.13		0.25	0.13	mg/L		11/23/18 11:55	11/26/18 18:01	5

Lab Sample ID: LCS 400-420580/2-A
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 420580

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.100	0.0993		mg/L		99	80 - 120
Calcium	5.00	5.42		mg/L		108	80 - 120

Lab Sample ID: 400-161946-C-1-B MS ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 420580

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	<0.021		0.100	0.112		mg/L		112	75 - 125
Calcium	1.0		5.00	6.24		mg/L		104	75 - 125

Lab Sample ID: 400-161946-C-1-C MSD ^5
Matrix: Water
Analysis Batch: 420920

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 420580

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	<0.021		0.100	0.108		mg/L		108	75 - 125	3	20
Calcium	1.0		5.00	6.26		mg/L		104	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: 400-161920-2 DU
Matrix: Water
Analysis Batch: 419237

Client Sample ID: MW-14
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

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

Lab Sample ID: MB 400-419426/1
Matrix: Water
Analysis Batch: 419426

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			11/13/18 16:26	1

Lab Sample ID: LCS 400-419426/2
Matrix: Water
Analysis Batch: 419426

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	272		mg/L		93	78 - 122

Lab Sample ID: 400-161865-E-2 DU
Matrix: Water
Analysis Batch: 419426

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	370		370		mg/L		0	5

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: 400-161920-5 DU
Matrix: Water
Analysis Batch: 419512

Client Sample ID: MW-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	36		36.0		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

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: 400-161920-4 MS
Matrix: Water
Analysis Batch: 420414

Client Sample ID: MW-16
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

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

Client Sample ID: MW-16
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

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		
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		
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

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

Client Sample ID: MW-14
Prep Type: Total/NA

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

Lab Sample ID: MB 400-420482/3
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

Method: SM 4500 F C - Fluoride (Continued)

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: 400-161920-4 MS
Matrix: Water
Analysis Batch: 420482

Client Sample ID: MW-16
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: 400-161920-4 MSD
Matrix: Water
Analysis Batch: 420482

Client Sample ID: MW-16
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	F1 F2	1.00	0.690	F1 F2	mg/L		69	75 - 125	35	4

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

Client Sample ID: Duplicate
Prep Type: Total/NA

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

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

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		

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

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: 400-161920-4 MS
Matrix: Water
Analysis Batch: 420451

Client Sample ID: MW-16
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

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

Client Sample ID: MW-16
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

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Philip Evans	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-78472-27817.1
Client Contact: Mr. Cale Sellers	Phone: 850-~~380~~ 336-~~55~~ 0192	E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 1
Company: Southern Company				Job #:

Address: PO BOX 2641 GSC8	Due Date Requested:	Analysis Requested
City: Birmingham	TAT Requested (days):	
State, Zip: AL, 35291		
Phone: 205-992-7762(Tel)	PO #: SCS10347656	
Email: CBSELLER@SOUTHERNCO.COM	WO #:	
Project Name: CCR -Plant Daniel NAMU App III	Project #: 40006621	
Site: Mississippi	SSOW#:	

400-161920 COC

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_Cl_E, SM4500_SO4_E	6020 - Boron & Calcium	2540C - Total Dissolved Solids	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	D	N	N		
MW-11	11/7/18	1555	G	Water			X	X	X	X		
MW-14	11/7/18	1242		Water								
MW-15	11/7/18	0947		Water								
MW-16	11/8/18	1100		Water								
MW-17		0902		Water								
MW-18		0755		Water								
MW-19	11/8/18	0955	G	Water								
~~Duplicate 01~~ DUP-01	11/7/18	1142		Water								
~~Duplicate 02~~ DUP-02	11/8/18	0655		Water								
~~Field Blank~~ FB-01	11/8/18	1105	G	Water			X	X	X	X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

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

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 11/8/18 1200	Company RDH	Received by:	Date/Time: 11/9/18 0910	Company TAL
Relinquished by:	Date/Time: 11/9/18 9:10	Company RDH	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°C IR7

Ver: 08/04/2016

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 400-161920-1
SDG Number: Plant Daniel NAMU App III

Login Number: 161920
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	2.4°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: 400-161920-1
SDG: Plant Daniel NAMU 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	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
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: 2018-11-07 15:55:54

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	30.5 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6585369 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	38.28 in
Depth to Water	13.13 ft	Total Volume Pumped	60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	15:31:46	7811.02	23.66	4.57	62.19	5.87	16.30	0.14	105.21
Last 5	15:36:46	8111.02	23.98	4.58	61.56	4.79	16.30	0.15	106.01
Last 5	15:41:56	8421.02	23.83	4.58	61.51	5.02	16.32	0.15	105.72
Last 5	15:46:56	8721.02	23.75	4.58	61.59	4.79	16.32	0.15	106.50
Last 5	15:51:58	9023.02	23.87	4.58	61.54	4.65	16.32	0.15	106.78
Variance 0			-0.15	0.00	-0.06			0.00	-0.28
Variance 1			-0.08	-0.00	0.09			0.00	0.78
Variance 2			0.12	0.00	-0.05			0.00	0.28

Notes

Sample time @ 1555. Cloudy/rain 77.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-07 12:43:27

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38.2 ft

Well Information:		Pumping Information:	
Well ID	MW-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.680854 L
Well Total Depth	40.7 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.03 in
Depth to Water	12.52 ft	Total Volume Pumped	60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:19:56	7805.02	24.79	4.83	55.47	4.69	12.55	2.32	137.09
Last 5	12:24:56	8105.02	25.02	4.83	55.23	4.55	12.55	2.31	137.69
Last 5	12:30:06	8415.02	24.53	4.82	55.30	4.40	12.55	2.32	137.44
Last 5	12:35:06	8715.08	24.65	4.82	55.20	4.35	12.55	2.31	136.17
Last 5	12:40:06	9015.04	24.64	4.81	55.59	4.29	12.55	2.34	134.55
Variance 0			-0.49	-0.01	0.07			0.01	-0.26
Variance 1			0.12	0.00	-0.10			-0.01	-1.27
Variance 2			-0.01	-0.00	0.39			0.03	-1.62

Notes

Sample time @1242. PC 80. Duplicate 01 @ 1142.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-07 09:48:26

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	MW-15	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.680854 L
Well Total Depth	39.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.03 in
Depth to Water	11.87 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:25:04	600.02	24.51	4.62	44.22	4.33	11.90	1.74	173.26
Last 5	09:30:04	900.02	24.30	4.62	43.81	3.90	11.90	1.78	164.75
Last 5	09:35:04	1200.02	24.60	4.62	43.23	3.87	11.90	1.78	158.56
Last 5	09:40:04	1500.02	24.65	4.62	43.14	3.51	11.90	1.79	154.26
Last 5	09:45:04	1800.02	24.68	4.61	43.08	3.40	11.90	1.79	151.33
Variance 0			0.30	0.00	-0.57			-0.00	-6.19
Variance 1			0.05	-0.00	-0.09			0.00	-4.31
Variance 2			0.03	-0.00	-0.06			0.01	-2.93

Notes

Sample time @0947. PC 80.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 10:58:56

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	25.8 ft

Well Information:		Pumping Information:	
Well ID	MW-16	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.680854 L
Well Total Depth	28.3 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.03 in
Depth to Water	10.22 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	10:34:46	1200.03	25.30	4.71	35.36	0.60	10.25	0.11	110.89
Last 5	10:39:46	1500.03	25.32	4.71	35.41	0.55	10.25	0.11	110.48
Last 5	10:44:46	1800.03	25.62	4.71	35.25	0.57	10.25	0.11	110.38
Last 5	10:49:46	2100.03	25.81	4.71	35.23	0.55	10.25	0.11	109.92
Last 5	10:54:46	2400.03	25.79	4.71	35.21	0.50	10.25	0.11	109.47
Variance 0			0.30	0.00	-0.17			-0.00	-0.10
Variance 1			0.19	0.00	-0.02			-0.00	-0.46
Variance 2			-0.02	0.00	-0.03			-0.00	-0.45

Notes

Sample time @1100. PC 72. Field blank @1105.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 09:01:40

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	50 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	MW-17	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7031711 L
Well Total Depth	28.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0 in
Depth to Water	7.58 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	08:40:22	1200.02	23.79	5.02	36.05	1.10	7.58	0.15	61.85
Last 5	08:45:22	1500.02	23.57	5.02	36.24	1.04	7.58	0.15	55.72
Last 5	08:50:22	1800.03	23.71	5.02	36.17	0.90	7.58	0.15	51.54
Last 5	08:55:22	2100.02	23.88	5.02	36.04	0.74	7.58	0.14	48.53
Last 5	09:00:22	2400.02	23.83	5.02	36.07	0.70	7.58	0.14	46.14
Variance 0			0.15	0.00	-0.07			-0.00	-4.18
Variance 1			0.17	0.00	-0.14			-0.00	-3.01
Variance 2			-0.05	-0.00	0.03			0.00	-2.39

Notes

Sample time @0902. Cloudy 70.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 07:54:14

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	50 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	41.9 ft

Well Information:		Pumping Information:	
Well ID	MW-18	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7031711 L
Well Total Depth	44.4 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0 in
Depth to Water	16.75 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	07:31:49	300.03	23.03	4.60	49.10	0.90	16.75	0.48	138.94
Last 5	07:36:49	600.02	23.12	4.61	47.80	0.83	16.75	0.21	116.11
Last 5	07:41:49	900.02	23.17	4.62	47.03	0.78	16.75	0.19	104.05
Last 5	07:46:49	1200.02	23.33	4.63	46.46	0.72	16.75	0.18	97.96
Last 5	07:51:49	1500.03	23.24	4.63	46.29	0.62	16.75	0.17	94.56
Variance 0			0.06	0.01	-0.78			-0.02	-12.06
Variance 1			0.15	0.01	-0.56			-0.01	-6.08
Variance 2			-0.09	0.00	-0.17			-0.00	-3.40

Notes

Sample time @0755. Rainy 70. Duplicate 02 @0655.

Grab Samples

Product Name: Low-Flow System

Date: 2018-11-08 09:53:48

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel CCR NAMU	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	417744		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	27.4 ft

Well Information:		Pumping Information:	
Well ID	MW-19	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6362198 L
Well Total Depth	32.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	19.17 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	09:30:41	612.03	24.31	5.13	29.47	1.09	19.20	0.15	-12.66
Last 5	09:35:41	912.02	24.19	5.11	29.34	1.10	19.20	0.14	-22.57
Last 5	09:40:41	1212.02	24.36	5.10	29.12	1.03	19.20	0.13	-26.72
Last 5	09:45:42	1513.03	24.56	5.10	28.89	1.03	19.20	0.12	-29.25
Last 5	09:50:42	1813.03	24.46	5.09	28.84	0.98	19.20	0.12	-30.50
Variance 0			0.18	-0.01	-0.22			-0.01	-4.15
Variance 1			0.19	-0.00	-0.23			-0.01	-2.53
Variance 2			-0.10	-0.00	-0.05			0.00	-1.25

Notes

Sample time @0955. Cloudy 72.

Grab Samples

Product Name: Low-Flow System

Date: 2018-05-31 09:41:42

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	30.5 ft

Well Information:		Pumping Information:	
Well ID	MW-11	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6362198 L
Well Total Depth	33.0 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	65 in
Depth to Water	12.45 ft	Total Volume Pumped	58 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:17:23	7499.93	21.16	4.91	61.19	2.73	17.89	0.15	49.63
Last 5	09:22:23	7799.93	21.19	4.92	61.09	2.52	17.90	0.15	48.83
Last 5	09:27:23	8099.93	21.18	4.94	61.03	2.58	17.90	0.16	48.36
Last 5	09:32:23	8399.93	21.10	4.95	61.13	2.53	17.91	0.18	48.75
Last 5	09:37:23	8699.93	21.15	4.93	61.25	2.40	17.91	0.23	49.57
Variance 0			-0.01	0.01	-0.05			0.01	-0.47
Variance 1			-0.08	0.01	0.10			0.02	0.39
Variance 2			0.05	-0.02	0.12			0.05	0.81

Notes

Sample time 0941. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 11:23:14

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU CCR	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	48 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.2 ft

Well Information:		Pumping Information:	
Well ID	MW-14	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6942443 L
Well Total Depth	49.7 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	1.01 in
Depth to Water	11.96 ft	Total Volume Pumped	70 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:56:22	9307.94	21.60	5.01	58.53	3.31	12.07	2.36	96.36
Last 5	11:01:22	9607.91	21.54	5.01	58.53	3.38	12.07	2.36	96.19
Last 5	11:06:25	9910.91	21.55	5.01	58.48	3.24	12.07	2.37	95.88
Last 5	11:11:30	10215.91	21.57	5.01	58.54	3.14	12.07	2.36	96.06
Last 5	11:16:30	10515.91	21.66	5.00	58.50	2.99	12.07	2.36	95.82
Variance 0			0.00	0.00	-0.04			0.01	-0.31
Variance 1			0.02	-0.01	0.06			-0.01	0.18
Variance 2			0.09	-0.00	-0.04			0.01	-0.24

Notes

Sample time 1120. Sunny 85.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-01 08:05:44

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU CCR	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	47 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37.0 ft

Well Information:		Pumping Information:	
Well ID	MW-15	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6897809 L
Well Total Depth	39.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	1.01 in
Depth to Water	11.61 ft	Total Volume Pumped	24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	07:44:31	2400.02	21.46	4.86	37.91	3.21	11.72	3.08	119.35
Last 5	07:49:31	2700.00	21.50	4.87	37.99	2.83	11.72	3.07	118.93
Last 5	07:54:31	2999.99	21.55	4.86	37.94	2.49	11.72	3.06	118.59
Last 5	07:59:31	3299.99	21.50	4.86	38.08	2.27	11.72	3.06	118.16
Last 5	08:04:32	3600.99	21.50	4.87	38.02	1.98	11.72	3.05	117.60
Variance 0			0.05	-0.01	-0.05			-0.01	-0.34
Variance 1			-0.05	-0.00	0.14			0.01	-0.43
Variance 2			0.00	0.01	-0.06			-0.02	-0.57

Notes

Sample time 0806. Sunny 79.

Grab Samples

Product Name: Low-Flow System

Date: 2018-05-31 14:55:23

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU-CCR	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	25.8 ft

Well Information:		Pumping Information:	
Well ID	MW-16	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6362198 L
Well Total Depth	28.3 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.7 in
Depth to Water	9.87 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:30:29	300.03	22.67	5.01	47.82	1.39	9.95	0.13	58.32
Last 5	14:35:29	600.02	22.19	4.99	47.89	0.36	9.94	0.07	58.19
Last 5	14:40:29	899.94	22.13	4.83	47.87	0.56	9.94	0.06	57.52
Last 5	14:45:29	1199.98	22.07	4.79	47.99	0.25	9.94	0.06	56.79
Last 5	14:50:29	1499.96	22.01	4.75	47.98	0.35	9.94	0.05	56.32
Variance 0			-0.06	-0.15	-0.01			-0.01	-0.67
Variance 1			-0.05	-0.05	0.12			-0.00	-0.73
Variance 2			-0.06	-0.04	-0.01			-0.00	-0.48

Notes

Sample time 1456. PC 88.

Grab Samples

Product Name: Low-Flow System

Date: 2018-05-31 11:56:50

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU-CCR	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	26.0 ft

Well Information:		Pumping Information:	
Well ID	MW-17	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6406832 L
Well Total Depth	28.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	1 in
Depth to Water	7.44 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:37:05	300.03	21.73	5.52	41.84	2.60	7.55	0.30	51.11
Last 5	11:42:05	599.99	21.77	5.43	41.58	1.50	7.55	0.19	48.91
Last 5	11:47:05	899.99	21.77	5.40	41.34	1.21	7.55	0.14	47.67
Last 5	11:52:05	1199.99	21.71	5.42	41.38	1.22	7.55	0.11	47.20
Last 5									
Variance 0			0.04	-0.09	-0.26			-0.11	-2.20
Variance 1			0.00	-0.02	-0.24			-0.04	-1.25
Variance 2			-0.06	0.01	0.05			-0.03	-0.47

Notes

Sample time 1156. PC 89.

Grab Samples

Product Name: Low-Flow System

Date: 2018-05-31 10:57:17

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env.	Tubing Type	PE
Project Name	NAMU-CCR	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	51 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	41.9 ft

Well Information:		Pumping Information:	
Well ID	MW-18	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.7076346 L
Well Total Depth	44.4 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.6 in
Depth to Water	16.06 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:37:22	300.02	21.95	4.75	49.47	0.78	16.12	0.96	56.40
Last 5	10:42:22	600.02	22.71	4.77	50.12	0.62	16.12	0.29	51.41
Last 5	10:47:22	900.02	22.84	4.81	49.87	0.49	16.12	0.22	49.02
Last 5	10:52:22	1200.02	22.71	4.84	49.87	0.38	16.12	0.22	47.82
Last 5									
Variance 0			0.76	0.02	0.65			-0.67	-4.99
Variance 1			0.13	0.04	-0.24			-0.06	-2.39
Variance 2			-0.13	0.03	-0.00			-0.01	-1.20

Notes

Sample time 1057. PC 88.

Grab Samples

Product Name: Low-Flow System

Date: 2018-05-31 13:42:28

Project Information:		Pump Information:	
Operator Name	Rick Hagendorfer	Pump Model/Type	QED
Company Name	RDH Env	Tubing Type	PE
Project Name	NAMU	Tubing Diameter	.17 in
Site Name	Plant Daniel	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	424893		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	27.4 ft

Well Information:		Pumping Information:	
Well ID	MW-19	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6451467 L
Well Total Depth	32.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.3 in
Depth to Water	18.77 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.2	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	13:16:01	600.02	22.68	4.79	33.42	0.81	18.90	0.29	73.95
Last 5	13:21:01	900.02	22.51	4.77	33.33	0.56	18.90	0.16	73.41
Last 5	13:26:01	1200.02	22.48	4.95	33.26	0.72	18.90	0.15	64.63
Last 5	13:31:01	1500.02	22.40	5.05	33.09	0.58	18.90	0.14	58.81
Last 5	13:36:01	1800.02	22.44	5.11	32.95	0.68	18.90	0.13	55.14
Variance 0			-0.03	0.17	-0.07			-0.01	-8.78
Variance 1			-0.08	0.11	-0.17			-0.01	-5.82
Variance 2			0.04	0.06	-0.14			-0.01	-3.67

Notes

Sample time 1340. PC 88. Dup-01 fake sample time 0600.

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 North Ash Management Unit (NAMU)
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 NAMU. 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-11, MW-14 and MW-18
- **Downgradient wells:** MW-15, MW-16, MW-17 and MW-19

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 analyses were 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 no statistically significant increases (SSIs) for any of the well/parameter pairs. The Prediction Limit Summary tables follow this letter.

When a statistically significant increase is identified, the data will be further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether data are statistically increasing, decreasing or stable. No trend tests were required during this analysis.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Daniel NAMU. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,

Kristina L. Rayner
Groundwater Statistician

1st Semi-Annual

Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/15/2019, 9:36 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	**MW-16**	**1.029**	**n/a**	**5/31/2018**	**1.1**	**Yes**	**8**	**0**	**No**	**0.00188**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/15/2019, 9:36 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.05	n/a	5/31/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.05	n/a	6/1/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.05	n/a	6/1/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-16	0.05	n/a	5/31/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-17	0.05	n/a	5/31/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.05	n/a	5/31/2018	0.022	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-19	0.05	n/a	5/31/2018	0.021ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.31	n/a	5/31/2018	1.8	No	8	12.5	x^3	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.81	n/a	6/1/2018	2.8	No	8	12.5	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.547	n/a	6/1/2018	0.97	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-16**	**1.029**	**n/a**	**5/31/2018**	**1.1**	**Yes**	**8**	**0**	**No**	**0.00188**	**Param Intra 1 of 2**
Calcium (mg/L)	MW-17	1.466	n/a	5/31/2018	1.1	No	8	0	ln(x)	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-18	1.181	n/a	5/31/2018	0.75	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-19	0.9747	n/a	5/31/2018	0.56	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-11	15.36	n/a	5/31/2018	12	No	23	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	14.12	n/a	6/1/2018	9.9	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.93	n/a	6/1/2018	6.4	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	9.095	n/a	5/31/2018	8.7	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	9.57	n/a	5/31/2018	6.5	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	12.17	n/a	5/31/2018	6.9	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	6.093	n/a	5/31/2018	5	No	8	12.5	x^4	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	5/31/2018	0.04	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	6/1/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	6/1/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	5/31/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	5/31/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	5/31/2018	0.04	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	5/31/2018	0.032ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
pH (pH)	MW-11	5.057	4.388	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-14	5.87	4.533	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-15	5.137	4.186	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-16	4.903	4.332	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-17	5.371	4.559	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-18	4.783	4.382	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-19	5.66	4.608	n/a	1 future	n/a	8	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	10.55	n/a	5/31/2018	3	No	22	18.18	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	6/1/2018	1.8	No	7	57.14	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	6/1/2018	1.5	No	7	100	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	5/31/2018	2.2	No	7	85.71	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	2.526	n/a	5/31/2018	2.5	No	7	28.57	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.402	n/a	5/31/2018	4.1	No	8	12.5	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	5/31/2018	1.9	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	98.3	n/a	5/31/2018	32	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	86.16	n/a	6/1/2018	44	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	57.45	n/a	6/1/2018	26	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	61.07	n/a	5/31/2018	24	No	8	37.5	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	42.64	n/a	5/31/2018	1.7ND	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	58.72	n/a	5/31/2018	30	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	43.7	n/a	5/31/2018	22	No	8	12.5	No	0.00188	Param Intra 1 of 2

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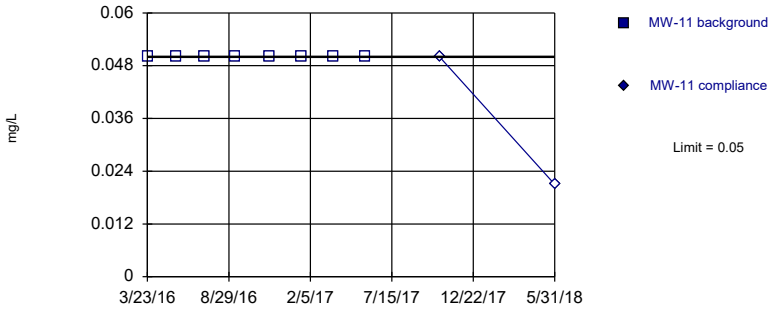
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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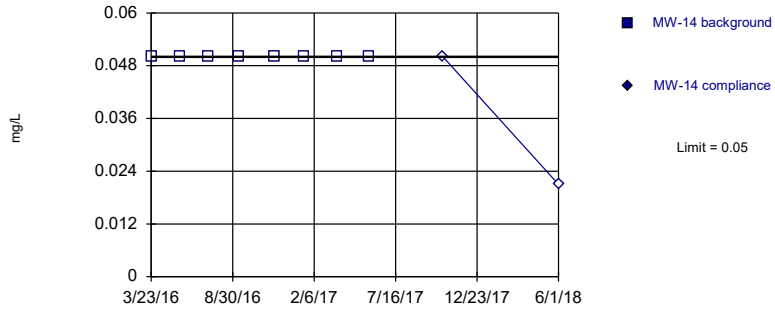
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

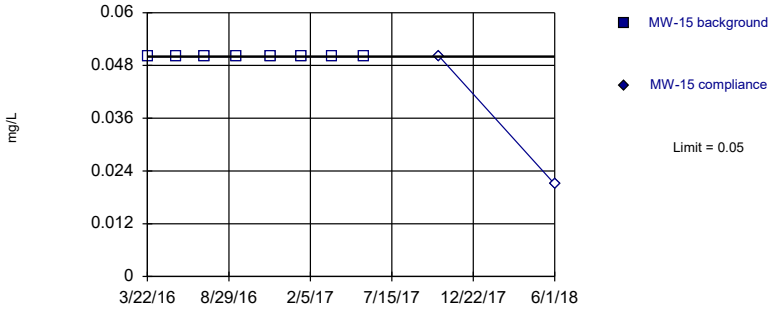
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

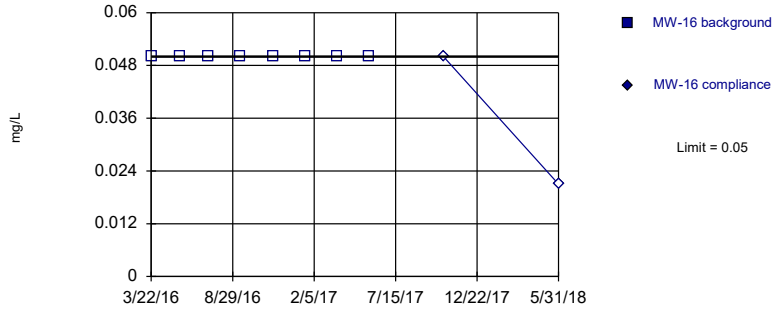
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

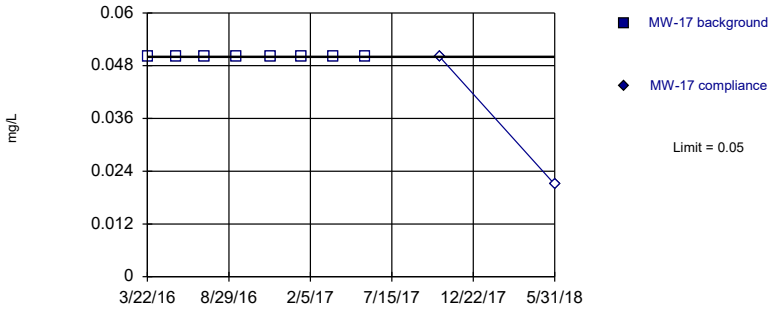
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

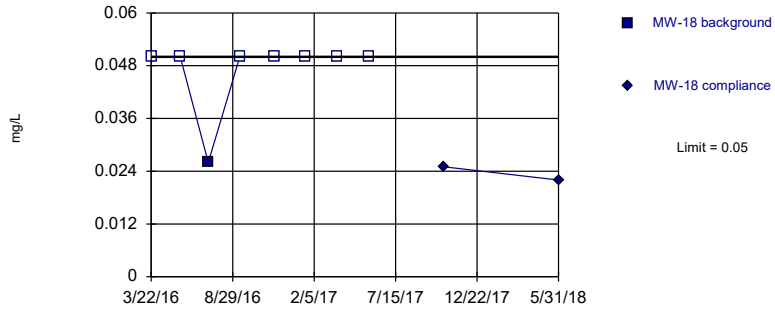
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

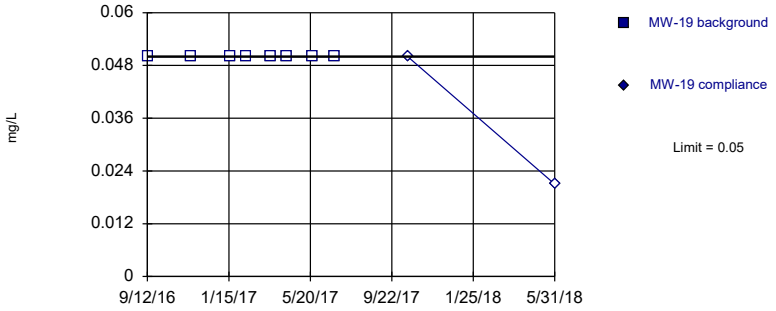
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

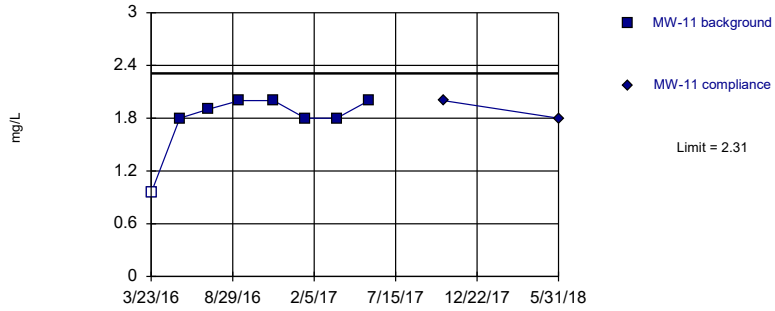
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=6.152, Std. Dev.=2.363, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7583, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

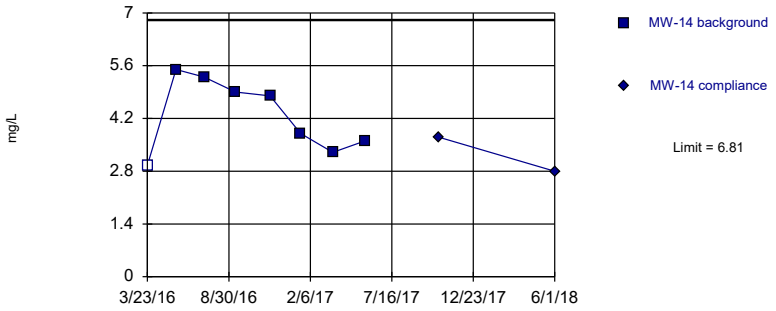
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.269, Std. Dev.=0.9714, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

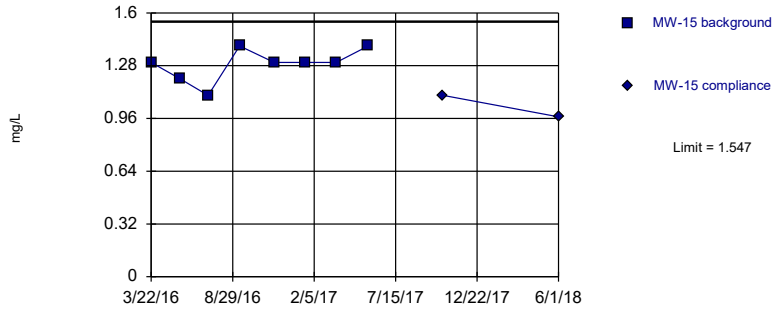
Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.288, Std. Dev.=0.0991, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.872, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

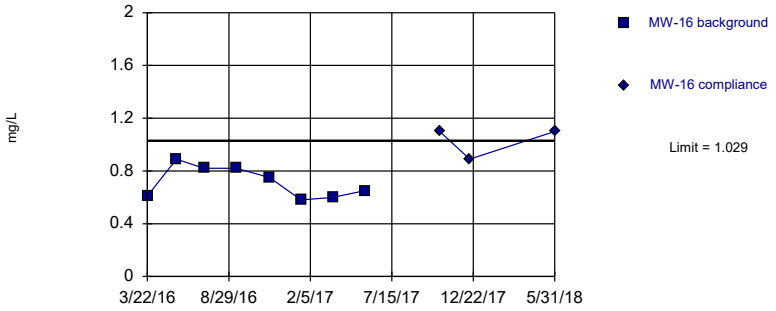
Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.715, Std. Dev.=0.1199, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

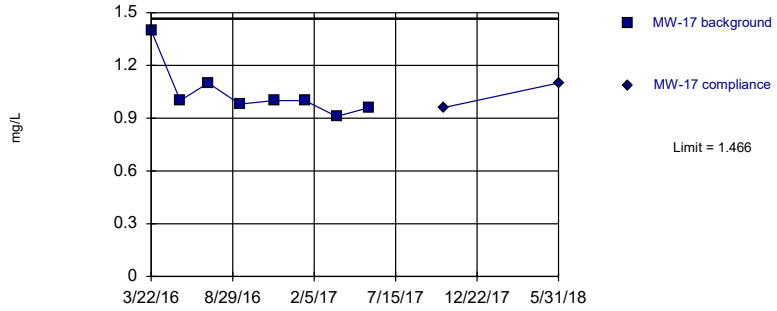
Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.03456, Std. Dev.=0.1329, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7633, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

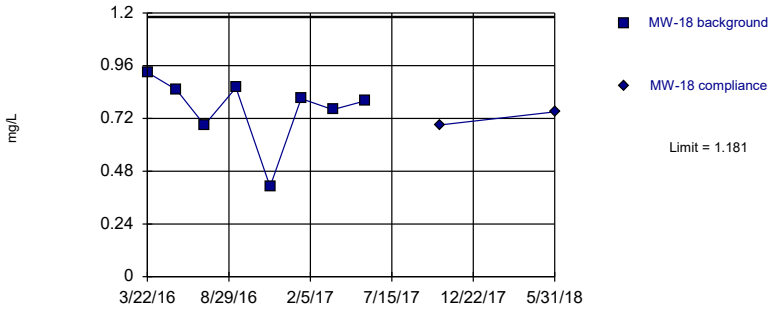
Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7638, Std. Dev.=0.1596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8298, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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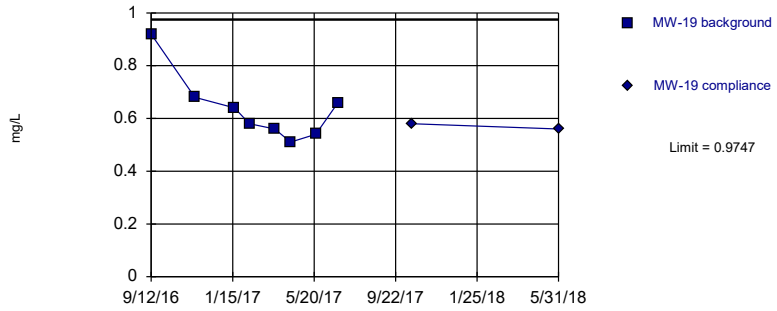
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6363, Std. Dev.=0.1294, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8372, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

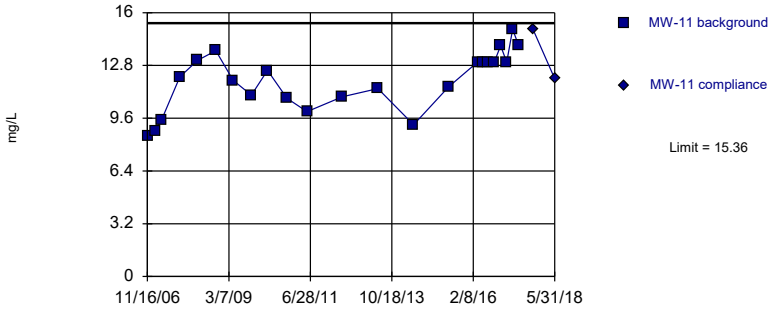
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=11.87, Std. Dev.=1.794, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9545, critical = 0.881. Kappa = 1.95 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

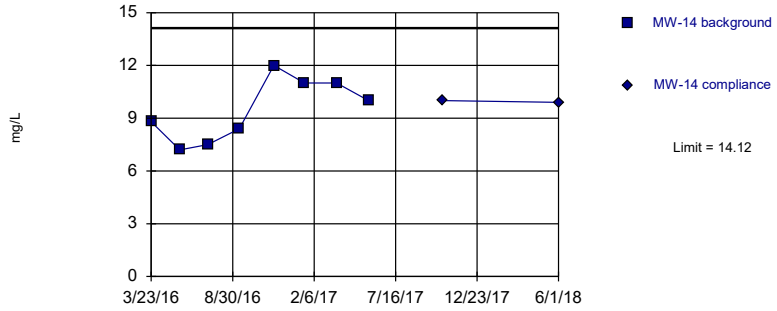
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.488, Std. Dev.=1.772, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

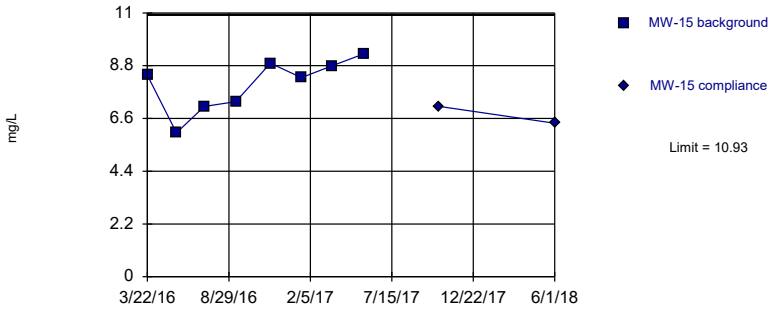
Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.013, Std. Dev.=1.114, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9242, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

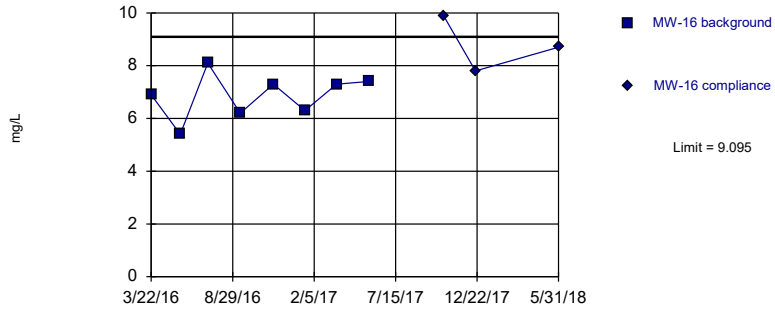
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.863, Std. Dev.=0.8535, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9583, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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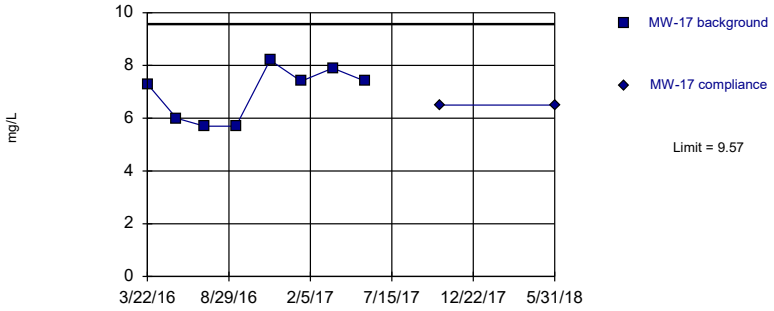
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.95, Std. Dev.=1.001, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8611, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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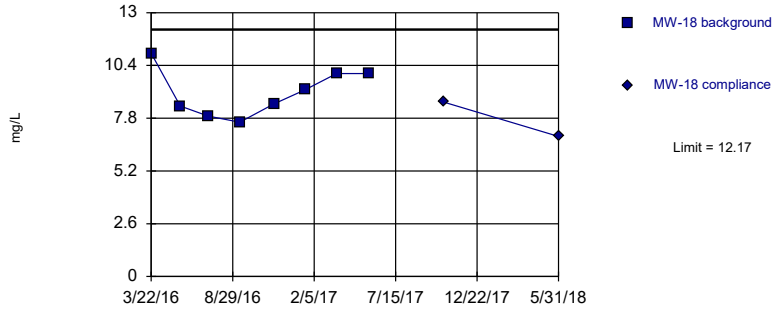
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.075, Std. Dev.=1.182, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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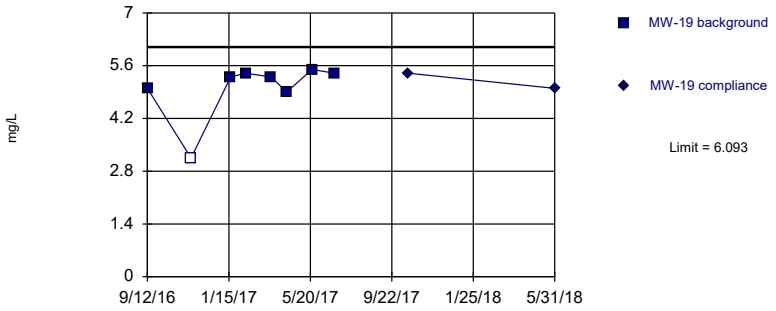
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



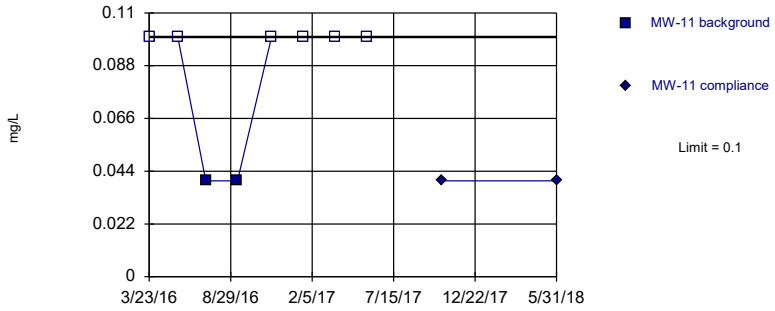
Background Data Summary (based on x^4 transformation): Mean=686.7, Std. Dev.=264.2, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.787, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



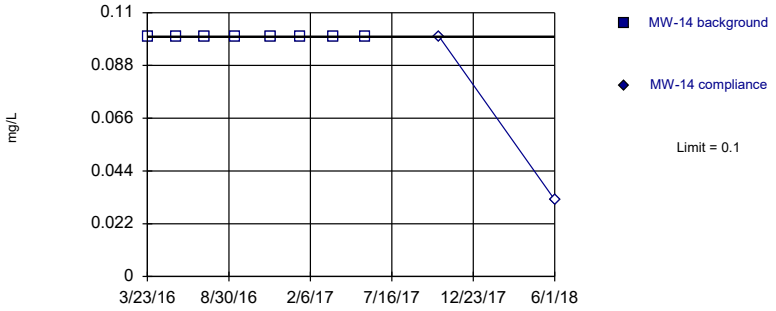
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



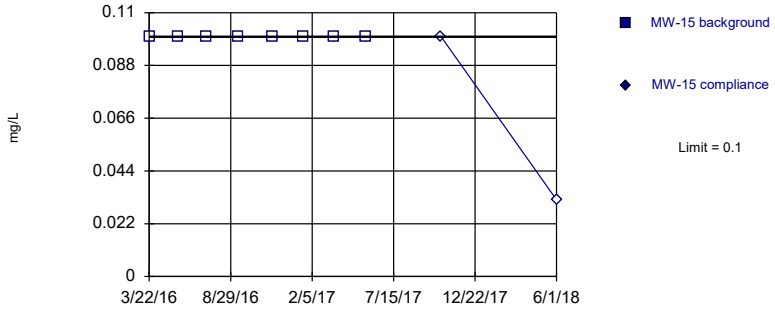
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
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).

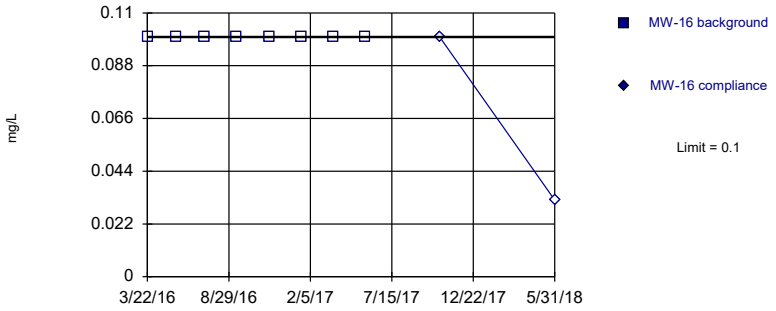
Constituent: Fluoride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

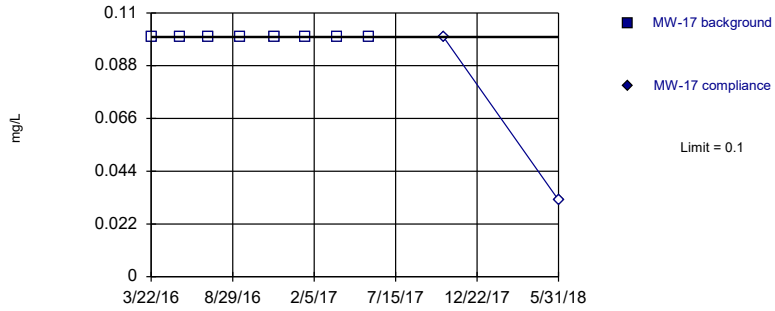
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

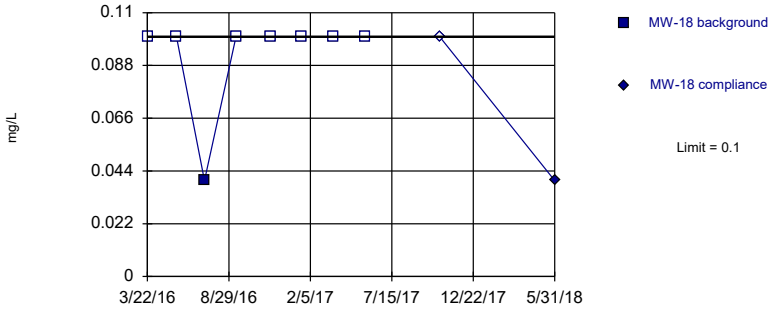
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:34 AM View: Intrawell Analyses

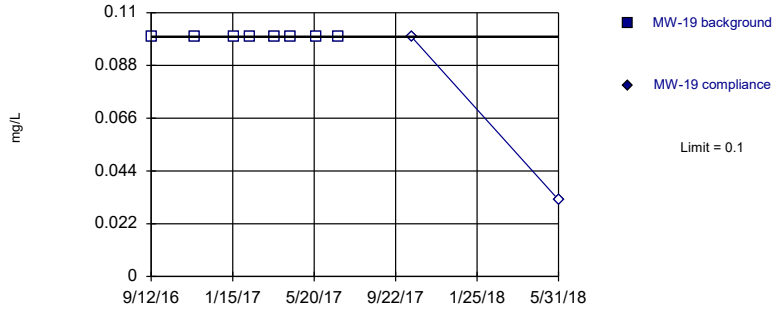
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



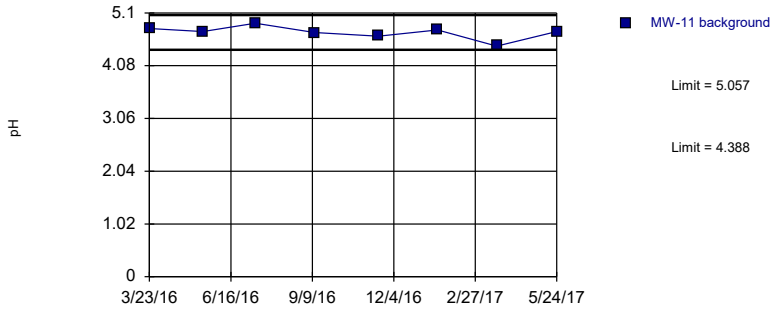
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Intrawell Parametric, MW-11 (bg)



Background Data Summary: Mean=4.723, Std. Dev.=0.1279, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9077, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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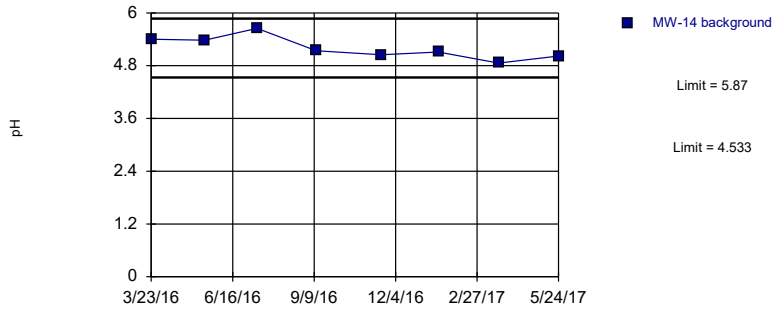
Prediction Limit

Intrawell Parametric, MW-14 (bg)



Background Data Summary: Mean=5.201, Std. Dev.=0.2555, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9459, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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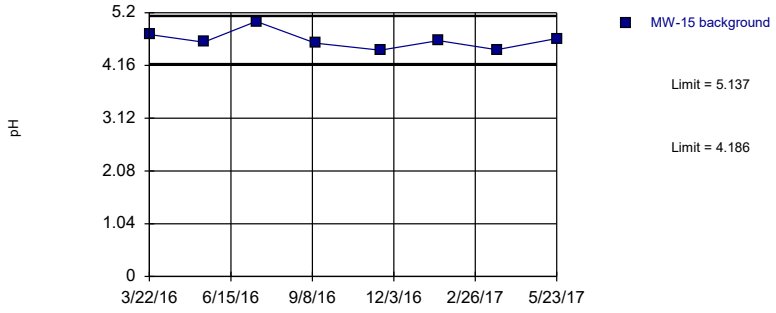
Prediction Limit

Intrawell Parametric, MW-15



Background Data Summary: Mean=4.661, Std. Dev.=0.1818, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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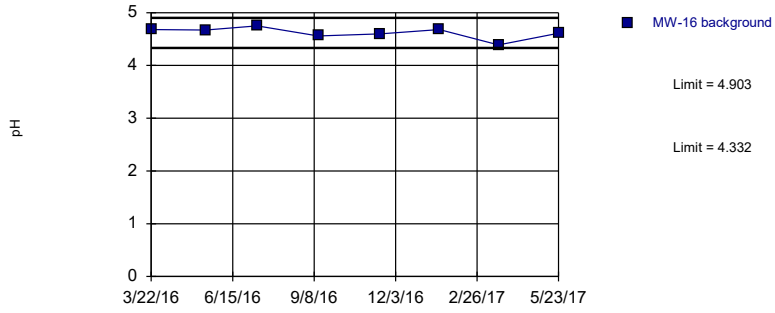
Prediction Limit

Intrawell Parametric, MW-16



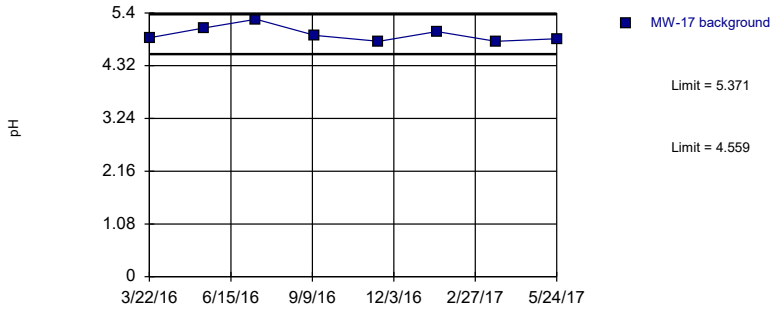
Background Data Summary: Mean=4.618, Std. Dev.=0.1093, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.893, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Intrawell Parametric, MW-17



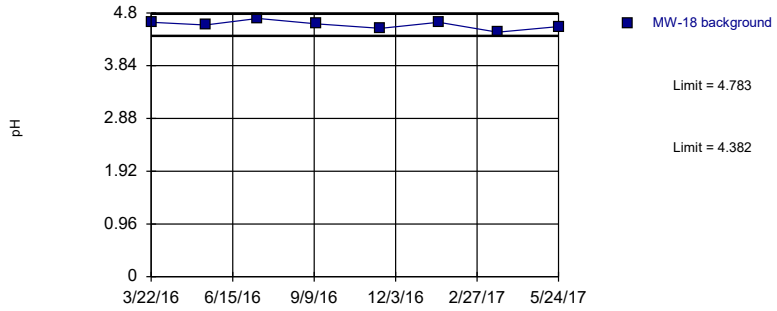
Background Data Summary: Mean=4.965, Std. Dev.=0.1554, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8849, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Intrawell Parametric, MW-18 (bg)



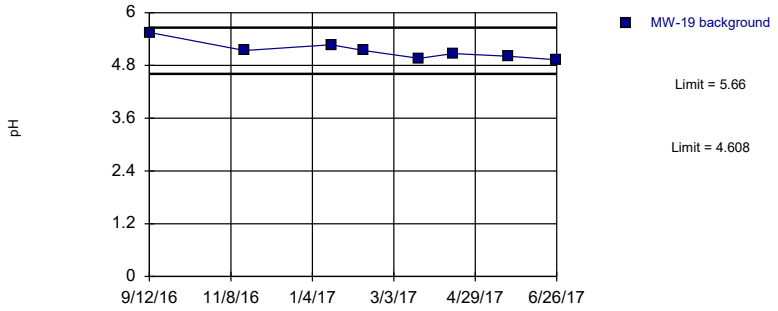
Background Data Summary: Mean=4.583, Std. Dev.=0.07667, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9835, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Intrawell Parametric, MW-19



Background Data Summary: Mean=5.134, Std. Dev.=0.2011, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8831, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188. Assumes 1 future value.

Constituent: pH Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

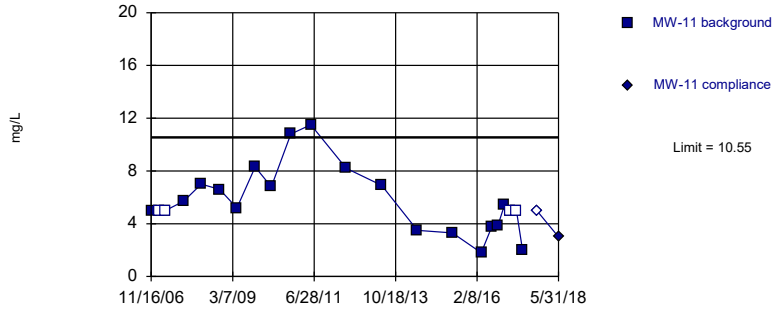
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=5.27, Std. Dev.=2.689, n=22, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.878. Kappa = 1.962 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/15/2019 9:34 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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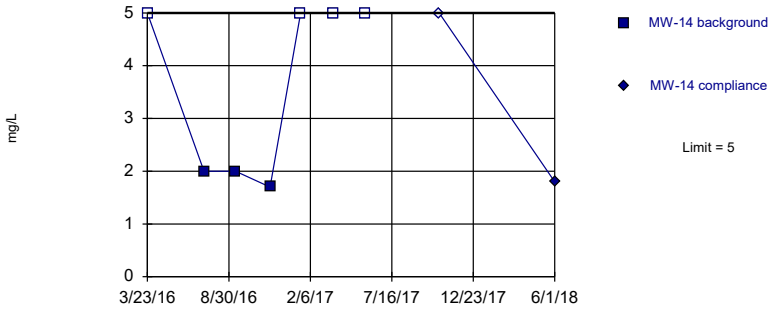
Hollow symbols indicate censored values.
Within Limit

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 9:34 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

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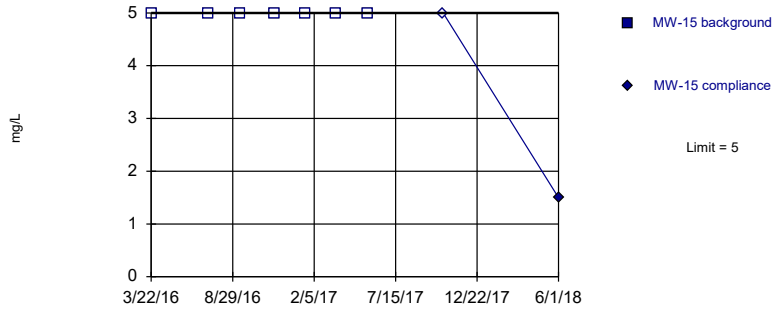
Hollow symbols indicate censored values.
Within Limit

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 9:35 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

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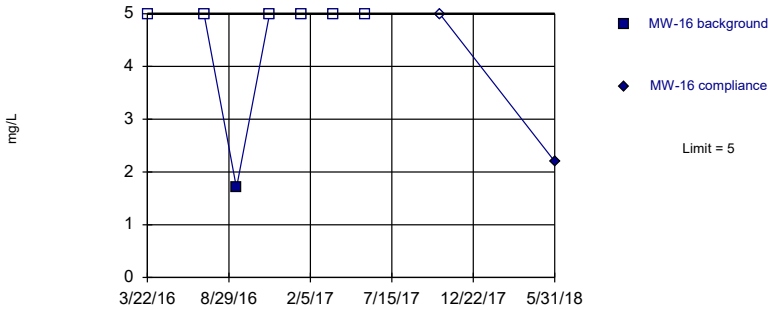
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



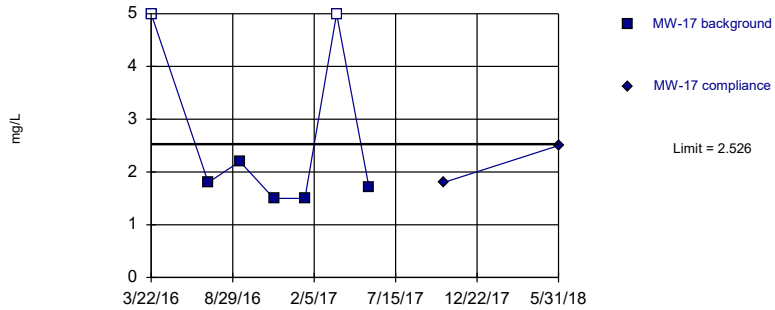
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.316, Std. Dev.=0.09532, n=7, 28.57% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.737, critical = 0.73. Kappa = 2.873 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

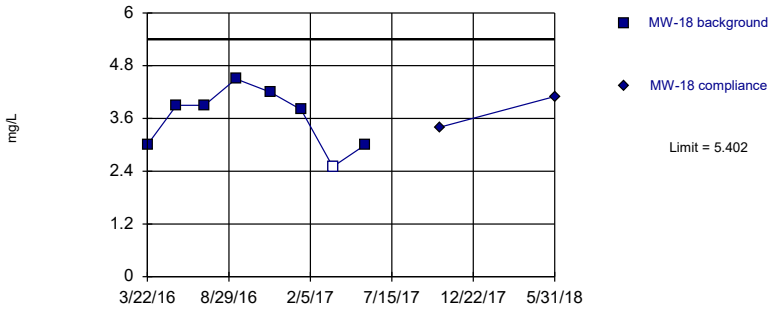
Constituent: Sulfate Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.6, Std. Dev.=0.6887, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

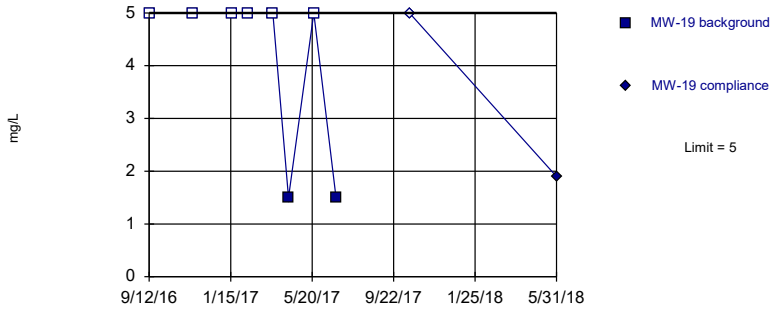
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

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. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

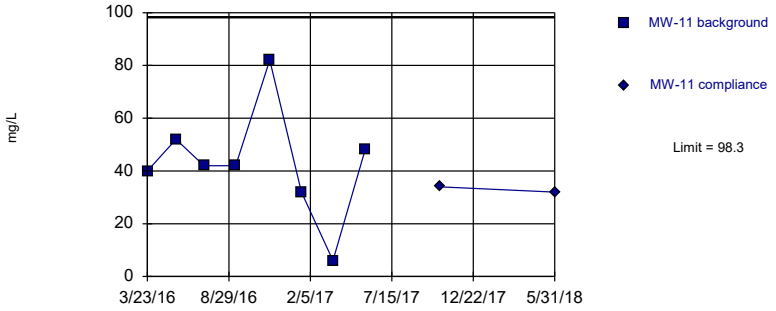
Constituent: Sulfate Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=43, Std. Dev.=21.14, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9225, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

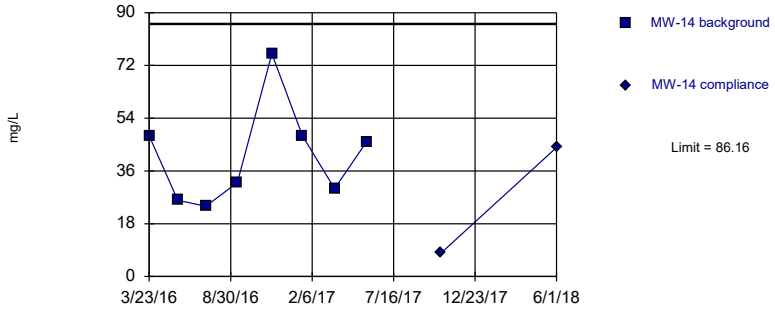
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=41.25, Std. Dev.=17.17, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8693, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

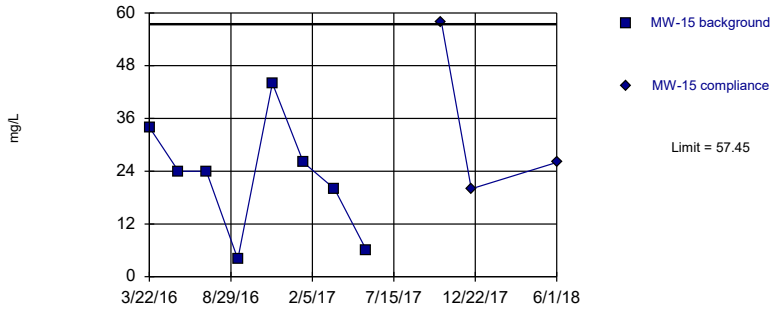
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22.75, Std. Dev.=13.26, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

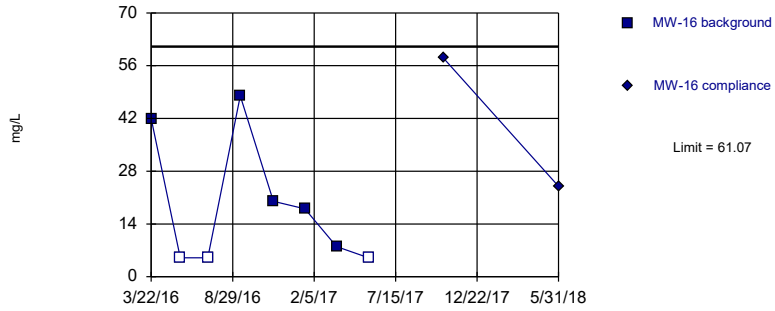
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=18.88, Std. Dev.=16.13, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8041, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

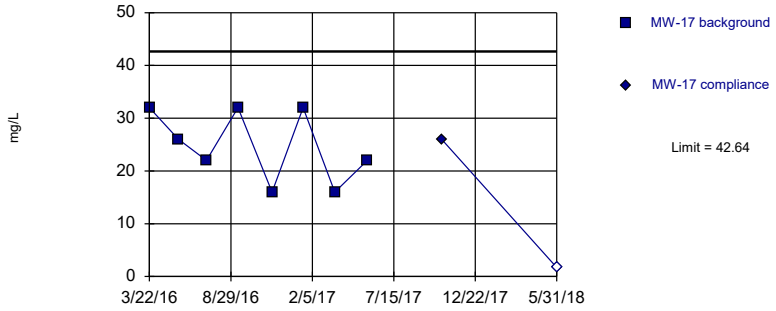
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.75, Std. Dev.=6.84, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8529, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

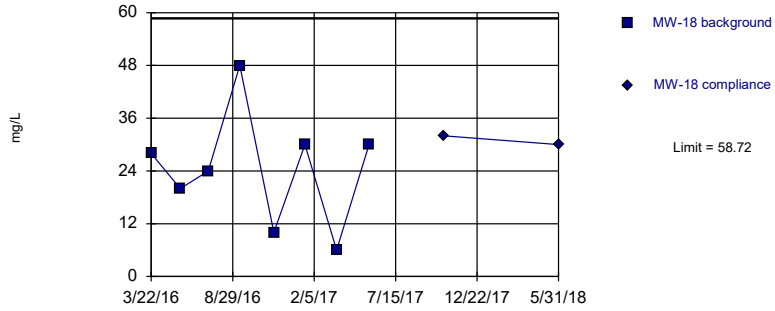
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.5, Std. Dev.=13.08, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9488, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

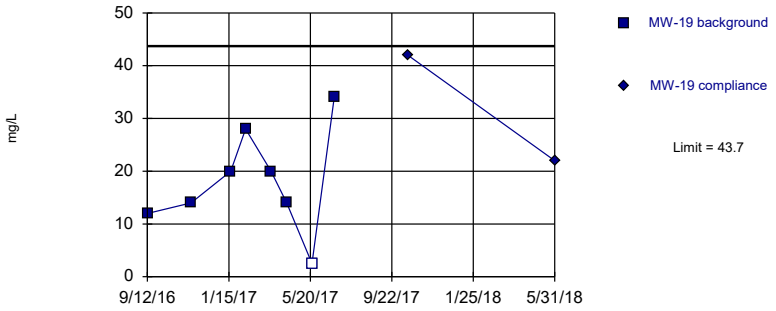
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=18.06, Std. Dev.=9.8, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.968, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:35 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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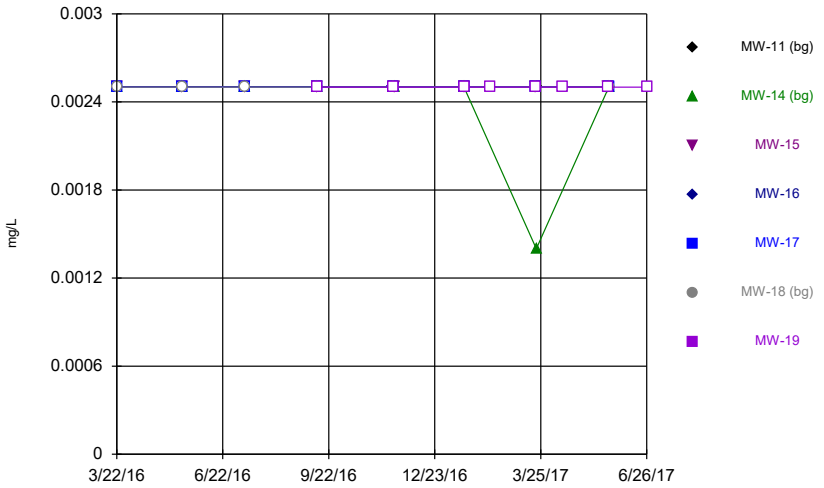
Hollow symbols indicate censored values.

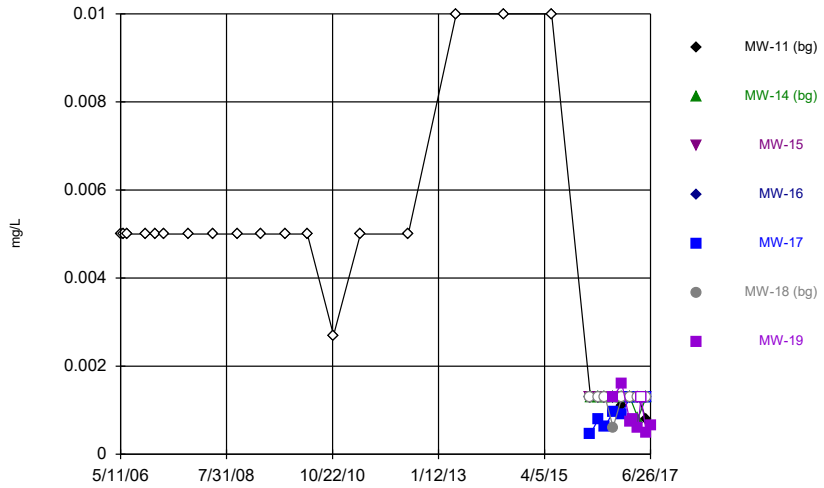
Time Series



Constituent: Antimony Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

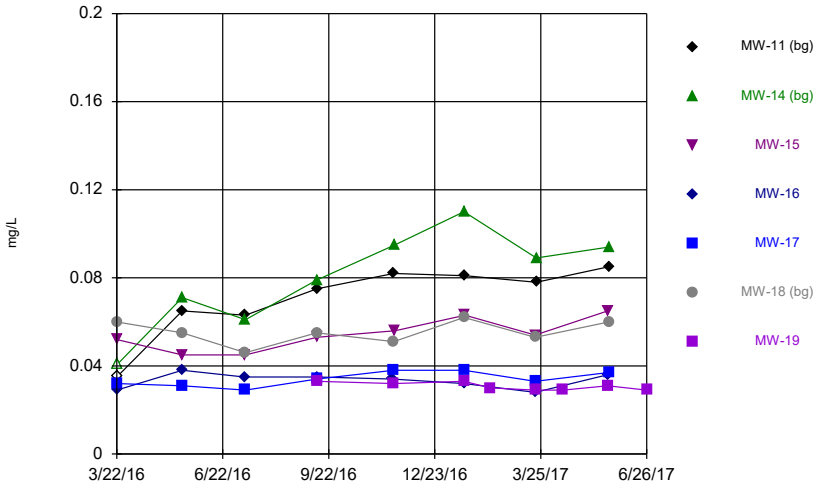
Time Series



Constituent: Arsenic Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

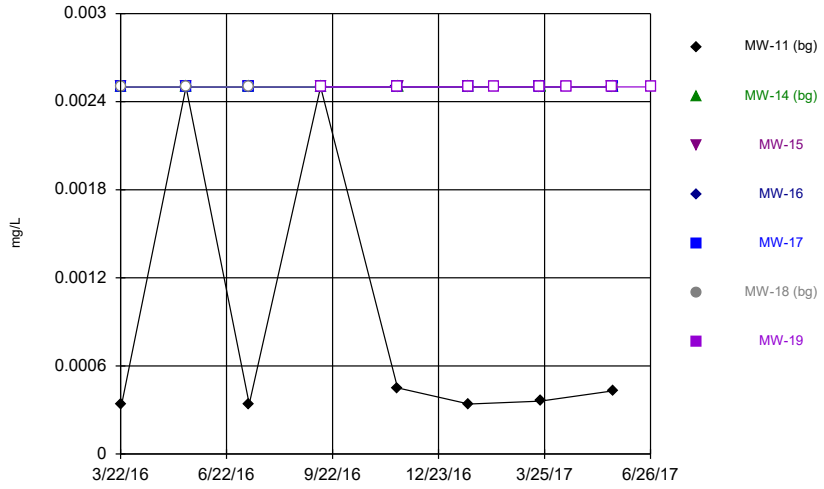
Time Series



Constituent: Barium Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

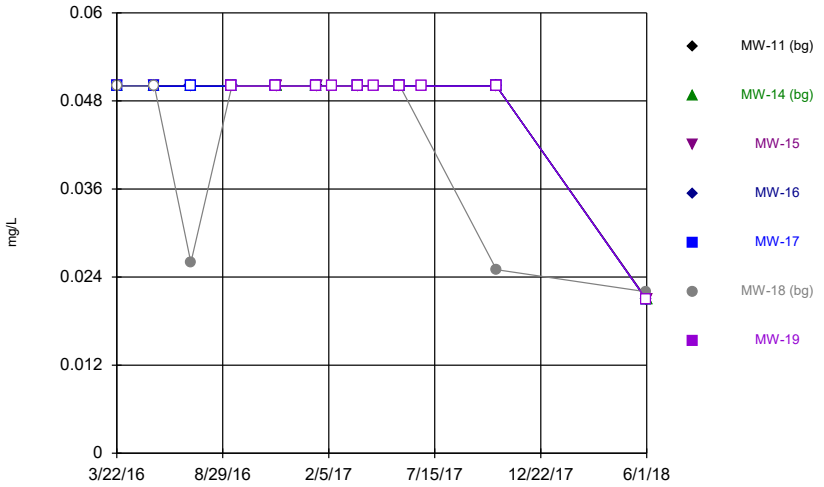
Time Series



Constituent: Beryllium Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

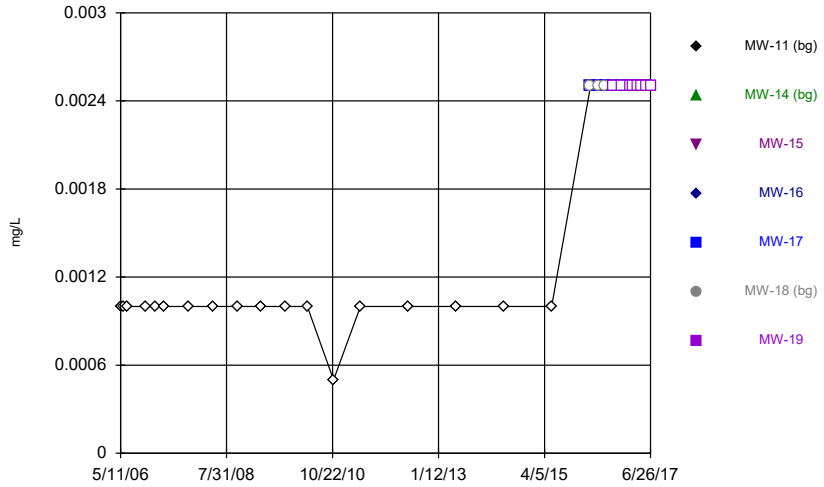
Time Series



Constituent: Boron Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

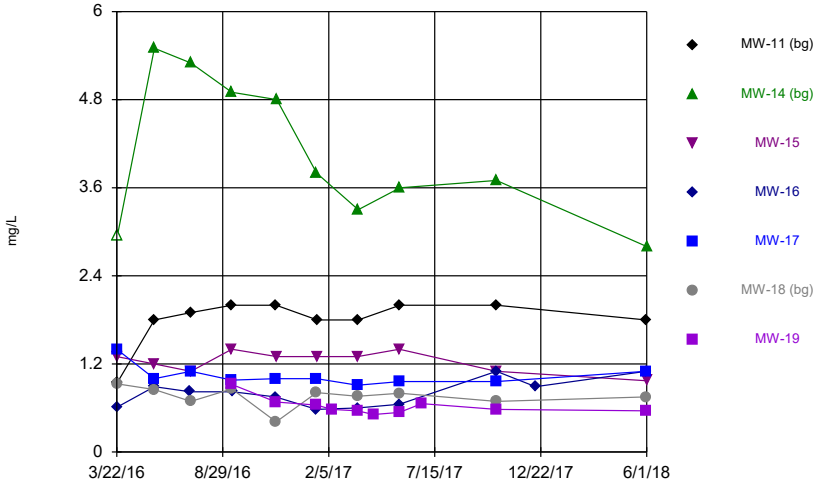
Time Series



Constituent: Cadmium Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

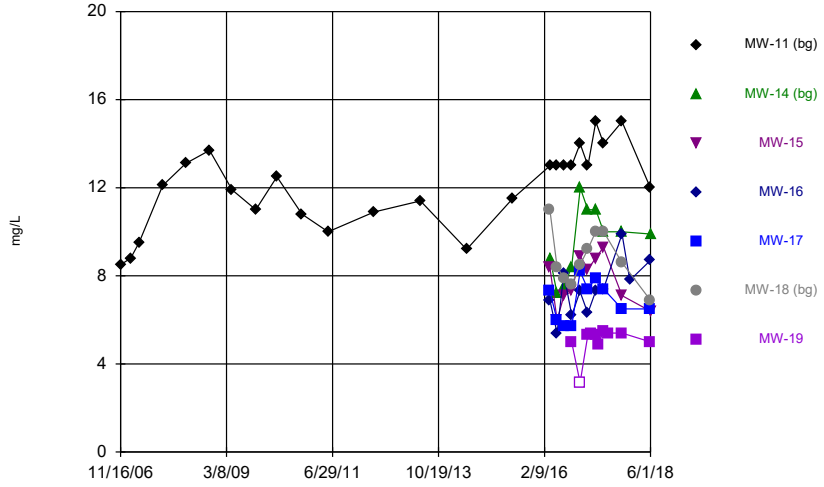
Time Series



Constituent: Calcium Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

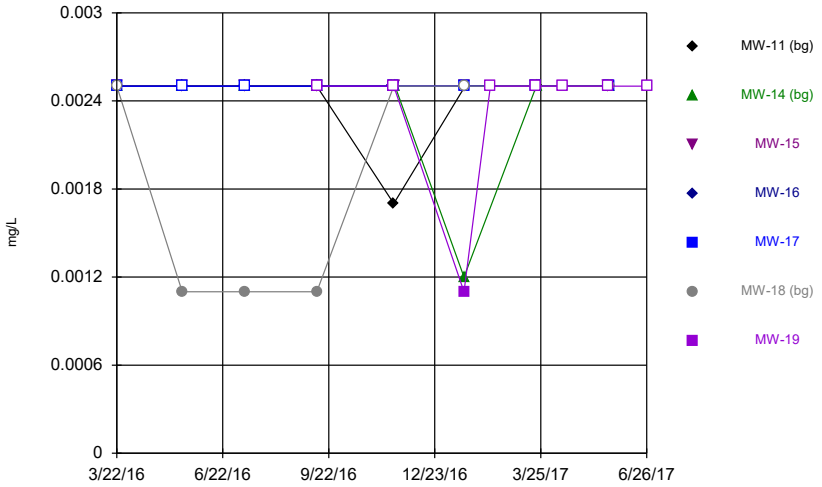
Time Series



Constituent: Chloride Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

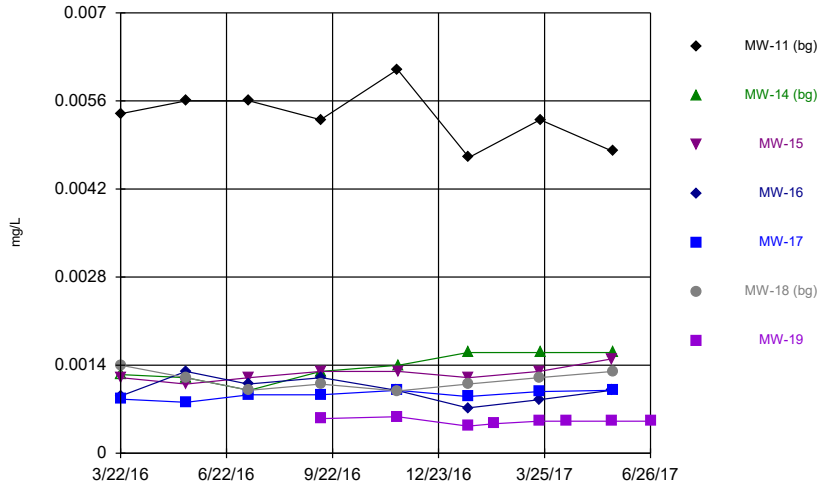
Time Series



Constituent: Chromium Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

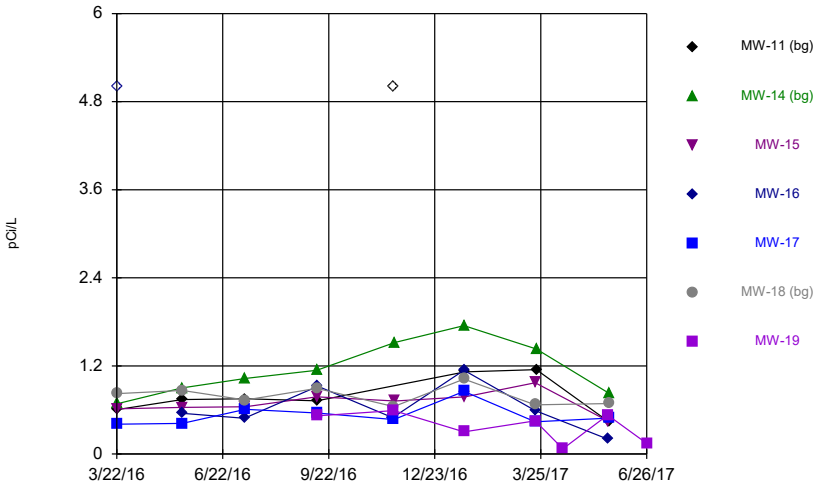
Time Series



Constituent: Cobalt Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

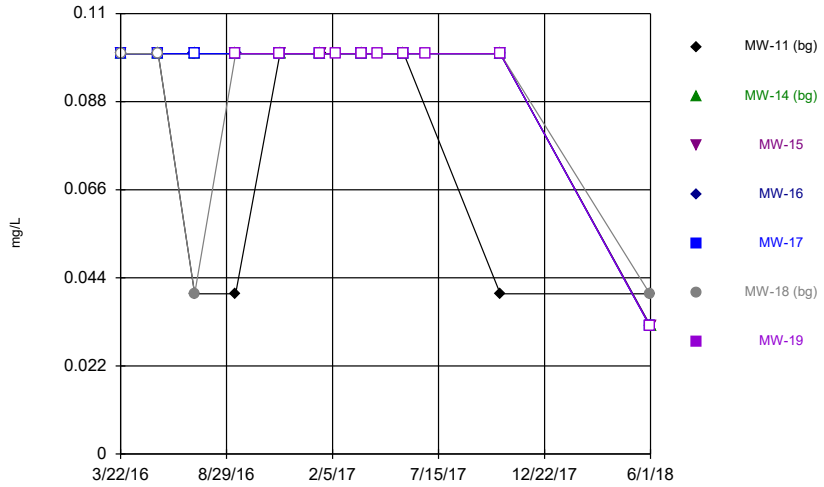
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 1/15/2019 1:42 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

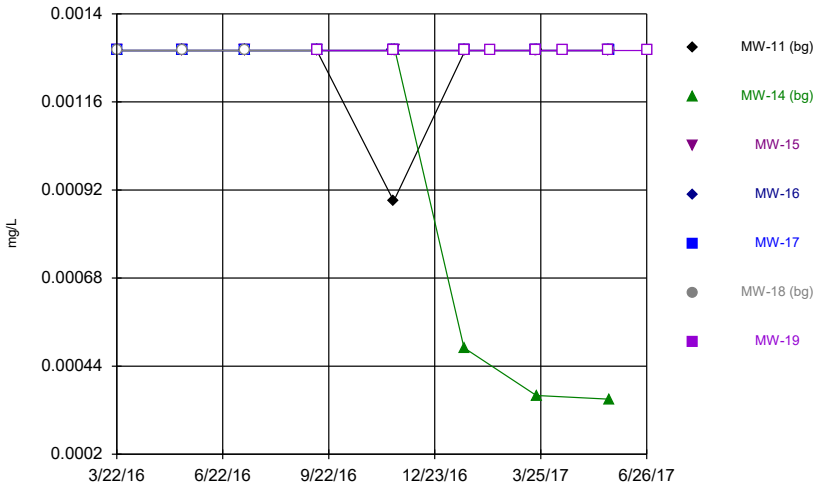
Time Series



Constituent: Fluoride Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

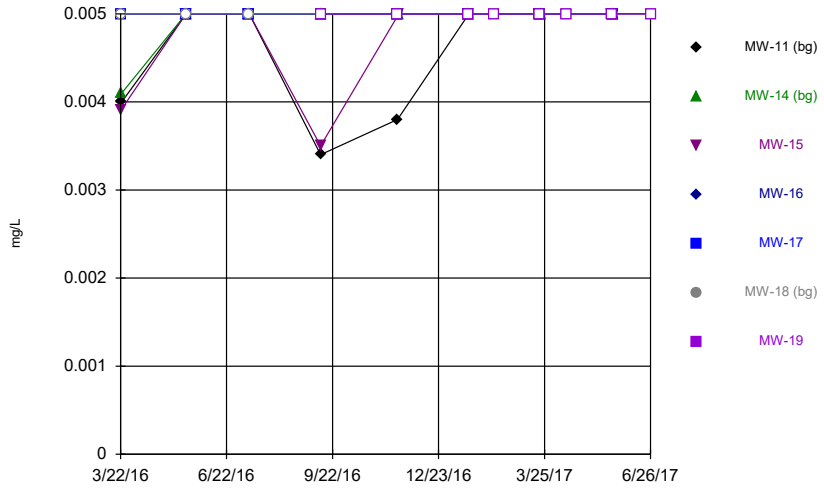
Time Series



Constituent: Lead Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

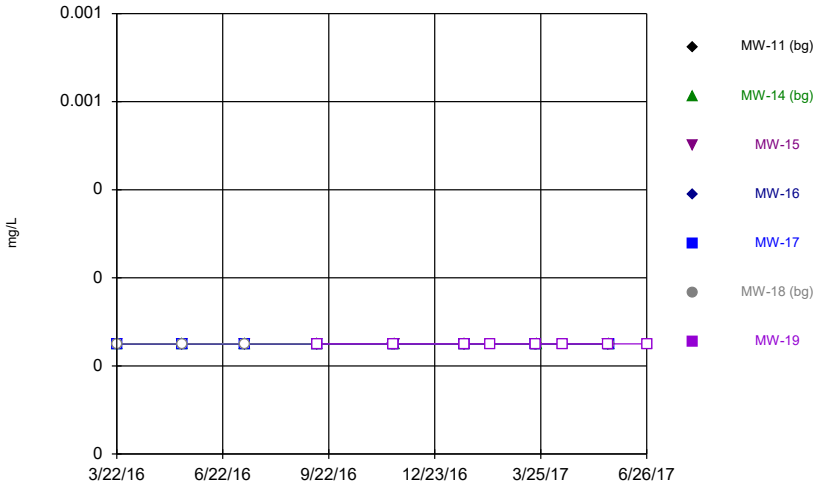
Time Series



Constituent: Lithium Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

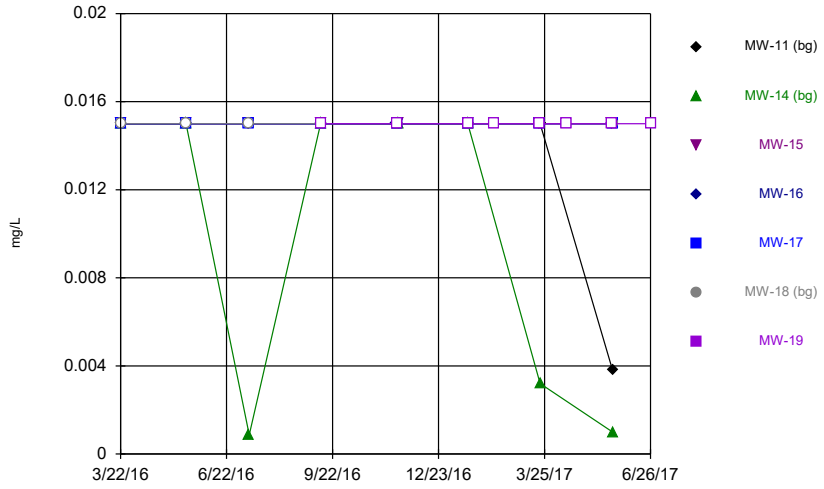
Time Series



Constituent: Mercury Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

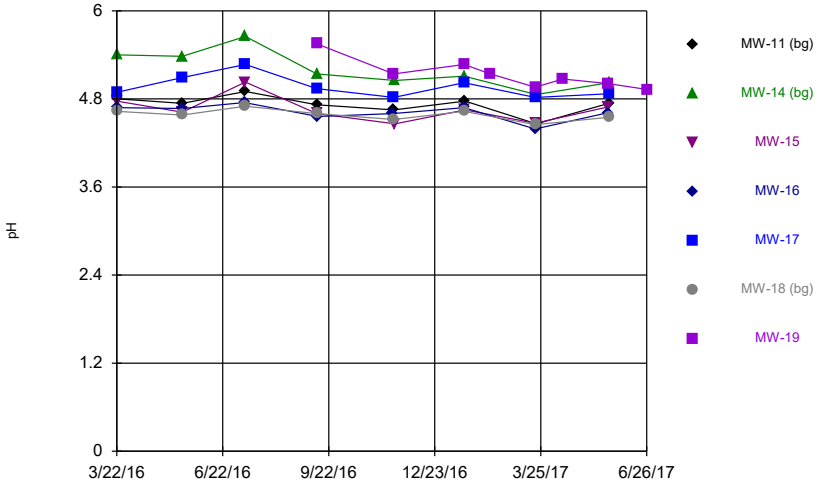
Time Series



Constituent: Molybdenum Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG

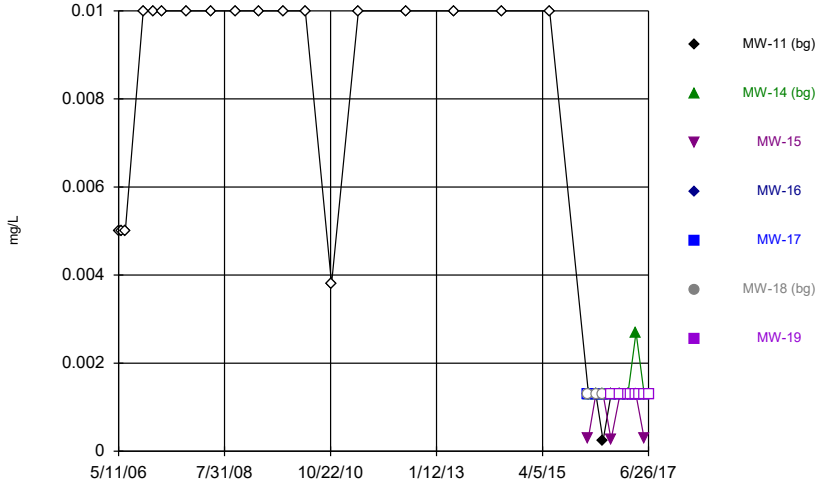
Time Series



Constituent: pH Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

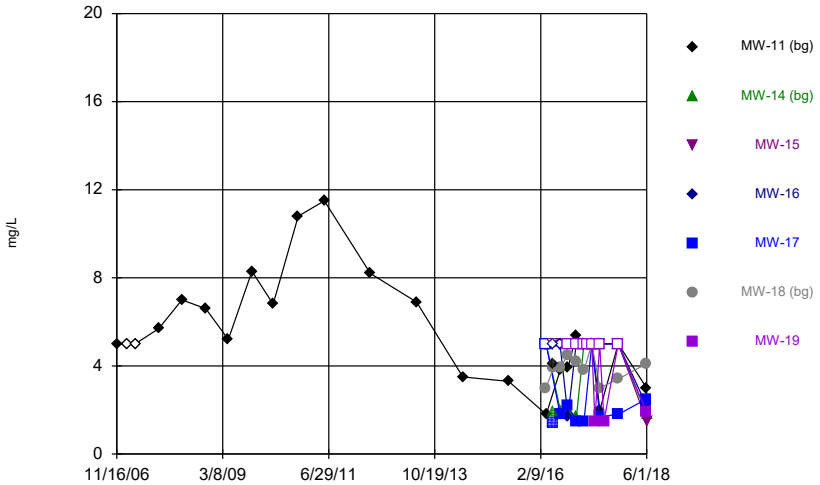
Time Series



Constituent: Selenium Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

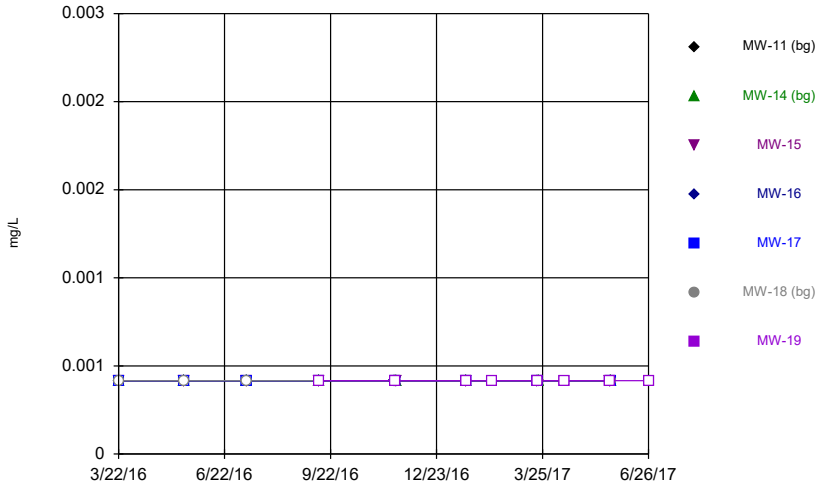
Time Series



Constituent: Sulfate Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

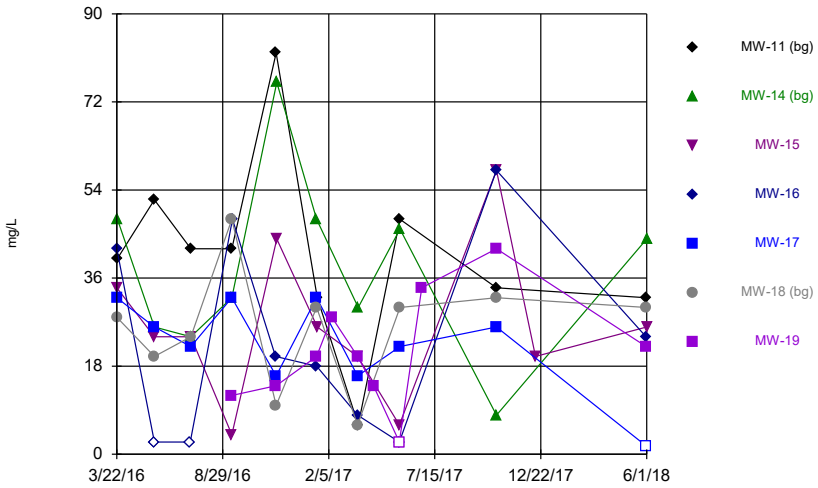
Time Series



Constituent: Thallium Analysis Run 1/15/2019 1:43 PM View: Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/15/2019 1:43 PM View: Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

2nd Semi-Annual

Intrawell Prediction Limits - All Results (No Significant Results)

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 1/15/2019, 9:39 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.05	n/a	11/7/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.05	n/a	11/7/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.05	n/a	11/7/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-16	0.05	n/a	11/8/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-17	0.05	n/a	11/8/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.05	n/a	11/8/2018	0.05ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-19	0.05	n/a	11/8/2018	0.05ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.31	n/a	11/7/2018	2	No	8	12.5	x^3	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.81	n/a	11/7/2018	2.9	No	8	12.5	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.547	n/a	11/7/2018	1.1	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.029	n/a	11/8/2018	0.76	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.466	n/a	11/8/2018	0.96	No	8	0	ln(x)	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-18	1.181	n/a	11/8/2018	0.78	No	8	0	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-19	0.9747	n/a	11/8/2018	0.57	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-11	15.36	n/a	11/7/2018	14	No	23	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	14.12	n/a	11/7/2018	10	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.93	n/a	11/7/2018	8	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	9.095	n/a	11/8/2018	7.6	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	9.57	n/a	11/8/2018	6.9	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	12.17	n/a	11/8/2018	8.7	No	8	0	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	6.093	n/a	11/8/2018	5.2	No	8	12.5	x^4	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	11/7/2018	0.05	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	11/7/2018	0.1ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	11/7/2018	0.1ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	11/8/2018	0.1ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	11/8/2018	0.1ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	11/8/2018	0.1ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	11/8/2018	0.1ND	No	8	100	n/a	0.02144	NP Intra (NDs) 1 of 2
pH (pH)	MW-11	5.057	4.388	11/7/2018	4.58	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-14	5.87	4.533	11/7/2018	4.81	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-15	5.137	4.186	11/7/2018	4.61	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-16	4.903	4.332	11/8/2018	4.71	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-17	5.371	4.559	11/8/2018	5.02	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-18	4.783	4.382	11/8/2018	4.63	No	8	0	No	0.000...	Param Intra 1 of 2
pH (pH)	MW-19	5.66	4.608	11/8/2018	5.09	No	8	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	10.55	n/a	11/7/2018	3.1	No	22	18.18	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	11/7/2018	1.8	No	7	57.14	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	11/7/2018	1.5	No	7	100	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	11/8/2018	1.7	No	7	85.71	n/a	0.02765	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	2.526	n/a	11/8/2018	2.2	No	7	28.57	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.402	n/a	11/8/2018	3.3	No	8	12.5	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	11/8/2018	1.5	No	8	75	n/a	0.02144	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	98.3	n/a	11/7/2018	52	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	86.16	n/a	11/7/2018	26	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	57.45	n/a	11/7/2018	8	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	61.07	n/a	11/8/2018	4	No	8	37.5	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	42.64	n/a	11/8/2018	36	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	58.72	n/a	11/8/2018	22	No	8	0	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	43.7	n/a	11/8/2018	8	No	8	12.5	No	0.00188	Param Intra 1 of 2

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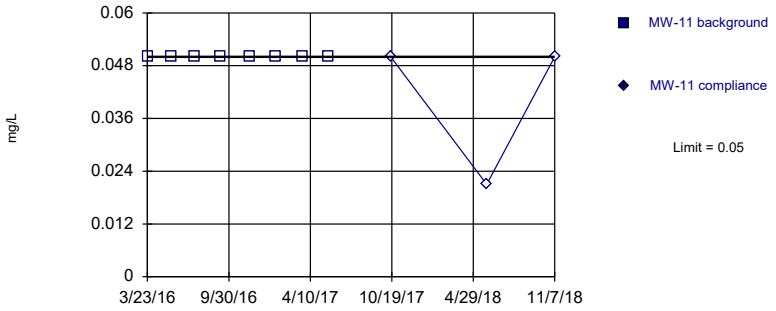
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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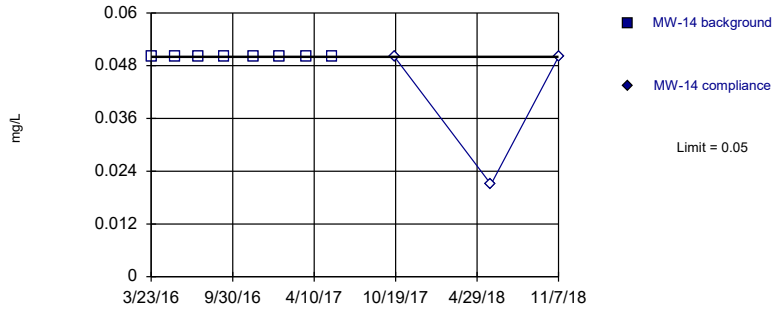
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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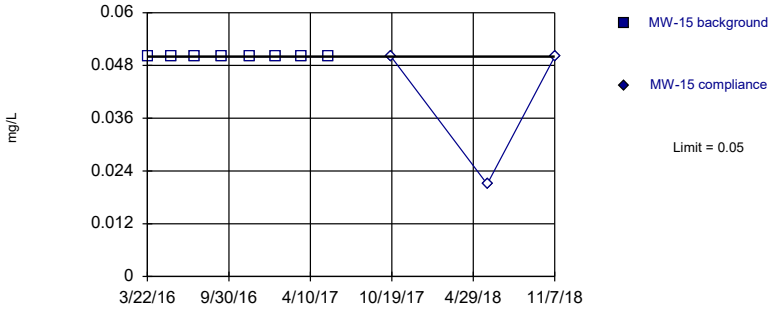
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

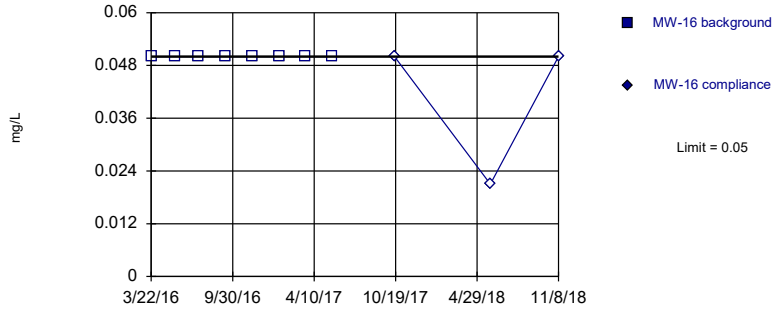
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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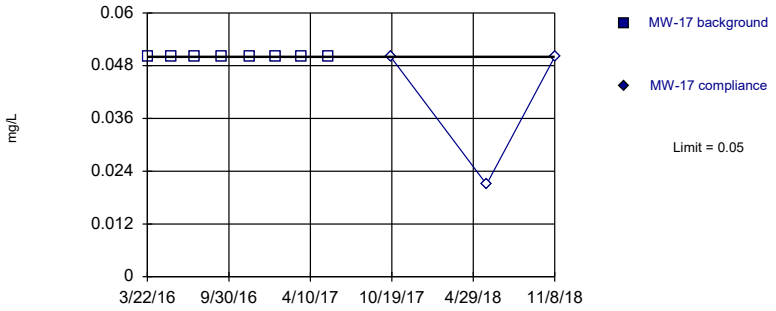
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



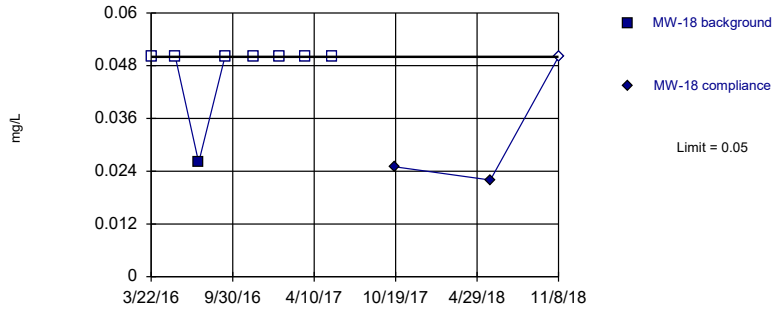
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 8) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Boron Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
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 9:37 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

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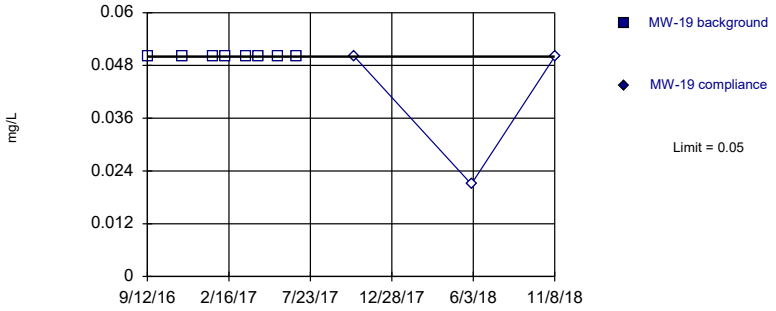
Hollow symbols indicate censored values.
Within Limit

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 9:37 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

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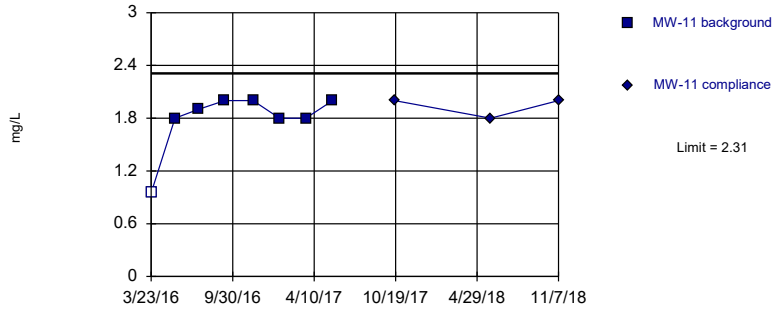
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=6.152, Std. Dev.=2.363, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7583, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

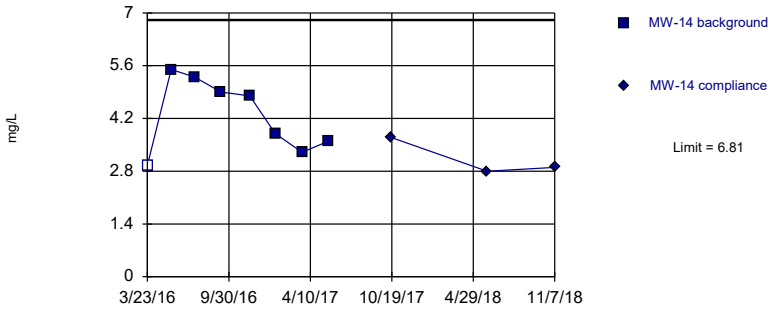
Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.269, Std. Dev.=0.9714, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

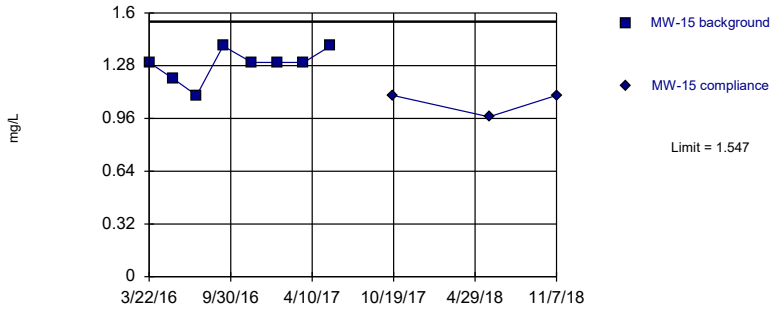
Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.288, Std. Dev.=0.0991, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.872, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

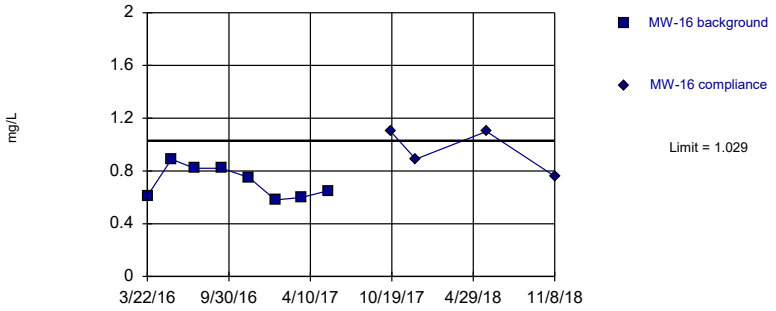
Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.715, Std. Dev.=0.1199, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

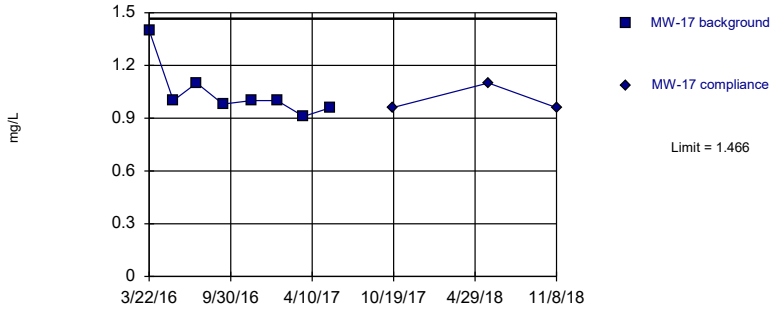
Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=0.03456, Std. Dev.=0.1329, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7633, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

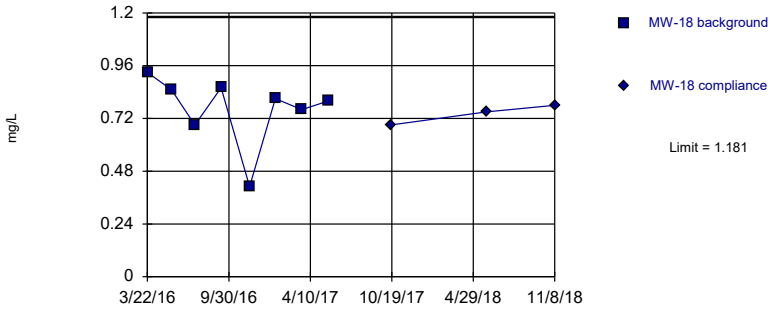
Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7638, Std. Dev.=0.1596, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8298, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

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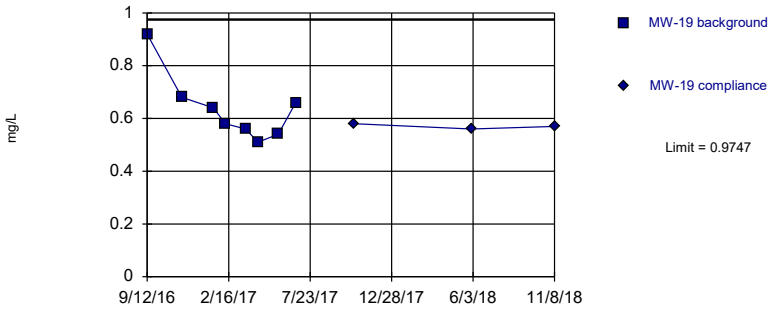
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.6363, Std. Dev.=0.1294, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8372, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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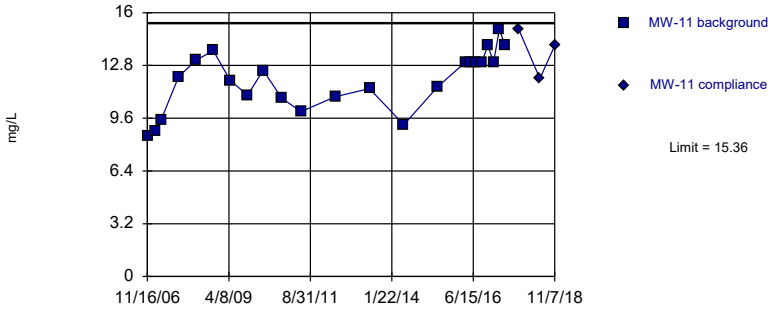
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=11.87, Std. Dev.=1.794, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9545, critical = 0.881. Kappa = 1.95 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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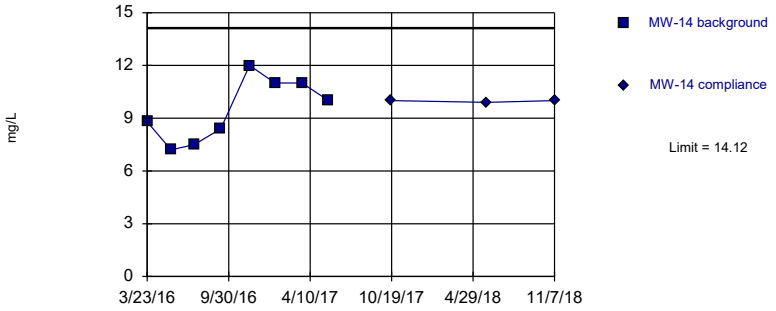
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.488, Std. Dev.=1.772, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

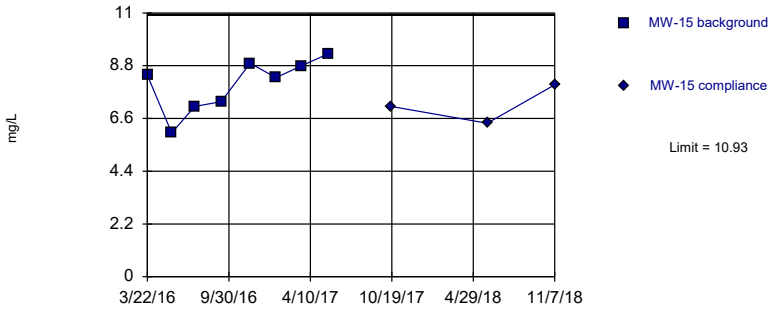
Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.013, Std. Dev.=1.114, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9242, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

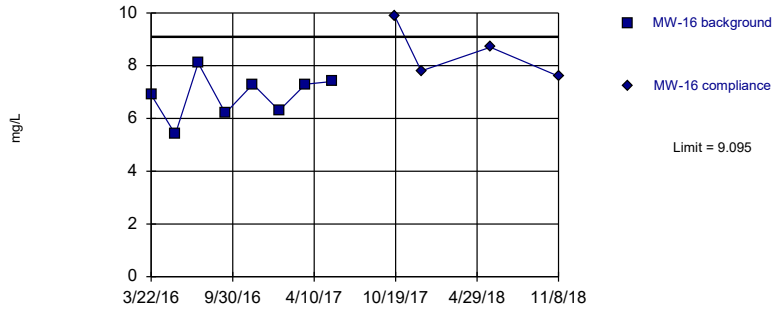
Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.863, Std. Dev.=0.8535, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9583, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

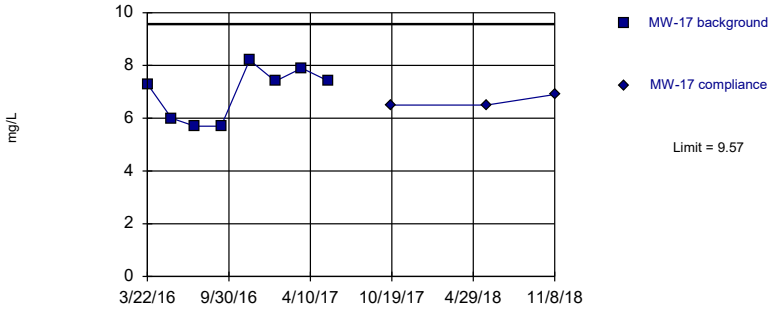
Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.95, Std. Dev.=1.001, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8611, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

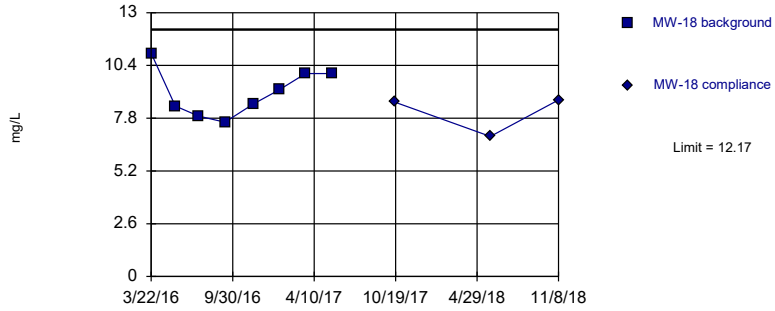
Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.075, Std. Dev.=1.182, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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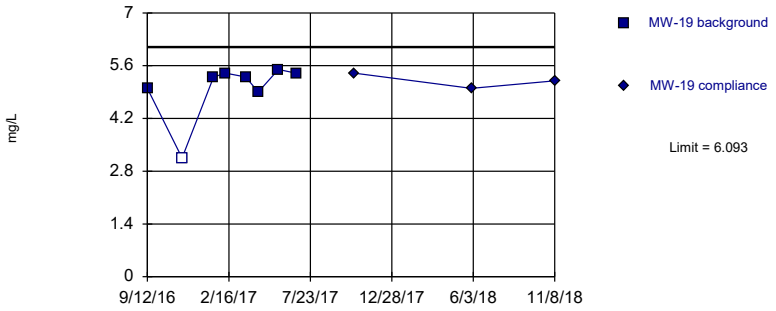
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=686.7, Std. Dev.=264.2, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.787, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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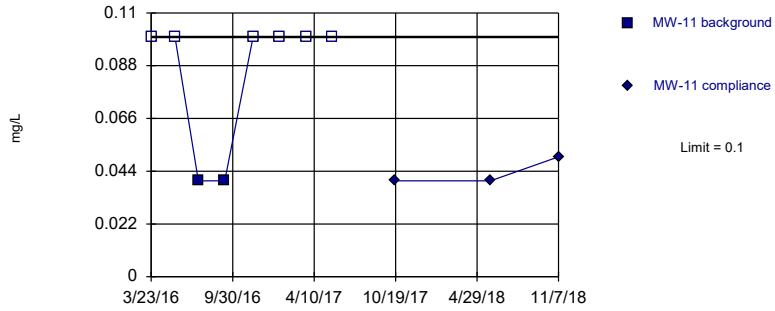
Hollow symbols indicate censored values.

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. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Fluoride Analysis Run 1/15/2019 9:37 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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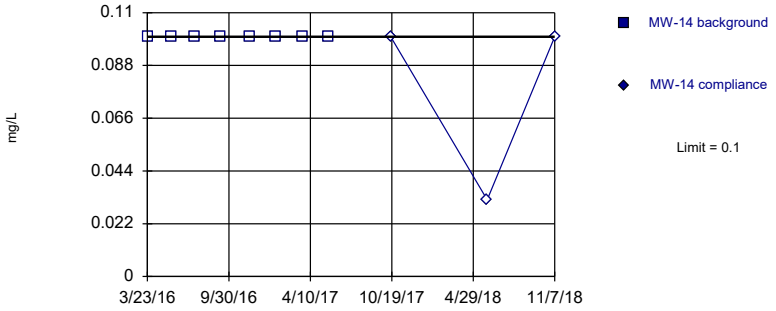
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

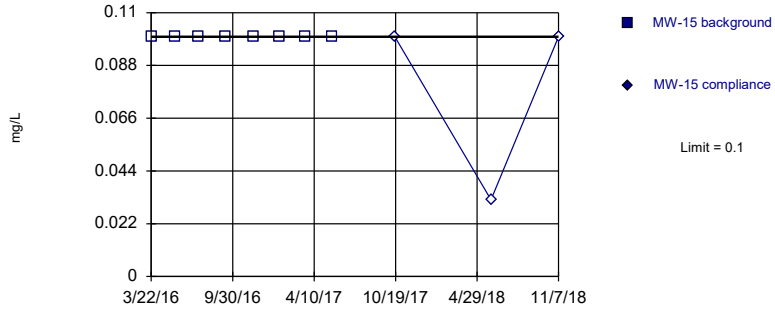
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

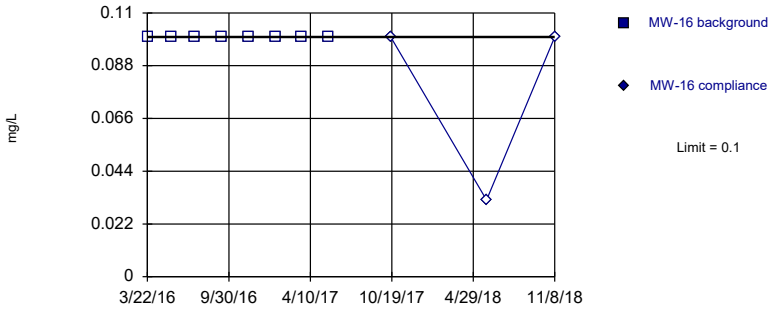
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

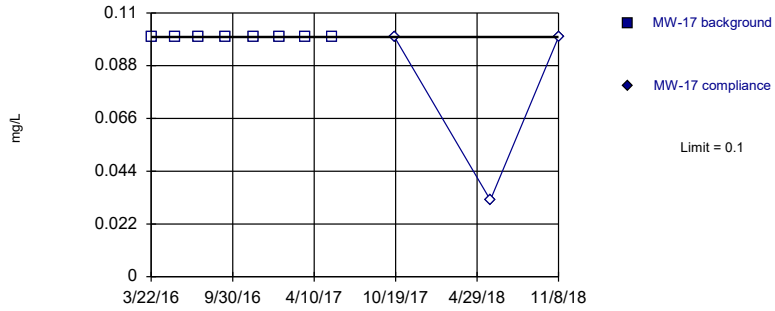
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

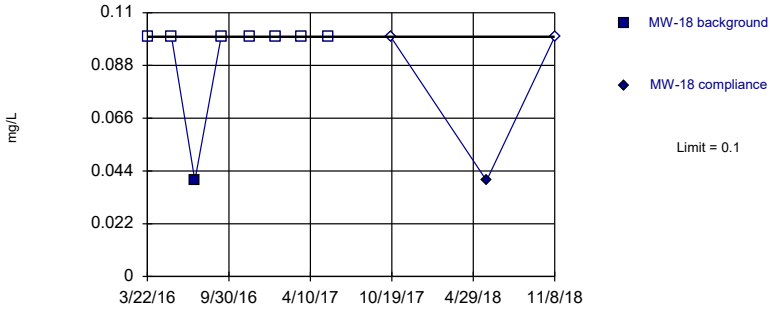
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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 9:37 AM View: Intrawell Analyses

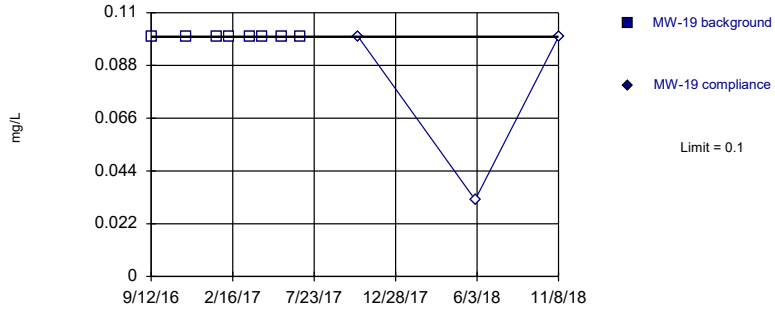
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

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).

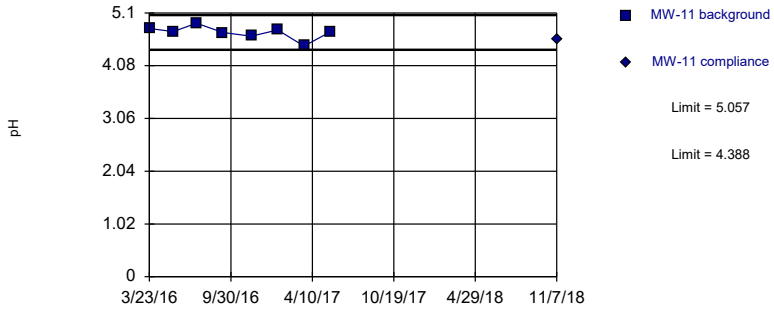
Constituent: Fluoride Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.723, Std. Dev.=0.1279, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9077, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

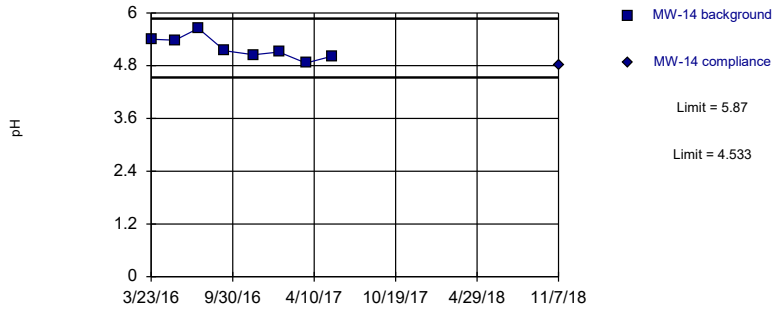
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.201, Std. Dev.=0.2555, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9459, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

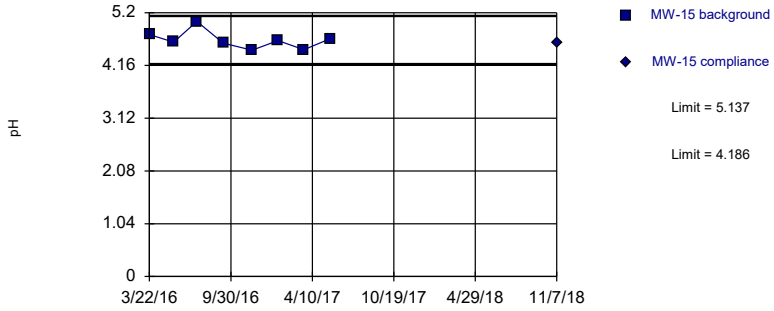
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.661, Std. Dev.=0.1818, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.904, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

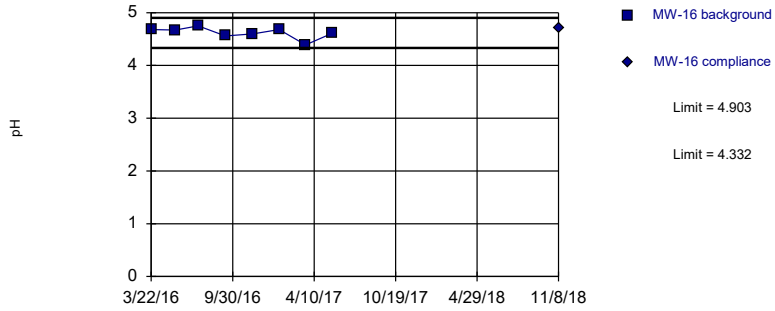
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.618, Std. Dev.=0.1093, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.893, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

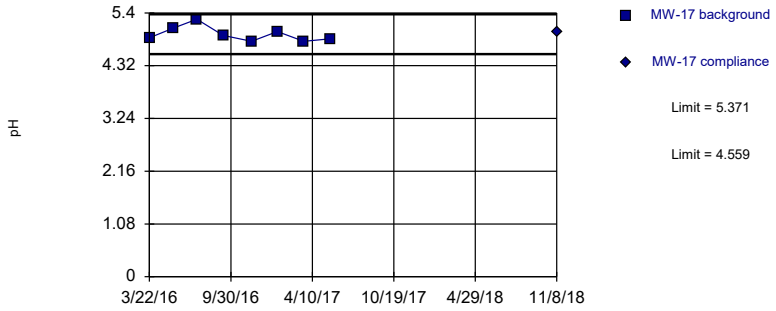
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.965, Std. Dev.=0.1554, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8849, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

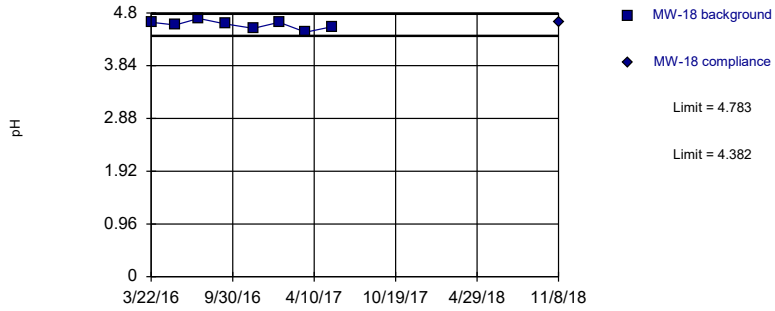
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.583, Std. Dev.=0.07667, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9835, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

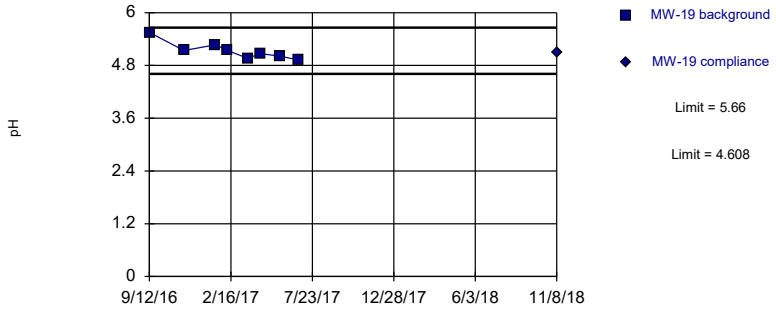
Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.134, Std. Dev.=0.2011, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8831, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

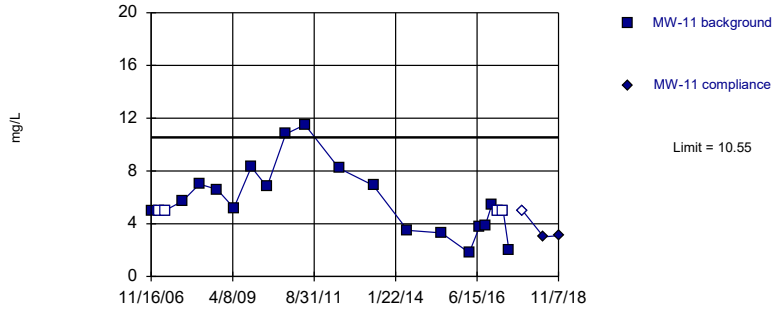
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=5.27, Std. Dev.=2.689, n=22, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.878. Kappa = 1.962 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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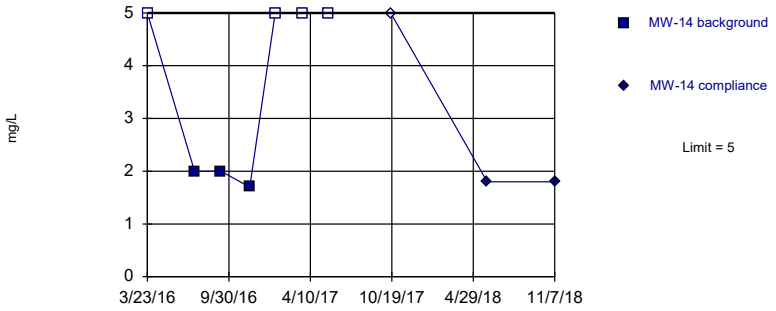
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



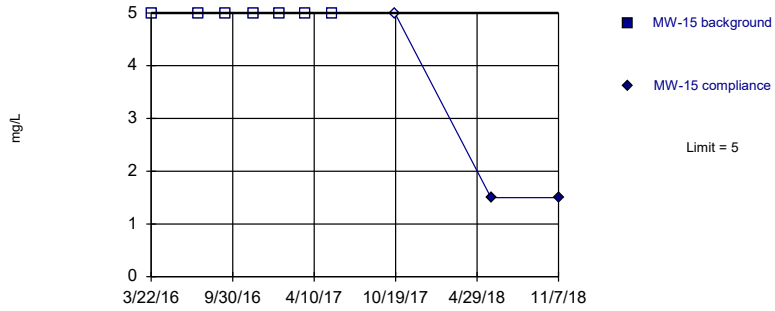
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 57.14% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



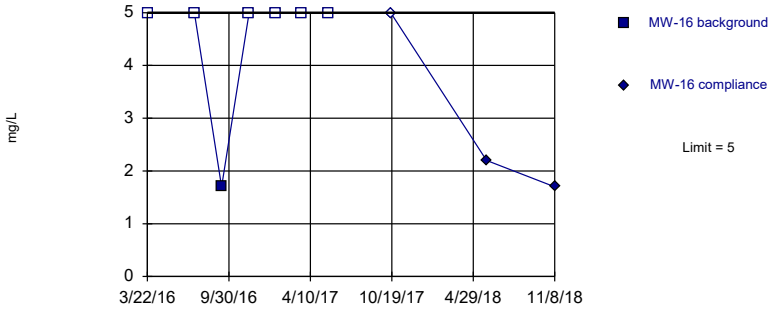
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 7) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



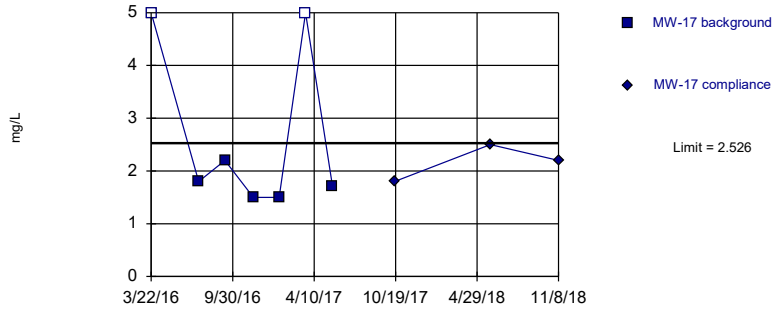
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 7 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.05455. Individual comparison alpha = 0.02765 (1 of 2).

Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.316, Std. Dev.=0.09532, n=7, 28.57% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.737, critical = 0.73. Kappa = 2.873 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

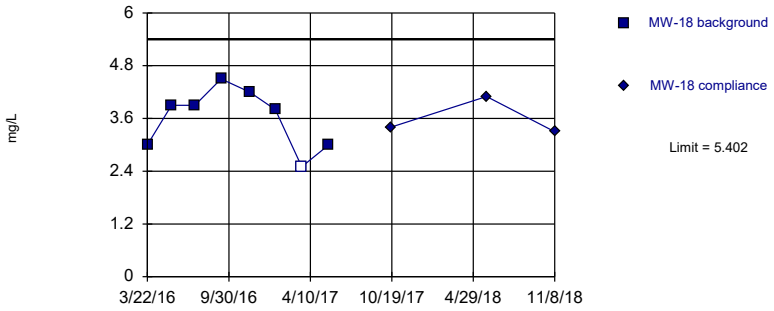
Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.6, Std. Dev.=0.6887, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

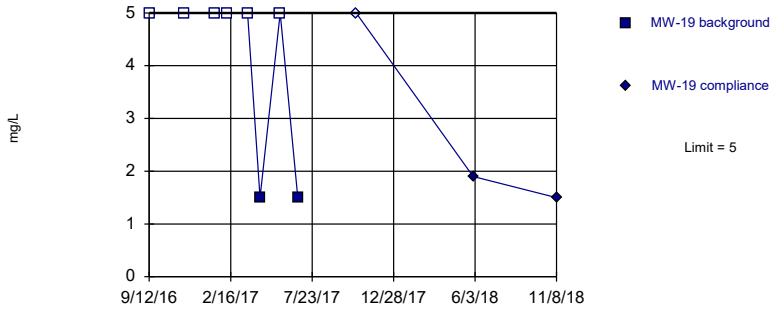
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

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. 75% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

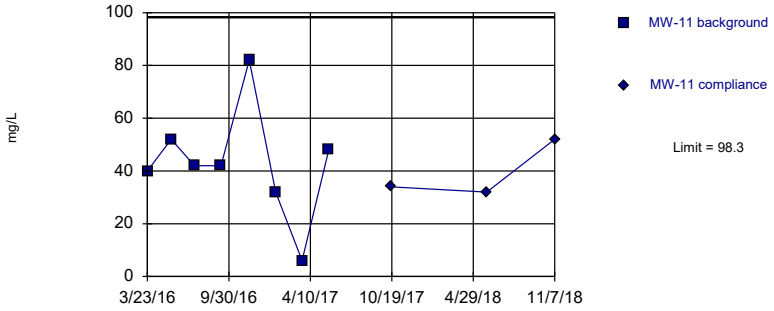
Constituent: Sulfate Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=43, Std. Dev.=21.14, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9225, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

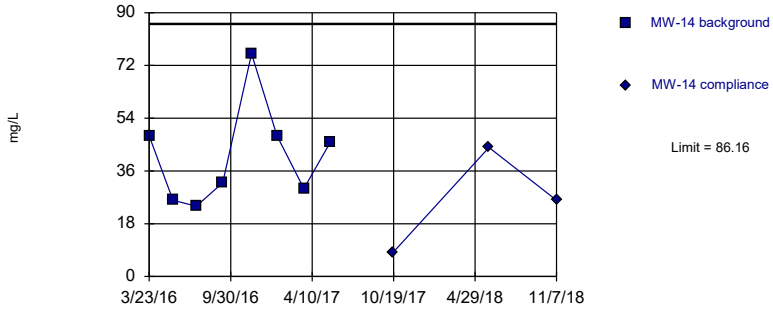
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=41.25, Std. Dev.=17.17, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8693, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

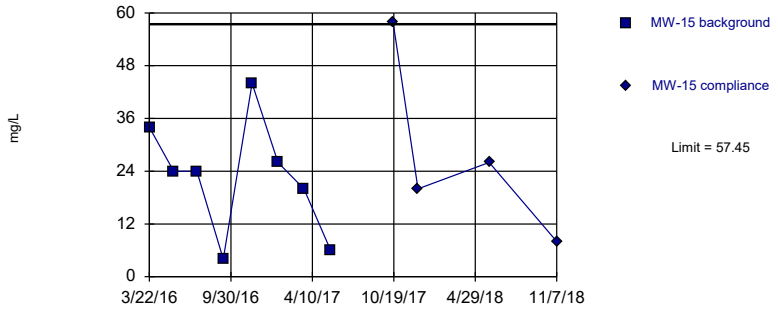
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22.75, Std. Dev.=13.26, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

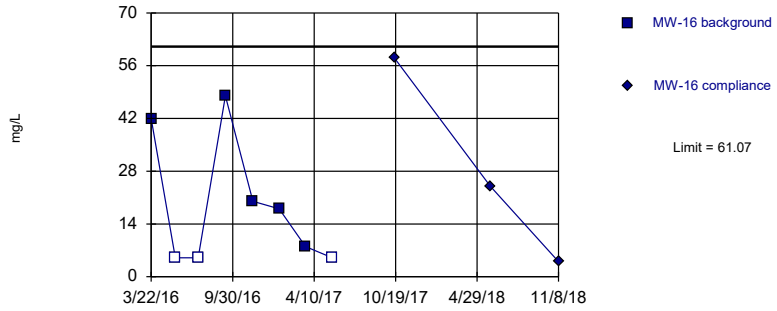
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=18.88, Std. Dev.=16.13, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8041, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

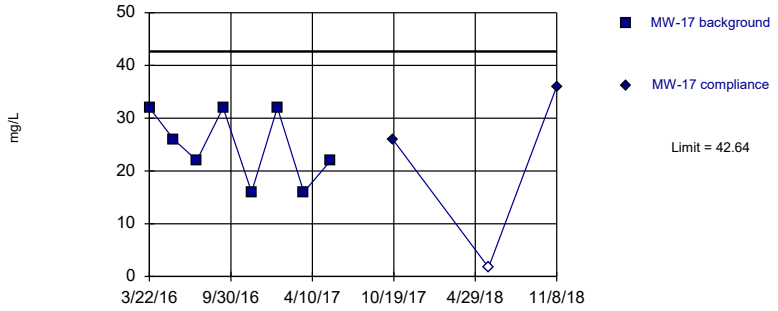
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.75, Std. Dev.=6.84, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8529, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

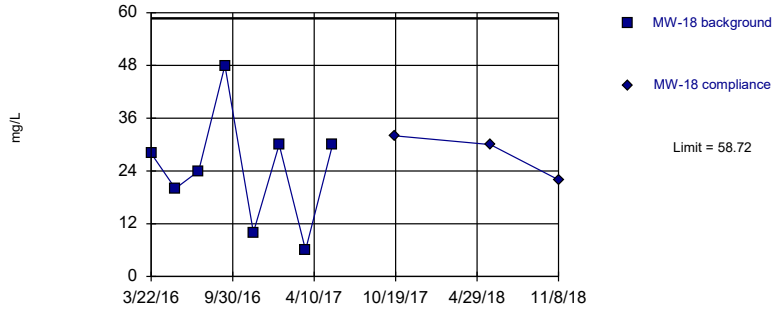
Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=24.5, Std. Dev.=13.08, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9488, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

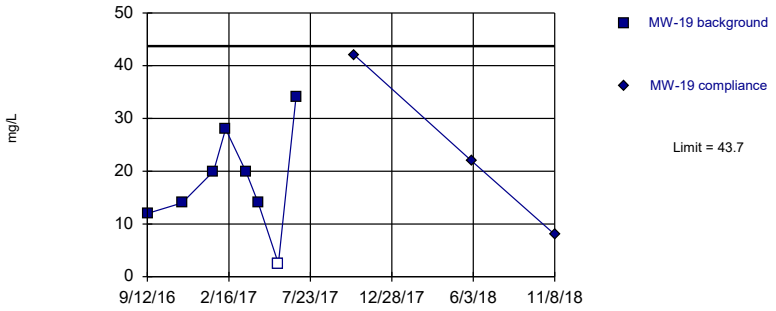
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=18.06, Std. Dev.=9.8, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.968, critical = 0.749. Kappa = 2.616 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 1/15/2019 9:38 AM View: Intrawell Analyses

Plant Daniel Client: Southern Company Data: NAMU CCR

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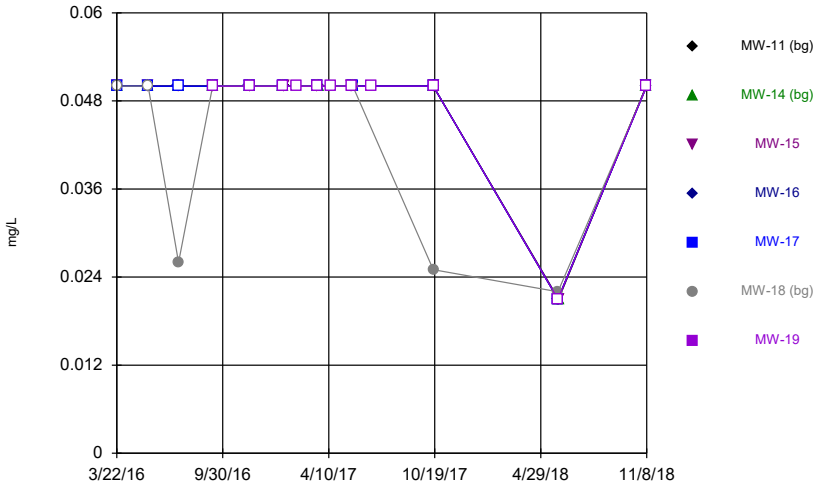
Hollow symbols indicate censored values.

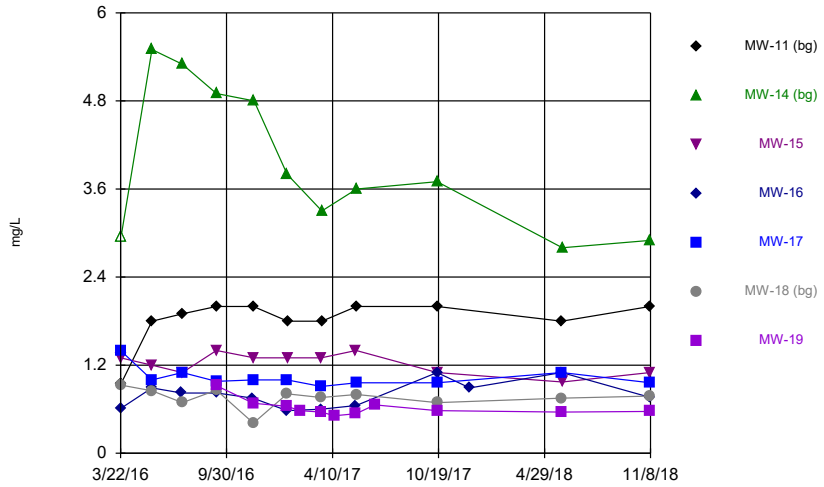
Time Series



Constituent: Boron Analysis Run 1/2/2019 12:23 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

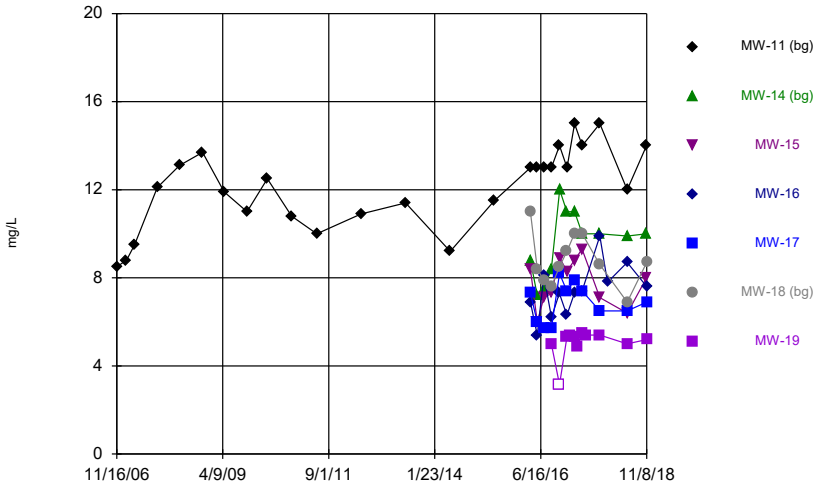
Time Series



Constituent: Calcium Analysis Run 1/2/2019 12:23 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

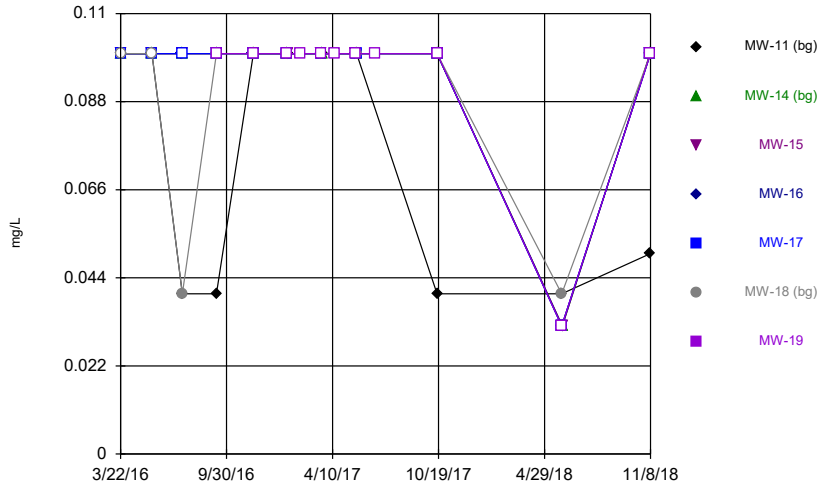
Time Series



Constituent: Chloride Analysis Run 1/2/2019 12:24 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 1/2/2019 12:24 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

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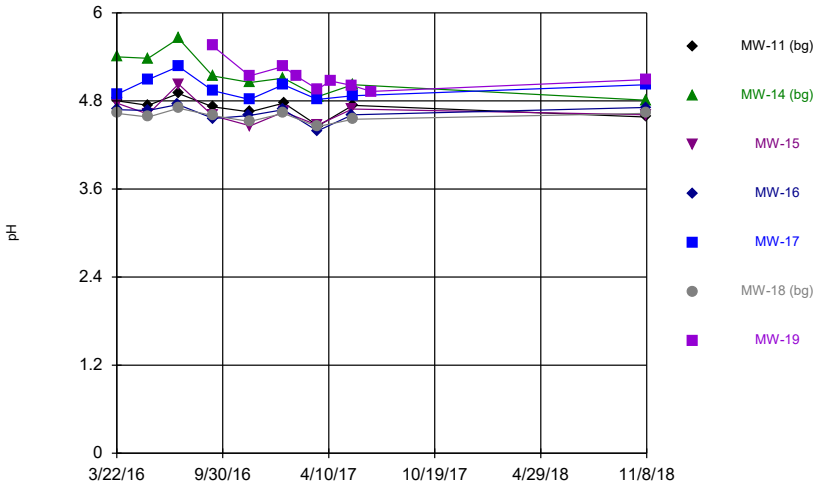
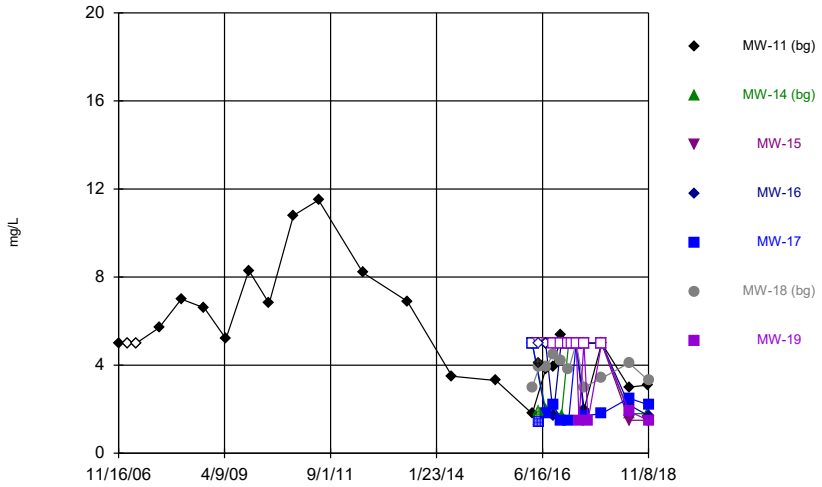
Time Series



Constituent: pH Analysis Run 1/2/2019 12:24 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

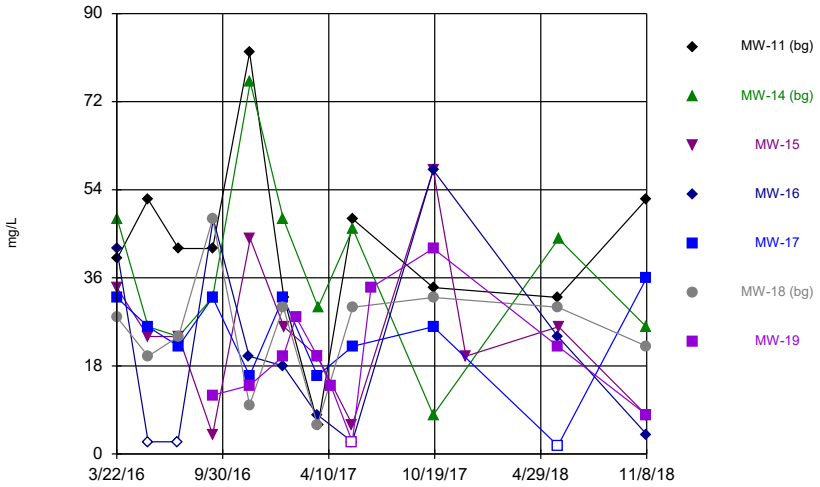
Time Series



Constituent: Sulfate Analysis Run 1/2/2019 12:24 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.09 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/2/2019 12:24 PM View: Descriptive
Plant Daniel Client: Southern Company Data: NAMU CCR