2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
NORTH ASH MANAGEMENT UNIT

January 31, 2022

Prepared for

Mississippi Power Company
Gulfport, Mississippi

By

Southern Company Services
Earth Science and Environmental Engineering

Mississippi Power

CERTIFICATION STATEMENT

This *2021 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.

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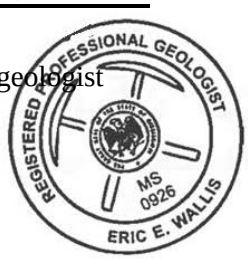

SITE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), this *2021 Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document 2021 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 detection monitoring and associated reporting for Plant Daniel NAMU is performed in accordance with the monitoring requirements § 257.90 through § 257.94.

Statistical evaluations of the April and October 2021 detection monitoring data identified statistically significant increases (SSIs) of Appendix III constituents above the GWPS. However, an ASD report for SSIs identified during the first and second semi-annual detection monitoring events is included in this report. As discussed in the ASD report, the apparent exceedances observed during the monitoring period were not likely the result of a release from the CCR unit. Therefore, in accordance with § 257.94, MPC will continue detection monitoring.

The following future actions will be taken or are recommended for the Site:

- Continue semi-annual assessment monitoring in March or April 2022 and September or October 2022.
- Submit 2022 Annual Groundwater Monitoring and Corrective Action Report by January 31, 2023.

Pursuant to 40 CFR 257.90(e)(6), the table titled **Monitoring Period Summary** has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

Monitoring Period Summary
Plant Daniel - North Ash Management Unit

Monitoring Period:	January 1 - December 31, 2021
Beginning Status:	Detection
Ending Status:	Detection

STATISTICAL ANALYSIS RESULTS*

Appendix III SSIs

Parameter	Wells
Boron	None
Calcium	MW-19
Chloride	None
Fluoride	None
pH	MW-19
Sulfate	MW-17
TDS	None

Appendix IV SSLs

Site Remains in Detection Monitoring (§ 257.94)

* See the attached report for further details regarding statistical exceedances.

ASSESSMENT OF CORRECTIVE MEASURES & GROUNDWATER REMEDY

Assessment of Corrective Measures

Site Remains in Detection Monitoring (§ 257.94)

Groundwater Remedy

Site Remains in Detection Monitoring (§ 257.94)

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) § 257 Subpart D), Southern Company Services (SCS) has prepared this *2021 Annual Groundwater Monitoring and Corrective Action Report* document groundwater monitoring activities at Mississippi Power Company (MPC) Plant Daniel North Ash Management Unit (NAMU).

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements § 257.90 through § 257.94 of the Federal CCR rule. This report has been prepared to document the 2021 semi-annual groundwater monitoring events at the NAMU and to satisfy the requirements of § 257.90(e).

2.0 SITE DESCRIPTION

The Site 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, Northwest ¼ and south half of Section 11, and the north half and northwest ¼ of the southwest ¼ of Section 14, all of Township 6 South, Range 6 West. The Site 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.

NAMU is located in the northernmost portion of the property. **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 SCS, establish five geologic units underlying the immediate Plant Daniel property:

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

- Unit 5 is a clay aquitard.

2.2 Uppermost Aquifer

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

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

For groundwater monitoring purposes, the Unit 2 sand is the uppermost aquifer screened by site monitoring wells.

3.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY

Pursuant to § 257.91, MPC installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer (Unit 2). The Professional Engineer (PE)-certified groundwater monitoring system for the 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 seven monitoring wells as 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 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 for NAMU. Downgradient locations were determined by water level monitoring and potentiometric surface maps constructed for the site.

3.2 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2021; the network remained the same as in the 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.

3.3 Detection Monitoring

Based on results provided in previous Annual Groundwater and Corrective Action Monitoring Reports, the NAMU is performing detection monitoring. Samples were collected from wells in the PE-certified monitoring system shown on **Figure 2**. 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).

4.0 SAMPLE METHODOLOGY & ANALYSIS

The following describes the methods used to complete groundwater monitoring at 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. Groundwater levels recorded during the monitoring events are summarized in **Table 2, Groundwater Elevations Summary – 2021.** 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)**. As shown on **Figures 3** and **4**, the general direction of groundwater flow is west-southwest. The groundwater flow pattern observed during the 2021 monitoring events is consistent with historic observations.

Groundwater flow velocities 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 the average hydraulic conductivity at the site is 25 feet per day. The hydraulic gradient was calculated between well pairs shown on **Table 3, Groundwater Flow Velocity Calculations - 2021**. 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 3**.

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. The horizontal hydraulic gradients ranged from 0.0034 feet per foot (ft/ft) to 0.0046 ft/ft. As presented on **Table 3,** groundwater flow velocity at the site ranges from approximately 0.42 feet per day (ft/day) (or approximately 154.67 feet per year) to 0.58

feet/day (or approximately 210.63 feet per year). 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 the Site 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 (DO)) 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 nephelometric turbidity unit (NTU)
- Temperature and oxidation reduction potential (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 Eurofins Environmental Testing TestAmerica, Inc. (TAL) of Pittsburgh, Pennsylvania and St. Louis, Missouri. 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**. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (RL). The estimated value is positively identified but is below lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

Analytical precision is measured through the calculation of the relative percent difference (RPD) of two data sets generated from a similar source. Here, a comparison of results between samples and field duplicate samples are used as measure of laboratory precision. For groundwater analytical data, quality control procedures include calculating the relative percent difference (where field duplicates are collected, the RPD) between the sample and duplicate sample duplicate concentrations. This is calculated as:

$$RPD = \frac{Conc1 - Conc2}{(Conc1 + Conc2)/2}$$

Where:

RPD = Relative Percent Difference (%)
Conc1 = Higher concentration of the sample or field duplicate
Conc2 = Lower concentration of the sample or field duplicate

Relative percent differences are calculated for all detected concentrations above the RL. Where the RPD is below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4, Relative Percent Difference Calculations**, provides the relative percent differences for sample and sample duplicates during 2021 sampling events.

During the first 2021 semi-annual sampling event, RPD exceeded 20% for Total Dissolved Solids (TDS) for the sample and field duplicate collected at MW-18. The results for both the sample and the field duplicate are less than five times the RL for TDS, and the difference between the results is less than the RL. Additionally, RPD exceeded 20% for fluoride for the sample and field duplicate collected at MW-18. Both results have "J" flags and the difference between the results is less than the RL. Therefore, data validation is not required at MW-18 for TDS or fluoride.

During the first 2021 semi-annual sampling event, fluoride was detected in the field blank at an estimated concentration of 0.0303 mg/L. The result is "J" flagged indicating it is an estimated concentration below the RL. If a field blank has an analyte detected at a concentration greater than the MDL and below the RL, sample results that are less than five times the blank results are qualified with (+) U* and the MDL is raised to the blank result. Fluoride was not detected in samples at concentrations exceeding five times the field blank results; therefore, the sample results are qualified with (+)U* and the MDL is raised to 0.0303 mg/L for each sample result. A summary a data validation for Plant Daniel NAMU is provided below.

Sample	Fluoride Result (mg/L)	Original MDL (mg/L)	Data Validation Qualifier	New MDL (mg/L)
MW-11	0.0269 J	0.026	(+)U*	0.0303
MW-14	<0.026	0.026	(+)U*	0.0303
MW-15	<0.026	0.026	(+)U*	0.0303
MW-16	<0.026	0.026	(+)U*	0.0303
MW-17	<0.026	0.026	(+)U*	0.0303
MW-18	0.344 J	0.026	(+)U*	0.0303
MW-19	0.0376 J	0.026	(+)U*	0.0303

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). Results are included in **Appendix B, Statistical Data Evaluation.**

5.1 Statistical Method

At NAMU, 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 (or apparent) statistically significant increase 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 second sample exceeds its respective background statistical limit, a statistically significant increase (SSI) is identified. If the second sample is below its respective background limit there is no SSI.

5.2 Statistical Analysis Results

Analytical data from the 2021 semi-annual monitoring events in March and October were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017) and Statistical Background Update by GSC (December 2019).

A review of the Sanitas results, presented in **Appendix B,** identified the following Appendix III SSIs during the first semi-annual monitoring event:

- MW-17: Sulfate
- MW-19: Calcium

During the second semi-annual monitoring event, the previous MW-17 SSI was not verified, and the following SSIs were identified:

- MW-19: Calcium and pH

As discussed in the following section, an alternate source demonstration (ASD) has been prepared pursuant to 40 CFR § 257.94(e)(2) demonstrating that the SSI is not the result of a release from the CCR unit.

6.0 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 or that the SSI was the result of an alternate source or resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. An ASD report for SSIs identified during the 2021 semi-annual detection monitoring events is included as **Appendix C, Alternate Source Demonstration**. As discussed in the ASD report, the apparent exceedances observed during the monitoring period were not the result of a release from the CCR unit and are likely caused by natural variability in groundwater quality. Instrument or operating variability is the likely cause of the pH SSI. Based on the ASD, the NAMU remained in detection monitoring.

7.0 MONITORING PROGRAM STATUS

Presently, Plant Daniel NAMU is in detection monitoring. SSIs of Appendix III parameters have been identified during the first and second semi-annual event. Pursuant to § 257.94(e)(1), MPC has prepared a demonstration that a source other than the CCR unit was the cause. MPC has addressed the reported SSIs in accordance with the requirements, and options, of § 257.94(e)(1-3) and (f) by providing an ASD, attached as **Appendix C.**

8.0 CONCLUSIONS & FUTURE ACTIONS

Based on results reported in the *2021 Annual Groundwater and Corrective Action Monitoring Report*, MPC remained in detection monitoring. Groundwater samples were subsequently collected from the certified well network and analyzed for Appendix III parameters.

The certified compliance monitoring well network was resampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III parameters. Statistical evaluations of the April and October 2021 detection monitoring data identified SSIs of Appendix III constituents above the GWPS. However, an ASD report for SSIs identified during the first and second semi-annual detection monitoring events is included in this report. As discussed in the ASD report, the apparent exceedances observed during the monitoring period were not likely the result of a release from the CCR unit.

Therefore, in accordance with § 257.94, MPC will continue detection monitoring. The following future actions will be taken or are recommended for the Site:

- Continue semi-annual assessment monitoring in March or April 2022 and September or October 2022.
- Submit 2022 Annual Groundwater Monitoring and Corrective Action Report by January 31, 2023.
- Evaluate sampling and well conditions at wells MW-17 and MW-19 during sampling and ascertain if additional purging is needed during sampling to assure stabilized field parameters or if the wells should be redeveloped to mitigate potential localized geochemical variability.

9.0 REFERENCES

Gandl, L.A. "Characterization of Aquifers Designated as Potential Drinking Water Sources in Mississippi," Water Resources Investigation Open-File Report 81-550, Mississippi Department of Natural Resources, Bureau of Pollution Control. 1982. 90 pp.

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

USEPA. 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule.* [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81. April.

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USEPA. 2017. National Functional Guidelines for Inorganic Superfund Methods Data Review. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

Wasson, B.E., 1978, Availability of additional ground-water supplies in the Pascagoula area, Mississippi: Mississippi Research and Development Center Bulletin, 32 p.

Tables

Table 1.
Monitoring Well Network Summary

Well ID	Purpose	Installation Date	Northing	Easting	Total Hole 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	32.00	25.24	23.22	-3.78	-8.78
MW-14	Upgradient	7/24/2015	384048.468	1068916.529	47.00	23.65	20.87	-11.83	-16.83
MW-15	Downgradient	7/24/2015	383503.877	1068571.153	37.00	21.53	18.69	-12.61	-17.61
MW-16	Downgradient	7/24/2015	383593.548	1067845.867	28.00	16.12	13.16	-6.94	-11.94
MW-17	Downgradient	7/24/2015	384781.265	1067808.459	27.00	15.41	12.59	-7.91	-12.91
MW-18	Upgradient	7/24/2015	385290.588	1068774.386	47.00	28.86	26.33	-10.27	-15.27
MW-19	Downgradient	7/26/2016	384157.41	1067711.624	30.00	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. MSL refers to Mean Sea Level.

Table 2.
Groundwater Elevations Summary - 2021

Well ID	Top of Casing Elevation (feet MSL)	Groundwater Elevations (feet MSL)	
		March 15, 2021	October 4, 2021
MW-11	25.24	11.96	13.99
MW-14	23.65	10.85	12.35
MW-15	21.53	9.32	10.50
MW-16	16.12	6.29	7.16
MW-17	15.41	8.03	9.22
MW-18	28.86	12.01	14.26
MW-19	24.42	5.94	6.63

Notes:

1. MSL refers to Mean Sea Level

Table 3.
Groundwater Flow Velocity Calculations - 2021

Flow Path A								
	MW-14 h_1 **(ft)**	**MW-16** h_2 **(ft)**	**Distance** Δl **(ft)**	**Hydraulic Gradient** $\Delta h/\Delta l$ **(ft/ft)**	**Hydraulic Conductivity K**	**Assumed Effective Porosity (ne)**	**Calculated Groundwater Flow Velocity (feet/day)**	**Calculated Groundwater Flow Velocity (feet/year)**
3/15/2021	10.85	6.29	1350	0.0034	25.09	0.2	0.42	154.67
10/4/2021	12.35	7.16	1350	0.0038	25.09	0.2	0.48	176.03

Flow Path B								
	MW-11 h_1 **(ft)**	**MW-19** h_2 **(ft)**	**Distance** Δl **(ft)**	**Hydraulic Gradient** $\Delta h/\Delta l$ **(ft/ft)**	**Hydraulic Conductivity K**	**Assumed Effective Porosity (ne)**	**Calculated Groundwater Flow Velocity (feet/day)**	**Calculated Groundwater Flow Velocity (feet/year)**
3/15/2021	11.96	5.94	1600	0.0038	25.09	0.2	0.47	172.28
10/4/2021	13.99	6.63	1600	0.0046	25.09	0.2	0.58	210.63

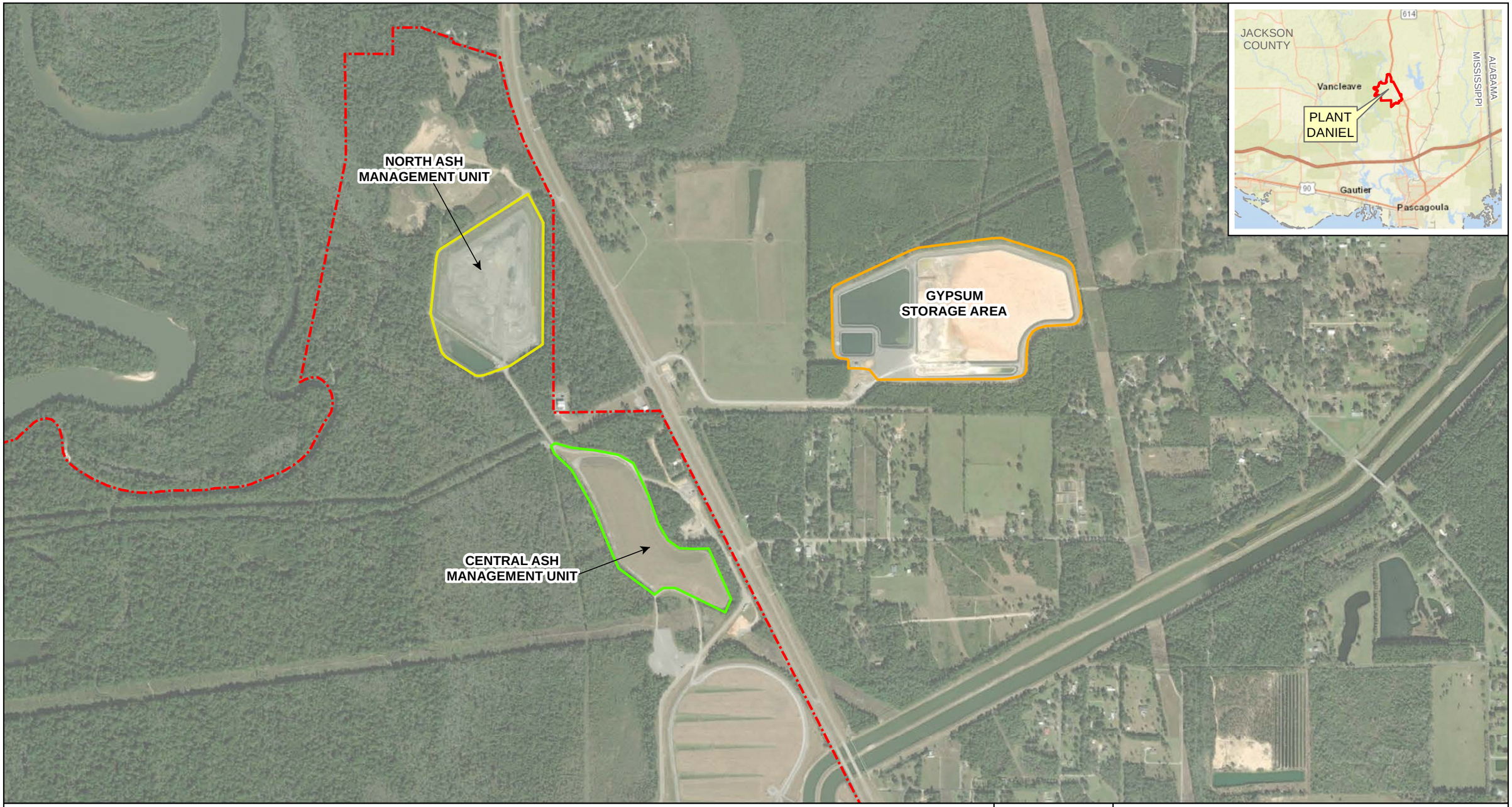
Notes:
ft=feet
ft/d = feet/day
ft/ft = feet per foot
ft/yr = feet per year

Table 4.
Relative Percent Difference Calculations

1st Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-18	**Dup-01**	
TDS	mg/L	31.0	40.0	25.4
Chloride	mg/L	8.18	8.84	7.8
Fluoride	mg/L	0.0344	0.0866	86.3
Sulfate	mg/L	3.18	3.30	3.7
Calcium	mg/L	0.570	0.525	8.2

2nd Semi-Annual Monitoring Event				
Parameter	**Units**	**Monitoring Point Identification**		**Relative Percent Difference (RPD %)**
		MW-14	**Dup-02**	
TDS	mg/L	29.0	26.0	10.9
Chloride	mg/L	6.59	5.87	11.6
Fluoride	mg/L	0.0300	0.0260	14.3
Sulfate	mg/L	2.46	2.07	17.2
Calcium	mg/L	1.89	1.95	3.1

Figures



Legend

- Central Ash Management Unit
- Gypsum Storage Area
- North Ash Management Unit
- Property Boundary (Approximate)

N

0 0.25 0.5 1 Miles

1 inch = 1,000 feet

SCALE	1:12000
DATE	8/13/2021
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE

SITE LOCATION MAP
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

DRAWING NO

FIGURE 1

Southern Company

Legend

- Upgradient Monitoring Well
- Downgradient Monitoring Well
- Piezometer (Water Level Only)
- North Ash Management Unit

N

0 400 800 Feet

1 inch = 250 feet

SCALE	1:3000
DATE	8/13/2021
DRAWN BY	KAR
CHECKED BY	RFS

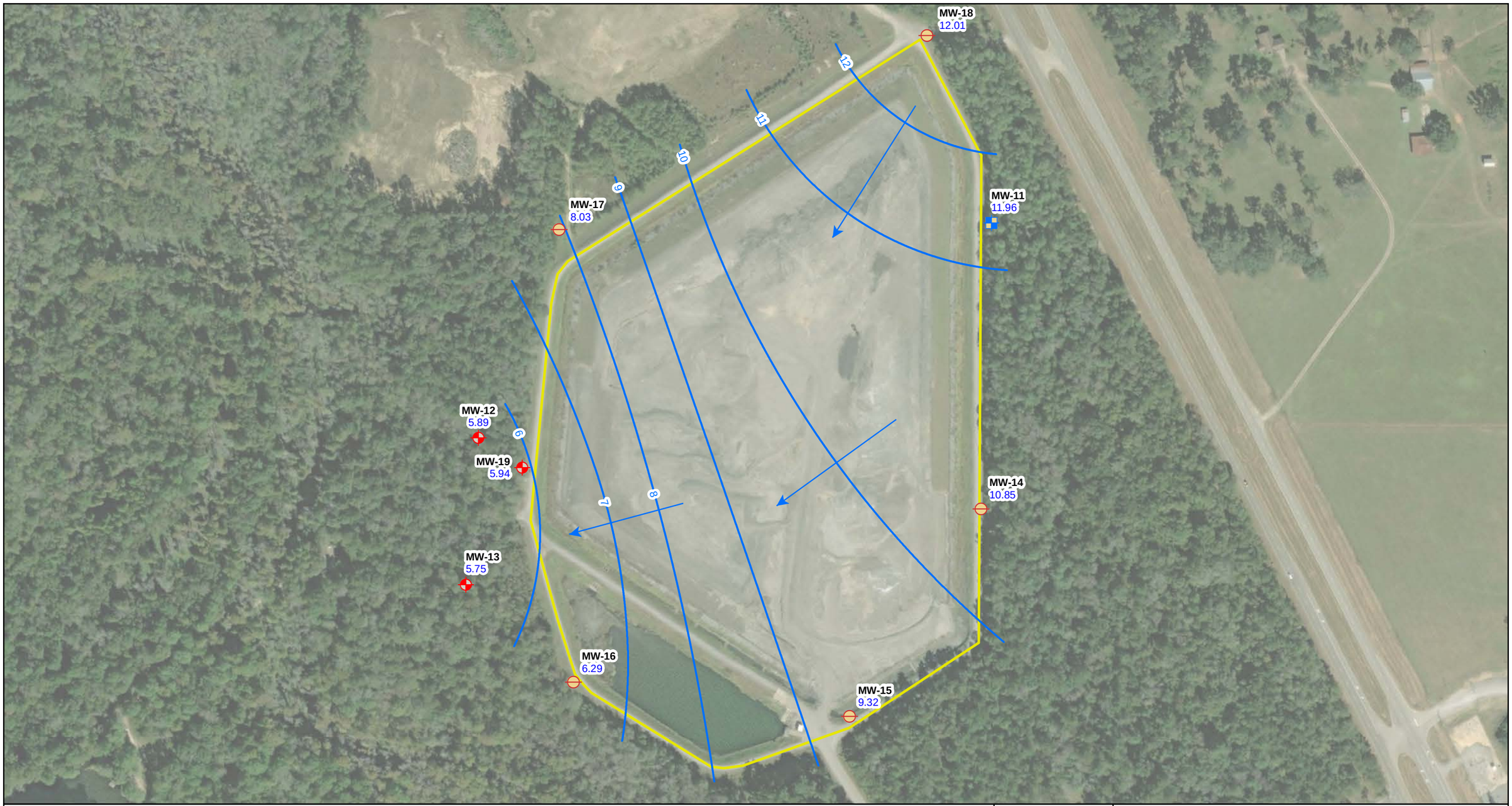
DRAWING TITLE

MONITORING WELL LOCATION MAP
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

DRAWING NO

FIGURE 2

Southern Company



Legend

- Upgradient Monitoring Well
- Downgradient Monitoring Well
- Piezometer (Water Level Only)
- Estimated Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- North Ash Management Unit

MW-11 Well Name
11.96 Groundwater Elevation (ft NAVD88)

N

0 250 500 1,000 Feet

1 inch = 250 feet

Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.

SCALE	1:3000
DATE	1/12/2022
DRAWN BY	KWR
CHECKED BY	LPC

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
MARCH 15, 2021
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

DRAWING NO
FIGURE 3

Southern Company

MW-18
14.26

MW-17
9.22

MW-11
13.99

14

13

12

11

10

9

8

7

MW-12
6.60

MW-19
6.63

MW-14
12.35

MW-13
6.58

MW-16
7.16

MW-15
10.50

Legend

- Upgradient Monitoring Well
- Downgradient Monitoring Well
- Piezometer (Water Level Only)
- Estimated Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction
- North Ash Management

MW-11 Well Name
13.99 Groundwater Elevation (ft NAVD88)

N

0 250 500 1,000 Feet

1 inch = 250 feet

Note: ft NAVD88 indicates feet relative to the North American Vertical Datum of 1988.

SCALE	1:3000
DATE	1/12/2022
DRAWN BY	KWR
CHECKED BY	RTS

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
OCTOBER 4, 2021
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

DRAWING NO
FIGURE 4

Southern Company

Appendix A

1st
Semi-Annual
Monitoring Event

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-118544-1
Client Project/Site: Plant Daniel NAMU CCR

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Lauren Parker

Authorized for release by:
4/2/2021 3:17:21 PM

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PA Lab ID: 02-00416

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Case Narrative

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Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-118544-1

Comments
No additional comments.

Receipt
The samples were received on 3/17/2021 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

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

Job ID: 180-118544-1

Qualifiers

HPLC/IC

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

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

Job ID: 180-118544-1

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21
California	State	2891	04-30-21
Connecticut	State	PH-0688	09-30-20 *
Florida	NELAP	E871008	06-30-21
Georgia	State	PA 02-00416	04-30-21
Illinois	NELAP	004375	06-30-21
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-21
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-21
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	07-31-21
New Hampshire	NELAP	2030	04-05-21
New Jersey	NELAP	PA005	06-30-21
New York	NELAP	11182	03-31-21
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-21
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-21
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-21
Texas	NELAP	T104704528	03-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-21
Virginia	NELAP	10043	09-14-21
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-21

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

Sample Summary

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

Job ID: 180-118544-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
180-118544-1	MW-11	Water	03/16/21 09:05	03/17/21 08:45	
180-118544-2	MW-14	Water	03/16/21 08:15	03/17/21 08:45	
180-118544-3	MW-15	Water	03/16/21 07:40	03/17/21 08:45	
180-118544-4	MW-16	Water	03/16/21 07:36	03/17/21 08:45	
180-118544-5	MW-17	Water	03/16/21 11:20	03/17/21 08:45	
180-118544-6	MW-18	Water	03/16/21 10:00	03/17/21 08:45	
180-118544-7	MW-19	Water	03/16/21 12:05	03/17/21 08:45	
180-118544-8	DUP-01	Water	03/16/21 09:00	03/17/21 08:45	
180-118544-9	FB-01	Water	03/16/21 08:10	03/17/21 08:45	

Method Summary

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

Job ID: 180-118544-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT

Protocol References:

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 PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

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

Job ID: 180-118544-1

Client Sample ID: MW-11
Date Collected: 03/16/21 09:05
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350706	03/26/21 02:08	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:28	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350419	03/23/21 12:14	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-14
Date Collected: 03/16/21 08:15
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350706	03/26/21 02:26	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:30	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350419	03/23/21 12:14	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-15
Date Collected: 03/16/21 07:40
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350706	03/26/21 02:44	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:39	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350419	03/23/21 12:14	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-16
Date Collected: 03/16/21 07:36
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350706	03/26/21 03:02	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:41	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350487	03/23/21 20:08	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

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

Job ID: 180-118544-1

Client Sample ID: MW-17
Date Collected: 03/16/21 11:20
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350706	03/26/21 03:20	EPS	TAL PIT
	Instrument ID: INTEGRION									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:44	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350487	03/23/21 20:08	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-18
Date Collected: 03/16/21 10:00
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350705	03/25/21 14:51	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:47	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350419	03/23/21 12:14	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-19
Date Collected: 03/16/21 12:05
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350705	03/25/21 15:08	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:50	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350487	03/23/21 20:08	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-01
Date Collected: 03/16/21 09:00
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350705	03/25/21 15:24	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:53	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350487	03/23/21 20:08	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

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

Job ID: 180-118544-1

Client Sample ID: FB-01

Date Collected: 03/16/21 08:10
Date Received: 03/17/21 08:45

Lab Sample ID: 180-118544-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1			350705	03/25/21 13:46	SAT	TAL PIT
	Instrument ID: CHICS2100B									
Total Recoverable	Prep	3005A			50 mL	50 mL	350753	03/25/21 12:15	KEM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			351300	03/30/21 11:55	RSK	TAL PIT
	Instrument ID: NEMO									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	350487	03/23/21 20:08	GRB	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

KEM = Kimberly Mahoney

Batch Type: Analysis

EPS = Evan Scheuer
GRB = Gabriel Berghe
RSK = Robert Kurtz
SAT = Stephen Tallam

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

Job ID: 180-118544-1

Client Sample ID: MW-11

Lab Sample ID: 180-118544-1
Matrix: Water
Date Collected: 03/16/21 09:05
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.3		1.00	0.713	mg/L			03/26/21 02:08	1
Fluoride	0.0269	J	0.100	0.0260	mg/L			03/26/21 02:08	1
Sulfate	2.15		1.00	0.756	mg/L			03/26/21 02:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:28	1
Calcium	1.74		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	39.0		10.0	10.0	mg/L			03/23/21 12:14	1

Client Sample ID: MW-14

Lab Sample ID: 180-118544-2
Matrix: Water
Date Collected: 03/16/21 08:15
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.32		1.00	0.713	mg/L			03/26/21 02:26	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/26/21 02:26	1
Sulfate	2.23		1.00	0.756	mg/L			03/26/21 02:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:30	1
Calcium	2.40		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	41.0		10.0	10.0	mg/L			03/23/21 12:14	1

Client Sample ID: MW-15

Lab Sample ID: 180-118544-3
Matrix: Water
Date Collected: 03/16/21 07:40
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.94		1.00	0.713	mg/L			03/26/21 02:44	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/26/21 02:44	1
Sulfate	1.07		1.00	0.756	mg/L			03/26/21 02:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:39	1
Calcium	1.41		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34.0		10.0	10.0	mg/L			03/23/21 12:14	1

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

Job ID: 180-118544-1

Client Sample ID: MW-16

Lab Sample ID: 180-118544-4
Date Collected: 03/16/21 07:36
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.14		1.00	0.713	mg/L			03/26/21 03:02	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/26/21 03:02	1
Sulfate	2.00		1.00	0.756	mg/L			03/26/21 03:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:41	1
Calcium	0.681		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	27.0		10.0	10.0	mg/L			03/23/21 20:08	1

Client Sample ID: MW-17

Lab Sample ID: 180-118544-5
Date Collected: 03/16/21 11:20
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.97		1.00	0.713	mg/L			03/26/21 03:20	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/26/21 03:20	1
Sulfate	3.06		1.00	0.756	mg/L			03/26/21 03:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:44	1
Calcium	1.12		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	37.0		10.0	10.0	mg/L			03/23/21 20:08	1

Client Sample ID: MW-18

Lab Sample ID: 180-118544-6
Date Collected: 03/16/21 10:00
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.18		1.00	0.713	mg/L			03/25/21 14:51	1
Fluoride	0.0344	J	0.100	0.0260	mg/L			03/25/21 14:51	1
Sulfate	3.18		1.00	0.756	mg/L			03/25/21 14:51	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:47	1
Calcium	0.570		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	31.0		10.0	10.0	mg/L			03/23/21 12:14	1

Client Sample ID: MW-19

Lab Sample ID: 180-118544-7

Date Collected: 03/16/21 12:05
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.72**		1.00	0.713	mg/L			03/25/21 15:08	1
Fluoride	**0.0376**	**J**	0.100	0.0260	mg/L			03/25/21 15:08	1
Sulfate	**2.72**		1.00	0.756	mg/L			03/25/21 15:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:50	1
Calcium	**2.23**		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**25.0**		10.0	10.0	mg/L			03/23/21 20:08	1

Client Sample ID: DUP-01

Lab Sample ID: 180-118544-8

Date Collected: 03/16/21 09:00
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.84**		1.00	0.713	mg/L			03/25/21 15:24	1
Fluoride	**0.0866**	**J**	0.100	0.0260	mg/L			03/25/21 15:24	1
Sulfate	**3.30**		1.00	0.756	mg/L			03/25/21 15:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:53	1
Calcium	**0.525**		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**40.0**		10.0	10.0	mg/L			03/23/21 20:08	1

Client Sample ID: FB-01

Lab Sample ID: 180-118544-9

Date Collected: 03/16/21 08:10
Matrix: Water
Date Received: 03/17/21 08:45

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/25/21 13:46	1
Fluoride	**0.0303**	**J**	0.100	0.0260	mg/L			03/25/21 13:46	1
Sulfate	<0.756		1.00	0.756	mg/L			03/25/21 13:46	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 11:55	1
Calcium	<0.127		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			03/23/21 20:08	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-350705/6
Matrix: Water
Analysis Batch: 350705

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/25/21 13:29	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/25/21 13:29	1
Sulfate	<0.756		1.00	0.756	mg/L			03/25/21 13:29	1

Lab Sample ID: LCS 180-350705/5
Matrix: Water
Analysis Batch: 350705

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.01		mg/L		100	80 - 120
Fluoride	2.50	2.495		mg/L		100	80 - 120
Sulfate	50.0	49.38		mg/L		99	80 - 120

Lab Sample ID: MB 180-350706/40
Matrix: Water
Analysis Batch: 350706

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			03/25/21 18:59	1
Fluoride	<0.0260		0.100	0.0260	mg/L			03/25/21 18:59	1
Sulfate	<0.756		1.00	0.756	mg/L			03/25/21 18:59	1

Lab Sample ID: LCS 180-350706/39
Matrix: Water
Analysis Batch: 350706

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.00		mg/L		106	80 - 120
Fluoride	2.50	2.472		mg/L		99	80 - 120
Sulfate	50.0	52.90		mg/L		106	80 - 120

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-350753/1-A
Matrix: Water
Analysis Batch: 351300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 350753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		03/25/21 12:15	03/30/21 10:35	1
Calcium	<0.127		0.500	0.127	mg/L		03/25/21 12:15	03/30/21 10:35	1

Lab Sample ID: LCS 180-350753/2-A
Matrix: Water
Analysis Batch: 351300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 350753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.239		mg/L		99	80 - 120
Calcium	25.0	26.30		mg/L		105	80 - 120

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

Job ID: 180-118544-1

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

Lab Sample ID: MB 180-350419/2
Matrix: Water
Analysis Batch: 350419

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	<10.0		10.0	10.0	mg/L			03/23/21 12:14	1

Lab Sample ID: LCS 180-350419/1
Matrix: Water
Analysis Batch: 350419

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			457	446.0		mg/L		98	80 - 120		

Lab Sample ID: MB 180-350487/2
Matrix: Water
Analysis Batch: 350487

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	<10.0		10.0	10.0	mg/L			03/23/21 20:08	1

Lab Sample ID: LCS 180-350487/1
Matrix: Water
Analysis Batch: 350487

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			457	464.0		mg/L		102	80 - 120		

QC Association Summary

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

Job ID: 180-118544-1

HPLC/IC

Analysis Batch: 350705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-6	MW-18	Total/NA	Water	EPA 9056A	
180-118544-7	MW-19	Total/NA	Water	EPA 9056A	
180-118544-8	DUP-01	Total/NA	Water	EPA 9056A	
180-118544-9	FB-01	Total/NA	Water	EPA 9056A	
MB 180-350705/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-350705/5	Lab Control Sample	Total/NA	Water	EPA 9056A	

Analysis Batch: 350706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-1	MW-11	Total/NA	Water	EPA 9056A	
180-118544-2	MW-14	Total/NA	Water	EPA 9056A	
180-118544-3	MW-15	Total/NA	Water	EPA 9056A	
180-118544-4	MW-16	Total/NA	Water	EPA 9056A	
180-118544-5	MW-17	Total/NA	Water	EPA 9056A	
MB 180-350706/40	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-350706/39	Lab Control Sample	Total/NA	Water	EPA 9056A	

Metals

Prep Batch: 350753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-1	MW-11	Total Recoverable	Water	3005A	
180-118544-2	MW-14	Total Recoverable	Water	3005A	
180-118544-3	MW-15	Total Recoverable	Water	3005A	
180-118544-4	MW-16	Total Recoverable	Water	3005A	
180-118544-5	MW-17	Total Recoverable	Water	3005A	
180-118544-6	MW-18	Total Recoverable	Water	3005A	
180-118544-7	MW-19	Total Recoverable	Water	3005A	
180-118544-8	DUP-01	Total Recoverable	Water	3005A	
180-118544-9	FB-01	Total Recoverable	Water	3005A	
MB 180-350753/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-350753/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 351300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-1	MW-11	Total Recoverable	Water	EPA 6020B	350753
180-118544-2	MW-14	Total Recoverable	Water	EPA 6020B	350753
180-118544-3	MW-15	Total Recoverable	Water	EPA 6020B	350753
180-118544-4	MW-16	Total Recoverable	Water	EPA 6020B	350753
180-118544-5	MW-17	Total Recoverable	Water	EPA 6020B	350753
180-118544-6	MW-18	Total Recoverable	Water	EPA 6020B	350753
180-118544-7	MW-19	Total Recoverable	Water	EPA 6020B	350753
180-118544-8	DUP-01	Total Recoverable	Water	EPA 6020B	350753
180-118544-9	FB-01	Total Recoverable	Water	EPA 6020B	350753
MB 180-350753/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	350753
LCS 180-350753/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	350753

General Chemistry

Analysis Batch: 350419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-1	MW-11	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 350419 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-2	MW-14	Total/NA	Water	SM 2540C	
180-118544-3	MW-15	Total/NA	Water	SM 2540C	
180-118544-6	MW-18	Total/NA	Water	SM 2540C	
MB 180-350419/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-350419/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 350487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-118544-4	MW-16	Total/NA	Water	SM 2540C	
180-118544-5	MW-17	Total/NA	Water	SM 2540C	
180-118544-7	MW-19	Total/NA	Water	SM 2540C	
180-118544-8	DUP-01	Total/NA	Water	SM 2540C	
180-118544-9	FB-01	Total/NA	Water	SM 2540C	
MB 180-350487/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-350487/1	Lab Control Sample	Total/NA	Water	SM 2540C	

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-118544-1

Login Number: 118544
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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.	True	
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	
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Product Name: Low-Flow System

Date: 2021-03-16 09:05:29

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel NAMU CCR	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 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	30.36 in
Depth to Water	13.22 ft	Total Volume Pumped	14 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	08:41:09	900.04	18.82	4.73	70.70	1.38	15.38	1.30	135.34
Last 5	08:46:09	1200.04	18.88	4.71	70.05	1.20	15.52	0.85	129.22
Last 5	08:51:09	1500.04	18.92	4.71	69.92	1.14	15.66	0.74	124.67
Last 5	08:56:10	1801.04	18.97	4.70	69.81	1.15	15.70	0.58	121.01
Last 5	09:01:10	2101.05	18.97	4.72	70.10	1.18	15.75	0.68	118.81
Variance 0			0.04	-0.00	-0.13			-0.11	-4.55
Variance 1			0.05	-0.01	-0.12			-0.16	-3.67
Variance 2			0.00	0.02	0.29			0.10	-2.19

Notes

Sample time @ 0905. PC 72.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 08:14:12

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel NAMU CCR	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	0.84 in
Depth to Water	12.75 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%	+/- 10		+/- 0.2	+/- 10
Last 5	07:56:37	300.04	18.83	5.08	48.22	1.81	12.82	3.48	156.18
Last 5	08:01:37	600.04	18.88	5.09	48.02	1.60	12.82	3.58	145.41
Last 5	08:06:37	900.04	18.90	5.07	47.52	1.56	12.82	3.56	142.30
Last 5	08:11:37	1200.04	18.93	5.06	47.31	1.50	12.82	3.41	139.67
Last 5 Variance 0			0.05	0.01	-0.20			0.10	-10.77
Variance 1			0.02	-0.02	-0.50			-0.02	-3.10
Variance 2			0.03	-0.01	-0.21			-0.14	-2.64

Notes

Sample time @ 0815. PC 80. FB-01@ 0810.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 07:39:25

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel NAMU CCR	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	42 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	0.6674637 L
Well Total Depth	39.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.72 in
Depth to Water	12.17 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%	+/- 10		+/- 0.2	+/- 10
Last 5	07:22:24	300.04	19.10	4.67	55.77	0.45	12.23	3.29	179.63
Last 5	07:27:24	600.04	19.17	4.67	55.56	0.34	12.23	3.11	170.93
Last 5	07:32:24	900.04	19.19	4.68	55.41	0.30	12.23	2.99	164.66
Last 5	07:37:24	1200.04	19.23	4.65	55.29	0.28	12.23	2.99	162.36
Last 5									
Variance 0			0.06	-0.00	-0.21			-0.18	-8.70
Variance 1			0.02	0.01	-0.15			-0.12	-6.27
Variance 2			0.04	-0.03	-0.12			-0.00	-2.30

Notes

Sample time @ 0740. Cloudy 69.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 07:36:30

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	WED
Company Name	RDH	Tubing Type	PE
Project Name	NAMU	Tubing Diameter	.17 in
Site Name	Plant Daniel NAMU Wells	Tubing Length	35 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	HACH	Pump placement from TOC	23 ft

Well Information:		Pumping Information:	
Well ID	MW-16	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.6412198 L
Well Total Depth	28 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.01 in
Depth to Water	9.98 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%	+/- 10		+/- 0.2	+/- 10
Last 5	07:20:38	300.03	20.84	4.60	42.94	1.37	9.99	0.34	97.35
Last 5	07:25:38	600.02	20.88	4.60	42.76	0.87	9.99	0.25	95.26
Last 5	07:30:38	900.02	20.93	4.61	42.84	0.65	9.99	0.22	93.50
Last 5	07:35:38	1200.02	20.97	4.62	42.80	0.54	9.99	0.20	91.73
Last 5									
Variance 0			0.04	0.00	-0.18			-0.09	-2.10
Variance 1			0.04	0.01	0.09			-0.03	-1.75
Variance 2			0.04	0.01	-0.04			-0.02	-1.77

Notes

Sample@0736, Cloudy 66

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 11:19:51

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel NAMU CCR	Tubing Diameter	.17 in
Site Name	Daniel	Tubing Length	30 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	0.6139027 L
Well Total Depth	28.5 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.96 in
Depth to Water	7.42 ft	Total Volume Pumped	14 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	10:55:59	900.07	20.16	4.99	46.33	0.31	7.50	0.31	12.66
Last 5	11:01:00	1201.05	19.95	4.99	46.34	0.32	7.50	0.27	3.64
Last 5	11:06:00	1501.05	20.12	4.99	46.35	0.30	7.50	0.25	-0.61
Last 5	11:11:00	1801.05	20.21	4.99	46.49	0.30	7.50	0.24	-2.86
Last 5	11:16:00	2101.04	20.06	5.00	46.61	0.29	7.50	0.23	-4.40
Variance 0			0.17	-0.00	0.02			-0.02	-4.25
Variance 1			0.09	0.00	0.13			-0.01	-2.25
Variance 2			-0.15	0.01	0.12			-0.00	-1.53

Notes

Sample time @ 1120. PC 75.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 10:01:20

Project Information:		Pump Information:	
Operator Name	Philip Evans	Pump Model/Type	QED
Company Name	RDH Environmental	Tubing Type	PE
Project Name	Plant Daniel NAMU CCR	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	41.9 ft

Well Information:		Pumping Information:	
Well ID	MW-18	Final Pumping Rate	400 mL/min
Well diameter	2 in	Total System Volume	0.680854 L
Well Total Depth	44.4 ft	Calculated Sample Rate	300 sec
Screen Length	5 ft	Stabilization Drawdown	0.24 in
Depth to Water	16.80 ft	Total Volume Pumped	14 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	09:38:06	900.04	19.41	4.69	48.82	0.22	16.82	0.24	71.66
Last 5	09:43:06	1200.05	19.50	4.69	48.82	0.20	16.82	0.22	62.41
Last 5	09:48:06	1500.04	19.50	4.68	48.70	0.20	16.82	0.21	55.31
Last 5	09:53:06	1800.05	19.50	4.68	48.74	0.22	16.82	0.20	50.83
Last 5	09:58:06	2100.05	19.53	4.68	48.75	0.21	16.82	0.19	47.04
Variance 0			0.00	-0.01	-0.12			-0.01	-7.10
Variance 1			-0.00	-0.00	0.04			-0.01	-4.48
Variance 2			0.03	0.00	0.01			-0.01	-3.79

Notes

Sample time @ 1000. PC 75. DUP-01@ fake time 0900.

Grab Samples

Product Name: Low-Flow System

Date: 2021-03-16 12:05:48

Project Information:		Pump Information:	
Operator Name	Brett Surles	Pump Model/Type	QED
Company Name	RDH	Tubing Type	PE
Project Name	NAMU	Tubing Diameter	.17 in
Site Name	Plant Daniel NAMU Wells	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	632615		
Turbidity Make/Model	HACH	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	0.6635369 L
Well Total Depth	32.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	18.61 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	11:44:58	1200.02	24.17	5.48	48.39	2.57	18.65	0.73	100.25
Last 5	11:49:58	1500.02	23.39	5.41	46.85	2.12	18.65	0.55	98.64
Last 5	11:54:58	1800.02	23.12	5.40	45.64	1.96	18.65	0.46	97.75
Last 5	11:59:58	2100.02	22.62	5.37	44.92	1.99	18.65	0.44	97.32
Last 5	12:04:58	2400.03	22.34	5.35	44.40	1.74	18.65	0.42	94.83
Variance 0			-0.27	-0.02	-1.20			-0.09	-0.89
Variance 1			-0.49	-0.03	-0.73			-0.02	-0.44
Variance 2			-0.29	-0.02	-0.52			-0.02	-2.49

Notes

Sample@1205, Cloudy 74

Grab Samples

2nd
Semi-Annual
Monitoring Event

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive
RIDC Park
Pittsburgh, PA 15238
Tel: (412)963-7058

Laboratory Job ID: 180-128125-1
Client Project/Site: Plant Daniel NAMU

For:
Southern Company
3535 Colonnade Parkway
Bin S 530 EC
Birmingham, Alabama 35243

Attn: Robert Singleton

Authorized for release by:
10/20/2021 6:06:11 PM

Shali Brown, Project Manager II
(615)301-5031
Shali.Brown@Eurofinset.com

PA Lab ID: 02-00416

Table of Contents

Case Narrative

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Job ID: 180-128125-1

Laboratory: Eurofins TestAmerica, Pittsburgh

Narrative

Job Narrative
180-128125-1

Comments
No additional comments.

Receipt
The samples were received on 10/6/2021 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9º C.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Qualifiers

HPLC/IC

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.

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.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Accreditation/Certification Summary

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Laboratory: Eurofins TestAmerica, Pittsburgh

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	19-033-0	06-27-21 *
California	State	2891	04-30-22
Connecticut	State	PH-0688	09-30-22
Florida	NELAP	E871008	06-30-22
Georgia	State	PA 02-00416	04-30-22
Illinois	NELAP	004375	06-30-22
Kansas	NELAP	E-10350	01-31-22
Kentucky (UST)	State	162013	04-30-22
Kentucky (WW)	State	KY98043	12-31-21
Louisiana	NELAP	04041	06-30-22
Maine	State	PA00164	03-06-22
Minnesota	NELAP	042-999-482	12-31-21
Nevada	State	PA00164	08-31-22
New Hampshire	NELAP	2030	04-05-22
New Jersey	NELAP	PA005	06-30-22
New York	NELAP	11182	04-01-22
North Carolina (WW/SW)	State	434	12-31-21
North Dakota	State	R-227	04-30-22
Oregon	NELAP	PA-2151	02-06-22
Pennsylvania	NELAP	02-00416	04-30-22
Rhode Island	State	LAO00362	12-31-21
South Carolina	State	89014	04-30-22
Texas	NELAP	T104704528	03-31-22
USDA	Federal	P-Soil-01	06-26-22
USDA	US Federal Programs	P330-16-00211	06-26-22
Utah	NELAP	PA001462019-8	05-31-22
Virginia	NELAP	10043	09-15-22
West Virginia DEP	State	142	01-31-22
Wisconsin	State	998027800	08-31-22

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

Sample Summary

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-128125-1	MW-11	Water	10/05/21 08:55	10/06/21 10:00
180-128125-2	MW-14	Water	10/05/21 08:00	10/06/21 10:00
180-128125-3	MW-15	Water	10/05/21 11:14	10/06/21 10:00
180-128125-4	MW-16	Water	10/05/21 10:32	10/06/21 10:00
180-128125-5	MW-17	Water	10/05/21 08:05	10/06/21 10:00
180-128125-6	MW-18	Water	10/05/21 09:50	10/06/21 10:00
180-128125-7	MW-19	Water	10/05/21 09:22	10/06/21 10:00
180-128125-8	DUP-02	Water	10/05/21 07:00	10/06/21 10:00
180-128125-9	FB-01	Water	10/05/21 09:00	10/06/21 10:00
180-128125-10	EB-01	Water	10/05/21 09:15	10/06/21 10:00

Method Summary

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Method	Method Description	Protocol	Laboratory
EPA 9056A	Anions, Ion Chromatography	SW846	TAL PIT
EPA 6020B	Metals (ICP/MS)	SW846	TAL PIT
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL PIT
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PIT

Protocol References:

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 PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Client Sample ID: MW-11
Date Collected: 10/05/21 08:55
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 09:08	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:42	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-14
Date Collected: 10/05/21 08:00
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 09:56	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:46	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-15
Date Collected: 10/05/21 11:14
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 10:12	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 08:57	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-16
Date Collected: 10/05/21 10:32
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 10:27	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:00	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Client Sample ID: MW-17
Date Collected: 10/05/21 08:05
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 11:15	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:04	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-18
Date Collected: 10/05/21 09:50
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 11:31	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:08	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: MW-19
Date Collected: 10/05/21 09:22
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 11:47	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:11	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: DUP-02
Date Collected: 10/05/21 07:00
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 12:03	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:15	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Client Sample ID: FB-01

Lab Sample ID: 180-128125-9

Date Collected: 10/05/21 09:00

Matrix: Water

Date Received: 10/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 08:36	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:19	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: EB-01

Lab Sample ID: 180-128125-10

Date Collected: 10/05/21 09:15

Matrix: Water

Date Received: 10/06/21 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	EPA 9056A		1	1 mL	1.0 mL	374344	10/07/21 08:52	J1T	TAL PIT
	Instrument ID: CHIC2100A									
Total Recoverable	Prep	3005A			50 mL	50 mL	375811	10/19/21 11:33	RGM	TAL PIT
Total Recoverable	Analysis	EPA 6020B		1			375961	10/20/21 09:22	RSK	TAL PIT
	Instrument ID: A									
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	374631	10/08/21 17:19	KMM	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

TAL PIT = Eurofins TestAmerica, Pittsburgh, 301 Alpha Drive, RIDC Park, Pittsburgh, PA 15238, TEL (412)963-7058

Analyst References:

Lab: TAL PIT

Batch Type: Prep

RGM = Rebecca Manns

Batch Type: Analysis

J1T = Jianwu Tang

KMM = Kendric Moore

RSK = Robert Kurtz

Client Sample ID: MW-11

Lab Sample ID: 180-128125-1

Date Collected: 10/05/21 08:55

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.5		1.00	0.713	mg/L			10/07/21 09:08	1
Fluoride	0.0561	J	0.100	0.0260	mg/L			10/07/21 09:08	1
Sulfate	2.57		1.00	0.756	mg/L			10/07/21 09:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:42	1
Calcium	1.87		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	43.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-14

Lab Sample ID: 180-128125-2

Date Collected: 10/05/21 08:00

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.59		1.00	0.713	mg/L			10/07/21 09:56	1
Fluoride	0.0300	J	0.100	0.0260	mg/L			10/07/21 09:56	1
Sulfate	2.46		1.00	0.756	mg/L			10/07/21 09:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:46	1
Calcium	1.89		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	29.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-15

Lab Sample ID: 180-128125-3

Date Collected: 10/05/21 11:14

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.30		1.00	0.713	mg/L			10/07/21 10:12	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 10:12	1
Sulfate	3.38		1.00	0.756	mg/L			10/07/21 10:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:57	1
Calcium	0.632		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	25.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-16

Lab Sample ID: 180-128125-4

Date Collected: 10/05/21 10:32

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.55		1.00	0.713	mg/L			10/07/21 10:27	1
Fluoride	0.0264	J	0.100	0.0260	mg/L			10/07/21 10:27	1
Sulfate	2.22		1.00	0.756	mg/L			10/07/21 10:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:00	1
Calcium	0.793		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	29.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-17

Lab Sample ID: 180-128125-5

Date Collected: 10/05/21 08:05

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.91		1.00	0.713	mg/L			10/07/21 11:15	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 11:15	1
Sulfate	2.85		1.00	0.756	mg/L			10/07/21 11:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:04	1
Calcium	0.883		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	34.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-18

Lab Sample ID: 180-128125-6

Date Collected: 10/05/21 09:50

Matrix: Water

Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.72		1.00	0.713	mg/L			10/07/21 11:31	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 11:31	1
Sulfate	3.83		1.00	0.756	mg/L			10/07/21 11:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:08	1
Calcium	0.430	J	0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	29.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: MW-19

Lab Sample ID: 180-128125-7
Date Collected: 10/05/21 09:22
Matrix: Water
Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.10**		1.00	0.713	mg/L			10/07/21 11:47	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 11:47	1
Sulfate	**1.91**		1.00	0.756	mg/L			10/07/21 11:47	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:11	1
Calcium	**3.67**		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**35.0**		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: DUP-02

Lab Sample ID: 180-128125-8
Date Collected: 10/05/21 07:00
Matrix: Water
Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.87**		1.00	0.713	mg/L			10/07/21 12:03	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 12:03	1
Sulfate	**2.07**		1.00	0.756	mg/L			10/07/21 12:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:15	1
Calcium	**1.95**		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**26.0**		10.0	10.0	mg/L			10/08/21 17:19	1

Client Sample ID: FB-01

Lab Sample ID: 180-128125-9
Date Collected: 10/05/21 09:00
Matrix: Water
Date Received: 10/06/21 10:00

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/07/21 08:36	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 08:36	1
Sulfate	<0.756		1.00	0.756	mg/L			10/07/21 08:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:19	1
Calcium	<0.127		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/08/21 17:19	1

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

Client Sample ID: EB-01

Date Collected: 10/05/21 09:15
Date Received: 10/06/21 10:00

Lab Sample ID: 180-128125-10

Matrix: Water

Method: EPA 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/07/21 08:52	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 08:52	1
Sulfate	<0.756		1.00	0.756	mg/L			10/07/21 08:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 09:22	1
Calcium	<0.127		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 09:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10.0		10.0	10.0	mg/L			10/08/21 17:19	1

Method: EPA 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 180-374344/6
Matrix: Water
Analysis Batch: 374344

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.713		1.00	0.713	mg/L			10/07/21 08:17	1
Fluoride	<0.0260		0.100	0.0260	mg/L			10/07/21 08:17	1
Sulfate	<0.756		1.00	0.756	mg/L			10/07/21 08:17	1

Lab Sample ID: LCS 180-374344/5
Matrix: Water
Analysis Batch: 374344

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	47.61		mg/L		95	80 - 120
Fluoride	2.50	2.614		mg/L		105	80 - 120
Sulfate	50.0	48.73		mg/L		97	80 - 120

Lab Sample ID: 180-128125-1 MS
Matrix: Water
Analysis Batch: 374344

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	12.5		50.0	56.30		mg/L		88	80 - 120
Fluoride	0.0561	J	2.50	2.354		mg/L		92	80 - 120
Sulfate	2.57		50.0	48.16		mg/L		91	80 - 120

Lab Sample ID: 180-128125-1 MSD
Matrix: Water
Analysis Batch: 374344

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	12.5		50.0	57.56		mg/L		90	80 - 120	2	15
Fluoride	0.0561	J	2.50	2.390		mg/L		93	80 - 120	2	15
Sulfate	2.57		50.0	49.14		mg/L		93	80 - 120	2	15

Method: EPA 6020B - Metals (ICP/MS)

Lab Sample ID: MB 180-375811/1-A
Matrix: Water
Analysis Batch: 375961

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 375811

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.0386		0.0800	0.0386	mg/L		10/19/21 11:33	10/20/21 08:17	1
Calcium	<0.127		0.500	0.127	mg/L		10/19/21 11:33	10/20/21 08:17	1

Lab Sample ID: LCS 180-373695/2-C
Matrix: Water
Analysis Batch: 375961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 375811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.103		mg/L		88	80 - 120
Calcium	25.0	25.20		mg/L		101	80 - 120

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

Lab Sample ID: LCS 180-375811/2-A
Matrix: Water
Analysis Batch: 375961

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 375811

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.25	1.163		mg/L		93	80 - 120
Calcium	25.0	25.56		mg/L		102	80 - 120

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

Lab Sample ID: MB 180-374631/2
Matrix: Water
Analysis Batch: 374631

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	<10.0		10.0	10.0	mg/L			10/08/21 17:19	1

Lab Sample ID: LCS 180-374631/1
Matrix: Water
Analysis Batch: 374631

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	422	398.0		mg/L		94	80 - 120

Lab Sample ID: 180-128125-1 DU
Matrix: Water
Analysis Batch: 374631

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	43.0		40.00		mg/L		7	10

QC Association Summary

Client: Southern Company
Project/Site: Plant Daniel NAMU

Job ID: 180-128125-1

HPLC/IC

Analysis Batch: 374344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128125-1	MW-11	Total/NA	Water	EPA 9056A	
180-128125-2	MW-14	Total/NA	Water	EPA 9056A	
180-128125-3	MW-15	Total/NA	Water	EPA 9056A	
180-128125-4	MW-16	Total/NA	Water	EPA 9056A	
180-128125-5	MW-17	Total/NA	Water	EPA 9056A	
180-128125-6	MW-18	Total/NA	Water	EPA 9056A	
180-128125-7	MW-19	Total/NA	Water	EPA 9056A	
180-128125-8	DUP-02	Total/NA	Water	EPA 9056A	
180-128125-9	FB-01	Total/NA	Water	EPA 9056A	
180-128125-10	EB-01	Total/NA	Water	EPA 9056A	
MB 180-374344/6	Method Blank	Total/NA	Water	EPA 9056A	
LCS 180-374344/5	Lab Control Sample	Total/NA	Water	EPA 9056A	
180-128125-1 MS	MW-11	Total/NA	Water	EPA 9056A	
180-128125-1 MSD	MW-11	Total/NA	Water	EPA 9056A	

Metals

Filtration Batch: 373695

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	Filtration	

Prep Batch: 375811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128125-1	MW-11	Total Recoverable	Water	3005A	
180-128125-2	MW-14	Total Recoverable	Water	3005A	
180-128125-3	MW-15	Total Recoverable	Water	3005A	
180-128125-4	MW-16	Total Recoverable	Water	3005A	
180-128125-5	MW-17	Total Recoverable	Water	3005A	
180-128125-6	MW-18	Total Recoverable	Water	3005A	
180-128125-7	MW-19	Total Recoverable	Water	3005A	
180-128125-8	DUP-02	Total Recoverable	Water	3005A	
180-128125-9	FB-01	Total Recoverable	Water	3005A	
180-128125-10	EB-01	Total Recoverable	Water	3005A	
MB 180-375811/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	3005A	373695
LCS 180-375811/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 375961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128125-1	MW-11	Total Recoverable	Water	EPA 6020B	375811
180-128125-2	MW-14	Total Recoverable	Water	EPA 6020B	375811
180-128125-3	MW-15	Total Recoverable	Water	EPA 6020B	375811
180-128125-4	MW-16	Total Recoverable	Water	EPA 6020B	375811
180-128125-5	MW-17	Total Recoverable	Water	EPA 6020B	375811
180-128125-6	MW-18	Total Recoverable	Water	EPA 6020B	375811
180-128125-7	MW-19	Total Recoverable	Water	EPA 6020B	375811
180-128125-8	DUP-02	Total Recoverable	Water	EPA 6020B	375811
180-128125-9	FB-01	Total Recoverable	Water	EPA 6020B	375811
180-128125-10	EB-01	Total Recoverable	Water	EPA 6020B	375811
MB 180-375811/1-A	Method Blank	Total Recoverable	Water	EPA 6020B	375811
LCS 180-373695/2-C	Lab Control Sample	Total Recoverable	Water	EPA 6020B	375811

Metals (Continued)

Analysis Batch: 375961 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 180-375811/2-A	Lab Control Sample	Total Recoverable	Water	EPA 6020B	375811

General Chemistry

Analysis Batch: 374631

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-128125-1	MW-11	Total/NA	Water	SM 2540C	
180-128125-2	MW-14	Total/NA	Water	SM 2540C	
180-128125-3	MW-15	Total/NA	Water	SM 2540C	
180-128125-4	MW-16	Total/NA	Water	SM 2540C	
180-128125-5	MW-17	Total/NA	Water	SM 2540C	
180-128125-6	MW-18	Total/NA	Water	SM 2540C	
180-128125-7	MW-19	Total/NA	Water	SM 2540C	
180-128125-8	DUP-02	Total/NA	Water	SM 2540C	
180-128125-9	FB-01	Total/NA	Water	SM 2540C	
180-128125-10	EB-01	Total/NA	Water	SM 2540C	
MB 180-374631/2	Method Blank	Total/NA	Water	SM 2540C	
LCS 180-374631/1	Lab Control Sample	Total/NA	Water	SM 2540C	
180-128125-1 DU	MW-11	Total/NA	Water	SM 2540C	

Eurofins TestAmerica, Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone (412) 963-7058 Fax (412) 963-2468

Chain of Custody Record

eurofins | Environment Testing America

Brett S.

Client Information	Sampler: Philip Evans	Lab PM: Brown, Shali	Carrier Tracking No(s):	COC No:
Client Contact: SCS Contacts	Phone: 850-336-0192	E-Mail: shali.brown@eurofinset.com		Page:

Company: SCS			Job #:
Address: 3535 Colannade Pkwy BinS 530 EC	Due Date Requested:		
City: Birmingham	TAT Requested (days):		
State, Zip: Alabama			
Phone: 205.992.6283	PO #: SCS10382606		
Email: SCS Contacts	WO #:		
Project Name: Plant Daniel NAMU CCR	Project #: 18020047		
Site:	SSOW#:		

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, 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)	Boron and Calcium (App III)	Chloride Fluoride Sulfate	Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
MW-11	10/5/21	0855	G	W			X	X	X		
MW-14	10/5/21	0800									
MW-15	10/5/21	1114									
MW-16	10/5/21	1032									
MW-17	10/5/21	0805									
MW-18	10/5/21	0950									
MW-19	10/5/21	0922									
DUP-02	10/5/21	0700									
FB-01	10/5/21	0900									
EB-01	10/5/21	0915	G	W			X	X	X		

244-ATLANTA

180-128125 Chain of Custody

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:

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by:	10/5/21 1500	RDH	Purolator	10-6-21 1000	ETAPA
Relinquished by:	Date/Time:	Company	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:

Login Sample Receipt Checklist

Client: Southern Company

Job Number: 180-128125-1

Login Number: 128125
List Number: 1
Creator: Watson, Debbie

List Source: Eurofins TestAmerica, Pittsburgh

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.	True	
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	
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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Low-Flow Test Report:

Test Date / Time: 10/5/2021 8:25:53 AM
Project: Plant Daniel CCR
Operator Name: Philip Evans

Location Name: Daniel NAMU MW-11 **Well Diameter: 2 in** **Screen Length: 5 ft** **Top of Screen: 28 ft** **Total Depth: 33 ft** **Initial Depth to Water: 11.22 ft**	**Pump Type: QED** **Tubing Type: PE** **Pump Intake From TOC: 30.5 ft** **Estimated Total Volume Pumped: 10000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 1.72 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 817728**

Test Notes:
Sample time @ 0855. Cloudy 82. FB-01@ 0900.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 8:25 AM	00:00	4.99 pH	21.95 °C	67.63 µS/cm	5.62 mg/L	2.89 NTU	119.4 mV	11.22 ft	400.00 ml/min
10/5/2021 8:30 AM	05:00	4.71 pH	21.41 °C	70.67 µS/cm	1.38 mg/L	2.20 NTU	119.9 mV	12.04 ft	400.00 ml/min
10/5/2021 8:35 AM	10:00	4.70 pH	21.47 °C	69.74 µS/cm	0.86 mg/L	2.02 NTU	116.8 mV	12.75 ft	400.00 ml/min
10/5/2021 8:40 AM	15:00	4.67 pH	21.55 °C	68.51 µS/cm	0.61 mg/L	1.94 NTU	116.2 mV	12.83 ft	400.00 ml/min
10/5/2021 8:45 AM	20:00	4.65 pH	21.47 °C	68.48 µS/cm	0.48 mg/L	1.87 NTU	116.6 mV	12.89 ft	400.00 ml/min
10/5/2021 8:50 AM	25:00	4.67 pH	21.50 °C	67.98 µS/cm	0.45 mg/L	1.85 NTU	116.7 mV	12.94 ft	400.00 ml/min

Samples

Sample ID:	Description:
MW-11	Sample time @ 0855. Cloudy 82. FB-01@ 0900.

Low-Flow Test Report:

Test Date / Time: 10/5/2021 7:32:04 AM
Project: Plant Daniel CCR
Operator Name: Philip Evans

Location Name: Daniel NAMU MW-14 **Well Diameter: 2 in** **Screen Length: 5 ft** **Top of Screen: 35.7 ft** **Total Depth: 40.7 ft** **Initial Depth to Water: 11.2 ft**	**Pump Type: QED** **Tubing Type: PE** **Pump Intake From TOC: 38.2 ft** **Estimated Total Volume Pumped: 8000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.08 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 817728**

Test Notes:
Sample time @ 0800. Cloudy 80. DUP-02 @ fake time 0700.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 7:32 AM	00:00	8.14 pH	22.53 °C	55.51 µS/cm	4.45 mg/L	1.94 NTU	106.4 mV	11.28 ft	400.00 ml/min
10/5/2021 7:37 AM	05:00	5.21 pH	21.19 °C	41.34 µS/cm	3.72 mg/L	1.88 NTU	98.8 mV	11.28 ft	400.00 ml/min
10/5/2021 7:42 AM	10:00	5.03 pH	21.12 °C	42.09 µS/cm	3.59 mg/L	1.60 NTU	98.7 mV	11.28 ft	400.00 ml/min
10/5/2021 7:47 AM	15:00	5.01 pH	21.10 °C	42.05 µS/cm	3.53 mg/L	1.56 NTU	99.9 mV	11.28 ft	400.00 ml/min
10/5/2021 7:52 AM	20:00	4.98 pH	21.09 °C	41.97 µS/cm	3.52 mg/L	1.54 NTU	101.5 mV	11.28 ft	400.00 ml/min

Samples

Sample ID:	Description:
MW-14	Sample time @ 0800. Cloudy 80. DUP-02 @ fake time 0700.

Low-Flow Test Report:

Test Date / Time: 10/5/2021 10:48:39 AM
Project: Daniel
Operator Name: Brett Surles

Location Name: Daniel MW-15 **Well Diameter: 2 in** **Screen Length: 10 ft** **Top of Screen: 29.4 ft** **Total Depth: 39.4 ft** **Initial Depth to Water: 11 ft**	**Pump Type: PP** **Tubing Type: PE** **Pump Intake From TOC: 34.4 ft** **Estimated Total Volume Pumped: 10 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.03 in**	**Instrument Used: Aqua TROLL 400** **Serial Number: 800306**

Test Notes:

Weather Conditions:
Cloudy 75

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 10:48 AM	00:00	4.92 pH	23.42 °C	25.63 µS/cm	5.75 mg/L	2.53 NTU	79.0 mV	11.03 in	400.00 ml/min
10/5/2021 10:53 AM	05:00	4.87 pH	22.34 °C	24.06 µS/cm	3.26 mg/L	1.21 NTU	79.5 mV	11.03 in	400.00 ml/min
10/5/2021 10:58 AM	10:00	4.88 pH	22.16 °C	24.03 µS/cm	3.16 mg/L	0.74 NTU	79.2 mV	11.03 in	400.00 ml/min
10/5/2021 11:03 AM	15:00	4.85 pH	22.16 °C	28.91 µS/cm	3.13 mg/L	0.66 NTU	82.6 mV	11.03 in	400.00 ml/min
10/5/2021 11:08 AM	20:00	4.87 pH	22.09 °C	28.70 µS/cm	3.12 mg/L	0.46 NTU	82.0 mV	11.03 in	400.00 ml/min
10/5/2021 11:13 AM	25:00	4.85 pH	22.08 °C	28.95 µS/cm	3.12 mg/L	0.55 NTU	83.6 mV	11.03 in	400.00 ml/min

Samples

Sample ID:	Description:
MW-15	Sample @1114

Low-Flow Test Report:

Test Date / Time: 10/5/2021 9:46:23 AM
Project: Daniel
Operator Name: Brett Surles

Location Name: Daniel W-16 **Well Diameter: 2 in** **Screen Length: 10 ft** **Top of Screen: 18.3 ft** **Total Depth: 28.3 ft** **Initial Depth to Water: 8.81 ft**	**Pump Type: PP** **Tubing Type: PE** **Pump Intake From TOC: 23.3 ft** **Estimated Total Volume Pumped: 18 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.01 in**	**Instrument Used: Aqua TROLL 400** **Serial Number: 800306**

Test Notes:

Weather Conditions:
Cloudy 75

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 9:46 AM	00:00	4.61 pH	22.52 °C	38.29 µS/cm	2.01 mg/L	1.55 NTU	69.3 mV	8.82 in	400.00 ml/min
10/5/2021 9:51 AM	05:00	4.60 pH	22.38 °C	36.80 µS/cm	1.50 mg/L	1.11 NTU	70.5 mV	8.82 in	400.00 ml/min
10/5/2021 9:56 AM	10:00	4.61 pH	22.26 °C	36.71 µS/cm	1.06 mg/L	1.01 NTU	72.0 mV	8.82 in	400.00 ml/min
10/5/2021 10:01 AM	15:00	4.62 pH	22.26 °C	36.70 µS/cm	0.81 mg/L	0.68 NTU	71.6 mV	8.82 in	400.00 ml/min
10/5/2021 10:06 AM	20:00	4.62 pH	22.34 °C	36.65 µS/cm	0.59 mg/L	0.52 NTU	71.8 mV	8.82 in	400.00 ml/min
10/5/2021 10:11 AM	25:00	4.61 pH	22.38 °C	36.51 µS/cm	0.44 mg/L	0.62 NTU	72.0 mV	8.82 in	400.00 ml/min
10/5/2021 10:16 AM	30:00	4.61 pH	22.41 °C	36.60 µS/cm	0.18 mg/L	0.87 NTU	72.3 mV	8.82 in	400.00 ml/min
10/5/2021 10:21 AM	35:00	4.61 pH	22.49 °C	36.34 µS/cm	0.18 mg/L	0.80 NTU	72.0 mV	8.82 in	400.00 ml/min
10/5/2021 10:26 AM	40:00	4.60 pH	22.65 °C	36.49 µS/cm	0.17 mg/L	0.74 NTU	71.8 mV	8.82 in	400.00 ml/min
10/5/2021 10:31 AM	45:00	4.60 pH	22.69 °C	36.47 µS/cm	0.16 mg/L	0.53 NTU	72.8 mV	8.82 in	400.00 ml/min

Samples

Sample ID:	Description:

MW-16	Sample @1032

Low-Flow Test Report:

Test Date / Time: 10/5/2021 7:32:51 AM
Project: Daniel
Operator Name: Brett Surles

Location Name: Daniel MW-17 **Well Diameter: 2 in** **Screen Length: 10 ft** **Top of Screen: 18.45 ft** **Total Depth: 28.45 ft** **Initial Depth to Water: 6.1 m**	**Pump Type: PP** **Tubing Type: PE** **Pump Intake From TOC: 23.45 ft** **Estimated Total Volume Pumped: 12 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.05 in**	**Instrument Used: Aqua TROLL 400** **Serial Number: 800306**

Test Notes:

Weather Conditions:
Cloudy 73

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 7:32 AM	00:00	4.88 pH	21.84 °C	35.22 µS/cm	4.74 mg/L	2.30 NTU	113.8 mV	6.15 in	400.00 ml/min
10/5/2021 7:37 AM	05:00	4.76 pH	21.64 °C	35.74 µS/cm	2.76 mg/L	0.80 NTU	91.8 mV	6.15 in	400.00 ml/min
10/5/2021 7:42 AM	10:00	4.76 pH	21.45 °C	35.90 µS/cm	2.22 mg/L	0.99 NTU	92.7 mV	6.15 in	400.00 ml/min
10/5/2021 7:47 AM	15:00	4.86 pH	21.35 °C	34.08 µS/cm	0.79 mg/L	0.73 NTU	89.9 mV	6.15 in	400.00 ml/min
10/5/2021 7:52 AM	20:00	4.87 pH	21.31 °C	33.75 µS/cm	0.48 mg/L	0.61 NTU	86.8 mV	6.15 in	400.00 ml/min
10/5/2021 7:57 AM	25:00	4.89 pH	21.35 °C	33.75 µS/cm	0.34 mg/L	0.53 NTU	86.0 mV	6.15 in	400.00 ml/min
10/5/2021 8:02 AM	30:00	4.88 pH	21.29 °C	33.76 µS/cm	0.35 mg/L	0.37 NTU	84.6 mV	6.15 in	400.00 ml/min

Samples

Sample ID:	Description:
MW-17	Sample @0805

Low-Flow Test Report:

Test Date / Time: 10/5/2021 9:25:59 AM
Project: Plant Daniel CCR
Operator Name: Philip Evans

Location Name: Daniel NAMU MW-18 **Well Diameter: 2 in** **Screen Length: 5 ft** **Top of Screen: 39.4 ft** **Total Depth: 44.4 ft** **Initial Depth to Water: 14.54 ft**	**Pump Type: QED** **Tubing Type: PE** **Pump Intake From TOC: 41.9 ft** **Estimated Total Volume Pumped: 8000 ml** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.04 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 817728**

Test Notes:
Sample time @ 0950. Cloudy 82. EB-01@ 0915.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 9:25 AM	00:00	4.27 pH	23.26 °C	49.81 µS/cm	4.94 mg/L	1.12 NTU	122.4 mV	14.58 ft	400.00 ml/min
10/5/2021 9:30 AM	05:00	4.62 pH	21.24 °C	44.48 µS/cm	0.69 mg/L	0.90 NTU	117.3 mV	14.58 ft	400.00 ml/min
10/5/2021 9:35 AM	10:00	4.65 pH	21.15 °C	44.62 µS/cm	0.54 mg/L	0.86 NTU	115.6 mV	14.58 ft	400.00 ml/min
10/5/2021 9:40 AM	15:00	4.65 pH	21.14 °C	44.63 µS/cm	0.44 mg/L	0.73 NTU	113.9 mV	14.58 ft	400.00 ml/min
10/5/2021 9:45 AM	20:00	4.68 pH	21.10 °C	44.65 µS/cm	0.44 mg/L	0.72 NTU	113.6 mV	14.58 ft	400.00 ml/min

Samples

Sample ID:	Description:
MW-18	Sample time @ 0950. Cloudy 82. EB-01@ 0915.

Low-Flow Test Report:

Test Date / Time: 10/5/2021 8:21:46 AM
Project: Daniel
Operator Name: Brett Surles

Location Name: Daniel MW-19 **Well Diameter: 2 in** **Screen Length: 10 ft** **Top of Screen: 22.4 ft** **Total Depth: 32.4 ft** **Initial Depth to Water: 17.6 ft**	**Pump Type: PP** **Tubing Type: PE** **Pump Intake From TOC: 27.4 ft** **Estimated Total Volume Pumped: 24 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 400 ml/min** **Final Draw Down: 0.02 in**	**Instrument Used: Aqua TROLL 400** **Serial Number: 800306**

Test Notes:

Weather Conditions:
Cloudy 73

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.2	+/- 0.2	+/- 5 %	+/- 0.2	+/- 10	+/- 10	+/- 0.2	
10/5/2021 8:21 AM	00:00	6.28 pH	21.92 °C	157.69 µS/cm	3.93 mg/L	2.24 NTU	83.4 mV	17.62 in	400.00 ml/min
10/5/2021 8:26 AM	05:00	6.18 pH	21.89 °C	110.38 µS/cm	2.46 mg/L	1.96 NTU	81.7 mV	17.62 in	400.00 ml/min
10/5/2021 8:31 AM	10:00	5.97 pH	21.98 °C	79.41 µS/cm	1.51 mg/L	1.50 NTU	78.7 mV	17.62 in	400.00 ml/min
10/5/2021 8:36 AM	15:00	5.77 pH	21.89 °C	61.46 µS/cm	1.03 mg/L	1.15 NTU	76.9 mV	17.62 in	400.00 ml/min
10/5/2021 8:41 AM	20:00	5.71 pH	21.93 °C	56.74 µS/cm	0.76 mg/L	1.22 NTU	74.4 mV	17.62 in	400.00 ml/min
10/5/2021 8:46 AM	25:00	5.68 pH	21.93 °C	52.29 µS/cm	0.67 mg/L	1.07 NTU	70.3 mV	17.62 in	400.00 ml/min
10/5/2021 8:51 AM	30:00	5.61 pH	21.85 °C	49.37 µS/cm	0.56 mg/L	0.88 NTU	69.2 mV	17.62 in	400.00 ml/min
10/5/2021 8:56 AM	35:00	5.63 pH	21.85 °C	49.45 µS/cm	0.54 mg/L	0.76 NTU	66.4 mV	17.62 in	400.00 ml/min
10/5/2021 9:01 AM	40:00	5.56 pH	21.90 °C	46.06 µS/cm	0.48 mg/L	0.52 NTU	65.6 mV	17.62 in	400.00 ml/min
10/5/2021 9:06 AM	45:00	5.60 pH	22.01 °C	47.43 µS/cm	0.49 mg/L	0.67 NTU	63.4 mV	17.62 in	400.00 ml/min
10/5/2021 9:11 AM	50:00	5.54 pH	22.07 °C	43.57 µS/cm	0.47 mg/L	0.79 NTU	61.8 mV	17.62 in	400.00 ml/min
10/5/2021 9:16 AM	55:00	5.51 pH	22.18 °C	43.12 µS/cm	0.38 mg/L	0.54 NTU	60.8 mV	17.62 in	400.00 ml/min
10/5/2021 9:21 AM	01:00:00	5.53 pH	22.07 °C	43.20 µS/cm	0.39 mg/L	0.66 NTU	60.2 mV	17.62 in	400.00 ml/min

Samples

Sample ID:	Description:
MW-19	Sample @0922

Appendix B

1st
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

May 20, 2021

Southern Company Services
Attn: Ms. Lauren Collins
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Daniel North Ash Management Unit (NAMU)
2021 Annual Statistical Analysis – March 2021 Sample Event

Dear Ms. Collins,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Monitoring Annual report 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 United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel NAMU 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 reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably throughout this report.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. For calculating intrawell prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. Note that in the case of boron, the reporting limit increased to 0.08 mg/L from 0.05 mg/L in 2020 due to changing laboratory practices.

Time series plots for Appendix III parameters are provided for all wells and are used to evaluate concentrations over time as well as for the purpose of updating statistical limits (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph; however, no values were flagged as outliers (Figure C). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

During the previous screening, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods:

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly

detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Conducted in October 2017

Outlier and Trend Testing

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

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

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

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a few statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Daniel NAMU for the majority of the Appendix III parameters. This facility is a lined unit with pre-waste data; therefore, due to variation noted among upgradient wells, intrawell prediction limits were recommended for this facility to accommodate the groundwater quality. A summary table of the ANOVA results was included with the screening.

Summary of Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for Appendix III constituents at all wells using Tukey's outlier test and visual screening on all historical data through the April 2019 sample event. Only one value was noted by Tukey's as a potential outlier; however, when Tukey's outlier test detects an outlier for the most recent sample, it often will not be flagged in the event that the data precede a trend that is more representative of current concentrations. Therefore, no values for Appendix III constituents were flagged as outliers at the time of the screening. An updated summary of Tukey's test results was included with the screening.

The Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through June 2017 to the new compliance samples at each well through April 2019 to evaluate whether the groups are statistically different at the 99% confidence level for each of the Appendix III parameters. When no differences exist, background data sets may be updated to include newer data for construction of prediction limits. This results in statistical limits that are representative of present-day conditions. No statistically significant differences were found between the two groups except for the following: calcium and sulfate in well MW-15. Note that the Mann-Whitney test could not be produced due to insufficient variation in the data for boron in wells MW-14, MW-15, MW-16, MW-17, and MW-19.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background are not updated to include the newer data but will be reconsidered in the future. For all well/constituent pairs except for sulfate in well MW-15, due to the limited data available and the variability in data shows some of the more recent data has similar concentrations to those reported in background, these data sets were updated. In the case of calcium at well MW-15, while there is a statistically significant difference between the two medians, the magnitude of the difference is minimal, and newer data more accurately represent concentrations present in nearby wells. Therefore, the background for this well/constituent pair was updated with new data. A summary of these results was included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – March 2021

Intrawell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters at each well using historical data through April 2019 for the March 2021 sample event (Figure D). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from each well were compared to the prediction limits to determine whether there are statistically significant increases (SSIs).

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. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- MW-17: Sulfate
- MW-19: Calcium

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an

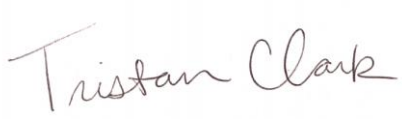
indication of natural variability in groundwater that is unrelated to practices at the site. Although no statistically significant increasing trends were noted, statistically significant decreasing trends were identified for the following well/constituent pairs:

Decreasing:

- MW-11 (upgradient): Sulfate
- MW-14 (upgradient): Calcium
- MW-18 (upgradient): Calcium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Daniel North Ash Management Unit. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects

Analysis Run 5/18/2021 1:45 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Boron (mg/L)
MW-16, MW-17, MW-19

Appendix III Trend Test - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test - Prediction Limit Exceedances - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.007498	24	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.03558	26	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-14 (bg)	-0.04474	-28	-58	No	16	31.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-17	0.2933	49	58	No	16	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-18 (bg)	-0.05772	-6	-58	No	16	6.25	n/a	n/a	0.01	NP

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

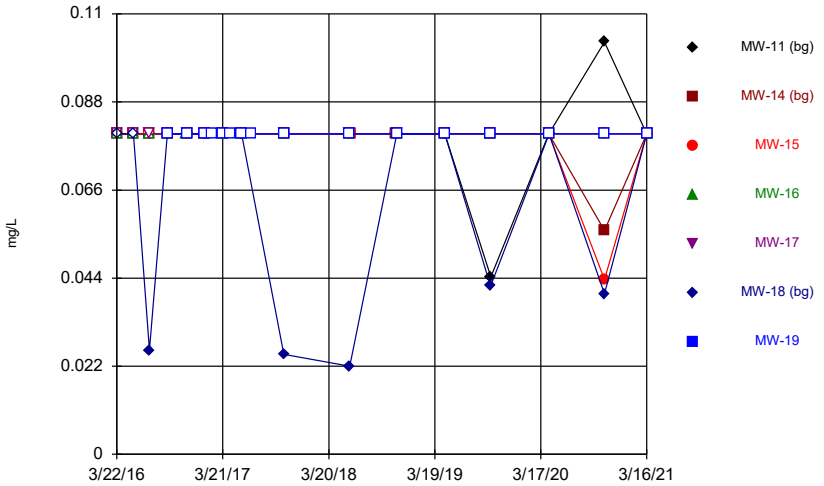
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	3/16/2021	1.74	No	12	12.03	4.544	8.333	None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	3/16/2021	2.4	No	12	3.859	1.01	8.333	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	3/16/2021	1.41	No	12	1.207	0.1472	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	3/16/2021	0.681	No	13	0.82	0.1886	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	3/16/2021	1.12	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	3/16/2021	0.57	No	12	0.7384	0.1448	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	3/16/2021	13.3	No	27	12.12	1.814	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	3/16/2021	7.32	No	12	9.592	1.433	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	3/16/2021	8.94	No	12	7.696	1.067	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	3/16/2021	7.14	No	13	7.623	1.377	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	3/16/2021	6.97	No	12	6.845	0.8197	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	3/16/2021	8.18	No	12	8.581	1.361	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	3/16/2021	5.72	No	12	3601	1285	8.333	None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	3/16/2021	0.0269J	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	3/16/2021	0.0344J	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	3/16/2021	0.0376J	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	3/16/2021	4.72	No	13	4.715	0.1267	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	3/16/2021	5.06	No	12	5.113	0.2464	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	3/16/2021	4.65	No	12	4.68	0.1615	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	3/16/2021	4.62	No	12	4.617	0.1118	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	3/16/2021	5	No	12	5.008	0.1805	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	3/16/2021	4.68	No	12	4.615	0.09587	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-19	5.483	4.668	3/16/2021	5.35	No	13	5.075	0.1858	0	None	No	0.0009398	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	9.808	n/a	3/16/2021	2.15	No	27	4.944	2.552	18.52	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	3/16/2021	2.23	No	12	n/a	n/a	41.67	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	3/16/2021	1.07	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	3/16/2021	2	No	12	n/a	n/a	66.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-18	5.327	n/a	3/16/2021	3.18	No	12	3.897	0.6408	8.333	None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	3/16/2021	2.72	No	12	n/a	n/a	58.33	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	3/16/2021	39	No	12	42.67	17.73	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	3/16/2021	41	No	12	38	17.39	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	3/16/2021	34	No	13	25.23	15.16	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	3/16/2021	27	No	12	23.33	19.24	25	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	3/16/2021	37	No	12	23.81	9.424	8.333	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	3/16/2021	31	No	12	26.33	11.21	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	3/16/2021	25	No	12	20.63	11.48	8.333	None	No	0.00188	Param Intra 1 of 2

FIGURE A.

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

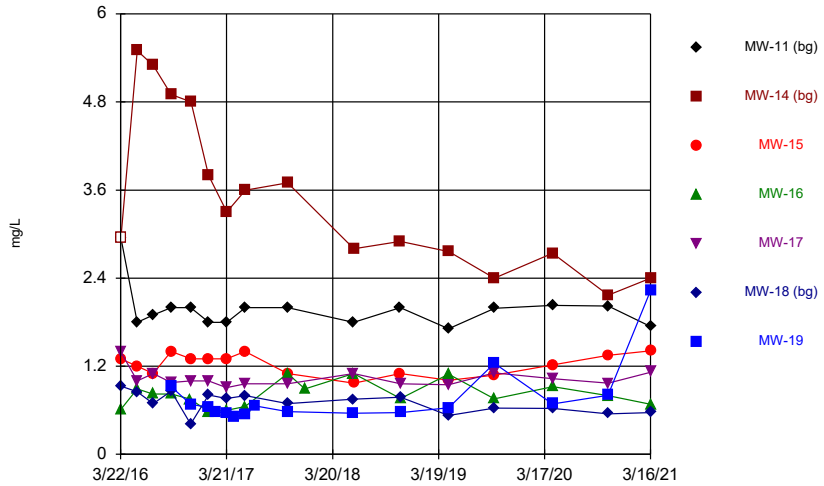
Time Series



Constituent: Boron Analysis Run 5/19/2021 4:30 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

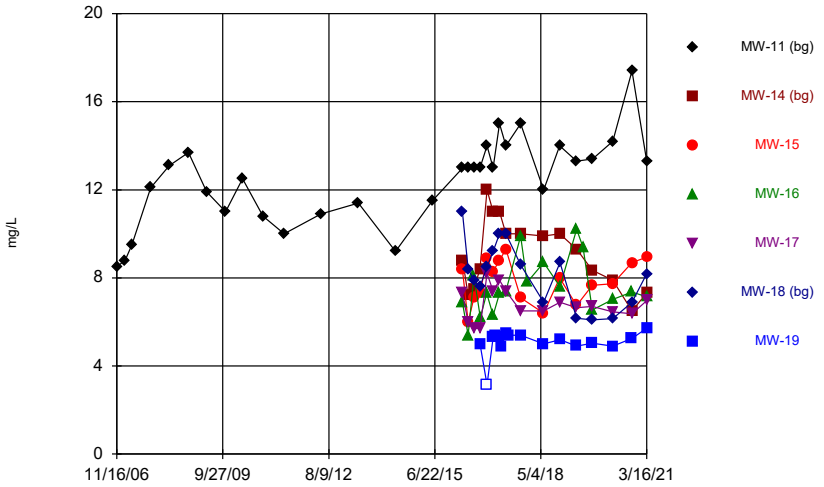
Time Series



Constituent: Calcium Analysis Run 5/19/2021 4:30 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

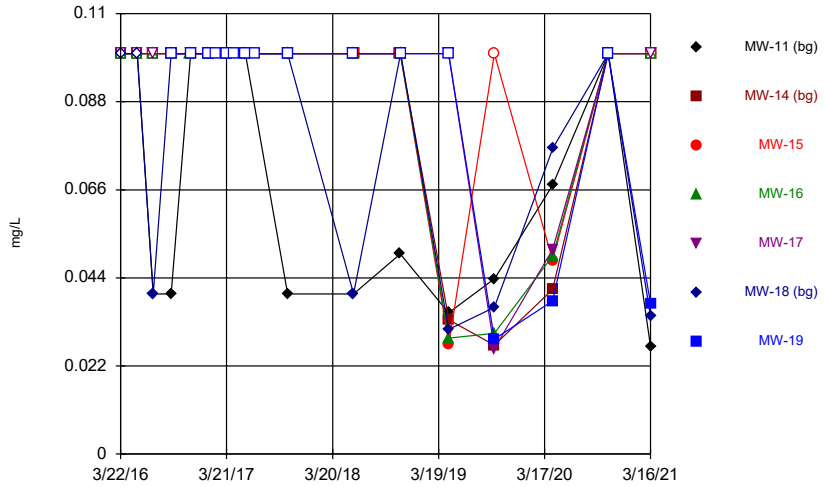
Time Series



Constituent: Chloride Analysis Run 5/19/2021 4:31 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

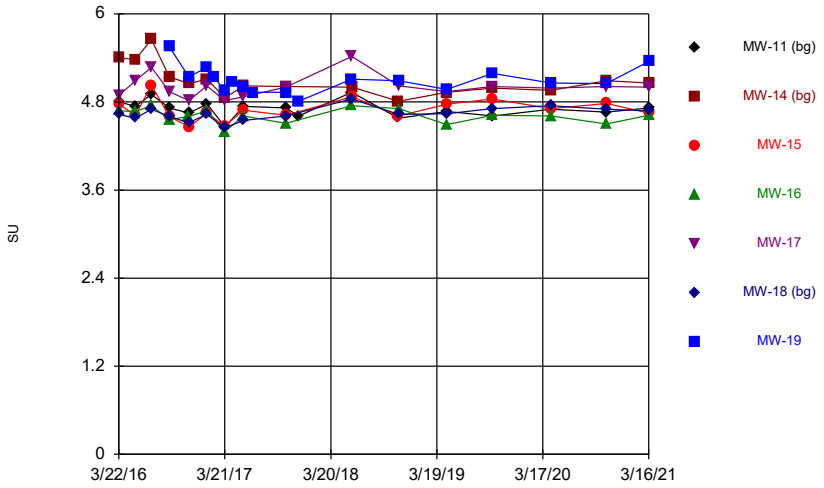
Time Series



Constituent: Fluoride Analysis Run 5/19/2021 4:31 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Time Series



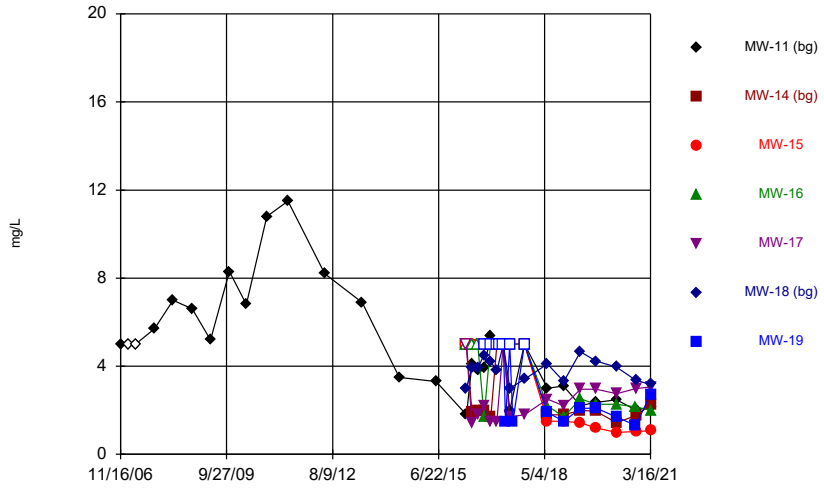
Constituent: pH Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



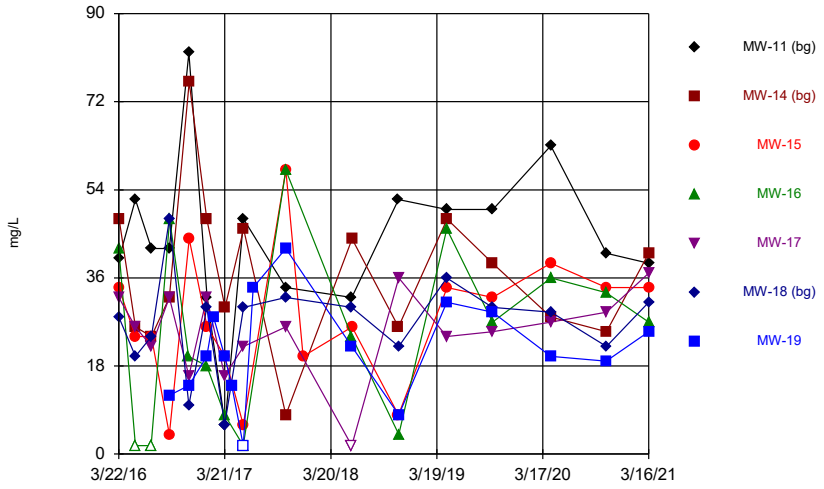
Constituent: Sulfate Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	
3/23/2016	<0.08 (B1)	<0.08 (B1)					
5/18/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
7/11/2016				<0.08			
7/12/2016	<0.08	<0.08	<0.08		<0.08	0.026 (J)	
9/12/2016	<0.08	<0.08	<0.08		<0.08	<0.08	<0.08
9/13/2016				<0.08			
11/17/2016				<0.08			
11/18/2016	<0.08				<0.08	<0.08	<0.08
11/19/2016		<0.08	<0.08				
1/18/2017		<0.08		<0.08	<0.08	<0.08	<0.08
1/19/2017	<0.08		<0.08				
2/10/2017							<0.08
3/21/2017			<0.08	<0.08	<0.08	<0.08	<0.08
3/22/2017	<0.08	<0.08					
4/14/2017							<0.08
5/23/2017			<0.08	<0.08			<0.08
5/24/2017	<0.08	<0.08			<0.08	<0.08	
6/26/2017							<0.08
10/17/2017	<0.08	<0.08	<0.08	<0.08	<0.08	0.025 (J)	<0.08
5/31/2018	<0.08			<0.08	<0.08	0.022 (J)	<0.08
6/1/2018		<0.08	<0.08				
11/7/2018	<0.08	<0.08	<0.08				
11/8/2018				<0.08	<0.08	<0.08	<0.08
4/22/2019	<0.08			<0.08	<0.08	<0.08	<0.08
4/23/2019		<0.08	<0.08				
9/26/2019		<0.08	<0.08	<0.08	<0.08	0.042 (J)	<0.08
9/27/2019	0.0443 (J)						
4/13/2020	<0.08	<0.08	<0.08		<0.08		<0.08
4/14/2020				<0.08		<0.08	
10/21/2020				<0.08			<0.08
10/22/2020	0.103	0.0559 (J)	0.0437 (J)		<0.08	0.0401 (J)	
3/16/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			1.3 (B1)	0.61 (B1)	1.4 (B1)	0.93 (B1)	
3/23/2016	<5.9 (*)	<5.9 (*)					
5/18/2016	1.8	5.5	1.2	0.89	1	0.85	
7/11/2016				0.82			
7/12/2016	1.9	5.3	1.1		1.1	0.69	
9/12/2016	2	4.9	1.4		0.98	0.86	0.92
9/13/2016				0.82			
11/17/2016				0.75			
11/18/2016	2				1	0.41	0.68
11/19/2016		4.8	1.3				
1/18/2017		3.8		0.58	1	0.81	0.64
1/19/2017	1.8		1.3				
2/10/2017							0.58
3/21/2017			1.3	0.6	0.91	0.76	0.56
3/22/2017	1.8	3.3					
4/14/2017							0.51
5/23/2017			1.4	0.65			0.54
5/24/2017	2	3.6			0.96	0.8	
6/26/2017							0.66
10/17/2017	2	3.7	1.1	1.1	0.96	0.69	0.58
12/15/2017				0.89 (RS)			
5/31/2018	1.8			1.1	1.1	0.75	0.56
6/1/2018		2.8	0.97				
11/7/2018	2	2.9	1.1				
11/8/2018				0.76	0.96	0.78	0.57
4/22/2019	1.71			1.09	0.946	0.531	0.634
4/23/2019		2.76	1.01				
9/26/2019		2.4	1.08	0.758	1.11	0.631	1.24
9/27/2019	1.99						
4/13/2020	2.03	2.74	1.22		1.03		0.687
4/14/2020				0.92		0.627	
10/21/2020				0.798			0.806
10/22/2020	2.02	2.17	1.35		0.969	0.553	
3/16/2021	1.74	2.4	1.41	0.681	1.12	0.57	2.23

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	8.5						
2/5/2007	8.8						
4/12/2007	9.5						
10/17/2007	12.1						
4/17/2008	13.1						
10/24/2008	13.7						
4/21/2009	11.9						
10/26/2009	11						
4/12/2010	12.5						
10/30/2010	10.8						
5/25/2011	10						
5/25/2012	10.9						
5/28/2013	11.4						
5/31/2014	9.2						
5/29/2015	11.5						
3/22/2016			8.4 (B1)	6.9 (B1)	7.3 (B1)	11 (B1)	
3/23/2016	13	8.8 (B1)					
5/18/2016	13	7.2	6	5.4	6	8.4	
7/11/2016				8.1			
7/12/2016	13	7.5	7.1		5.7	7.9	
9/12/2016	13	8.4	7.3		5.7	7.6	5
9/13/2016				6.2			
11/17/2016				7.3			
11/18/2016	14				8.2	8.5	<6.3 (*)
11/19/2016		12	8.9				
1/18/2017		11		6.3	7.4	9.2	5.3
1/19/2017	13		8.3				
2/10/2017							5.4
3/21/2017			8.8	7.3	7.9	10	5.3
3/22/2017	15	11					
4/14/2017							4.9 (B)
5/23/2017			9.3	7.4			5.5
5/24/2017	14	10			7.4	10	
6/26/2017							5.4
10/17/2017	15	10	7.1	9.9	6.5	8.6	5.4
12/19/2017				7.8 (RS)			
5/31/2018	12			8.7	6.5	6.9	5
6/1/2018		9.9	6.4				
11/7/2018	14	10	8				
11/8/2018				7.6	6.9	8.7	5.2
4/22/2019	13.3			10.2	6.64	6.17	4.91
4/23/2019		9.3	6.75				
6/25/2019				9.4			
9/26/2019		8.35	7.66	6.54	6.7	6.09	5.03
9/27/2019	13.4						
4/13/2020	14.2	7.9	7.74		6.46		4.9
4/14/2020				7.03		6.15	
10/21/2020				7.36			5.25
10/22/2020	17.4	6.5	8.69		6.37	6.89	
3/16/2021	13.3	7.32	8.94	7.14	6.97	8.18	5.72

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	
3/23/2016	<0.1	<0.1 (B1)					
5/18/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/2016				<0.1			
7/12/2016	0.04 (J)	<0.1	<0.1		<0.1	0.04 (J)	
9/12/2016	0.04 (J)	<0.1	<0.1		<0.1	<0.1	<0.1
9/13/2016				<0.1			
11/17/2016				<0.1			
11/18/2016	<0.1				<0.1	<0.1	<0.1
11/19/2016		<0.1	<0.1				
1/18/2017		<0.1		<0.1	<0.1	<0.1	<0.1
1/19/2017	<0.1		<0.1				
2/10/2017							<0.1
3/21/2017			<0.1	<0.1	<0.1	<0.1	<0.1
3/22/2017	<0.1	<0.1					
4/14/2017							<0.1
5/23/2017			<0.1	<0.1			<0.1
5/24/2017	<0.1	<0.1			<0.1	<0.1	
6/26/2017							<0.1
10/17/2017	0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5/31/2018	0.04 (J)			<0.1	<0.1	0.04 (J)	<0.1
6/1/2018		<0.1	<0.1				
11/7/2018	0.05 (J)	<0.1	<0.1				
11/8/2018				<0.1	<0.1	<0.1	<0.1
4/22/2019	0.0353 (J)			0.029 (J)	<0.1	0.0311 (J)	<0.1
4/23/2019		0.0335 (J)	0.0275 (J)				
9/26/2019		0.0272 (J)	<0.1	0.0302 (J)	0.0263 (J)	0.0366 (J)	0.0287 (J)
9/27/2019	0.0438 (J)						
4/13/2020	0.0672 (J)	0.0411 (J)	0.0484 (J)		0.0511 (J)		0.0382 (J)
4/14/2020				0.0496 (J)		0.0764 (J)	
10/21/2020				<0.1			<0.1
10/22/2020	<0.1	<0.1	<0.1		<0.1	<0.1	
3/16/2021	0.0269 (J)	<0.1	<0.1	<0.1	<0.1	0.0344 (J)	0.0376 (J)

Time Series

Constituent: pH (SU) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			4.77	4.68	4.89	4.63	
3/23/2016	4.8	5.4					
5/18/2016	4.74	5.38	4.62	4.67	5.09	4.58	
7/11/2016				4.75			
7/12/2016	4.9	5.65	5.03		5.27	4.7	
9/12/2016	4.72	5.14	4.6		4.94	4.6	5.55
9/13/2016				4.56			
11/17/2016				4.6			
11/18/2016	4.65				4.82	4.52	5.14
11/19/2016		5.05	4.46				
1/18/2017		5.11		4.68	5.02	4.63	5.27
1/19/2017	4.77		4.65				
2/10/2017							5.14
3/21/2017			4.47	4.39	4.82	4.45	4.96
3/22/2017	4.46	4.86					
4/14/2017							5.07
5/23/2017			4.69	4.61			5.01
5/24/2017	4.74	5.02			4.87	4.55	
6/26/2017							4.93
10/17/2017	4.72	5.01	4.62	4.51	5	4.61	4.93
11/30/2017	4.61						4.81
5/31/2018	4.93			4.75	5.42	4.84	5.11
6/1/2018		5	4.87				
11/7/2018	4.58	4.81	4.61				
11/8/2018				4.71	5.02	4.63	5.09
4/22/2019	4.67			4.49	4.94	4.64	4.97
4/23/2019		4.93	4.77				
9/26/2019		4.99	4.84	4.62	5.01	4.71	5.19
9/27/2019	4.61						
4/13/2020	4.7	4.96	4.71		4.99		5.06
4/14/2020				4.61		4.75	
10/21/2020				4.5			5.05
10/22/2020	4.66	5.09	4.78		5.01	4.7	
3/16/2021	4.72	5.06	4.65	4.62	5	4.68	5.35

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	5						
2/5/2007	<5						
4/12/2007	<5						
10/17/2007	5.7						
4/17/2008	7						
10/24/2008	6.6						
4/21/2009	5.2						
10/26/2009	8.3						
4/12/2010	6.8						
10/30/2010	10.8						
5/25/2011	11.5						
5/25/2012	8.2						
5/28/2013	6.9						
5/31/2014	3.5						
5/29/2015	3.3						
3/22/2016			<5	<5	<5	3 (J)	
3/23/2016	1.8 (J)	<5					
5/18/2016	4.1	1.9	<5	<5	1.4	3.9 (J)	
7/11/2016				<5			
7/12/2016	3.8 (J)	2 (J)	<5		1.8 (J)	3.9 (J)	
9/12/2016	3.9 (J)	2 (J)	<5		2.2 (J)	4.5 (J)	<5
9/13/2016				1.7 (J)			
11/17/2016				<5			
11/18/2016	5.4				1.5 (J)	4.2 (J)	<5
11/19/2016		1.7 (J)	<5				
1/18/2017		<5		<5	1.5 (J)	3.8 (J)	<5
1/19/2017	<5		<5				
2/10/2017							<5
3/21/2017			<5	<5	<5	<5 (*)	<5
3/22/2017	<5	<5					
4/14/2017							1.5 (J)
5/23/2017			<5	<5			<5
5/24/2017	2 (J)	<5			1.7 (J)	3 (J)	
6/26/2017							1.5 (J)
10/17/2017	<5	<5	<5	<5	1.8 (J)	3.4 (J)	<5
5/31/2018	3 (J)			2.2 (J)	2.5 (J)	4.1 (J)	1.9 (J)
6/1/2018		1.8 (J)	1.5 (J)				
11/7/2018	3.1 (J)	1.8 (J)	1.5 (J)				
11/8/2018				1.7 (J)	2.2 (J)	3.3 (J)	1.5 (J)
4/22/2019	2.22			2.52	2.96	4.66	2.09
4/23/2019		1.99	1.43				
9/26/2019		1.95	1.2	2.28	2.96	4.23	2.1
9/27/2019	2.36						
4/13/2020	2.47	1.43	0.992 (J)		2.75		1.69
4/14/2020				2.27		3.96	
10/21/2020				2.15			1.31
10/22/2020	2.01	1.76	1.04		2.98	3.37	
3/16/2021	2.15	2.23	1.07	2	3.06	3.18	2.72

Time Series

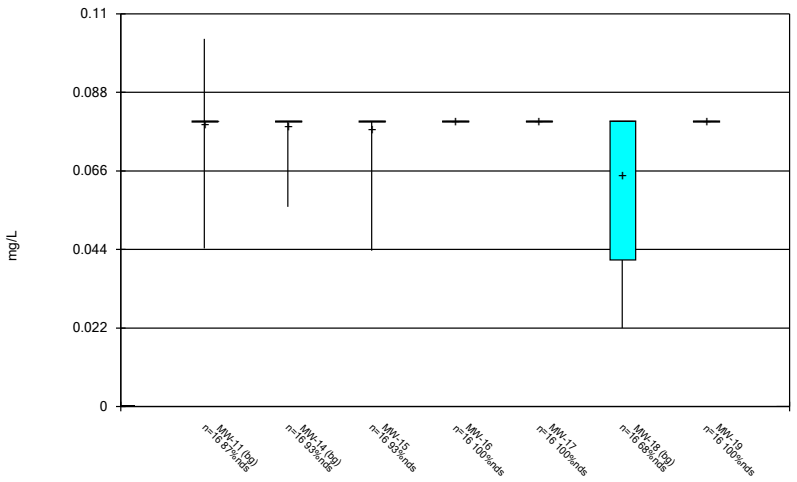
Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			34 (B1)	42 (B1)	32 (B1)	28 (B1)	
3/23/2016	40	48 (B1)					
5/18/2016	52	26	24	<3.4	26	20	
7/11/2016				<3.4			
7/12/2016	42	24	24		22	24	
9/12/2016	42	32	4 (J)		32	48	12
9/13/2016				48			
11/17/2016				20			
11/18/2016	82				16	10	14
11/19/2016		76	44				
1/18/2017		48		18	32	30	20
1/19/2017	32		26				
2/10/2017							28
3/21/2017			20	8	16	6	20
3/22/2017	6	30					
4/14/2017							14
5/23/2017			6	<3.4			<3.4
5/24/2017	48	46			22	30	
6/26/2017							34
10/17/2017	34	8	58	58	26	32	42
12/15/2017			20 (RS)				
5/31/2018	32			24	<3.4	30	22
6/1/2018		44	26				
11/7/2018	52	26	8				
11/8/2018				4 (J)	36	22	8
4/22/2019	50			46	24	36	31
4/23/2019		48	34				
9/26/2019		39	32	27	25	30	29
9/27/2019	50						
4/13/2020	63	28	39		27		20
4/14/2020				36		29	
10/21/2020				33			19
10/22/2020	41	25	34		29	22	
3/16/2021	39	41	34	27	37	31	25

FIGURE B.

Box & Whiskers Plot



Constituent: Boron Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

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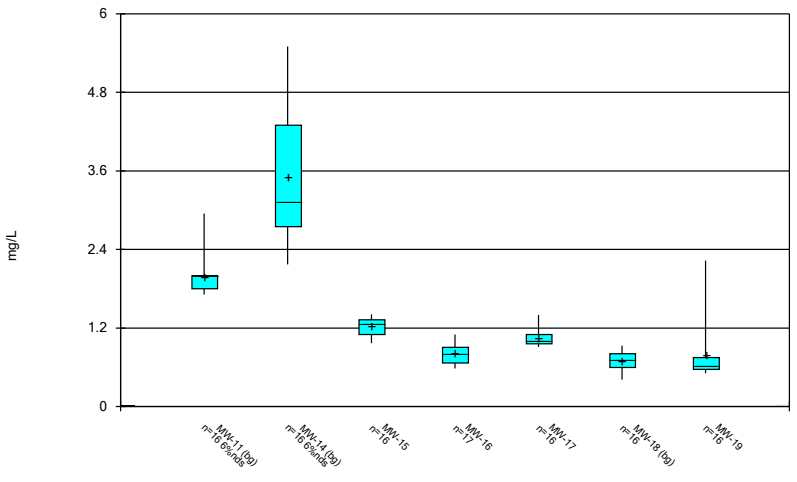
Box & Whiskers Plot

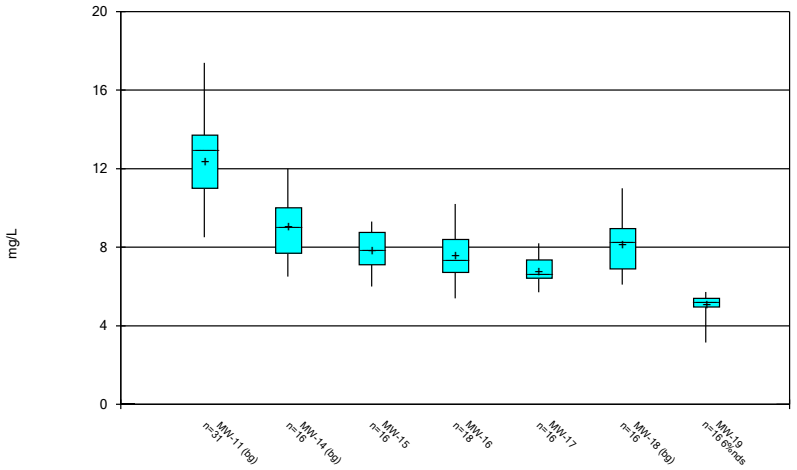


Constituent: Calcium Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

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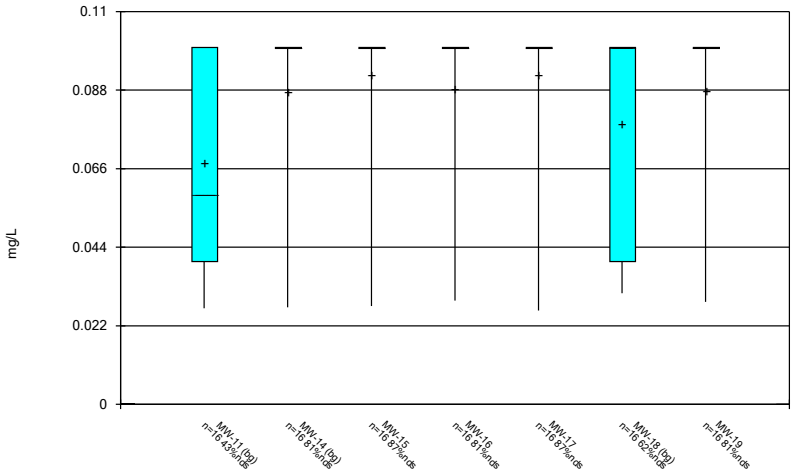
Box & Whiskers Plot

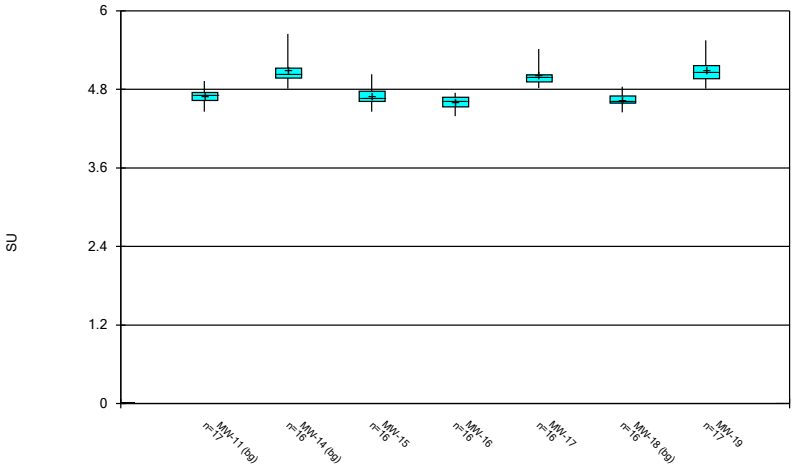


Constituent: Fluoride Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

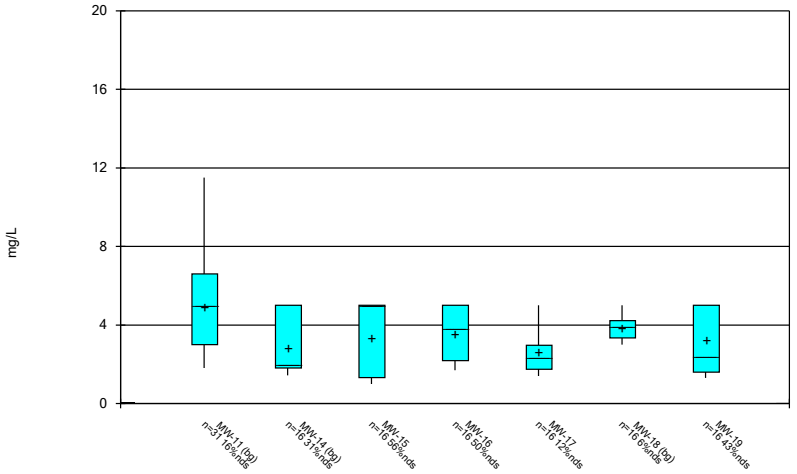


Constituent: pH Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

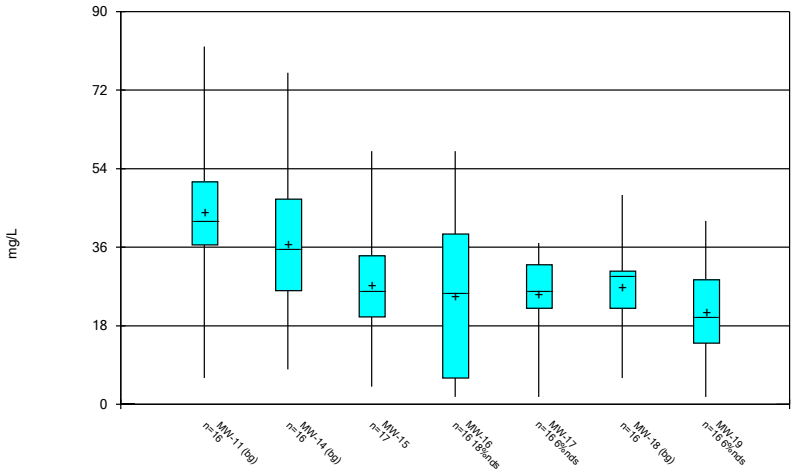


Constituent: Sulfate Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/17/2021, 2:36 PM

No outliers were flagged.

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	3/16/2021	1.74	No	12	12.03	4.544	8.333	None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	3/16/2021	2.4	No	12	3.859	1.01	8.333	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	3/16/2021	1.41	No	12	1.207	0.1472	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	3/16/2021	0.681	No	13	0.82	0.1886	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	3/16/2021	1.12	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	3/16/2021	0.57	No	12	0.7384	0.1448	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	3/16/2021	13.3	No	27	12.12	1.814	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	3/16/2021	7.32	No	12	9.592	1.433	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	3/16/2021	8.94	No	12	7.696	1.067	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	3/16/2021	7.14	No	13	7.623	1.377	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	3/16/2021	6.97	No	12	6.845	0.8197	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	3/16/2021	8.18	No	12	8.581	1.361	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	3/16/2021	5.72	No	12	3601	1285	8.333	None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	3/16/2021	0.0269J	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	3/16/2021	0.0344J	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	3/16/2021	0.0376J	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	3/16/2021	4.72	No	13	4.715	0.1267	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	3/16/2021	5.06	No	12	5.113	0.2464	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	3/16/2021	4.65	No	12	4.68	0.1615	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	3/16/2021	4.62	No	12	4.617	0.1118	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	3/16/2021	5	No	12	5.008	0.1805	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	3/16/2021	4.68	No	12	4.615	0.09587	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-19	5.483	4.668	3/16/2021	5.35	No	13	5.075	0.1858	0	None	No	0.0009398	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	9.808	n/a	3/16/2021	2.15	No	27	4.944	2.552	18.52	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	3/16/2021	2.23	No	12	n/a	n/a	41.67	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	3/16/2021	1.07	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	3/16/2021	2	No	12	n/a	n/a	66.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-18	5.327	n/a	3/16/2021	3.18	No	12	3.897	0.6408	8.333	None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	3/16/2021	2.72	No	12	n/a	n/a	58.33	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	3/16/2021	39	No	12	42.67	17.73	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	3/16/2021	41	No	12	38	17.39	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	3/16/2021	34	No	13	25.23	15.16	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	3/16/2021	27	No	12	23.33	19.24	25	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	3/16/2021	37	No	12	23.81	9.424	8.333	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	3/16/2021	31	No	12	26.33	11.21	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	3/16/2021	25	No	12	20.63	11.48	8.333	None	No	0.00188	Param Intra 1 of 2

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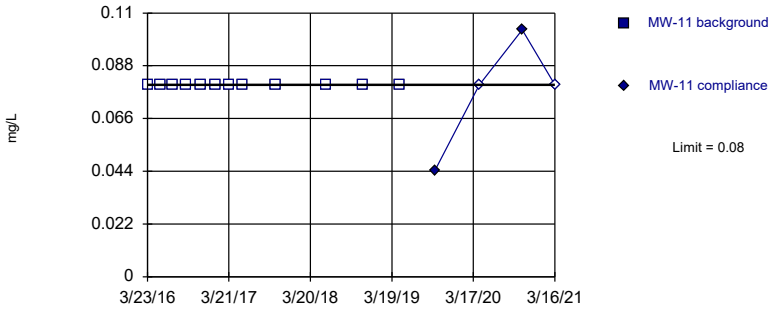
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



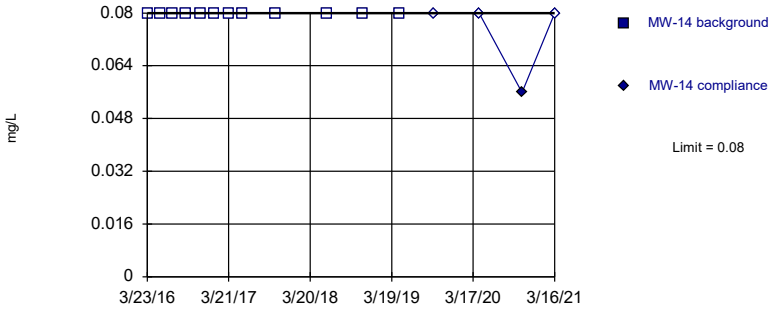
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



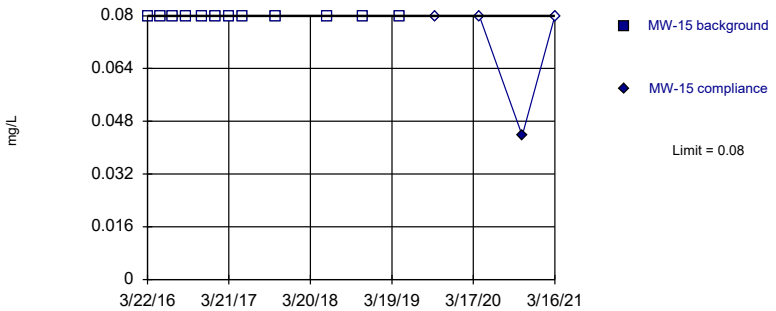
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



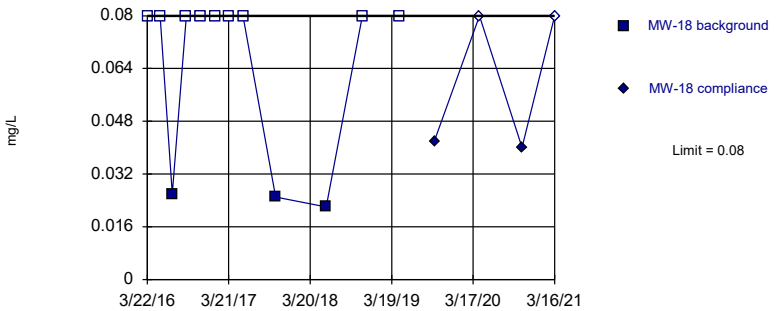
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

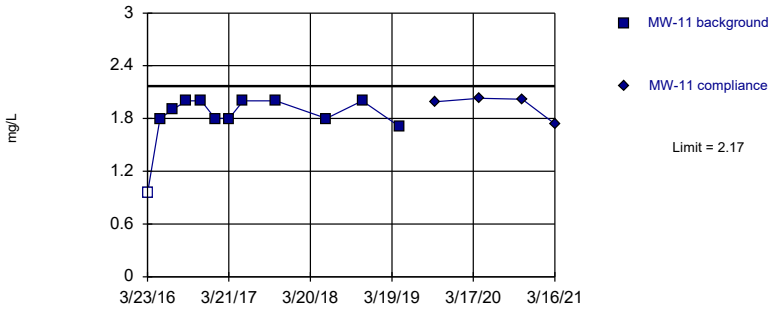
Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=12.03, Std. Dev.=4.544, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8072, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

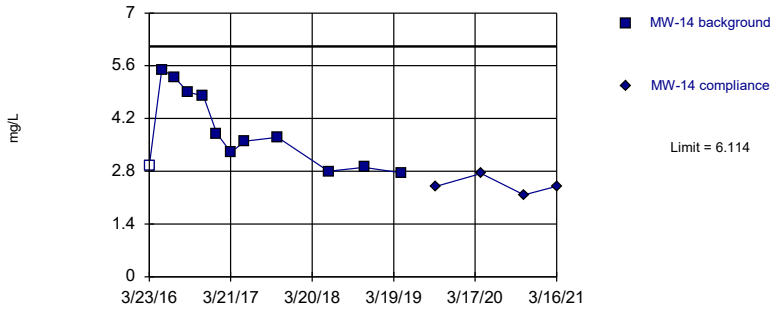
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.859, Std. Dev.=1.01, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

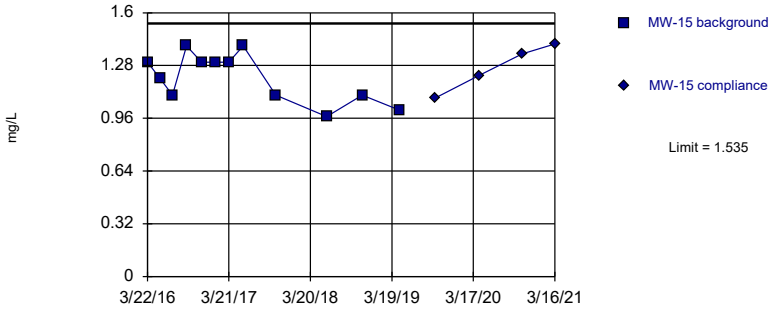
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.207, Std. Dev.=0.1472, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

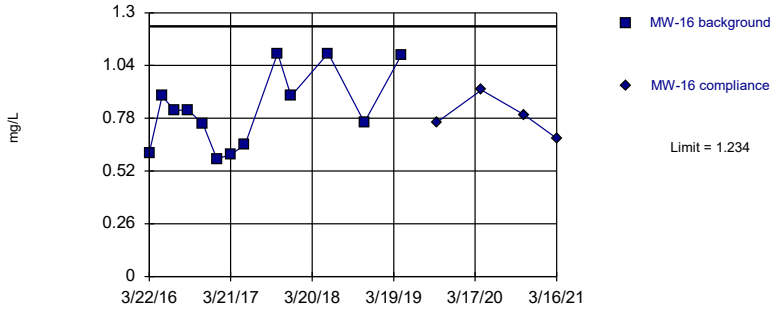
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.82, Std. Dev.=0.1886, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9011, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

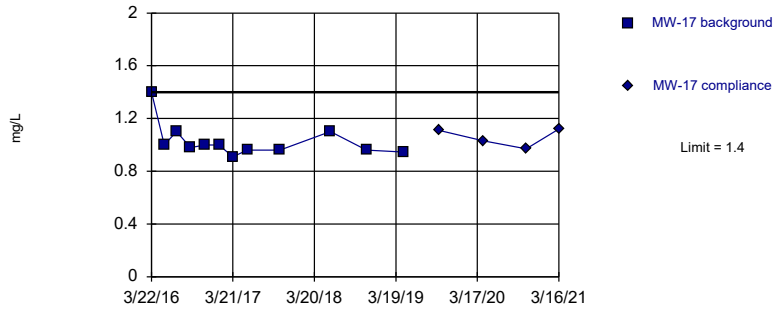
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

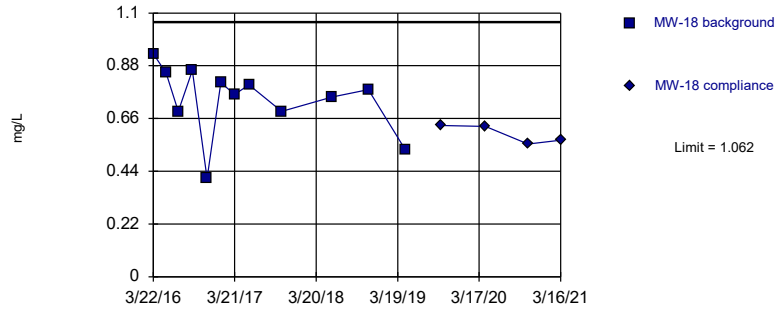
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7384, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

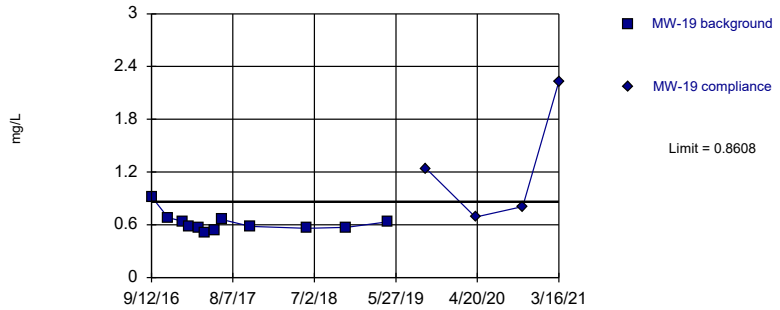
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.7847, Std. Dev.=0.06412, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

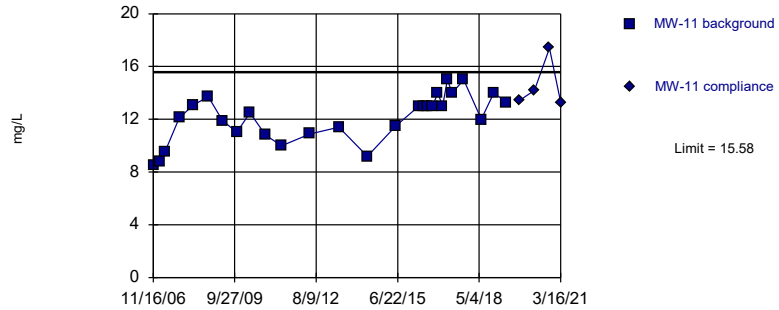
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12.12, Std. Dev.=1.814, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:41 PM View: Intrawell

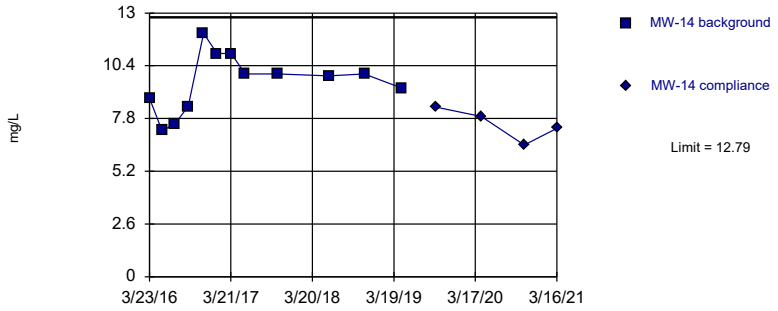
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.592, Std. Dev.=1.433, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:41 PM View: Intrawell

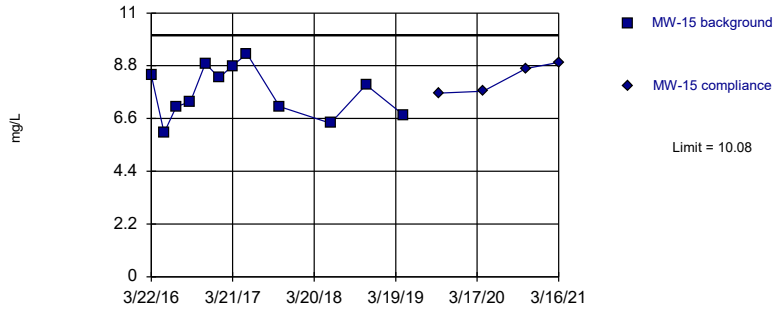
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.696, Std. Dev.=1.067, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

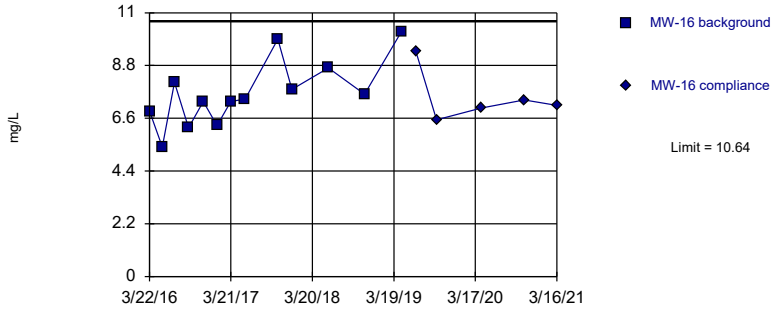
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.623, Std. Dev.=1.377, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9538, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

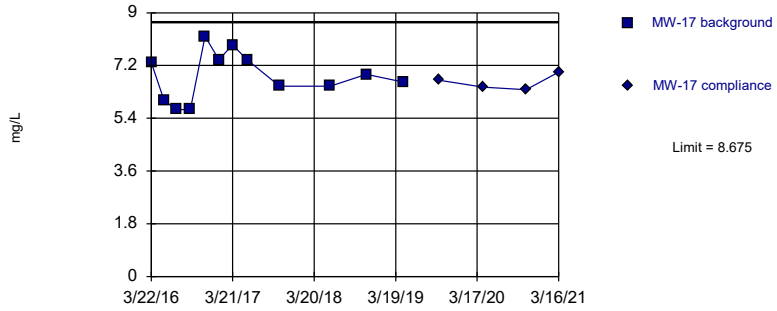
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.845, Std. Dev.=0.8197, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

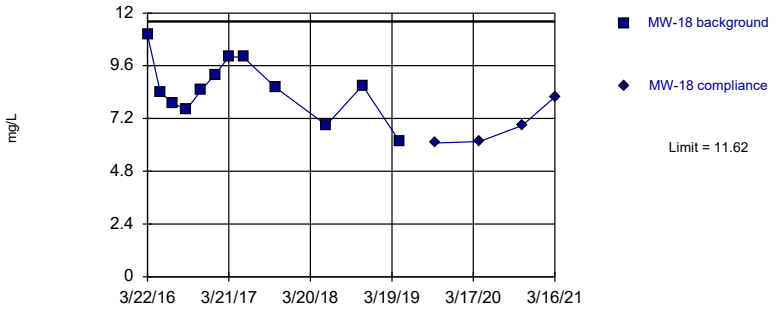
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.581, Std. Dev.=1.361, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

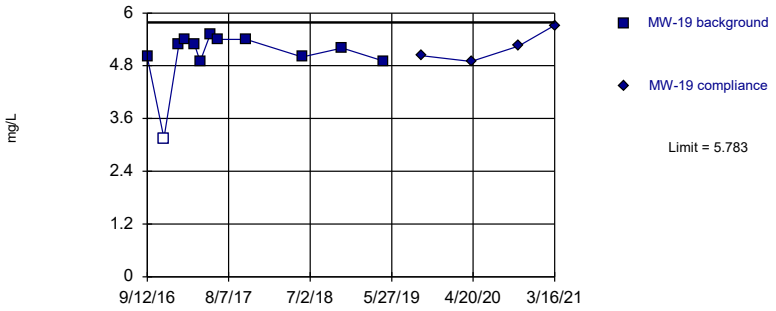
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=3601, Std. Dev.=1285, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8476, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

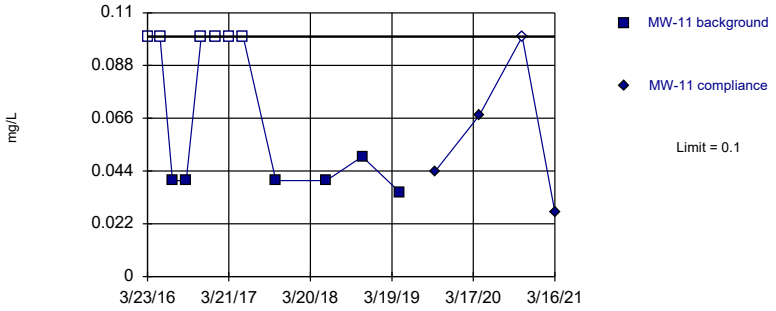
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

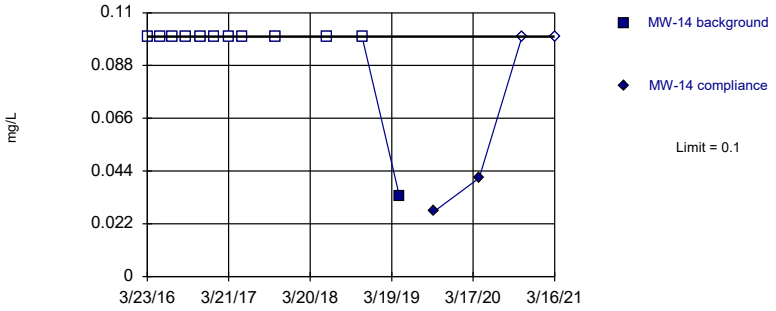
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

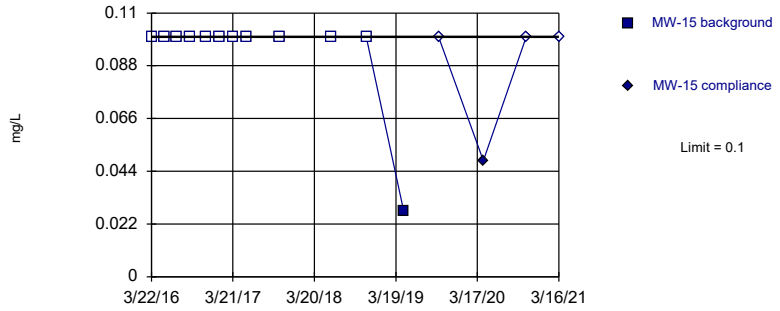
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

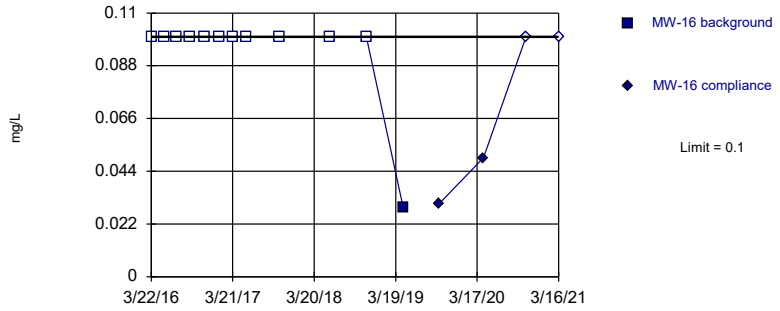
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

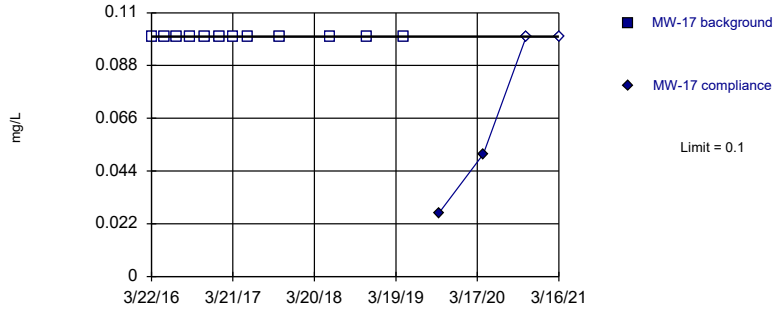
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

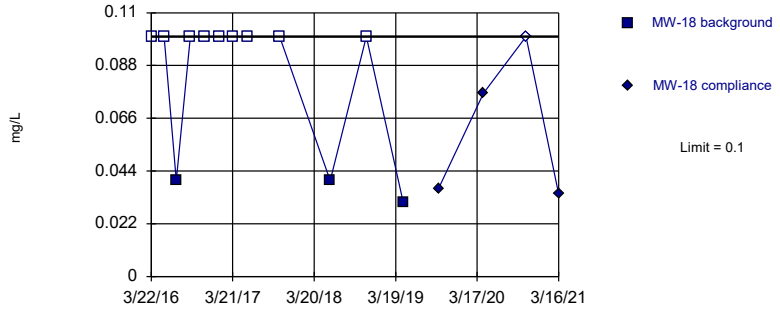
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

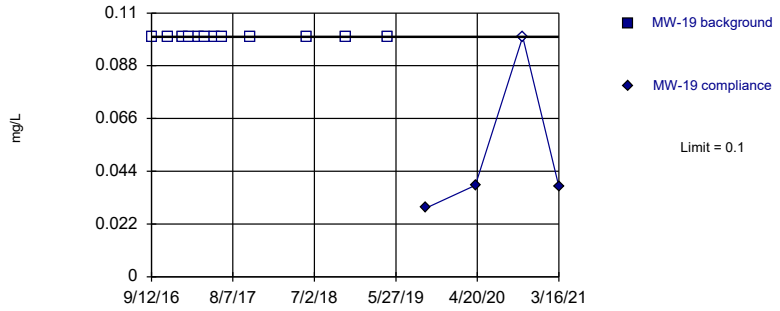
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

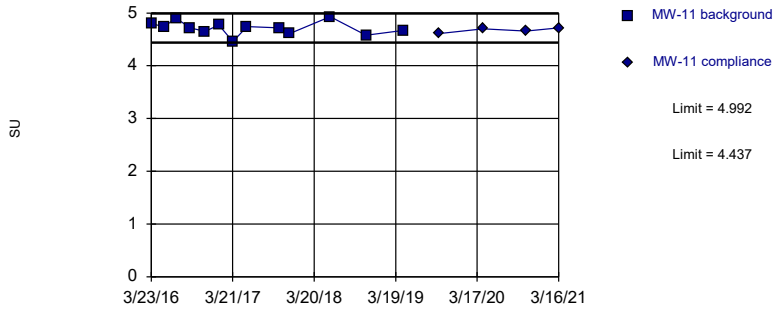
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.715, Std. Dev.=0.1267, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

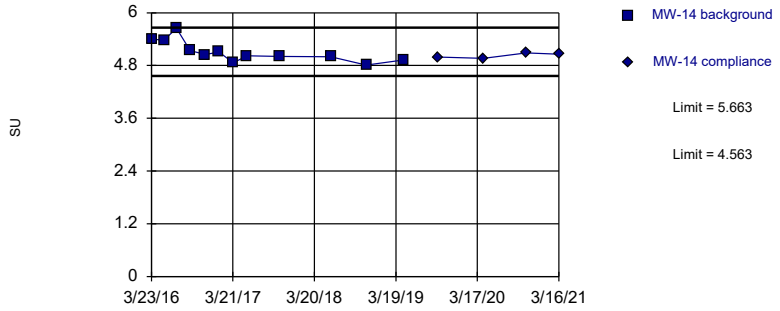
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.113, Std. Dev.=0.2464, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

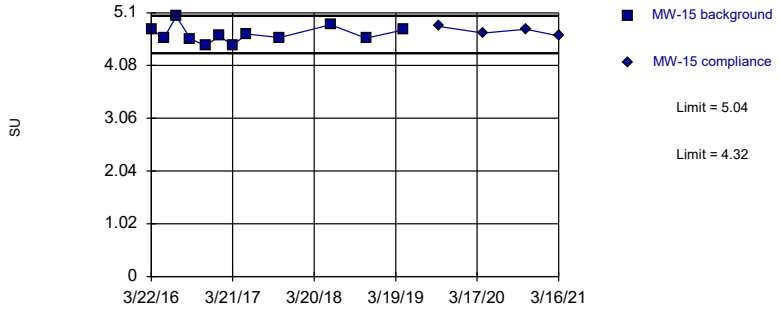
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



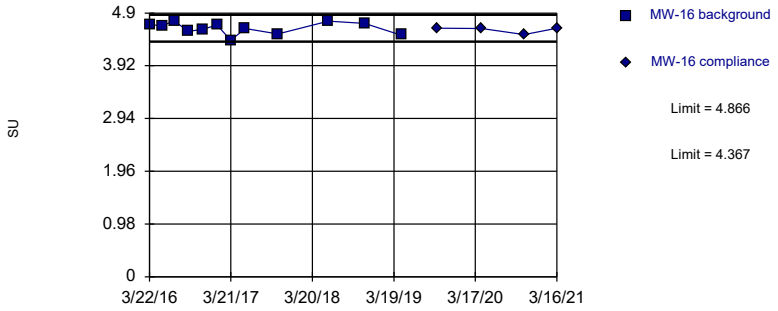
Background Data Summary: Mean=4.68, Std. Dev.=0.1615, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.617, Std. Dev.=0.1118, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

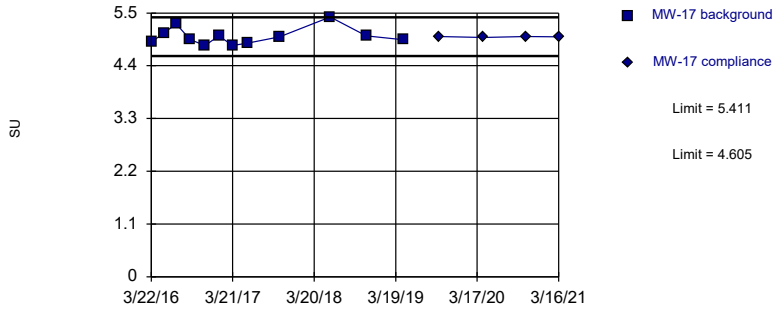
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.008, Std. Dev.=0.1805, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

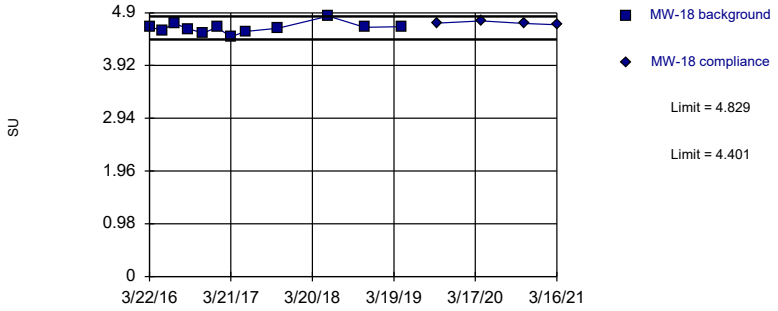
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.615, Std. Dev.=0.09587, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

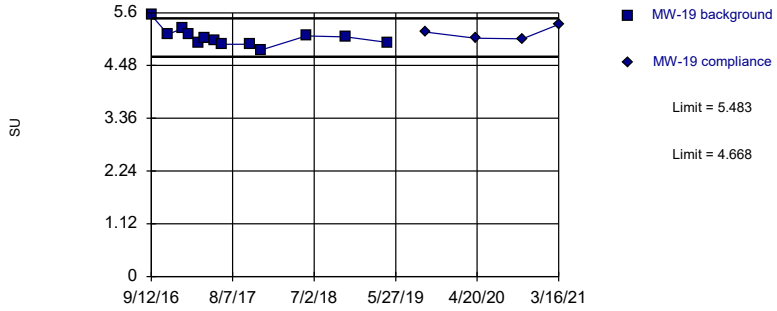
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.075, Std. Dev.=0.1858, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

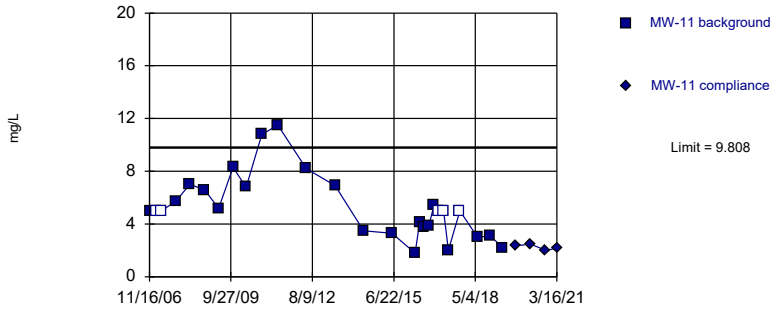
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.944, Std. Dev.=2.552, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

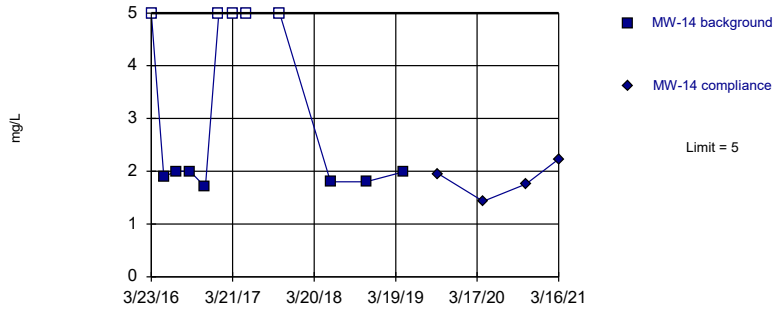
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

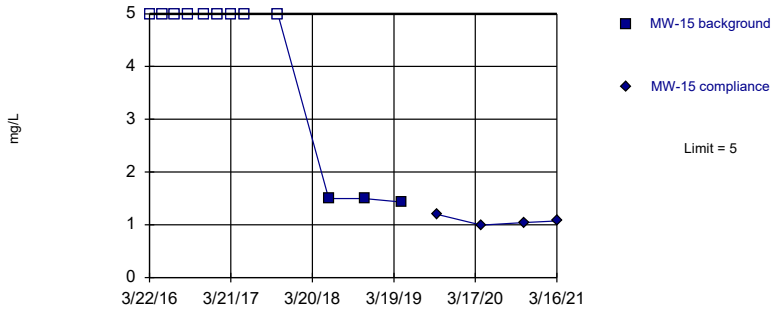
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

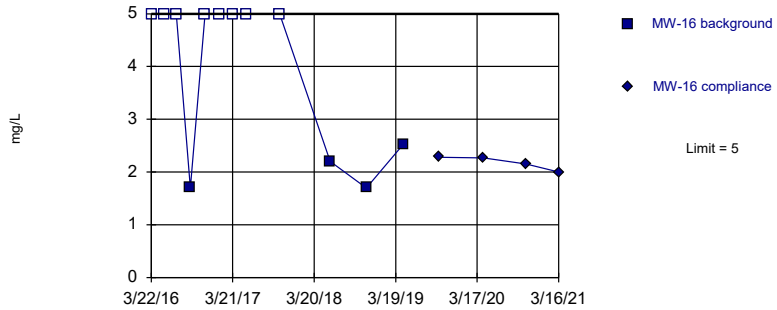
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

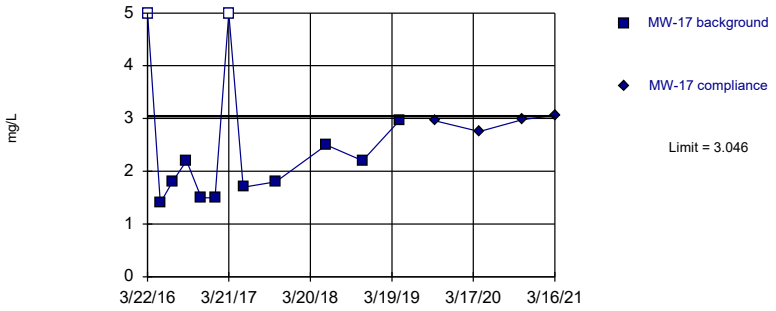
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.349, Std. Dev.=0.1777, n=12, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

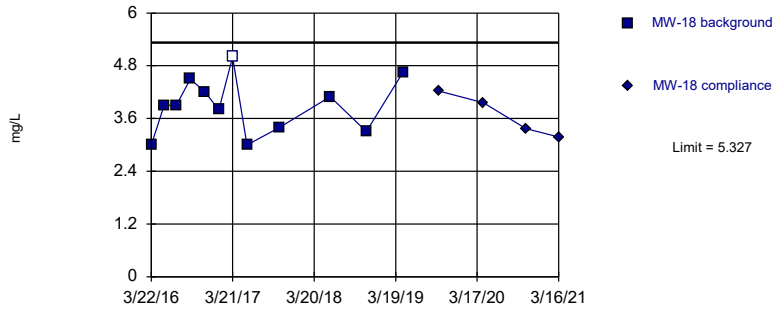
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.897, Std. Dev.=0.6408, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9606, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

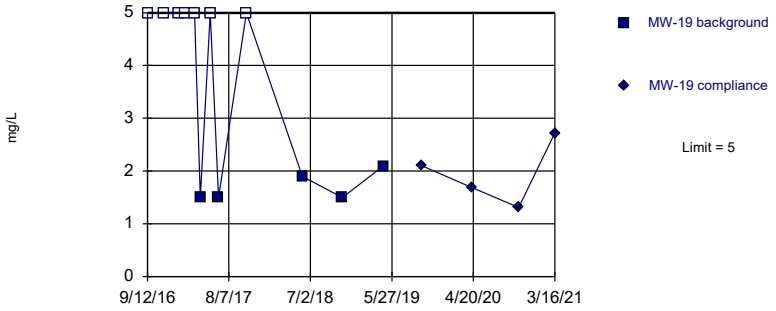
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

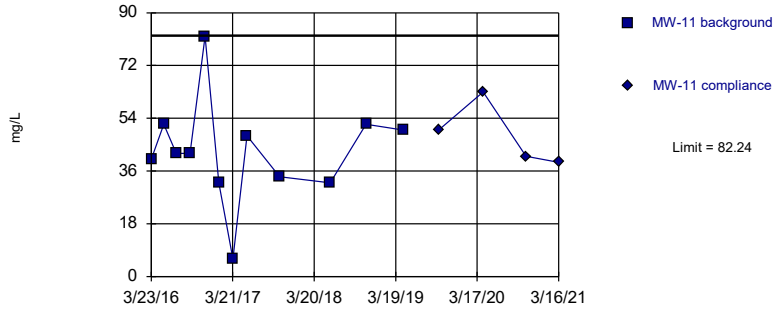
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.67, Std. Dev.=17.73, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

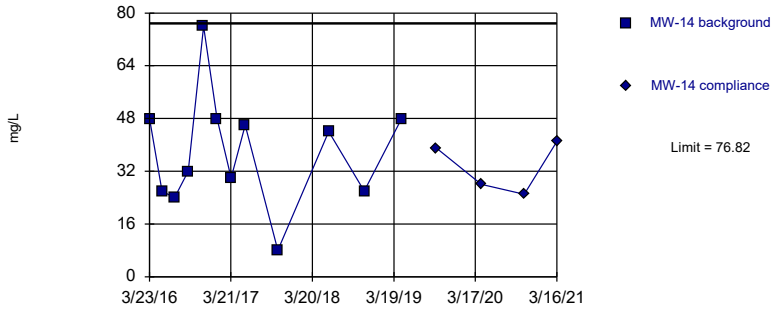
Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38, Std. Dev.=17.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

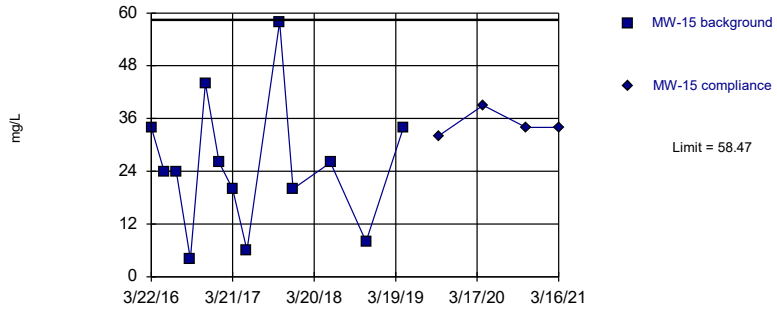
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.23, Std. Dev.=15.16, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

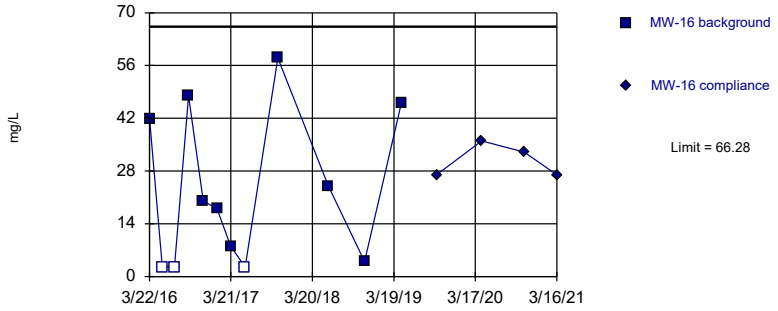
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=23.33, Std. Dev.=19.24, n=12, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8666, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

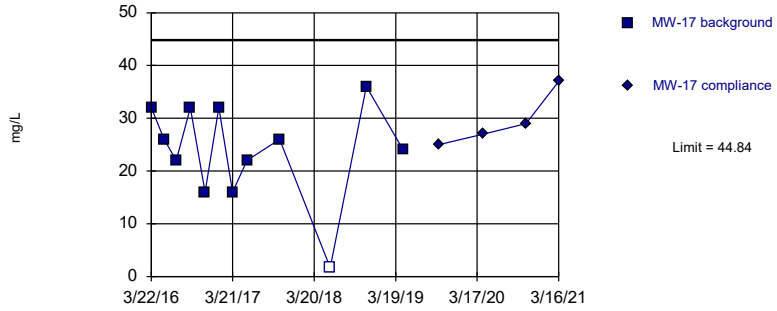
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.81, Std. Dev.=9.424, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

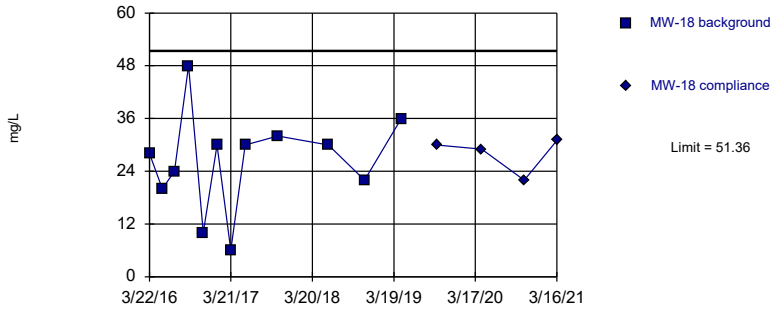
Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=26.33, Std. Dev.=11.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

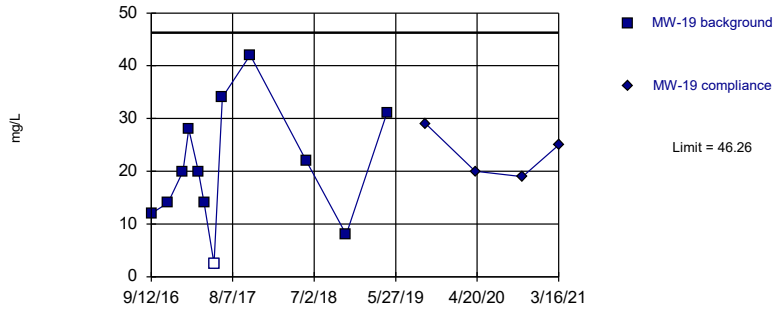
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.63, Std. Dev.=11.48, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9792, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/19/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
5/31/2018	<0.08	
11/7/2018	<0.08	
4/22/2019	<0.08	
9/27/2019		0.0443 (J)
4/13/2020		<0.08
10/22/2020		0.103
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/18/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0559 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/19/2017	<0.08	
3/21/2017	<0.08	
5/23/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0437 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	0.026 (J)	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/18/2017	<0.08	
3/21/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	0.025 (J)	
5/31/2018	0.022 (J)	
11/8/2018	<0.08	
4/22/2019	<0.08	
9/26/2019		0.042 (J)
4/14/2020		<0.08
10/22/2020		0.0401 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<1.9 (*)	
5/18/2016	1.8	
7/12/2016	1.9	
9/12/2016	2	
11/18/2016	2	
1/19/2017	1.8	
3/22/2017	1.8	
5/24/2017	2	
10/17/2017	2	
5/31/2018	1.8	
11/7/2018	2	
4/22/2019	1.71	
9/27/2019		1.99
4/13/2020		2.03
10/22/2020		2.02
3/16/2021		1.74

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5.9 (*)	
5/18/2016	5.5	
7/12/2016	5.3	
9/12/2016	4.9	
11/19/2016	4.8	
1/18/2017	3.8	
3/22/2017	3.3	
5/24/2017	3.6	
10/17/2017	3.7	
6/1/2018	2.8	
11/7/2018	2.9	
4/23/2019	2.76	
9/26/2019		2.4
4/13/2020		2.74
10/22/2020		2.17
3/16/2021		2.4

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	1.3 (B1)	
5/18/2016	1.2	
7/12/2016	1.1	
9/12/2016	1.4	
11/19/2016	1.3	
1/19/2017	1.3	
3/21/2017	1.3	
5/23/2017	1.4	
10/17/2017	1.1	
6/1/2018	0.97	
11/7/2018	1.1	
4/23/2019	1.01	
9/26/2019		1.08
4/13/2020		1.22
10/22/2020		1.35
3/16/2021		1.41

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	0.61 (B1)	
5/18/2016	0.89	
7/11/2016	0.82	
9/13/2016	0.82	
11/17/2016	0.75	
1/18/2017	0.58	
3/21/2017	0.6	
5/23/2017	0.65	
10/17/2017	1.1	
12/15/2017	0.89 (RS)	
5/31/2018	1.1	
11/8/2018	0.76	
4/22/2019	1.09	
9/26/2019		0.758
4/14/2020		0.92
10/21/2020		0.798
3/16/2021		0.681

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	1.4 (B1)	
5/18/2016	1	
7/12/2016	1.1	
9/12/2016	0.98	
11/18/2016	1	
1/18/2017	1	
3/21/2017	0.91	
5/24/2017	0.96	
10/17/2017	0.96	
5/31/2018	1.1	
11/8/2018	0.96	
4/22/2019	0.946	
9/26/2019		1.11
4/13/2020		1.03
10/22/2020		0.969
3/16/2021		1.12

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	0.93 (B1)	
5/18/2016	0.85	
7/12/2016	0.69	
9/12/2016	0.86	
11/18/2016	0.41	
1/18/2017	0.81	
3/21/2017	0.76	
5/24/2017	0.8	
10/17/2017	0.69	
5/31/2018	0.75	
11/8/2018	0.78	
4/22/2019	0.531	
9/26/2019		0.631
4/14/2020		0.627
10/22/2020		0.553
3/16/2021		0.57

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	0.92	
11/18/2016	0.68	
1/18/2017	0.64	
2/10/2017	0.58	
3/21/2017	0.56	
4/14/2017	0.51	
5/23/2017	0.54	
6/26/2017	0.66	
10/17/2017	0.58	
5/31/2018	0.56	
11/8/2018	0.57	
4/22/2019	0.634	
9/26/2019		1.24
4/13/2020		0.687
10/21/2020		0.806
3/16/2021		2.23

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	8.5	
2/5/2007	8.8	
4/12/2007	9.5	
10/17/2007	12.1	
4/17/2008	13.1	
10/24/2008	13.7	
4/21/2009	11.9	
10/26/2009	11	
4/12/2010	12.5	
10/30/2010	10.8	
5/25/2011	10	
5/25/2012	10.9	
5/28/2013	11.4	
5/31/2014	9.2	
5/29/2015	11.5	
3/23/2016	13	
5/18/2016	13	
7/12/2016	13	
9/12/2016	13	
11/18/2016	14	
1/19/2017	13	
3/22/2017	15	
5/24/2017	14	
10/17/2017	15	
5/31/2018	12	
11/7/2018	14	
4/22/2019	13.3	
9/27/2019		13.4
4/13/2020		14.2
10/22/2020		17.4
3/16/2021		13.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	8.8 (B1)	
5/18/2016	7.2	
7/12/2016	7.5	
9/12/2016	8.4	
11/19/2016	12	
1/18/2017	11	
3/22/2017	11	
5/24/2017	10	
10/17/2017	10	
6/1/2018	9.9	
11/7/2018	10	
4/23/2019	9.3	
9/26/2019		8.35
4/13/2020		7.9
10/22/2020		6.5
3/16/2021		7.32

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	8.4 (B1)	
5/18/2016	6	
7/12/2016	7.1	
9/12/2016	7.3	
11/19/2016	8.9	
1/19/2017	8.3	
3/21/2017	8.8	
5/23/2017	9.3	
10/17/2017	7.1	
6/1/2018	6.4	
11/7/2018	8	
4/23/2019	6.75	
9/26/2019		7.66
4/13/2020		7.74
10/22/2020		8.69
3/16/2021		8.94

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	6.9 (B1)	
5/18/2016	5.4	
7/11/2016	8.1	
9/13/2016	6.2	
11/17/2016	7.3	
1/18/2017	6.3	
3/21/2017	7.3	
5/23/2017	7.4	
10/17/2017	9.9	
12/19/2017	7.8 (RS)	
5/31/2018	8.7	
11/8/2018	7.6	
4/22/2019	10.2	
6/25/2019		9.4
9/26/2019		6.54
4/14/2020		7.03
10/21/2020		7.36
3/16/2021		7.14

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	7.3 (B1)	
5/18/2016	6	
7/12/2016	5.7	
9/12/2016	5.7	
11/18/2016	8.2	
1/18/2017	7.4	
3/21/2017	7.9	
5/24/2017	7.4	
10/17/2017	6.5	
5/31/2018	6.5	
11/8/2018	6.9	
4/22/2019	6.64	
9/26/2019		6.7
4/13/2020		6.46
10/22/2020		6.37
3/16/2021		6.97

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	11 (B1)	
5/18/2016	8.4	
7/12/2016	7.9	
9/12/2016	7.6	
11/18/2016	8.5	
1/18/2017	9.2	
3/21/2017	10	
5/24/2017	10	
10/17/2017	8.6	
5/31/2018	6.9	
11/8/2018	8.7	
4/22/2019	6.17	
9/26/2019		6.09
4/14/2020		6.15
10/22/2020		6.89
3/16/2021		8.18

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5	
11/18/2016	<6.3 (*)	
1/18/2017	5.3	
2/10/2017	5.4	
3/21/2017	5.3	
4/14/2017	4.9 (B)	
5/23/2017	5.5	
6/26/2017	5.4	
10/17/2017	5.4	
5/31/2018	5	
11/8/2018	5.2	
4/22/2019	4.91	
9/26/2019		5.03
4/13/2020		4.9
10/21/2020		5.25
3/16/2021		5.72

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.1	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	0.04 (J)	
11/18/2016	<0.1	
1/19/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	0.04 (J)	
5/31/2018	0.04 (J)	
11/7/2018	0.05 (J)	
4/22/2019	0.0353 (J)	
9/27/2019		0.0438 (J)
4/13/2020		0.0672 (J)
10/22/2020		<0.1
3/16/2021		0.0269 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/18/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0335 (J)	
9/26/2019		0.0272 (J)
4/13/2020		0.0411 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/19/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0275 (J)	
9/26/2019		<0.1
4/13/2020		0.0484 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/11/2016	<0.1	
9/13/2016	<0.1	
11/17/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	0.029 (J)	
9/26/2019		0.0302 (J)
4/14/2020		0.0496 (J)
10/21/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0263 (J)
4/13/2020		0.0511 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	0.04 (J)	
11/8/2018	<0.1	
4/22/2019	0.0311 (J)	
9/26/2019		0.0366 (J)
4/14/2020		0.0764 (J)
10/22/2020		<0.1
3/16/2021		0.0344 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
2/10/2017	<0.1	
3/21/2017	<0.1	
4/14/2017	<0.1	
5/23/2017	<0.1	
6/26/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0287 (J)
4/13/2020		0.0382 (J)
10/21/2020		<0.1
3/16/2021		0.0376 (J)

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	4.8	
5/18/2016	4.74	
7/12/2016	4.9	
9/12/2016	4.72	
11/18/2016	4.65	
1/19/2017	4.77	
3/22/2017	4.46	
5/24/2017	4.74	
10/17/2017	4.72	
11/30/2017	4.61	
5/31/2018	4.93	
11/7/2018	4.58	
4/22/2019	4.67	
9/27/2019		4.61
4/13/2020		4.7
10/22/2020		4.66
3/16/2021		4.72

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	5.4	
5/18/2016	5.38	
7/12/2016	5.65	
9/12/2016	5.14	
11/19/2016	5.05	
1/18/2017	5.11	
3/22/2017	4.86	
5/24/2017	5.02	
10/17/2017	5.01	
6/1/2018	5	
11/7/2018	4.81	
4/23/2019	4.93	
9/26/2019		4.99
4/13/2020		4.96
10/22/2020		5.09
3/16/2021		5.06

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	4.77	
5/18/2016	4.62	
7/12/2016	5.03	
9/12/2016	4.6	
11/19/2016	4.46	
1/19/2017	4.65	
3/21/2017	4.47	
5/23/2017	4.69	
10/17/2017	4.62	
6/1/2018	4.87	
11/7/2018	4.61	
4/23/2019	4.77	
9/26/2019		4.84
4/13/2020		4.71
10/22/2020		4.78
3/16/2021		4.65

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	4.68	
5/18/2016	4.67	
7/11/2016	4.75	
9/13/2016	4.56	
11/17/2016	4.6	
1/18/2017	4.68	
3/21/2017	4.39	
5/23/2017	4.61	
10/17/2017	4.51	
5/31/2018	4.75	
11/8/2018	4.71	
4/22/2019	4.49	
9/26/2019		4.62
4/14/2020		4.61
10/21/2020		4.5
3/16/2021		4.62

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	4.89	
5/18/2016	5.09	
7/12/2016	5.27	
9/12/2016	4.94	
11/18/2016	4.82	
1/18/2017	5.02	
3/21/2017	4.82	
5/24/2017	4.87	
10/17/2017	5	
5/31/2018	5.42	
11/8/2018	5.02	
4/22/2019	4.94	
9/26/2019		5.01
4/13/2020		4.99
10/22/2020		5.01
3/16/2021		5

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	4.63	
5/18/2016	4.58	
7/12/2016	4.7	
9/12/2016	4.6	
11/18/2016	4.52	
1/18/2017	4.63	
3/21/2017	4.45	
5/24/2017	4.55	
10/17/2017	4.61	
5/31/2018	4.84	
11/8/2018	4.63	
4/22/2019	4.64	
9/26/2019		4.71
4/14/2020		4.75
10/22/2020		4.7
3/16/2021		4.68

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5.55	
11/18/2016	5.14	
1/18/2017	5.27	
2/10/2017	5.14	
3/21/2017	4.96	
4/14/2017	5.07	
5/23/2017	5.01	
6/26/2017	4.93	
10/17/2017	4.93	
11/30/2017	4.81	
5/31/2018	5.11	
11/8/2018	5.09	
4/22/2019	4.97	
9/26/2019		5.19
4/13/2020		5.06
10/21/2020		5.05
3/16/2021		5.35

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	5	
2/5/2007	<5	
4/12/2007	<5	
10/17/2007	5.7	
4/17/2008	7	
10/24/2008	6.6	
4/21/2009	5.2	
10/26/2009	8.3	
4/12/2010	6.8	
10/30/2010	10.8	
5/25/2011	11.5	
5/25/2012	8.2	
5/28/2013	6.9	
5/31/2014	3.5	
5/29/2015	3.3	
3/23/2016	1.8 (J)	
5/18/2016	4.1	
7/12/2016	3.8 (J)	
9/12/2016	3.9 (J)	
11/18/2016	5.4	
1/19/2017	<5	
3/22/2017	<5	
5/24/2017	2 (J)	
10/17/2017	<5	
5/31/2018	3 (J)	
11/7/2018	3.1 (J)	
4/22/2019	2.22	
9/27/2019		2.36
4/13/2020		2.47
10/22/2020		2.01
3/16/2021		2.15

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5	
5/18/2016	1.9	
7/12/2016	2 (J)	
9/12/2016	2 (J)	
11/19/2016	1.7 (J)	
1/18/2017	<5	
3/22/2017	<5	
5/24/2017	<5	
10/17/2017	<5	
6/1/2018	1.8 (J)	
11/7/2018	1.8 (J)	
4/23/2019	1.99	
9/26/2019		1.95
4/13/2020		1.43
10/22/2020		1.76
3/16/2021		2.23

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<5	
5/18/2016	<5	
7/12/2016	<5	
9/12/2016	<5	
11/19/2016	<5	
1/19/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
6/1/2018	1.5 (J)	
11/7/2018	1.5 (J)	
4/23/2019	1.43	
9/26/2019		1.2
4/13/2020		0.992 (J)
10/22/2020		1.04
3/16/2021		1.07

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<5	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	1.7 (J)	
11/17/2016	<5	
1/18/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
5/31/2018	2.2 (J)	
11/8/2018	1.7 (J)	
4/22/2019	2.52	
9/26/2019		2.28
4/14/2020		2.27
10/21/2020		2.15
3/16/2021		2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<5	
5/18/2016	1.4	
7/12/2016	1.8 (J)	
9/12/2016	2.2 (J)	
11/18/2016	1.5 (J)	
1/18/2017	1.5 (J)	
3/21/2017	<5	
5/24/2017	1.7 (J)	
10/17/2017	1.8 (J)	
5/31/2018	2.5 (J)	
11/8/2018	2.2 (J)	
4/22/2019	2.96	
9/26/2019		2.96
4/13/2020		2.75
10/22/2020		2.98
3/16/2021		3.06

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	3 (J)	
5/18/2016	3.9 (J)	
7/12/2016	3.9 (J)	
9/12/2016	4.5 (J)	
11/18/2016	4.2 (J)	
1/18/2017	3.8 (J)	
3/21/2017	<5 (*)	
5/24/2017	3 (J)	
10/17/2017	3.4 (J)	
5/31/2018	4.1 (J)	
11/8/2018	3.3 (J)	
4/22/2019	4.66	
9/26/2019		4.23
4/14/2020		3.96
10/22/2020		3.37
3/16/2021		3.18

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<5	
11/18/2016	<5	
1/18/2017	<5	
2/10/2017	<5	
3/21/2017	<5	
4/14/2017	1.5 (J)	
5/23/2017	<5	
6/26/2017	1.5 (J)	
10/17/2017	<5	
5/31/2018	1.9 (J)	
11/8/2018	1.5 (J)	
4/22/2019	2.09	
9/26/2019		2.1
4/13/2020		1.69
10/21/2020		1.31
3/16/2021		2.72

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	40	
5/18/2016	52	
7/12/2016	42	
9/12/2016	42	
11/18/2016	82	
1/19/2017	32	
3/22/2017	6	
5/24/2017	48	
10/17/2017	34	
5/31/2018	32	
11/7/2018	52	
4/22/2019	50	
9/27/2019		50
4/13/2020		63
10/22/2020		41
3/16/2021		39

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	48 (B1)	
5/18/2016	26	
7/12/2016	24	
9/12/2016	32	
11/19/2016	76	
1/18/2017	48	
3/22/2017	30	
5/24/2017	46	
10/17/2017	8	
6/1/2018	44	
11/7/2018	26	
4/23/2019	48	
9/26/2019		39
4/13/2020		28
10/22/2020		25
3/16/2021		41

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	34 (B1)	
5/18/2016	24	
7/12/2016	24	
9/12/2016	4 (J)	
11/19/2016	44	
1/19/2017	26	
3/21/2017	20	
5/23/2017	6	
10/17/2017	58	
12/15/2017	20 (RS)	
6/1/2018	26	
11/7/2018	8	
4/23/2019	34	
9/26/2019		32
4/13/2020		39
10/22/2020		34
3/16/2021		34

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	42 (B1)	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	48	
11/17/2016	20	
1/18/2017	18	
3/21/2017	8	
5/23/2017	<5	
10/17/2017	58	
5/31/2018	24	
11/8/2018	4 (J)	
4/22/2019	46	
9/26/2019		27
4/14/2020		36
10/21/2020		33
3/16/2021		27

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	32 (B1)	
5/18/2016	26	
7/12/2016	22	
9/12/2016	32	
11/18/2016	16	
1/18/2017	32	
3/21/2017	16	
5/24/2017	22	
10/17/2017	26	
5/31/2018	<3.4	
11/8/2018	36	
4/22/2019	24	
9/26/2019		25
4/13/2020		27
10/22/2020		29
3/16/2021		37

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	28 (B1)	
5/18/2016	20	
7/12/2016	24	
9/12/2016	48	
11/18/2016	10	
1/18/2017	30	
3/21/2017	6	
5/24/2017	30	
10/17/2017	32	
5/31/2018	30	
11/8/2018	22	
4/22/2019	36	
9/26/2019		30
4/14/2020		29
10/22/2020		22
3/16/2021		31

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017	42	
5/31/2018	22	
11/8/2018	8	
4/22/2019	31	
9/26/2019		29
4/13/2020		20
10/21/2020		19
3/16/2021		25

FIGURE E.

Appendix III Trend Test - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test - Prediction Limit Exceedances - All Results

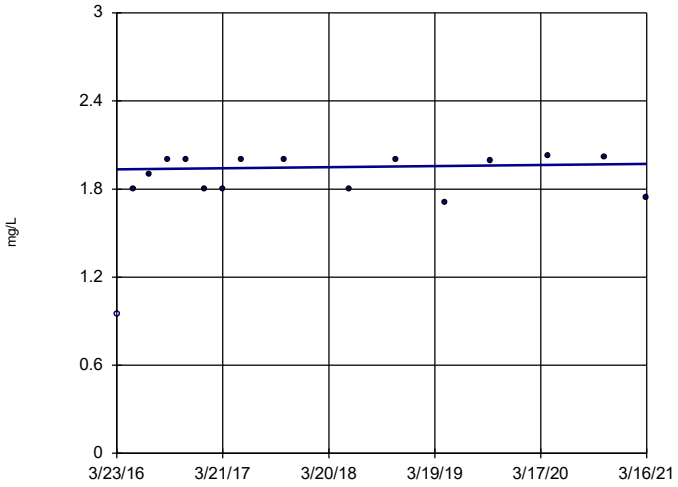
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.007498	24	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.03558	26	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-14 (bg)	-0.04474	-28	-58	No	16	31.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-17	0.2933	49	58	No	16	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-18 (bg)	-0.05772	-6	-58	No	16	6.25	n/a	n/a	0.01	NP

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 16

Slope = 0.007498 units per year.

Mann-Kendall statistic = 24
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

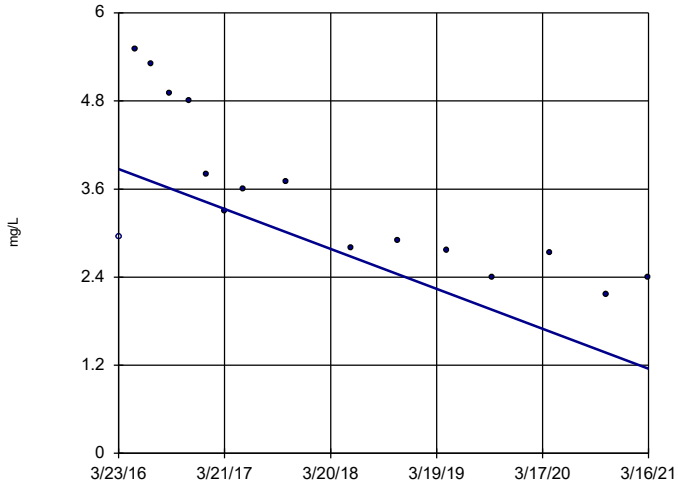
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 16

Slope = -0.5456 units per year.

Mann-Kendall statistic = -91
critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

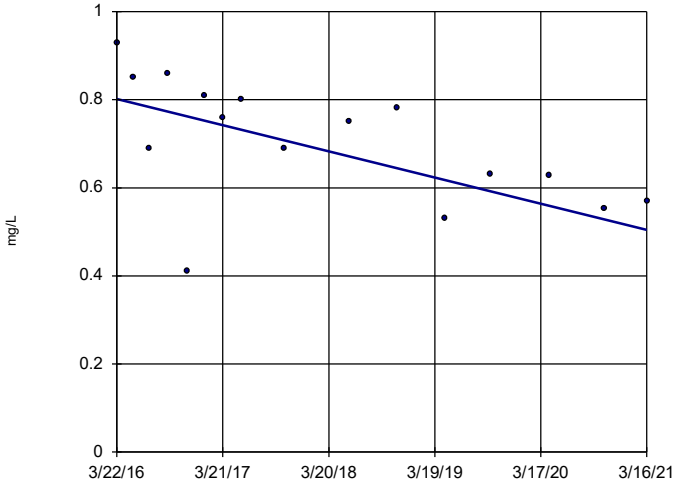
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = -0.05969 units per year.

Mann-Kendall statistic = -63
critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

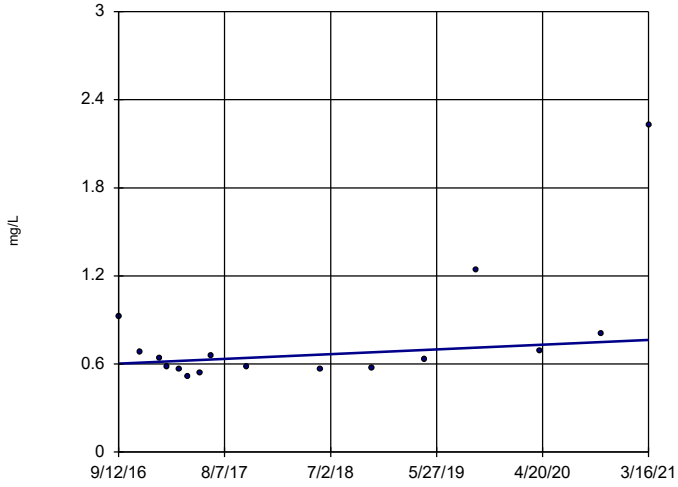
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 16

Slope = 0.03558 units per year.

Mann-Kendall statistic = 26
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

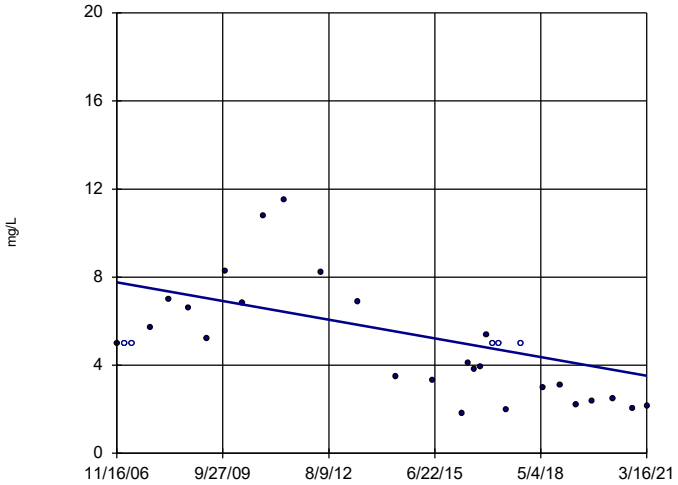
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 31

Slope = -0.2963 units per year.

Mann-Kendall statistic = -210
critical = -152

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

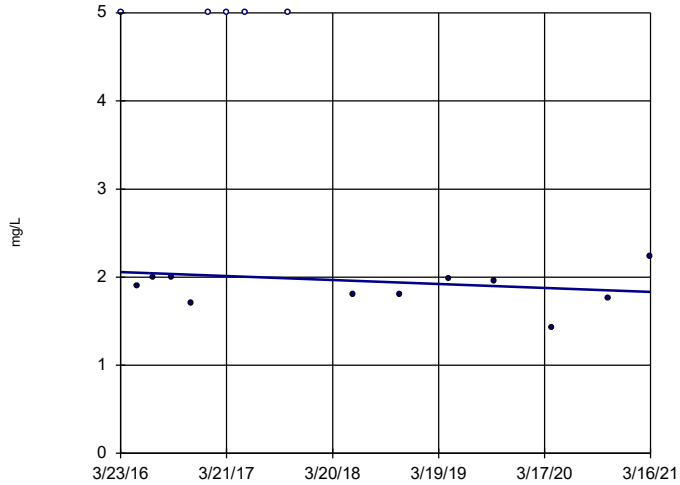
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 16

Slope = -0.04474 units per year.

Mann-Kendall statistic = -28
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

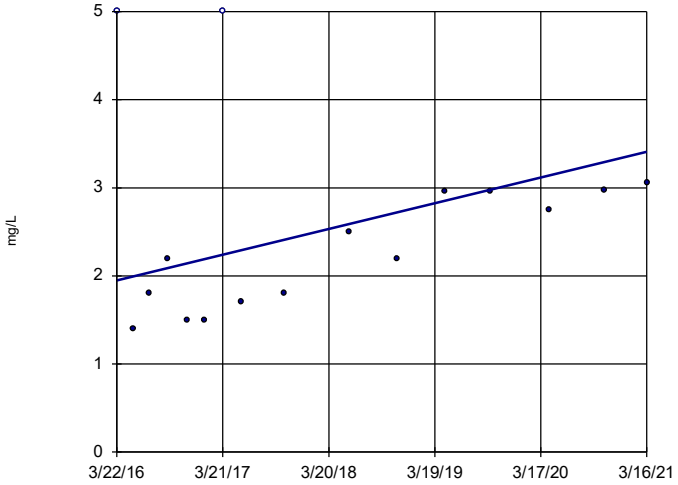
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-17



n = 16

Slope = 0.2933 units per year.

Mann-Kendall statistic = 49
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

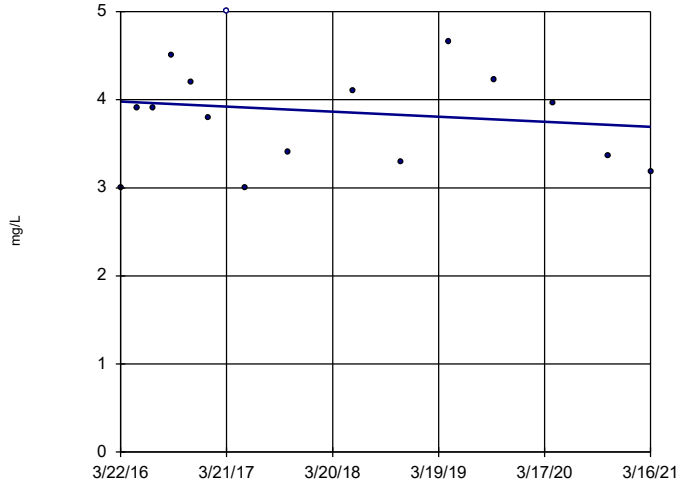
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = -0.05772 units per year.

Mann-Kendall statistic = -6
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

2nd
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

December 15, 2021

Southern Company Services
Attn: Mr. Trey Singleton
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Daniel North Ash Management Unit (NAMU)
2021 Annual Statistical Analysis – October 2021 Sample Event

Dear Mr. Singleton,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Monitoring Annual report 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 United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel NAMU 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 reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably throughout this report.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of well/constituent pairs containing 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. For calculating intrawell prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. For the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group.

Time series plots for Appendix III parameters are provided for all wells and are used to evaluate concentrations over time as well as for the purpose of updating statistical limits (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph; however, no values were flagged as outliers (Figure C). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

During the previous screening, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Conducted in October 2017

Outlier Analysis

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

No suspected outliers were observed in any of the data sets for Appendix III parameters. When any values are identified as outliers, they are plotted in a lighter font on the time series graph.

Seasonality

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

Trend Test Evaluation

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a few statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Daniel NAMU for the majority of the Appendix III parameters. This facility is a lined unit with pre-waste data; therefore, due to variation noted among upgradient wells, intrawell prediction limits were recommended for this facility to accommodate the groundwater quality. A summary table of the ANOVA results was included with the screening.

Summary of Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for Appendix III constituents at all wells using Tukey's outlier test and visual screening on all historical data through the April 2019 sample event. Only one value was noted by Tukey's as a potential outlier; however, when Tukey's outlier test detects an outlier for the most recent sample, it often will not be flagged in the event that the data precede a trend that is more representative of current concentrations. Therefore, no values for Appendix III constituents were flagged as outliers at the time of the screening. An updated summary of Tukey's test results was included with the screening.

The Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through June 2017 to the new compliance samples at each well through April 2019 to evaluate whether the groups are statistically different at the 99% confidence level for each of the Appendix III parameters. When no differences exist, background data sets may be updated to include newer data for construction of prediction limits. This results in statistical limits that are representative of present-day conditions. No statistically significant differences were found between the two groups except for the following: calcium and sulfate in well MW-15. Note that the Mann-Whitney test could not be produced due to insufficient variation in the data for boron in wells MW-14, MW-15, MW-16, MW-17, and MW-19.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background are not updated to include the newer data but will be reconsidered in the future. For all well/constituent pairs except for sulfate in well MW-15, due to the limited data available and the variability in data shows some of the more recent data has similar concentrations to those reported in background, these data sets were updated. In the case of calcium at well MW-15, while there is a statistically significant difference between the two medians, the magnitude of the difference is minimal, and newer data more accurately represent concentrations present in nearby wells. Therefore, the background for this well/constituent pair was updated with new data. A summary of these results was included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – October 2021

Intrawell Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters at each well using historical data through April 2019 for the October 2021 sample event (Figure D). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The October 2021 sample from each well was compared to the prediction limits to determine whether initial exceedances are present.

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. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- MW-19: Calcium and pH

Trend Test Evaluation

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient

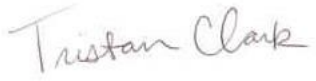
wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Although no statistically significant increasing trends were noted, statistically significant decreasing trends were identified for the following well/constituent pairs:

Decreasing:

- MW-14 (upgradient): Calcium, pH
- MW-18 (upgradient): Calcium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Daniel North Ash Management Unit. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects

Analysis Run 12/14/2021 2:16 PM View: PLs Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Boron (mg/L)
MW-16, MW-17, MW-19

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**	**None**	**No**	**0.0009398**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	10/5/2021	0.08ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	10/5/2021	1.87	No	12	8.333		None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	10/5/2021	1.89	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	10/5/2021	0.632	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	10/5/2021	0.793	No	13	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	10/5/2021	0.883	No	12	0		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	10/5/2021	0.43J	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**		**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	10/5/2021	12.5	No	27	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	10/5/2021	6.59	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	10/5/2021	9.3	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	10/5/2021	6.55	No	13	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	10/5/2021	5.91	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	10/5/2021	5.72	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	10/5/2021	5.1	No	12	8.333		None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	10/5/2021	0.0561J	No	12	50		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	10/5/2021	0.03J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	10/5/2021	0.1ND	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	10/5/2021	0.0264J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	10/5/2021	0.1ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	10/5/2021	4.67	No	13	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	10/5/2021	4.98	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	10/5/2021	4.85	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	10/5/2021	4.6	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	10/5/2021	4.88	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	10/5/2021	4.68	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**		**None**	**No**	**0.0009398**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-11	9.808	n/a	10/5/2021	2.57	No	27	18.52		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	10/5/2021	2.46	No	12	41.67		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	10/5/2021	3.38	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	10/5/2021	2.22	No	12	66.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	3.046	n/a	10/5/2021	2.85	No	12	16.67		Kaplan-Meier	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.327	n/a	10/5/2021	3.83	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	10/5/2021	1.91	No	12	58.33		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	10/5/2021	43	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	10/5/2021	25	No	13	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	10/5/2021	29	No	12	25		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	10/5/2021	34	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	10/5/2021	35	No	12	8.333		None	No	0.00188	Param Intra 1 of 2

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

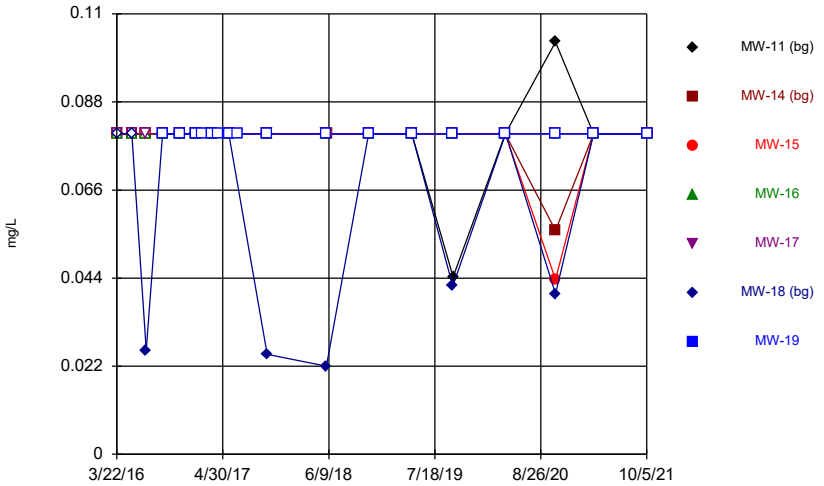
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.006242	22	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.0475	42	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	MW-11 (bg)	-0.01917	-41	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	MW-18 (bg)	0.02083	44	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	MW-19	-0.003948	-5	-68	No	18	0	n/a	n/a	0.01	NP

FIGURE A.

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

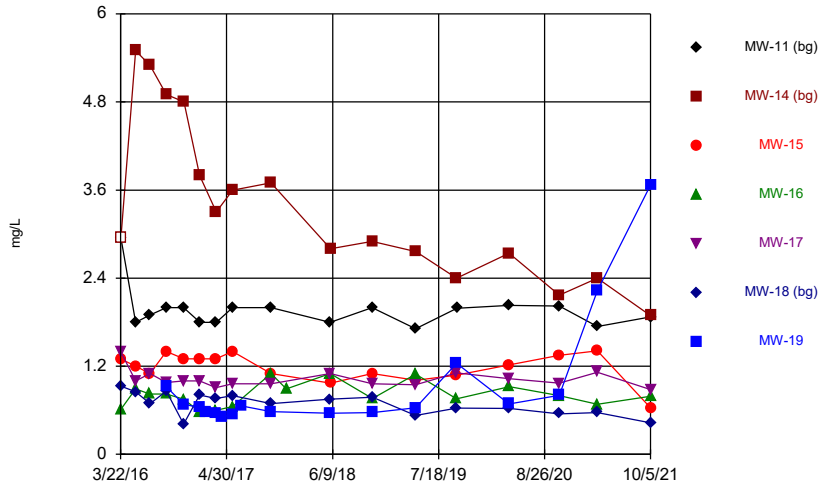
Time Series



Constituent: Boron Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Calcium Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

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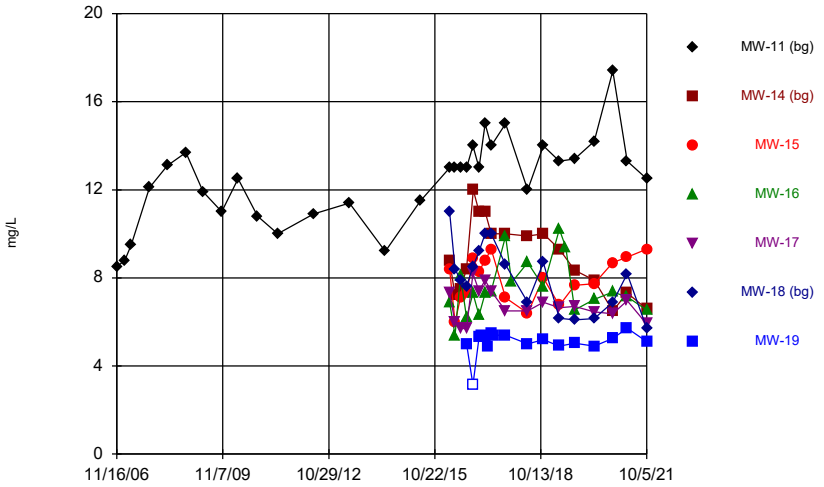
Hollow symbols indicate censored values.

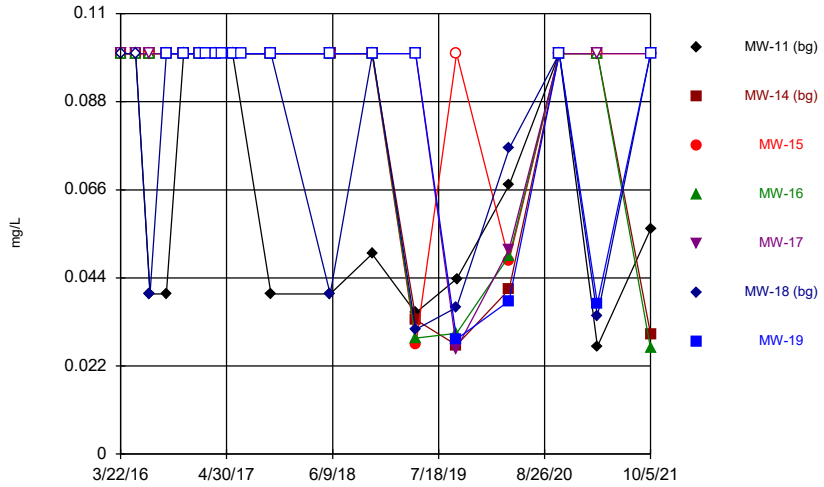
Time Series



Constituent: Chloride Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

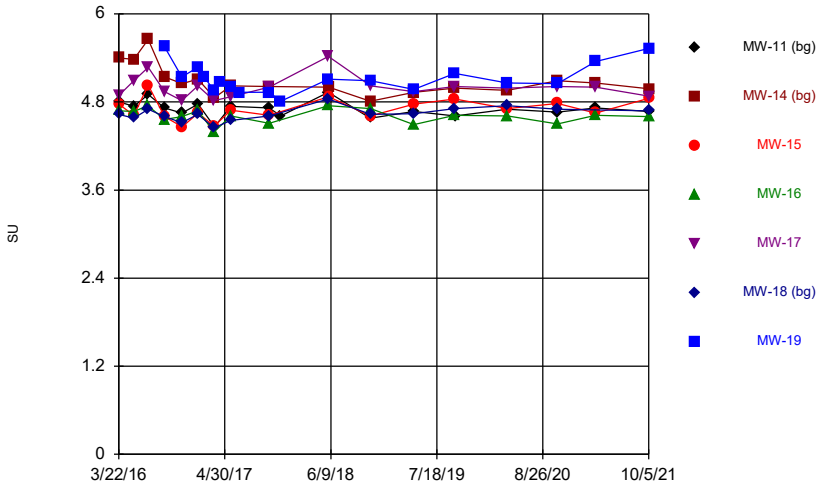
Time Series



Constituent: Fluoride Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



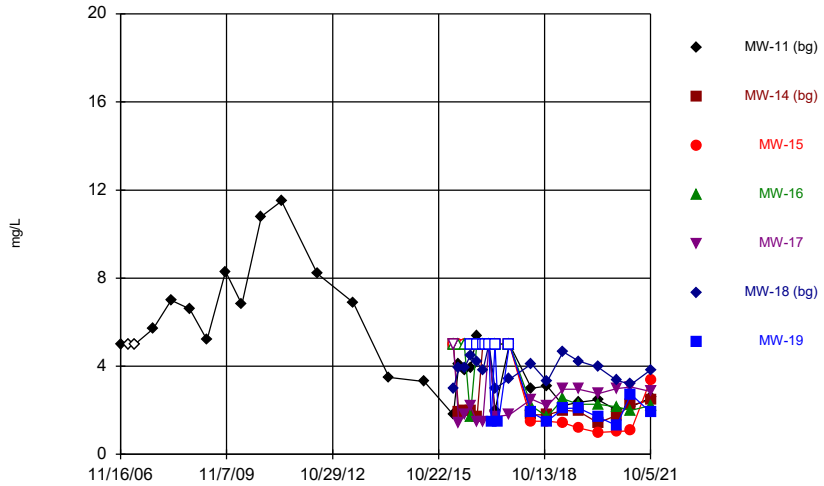
Constituent: pH Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



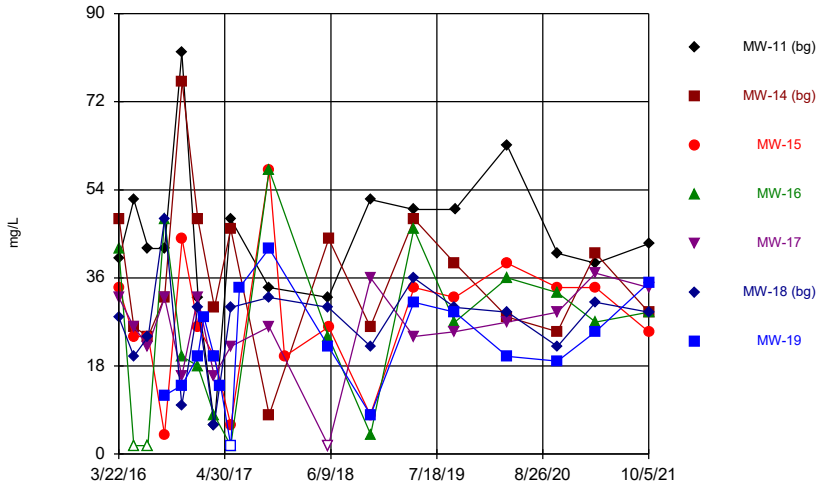
Constituent: Sulfate Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	
3/23/2016	<0.08 (B1)	<0.08 (B1)					
5/18/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
7/11/2016				<0.08			
7/12/2016	<0.08	<0.08	<0.08		<0.08	0.026 (J)	
9/12/2016	<0.08	<0.08	<0.08		<0.08	<0.08	<0.08
9/13/2016				<0.08			
11/17/2016				<0.08			
11/18/2016	<0.08				<0.08	<0.08	<0.08
11/19/2016		<0.08	<0.08				
1/18/2017		<0.08		<0.08	<0.08	<0.08	<0.08
1/19/2017	<0.08		<0.08				
2/10/2017							<0.08
3/21/2017			<0.08	<0.08	<0.08	<0.08	<0.08
3/22/2017	<0.08	<0.08					
4/14/2017							<0.08
5/23/2017			<0.08	<0.08			<0.08
5/24/2017	<0.08	<0.08			<0.08	<0.08	
6/26/2017							<0.08
10/17/2017	<0.08	<0.08	<0.08	<0.08	<0.08	0.025 (J)	<0.08
5/31/2018	<0.08			<0.08	<0.08	0.022 (J)	<0.08
6/1/2018		<0.08	<0.08				
11/7/2018	<0.08	<0.08	<0.08				
11/8/2018				<0.08	<0.08	<0.08	<0.08
4/22/2019	<0.08			<0.08	<0.08	<0.08	<0.08
4/23/2019		<0.08	<0.08				
9/26/2019		<0.08	<0.08	<0.08	<0.08	0.042 (J)	<0.08
9/27/2019	0.0443 (J)						
4/13/2020	<0.08	<0.08	<0.08		<0.08		<0.08
4/14/2020				<0.08		<0.08	
10/21/2020				<0.08			<0.08
10/22/2020	0.103	0.0559 (J)	0.0437 (J)		<0.08	0.0401 (J)	
3/16/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
10/5/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			1.3 (B1)	0.61 (B1)	1.4 (B1)	0.93 (B1)	
3/23/2016	<5.9 (*)	<5.9 (*)					
5/18/2016	1.8	5.5	1.2	0.89	1	0.85	
7/11/2016				0.82			
7/12/2016	1.9	5.3	1.1		1.1	0.69	
9/12/2016	2	4.9	1.4		0.98	0.86	0.92
9/13/2016				0.82			
11/17/2016				0.75			
11/18/2016	2				1	0.41	0.68
11/19/2016		4.8	1.3				
1/18/2017		3.8		0.58	1	0.81	0.64
1/19/2017	1.8		1.3				
2/10/2017							0.58
3/21/2017			1.3	0.6	0.91	0.76	0.56
3/22/2017	1.8	3.3					
4/14/2017							0.51
5/23/2017			1.4	0.65			0.54
5/24/2017	2	3.6			0.96	0.8	
6/26/2017							0.66
10/17/2017	2	3.7	1.1	1.1	0.96	0.69	0.58
12/15/2017				0.89 (RS)			
5/31/2018	1.8			1.1	1.1	0.75	0.56
6/1/2018		2.8	0.97				
11/7/2018	2	2.9	1.1				
11/8/2018				0.76	0.96	0.78	0.57
4/22/2019	1.71			1.09	0.946	0.531	0.634
4/23/2019		2.76	1.01				
9/26/2019		2.4	1.08	0.758	1.11	0.631	1.24
9/27/2019	1.99						
4/13/2020	2.03	2.74	1.22		1.03		0.687
4/14/2020				0.92		0.627	
10/21/2020				0.798			0.806
10/22/2020	2.02	2.17	1.35		0.969	0.553	
3/16/2021	1.74	2.4	1.41	0.681	1.12	0.57	2.23
10/5/2021	1.87	1.89	0.632	0.793	0.883	0.43 (J)	3.67

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	8.5						
2/5/2007	8.8						
4/12/2007	9.5						
10/17/2007	12.1						
4/17/2008	13.1						
10/24/2008	13.7						
4/21/2009	11.9						
10/26/2009	11						
4/12/2010	12.5						
10/30/2010	10.8						
5/25/2011	10						
5/25/2012	10.9						
5/28/2013	11.4						
5/31/2014	9.2						
5/29/2015	11.5						
3/22/2016			8.4 (B1)	6.9 (B1)	7.3 (B1)	11 (B1)	
3/23/2016	13	8.8 (B1)					
5/18/2016	13	7.2	6	5.4	6	8.4	
7/11/2016				8.1			
7/12/2016	13	7.5	7.1		5.7	7.9	
9/12/2016	13	8.4	7.3		5.7	7.6	5
9/13/2016				6.2			
11/17/2016				7.3			
11/18/2016	14				8.2	8.5	<6.3 (*)
11/19/2016		12	8.9				
1/18/2017		11		6.3	7.4	9.2	5.3
1/19/2017	13		8.3				
2/10/2017							5.4
3/21/2017			8.8	7.3	7.9	10	5.3
3/22/2017	15	11					
4/14/2017							4.9 (B)
5/23/2017			9.3	7.4			5.5
5/24/2017	14	10			7.4	10	
6/26/2017							5.4
10/17/2017	15	10	7.1	9.9	6.5	8.6	5.4
12/19/2017				7.8 (RS)			
5/31/2018	12			8.7	6.5	6.9	5
6/1/2018		9.9	6.4				
11/7/2018	14	10	8				
11/8/2018				7.6	6.9	8.7	5.2
4/22/2019	13.3			10.2	6.64	6.17	4.91
4/23/2019		9.3	6.75				
6/25/2019				9.4			
9/26/2019		8.35	7.66	6.54	6.7	6.09	5.03
9/27/2019	13.4						
4/13/2020	14.2	7.9	7.74		6.46		4.9
4/14/2020				7.03		6.15	
10/21/2020				7.36			5.25
10/22/2020	17.4	6.5	8.69		6.37	6.89	
3/16/2021	13.3	7.32	8.94	7.14	6.97	8.18	5.72
10/5/2021	12.5	6.59	9.3	6.55	5.91	5.72	5.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	
3/23/2016	<0.1	<0.1 (B1)					
5/18/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/2016				<0.1			
7/12/2016	0.04 (J)	<0.1	<0.1		<0.1	0.04 (J)	
9/12/2016	0.04 (J)	<0.1	<0.1		<0.1	<0.1	<0.1
9/13/2016				<0.1			
11/17/2016				<0.1			
11/18/2016	<0.1				<0.1	<0.1	<0.1
11/19/2016		<0.1	<0.1				
1/18/2017		<0.1		<0.1	<0.1	<0.1	<0.1
1/19/2017	<0.1		<0.1				
2/10/2017							<0.1
3/21/2017			<0.1	<0.1	<0.1	<0.1	<0.1
3/22/2017	<0.1	<0.1					
4/14/2017							<0.1
5/23/2017			<0.1	<0.1			<0.1
5/24/2017	<0.1	<0.1			<0.1	<0.1	
6/26/2017							<0.1
10/17/2017	0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5/31/2018	0.04 (J)			<0.1	<0.1	0.04 (J)	<0.1
6/1/2018		<0.1	<0.1				
11/7/2018	0.05 (J)	<0.1	<0.1				
11/8/2018				<0.1	<0.1	<0.1	<0.1
4/22/2019	0.0353 (J)			0.029 (J)	<0.1	0.0311 (J)	<0.1
4/23/2019		0.0335 (J)	0.0275 (J)				
9/26/2019		0.0272 (J)	<0.1	0.0302 (J)	0.0263 (J)	0.0366 (J)	0.0287 (J)
9/27/2019	0.0438 (J)						
4/13/2020	0.0672 (J)	0.0411 (J)	0.0484 (J)		0.0511 (J)		0.0382 (J)
4/14/2020				0.0496 (J)		0.0764 (J)	
10/21/2020				<0.1			<0.1
10/22/2020	<0.1	<0.1	<0.1		<0.1	<0.1	
3/16/2021	0.0269 (J)	<0.1	<0.1	<0.1	<0.1	0.0344 (J)	0.0376 (J)
10/5/2021	0.0561 (J)	0.03 (J)	<0.1	0.0264 (J)	<0.1	<0.1	<0.1

Time Series

Constituent: pH (SU) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			4.77	4.68	4.89	4.63	
3/23/2016	4.8	5.4					
5/18/2016	4.74	5.38	4.62	4.67	5.09	4.58	
7/11/2016				4.75			
7/12/2016	4.9	5.65	5.03		5.27	4.7	
9/12/2016	4.72	5.14	4.6		4.94	4.6	5.55
9/13/2016				4.56			
11/17/2016				4.6			
11/18/2016	4.65				4.82	4.52	5.14
11/19/2016		5.05	4.46				
1/18/2017		5.11		4.68	5.02	4.63	5.27
1/19/2017	4.77		4.65				
2/10/2017							5.14
3/21/2017			4.47	4.39	4.82	4.45	4.96
3/22/2017	4.46	4.86					
4/14/2017							5.07
5/23/2017			4.69	4.61			5.01
5/24/2017	4.74	5.02			4.87	4.55	
6/26/2017							4.93
10/17/2017	4.72	5.01	4.62	4.51	5	4.61	4.93
11/30/2017	4.61						4.81
5/31/2018	4.93			4.75	5.42	4.84	5.11
6/1/2018		5	4.87				
11/7/2018	4.58	4.81	4.61				
11/8/2018				4.71	5.02	4.63	5.09
4/22/2019	4.67			4.49	4.94	4.64	4.97
4/23/2019		4.93	4.77				
9/26/2019		4.99	4.84	4.62	5.01	4.71	5.19
9/27/2019	4.61						
4/13/2020	4.7	4.96	4.71		4.99		5.06
4/14/2020				4.61		4.75	
10/21/2020				4.5			5.05
10/22/2020	4.66	5.09	4.78		5.01	4.7	
3/16/2021	4.72	5.06	4.65	4.62	5		5.35
10/5/2021	4.67	4.98	4.85	4.6	4.88	4.68	5.53

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	5						
2/5/2007	<5						
4/12/2007	<5						
10/17/2007	5.7						
4/17/2008	7						
10/24/2008	6.6						
4/21/2009	5.2						
10/26/2009	8.3						
4/12/2010	6.8						
10/30/2010	10.8						
5/25/2011	11.5						
5/25/2012	8.2						
5/28/2013	6.9						
5/31/2014	3.5						
5/29/2015	3.3						
3/22/2016			<5	<5	<5	3 (J)	
3/23/2016	1.8 (J)	<5					
5/18/2016	4.1	1.9	<5	<5	1.4	3.9 (J)	
7/11/2016				<5			
7/12/2016	3.8 (J)	2 (J)	<5		1.8 (J)	3.9 (J)	
9/12/2016	3.9 (J)	2 (J)	<5		2.2 (J)	4.5 (J)	<5
9/13/2016				1.7 (J)			
11/17/2016				<5			
11/18/2016	5.4				1.5 (J)	4.2 (J)	<5
11/19/2016		1.7 (J)	<5				
1/18/2017		<5		<5	1.5 (J)	3.8 (J)	<5
1/19/2017	<5		<5				
2/10/2017							<5
3/21/2017			<5	<5	<5	<5 (*)	<5
3/22/2017	<5	<5					
4/14/2017							1.5 (J)
5/23/2017			<5	<5			<5
5/24/2017	2 (J)	<5			1.7 (J)	3 (J)	
6/26/2017							1.5 (J)
10/17/2017	<5	<5	<5	<5	1.8 (J)	3.4 (J)	<5
5/31/2018	3 (J)			2.2 (J)	2.5 (J)	4.1 (J)	1.9 (J)
6/1/2018		1.8 (J)	1.5 (J)				
11/7/2018	3.1 (J)	1.8 (J)	1.5 (J)				
11/8/2018				1.7 (J)	2.2 (J)	3.3 (J)	1.5 (J)
4/22/2019	2.22			2.52	2.96	4.66	2.09
4/23/2019		1.99	1.43				
9/26/2019		1.95	1.2	2.28	2.96	4.23	2.1
9/27/2019	2.36						
4/13/2020	2.47	1.43	0.992 (J)		2.75		1.69
4/14/2020				2.27		3.96	
10/21/2020				2.15			1.31
10/22/2020	2.01	1.76	1.04		2.98	3.37	
3/16/2021	2.15	2.23	1.07	2	3.06	3.18	2.72
10/5/2021	2.57	2.46	3.38	2.22	2.85	3.83	1.91

Time Series

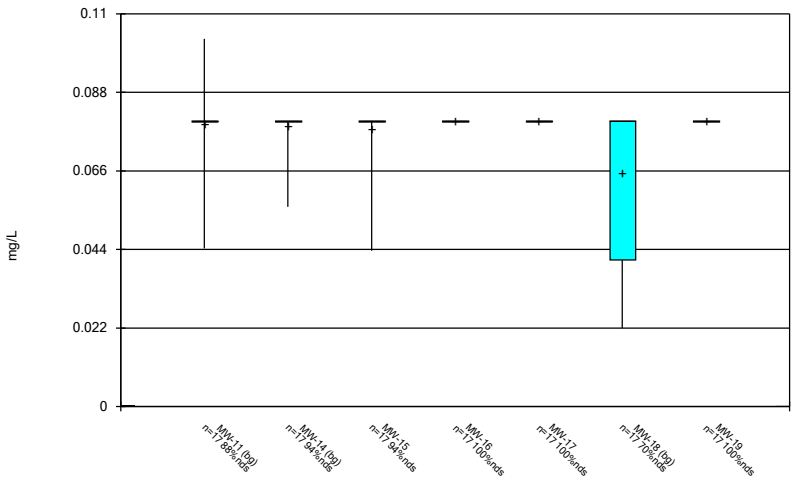
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			34 (B1)	42 (B1)	32 (B1)	28 (B1)	
3/23/2016	40	48 (B1)					
5/18/2016	52	26	24	<3.4	26	20	
7/11/2016				<3.4			
7/12/2016	42	24	24		22	24	
9/12/2016	42	32	4 (J)		32	48	12
9/13/2016				48			
11/17/2016				20			
11/18/2016	82				16	10	14
11/19/2016		76	44				
1/18/2017		48		18	32	30	20
1/19/2017	32		26				
2/10/2017							28
3/21/2017			20	8	16	6	20
3/22/2017	6	30					
4/14/2017							14
5/23/2017			6	<3.4			<3.4
5/24/2017	48	46			22	30	
6/26/2017							34
10/17/2017	34	8	58	58	26	32	42
12/15/2017			20 (RS)				
5/31/2018	32			24	<3.4	30	22
6/1/2018		44	26				
11/7/2018	52	26	8				
11/8/2018				4 (J)	36	22	8
4/22/2019	50			46	24	36	31
4/23/2019		48	34				
9/26/2019		39	32	27	25	30	29
9/27/2019	50						
4/13/2020	63	28	39		27		20
4/14/2020				36		29	
10/21/2020				33			19
10/22/2020	41	25	34		29	22	
3/16/2021	39	41	34	27	37	31	25
10/5/2021	43	29	25	29	34	29	35

FIGURE B.

Box & Whiskers Plot

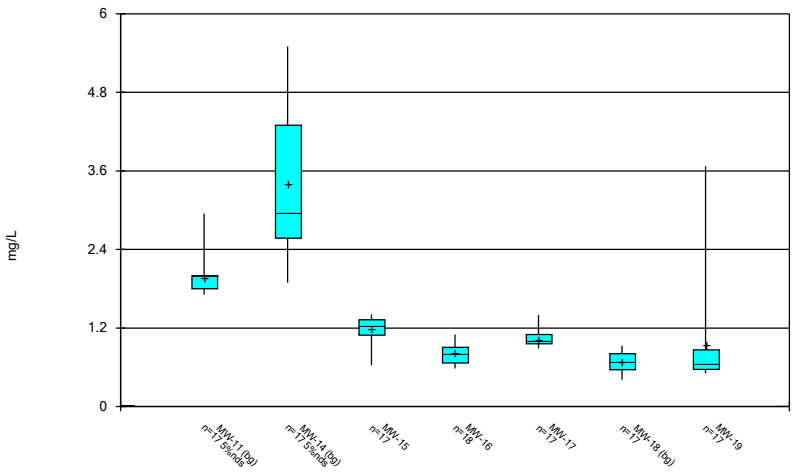


Constituent: Boron Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

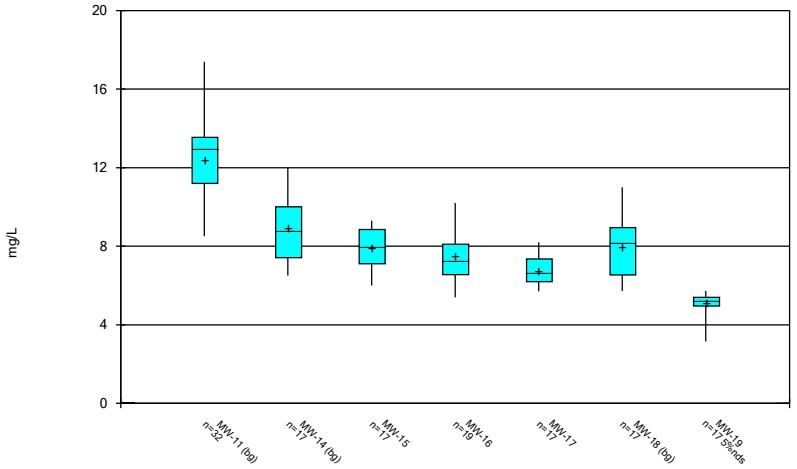


Constituent: Calcium Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

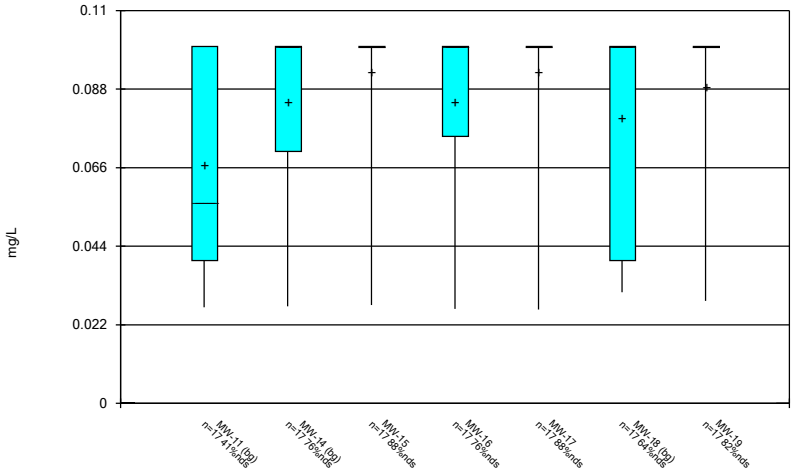


Constituent: Chloride Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

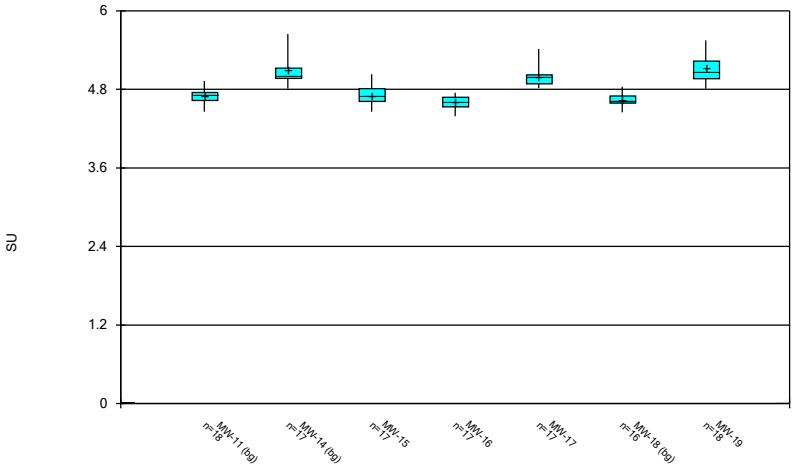
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Box & Whiskers Plot

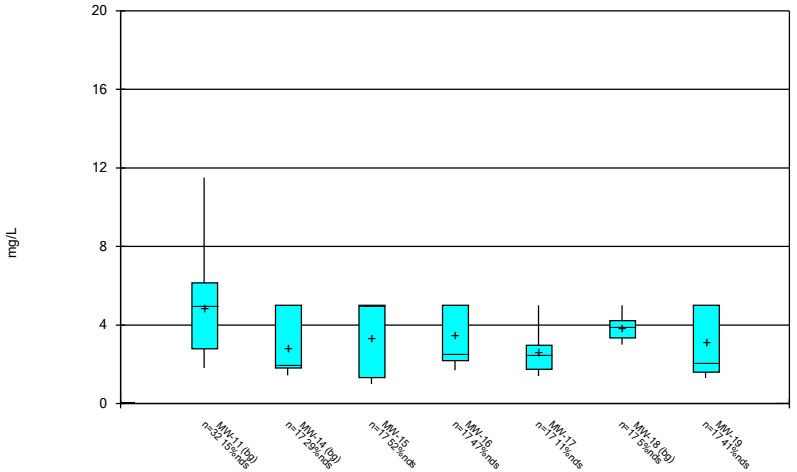


Constituent: pH Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

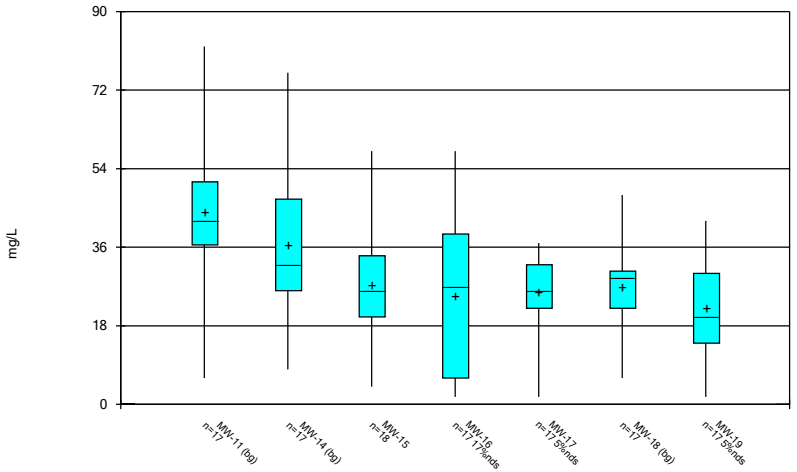


Constituent: Sulfate Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/13/2021, 4:13 PM

No outliers were flagged.

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**	**None**	**No**	**0.0009398**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:36 PM

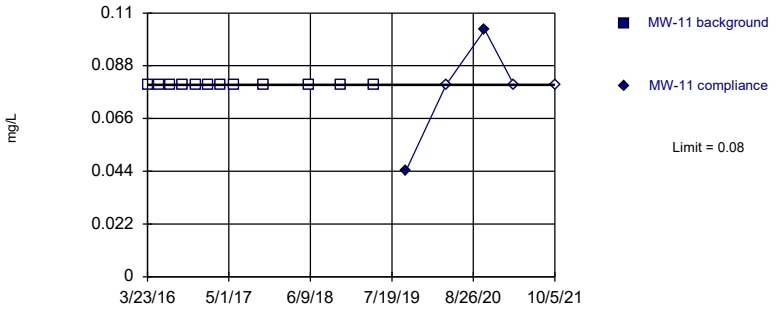
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	10/5/2021	0.08ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	10/5/2021	1.87	No	12	8.333		None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	10/5/2021	1.89	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	10/5/2021	0.632	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	10/5/2021	0.793	No	13	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	10/5/2021	0.883	No	12	0		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	10/5/2021	0.43J	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**		**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	10/5/2021	12.5	No	27	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	10/5/2021	6.59	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	10/5/2021	9.3	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	10/5/2021	6.55	No	13	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	10/5/2021	5.91	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	10/5/2021	5.72	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	10/5/2021	5.1	No	12	8.333		None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	10/5/2021	0.0561J	No	12	50		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	10/5/2021	0.03J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	10/5/2021	0.1ND	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	10/5/2021	0.0264J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	10/5/2021	0.1ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	10/5/2021	4.67	No	13	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	10/5/2021	4.98	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	10/5/2021	4.85	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	10/5/2021	4.6	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	10/5/2021	4.88	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	10/5/2021	4.68	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**		**None**	**No**	**0.0009398**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-11	9.808	n/a	10/5/2021	2.57	No	27	18.52		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	10/5/2021	2.46	No	12	41.67		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	10/5/2021	3.38	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	10/5/2021	2.22	No	12	66.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	3.046	n/a	10/5/2021	2.85	No	12	16.67		Kaplan-Meier	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.327	n/a	10/5/2021	3.83	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	10/5/2021	1.91	No	12	58.33		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	10/5/2021	43	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	10/5/2021	25	No	13	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	10/5/2021	29	No	12	25		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	10/5/2021	34	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	10/5/2021	35	No	12	8.333		None	No	0.00188	Param Intra 1 of 2

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

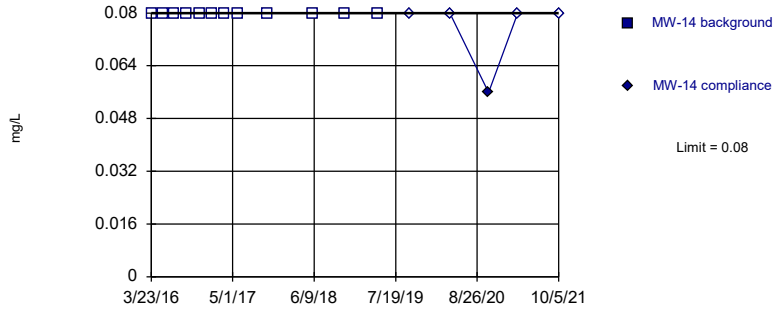
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

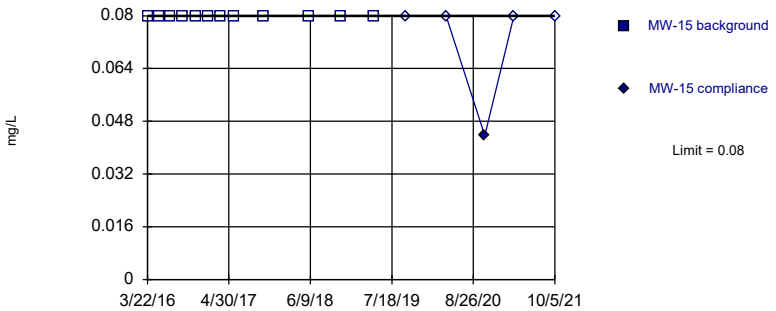
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

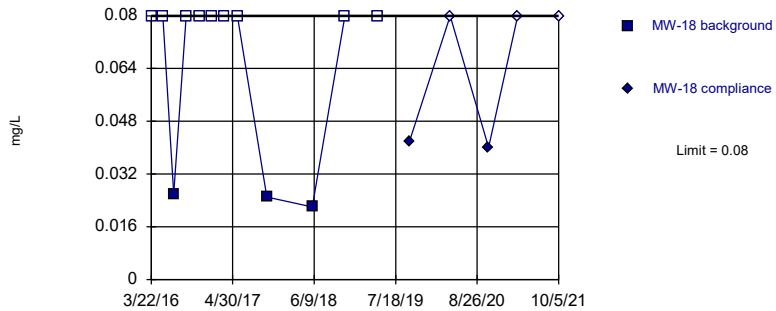
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

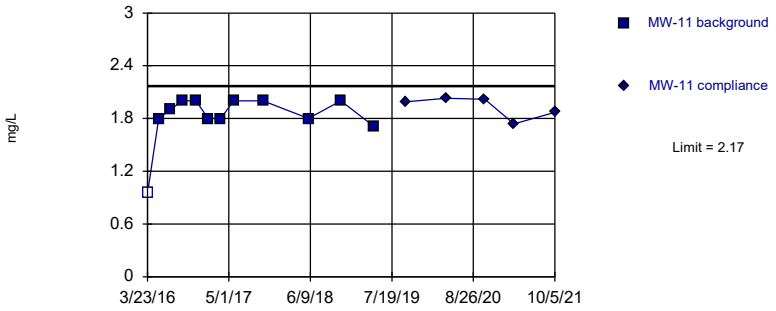
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=12.03, Std. Dev.=4.544, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8072, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

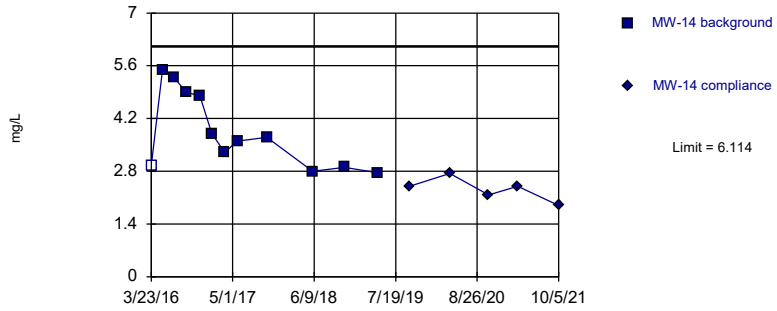
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.859, Std. Dev.=1.01, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

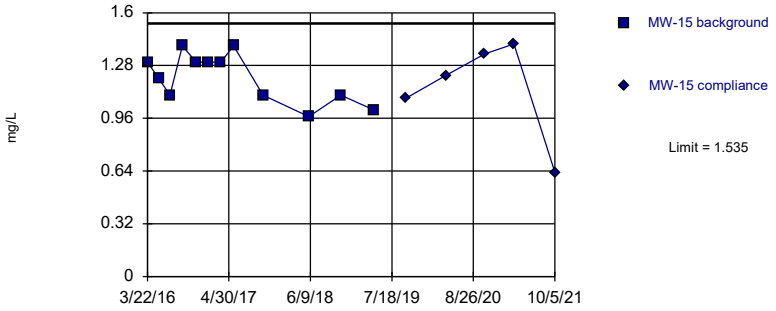
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.207, Std. Dev.=0.1472, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

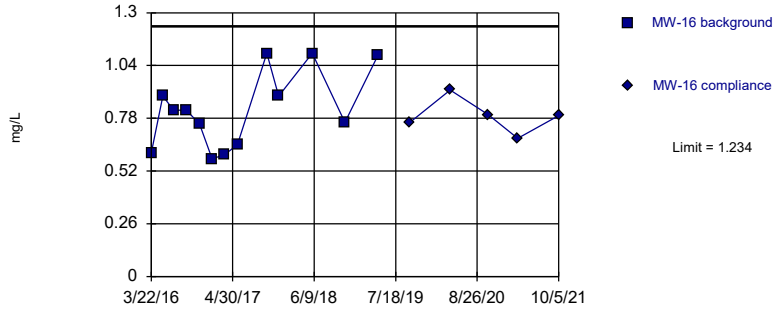
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.82, Std. Dev.=0.1886, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9011, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

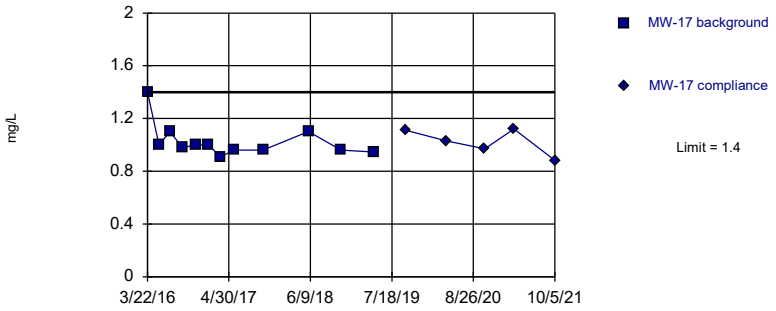
Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

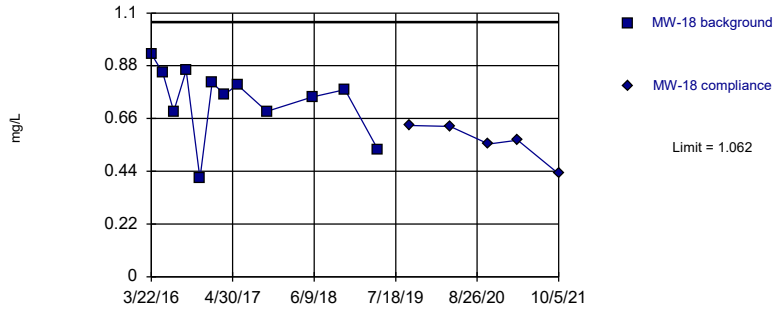
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7384, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

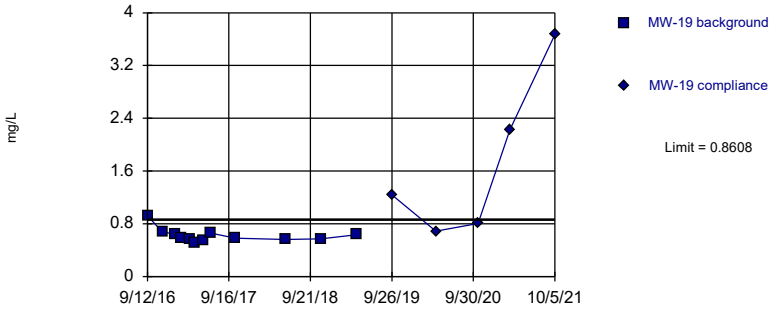
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.7847, Std. Dev.=0.06412, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

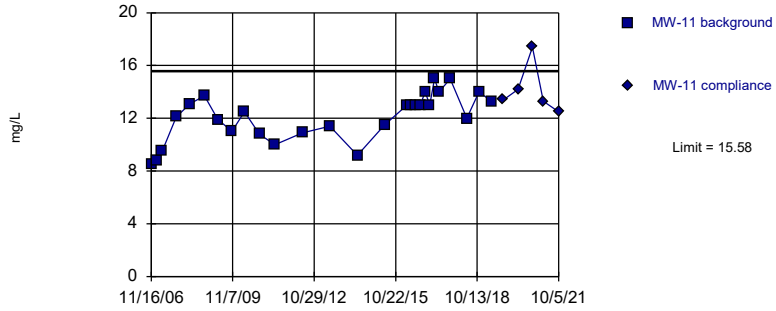
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12.12, Std. Dev.=1.814, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

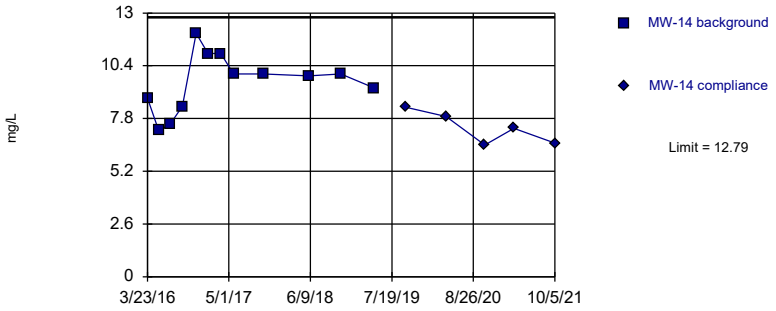
Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.592, Std. Dev.=1.433, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

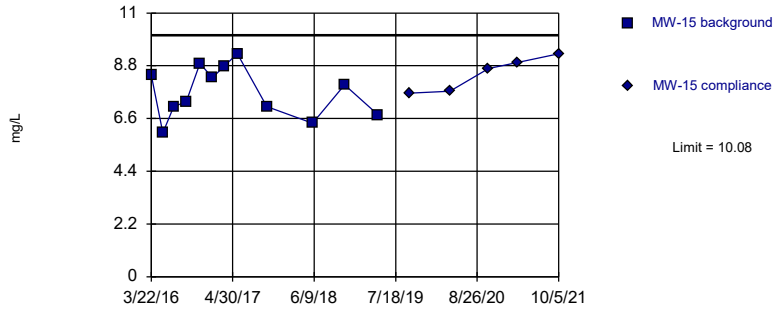
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.696, Std. Dev.=1.067, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

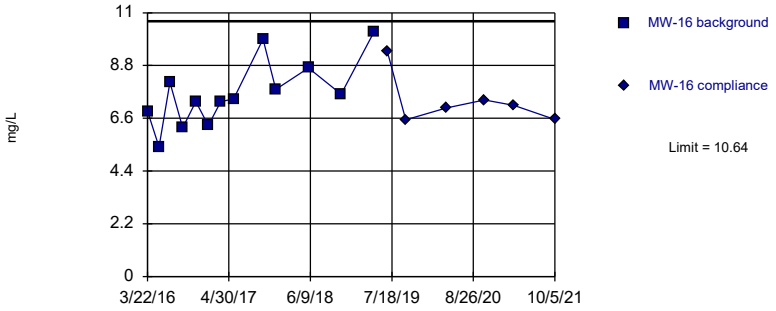
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.623, Std. Dev.=1.377, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9538, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

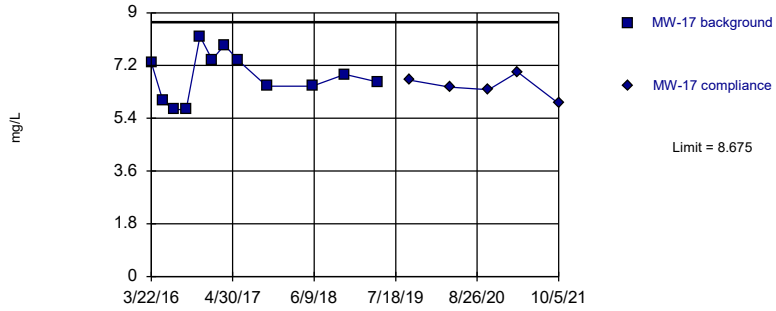
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.845, Std. Dev.=0.8197, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

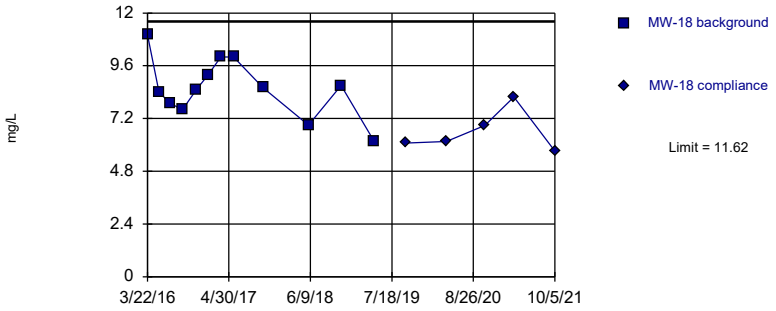
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.581, Std. Dev.=1.361, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

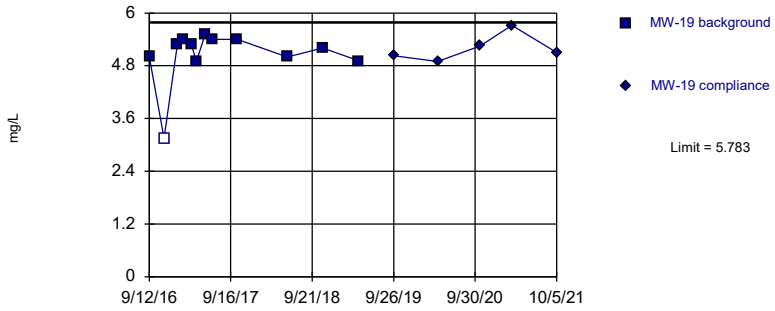
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=3601, Std. Dev.=1285, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8476, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

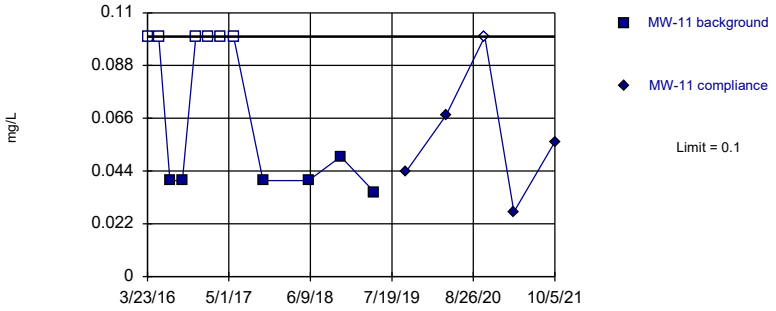
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

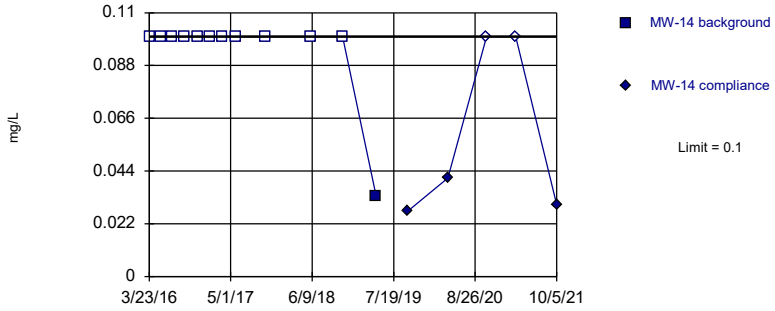
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

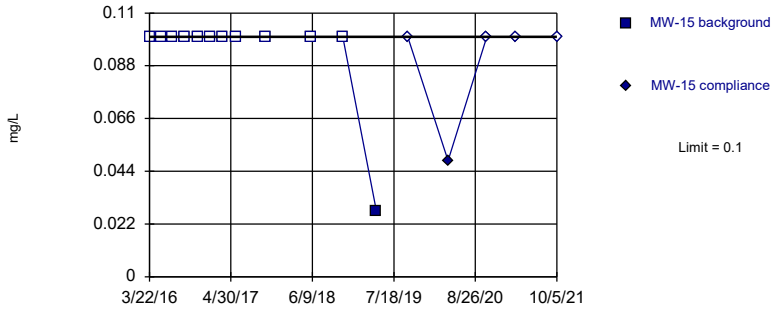
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

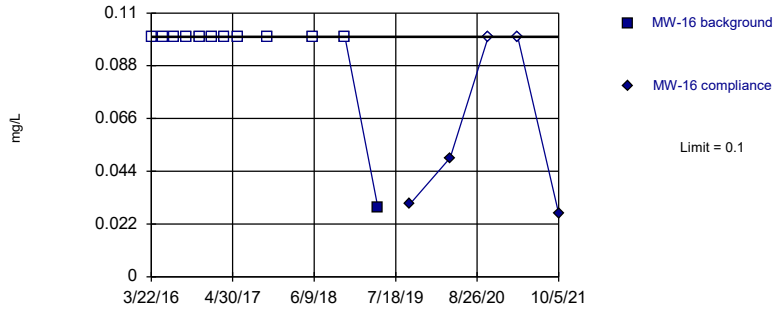
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

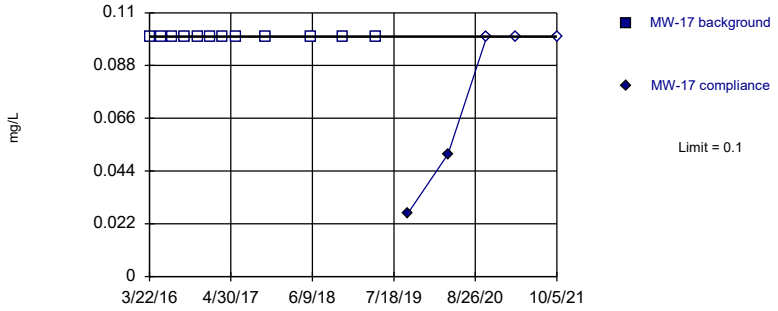
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

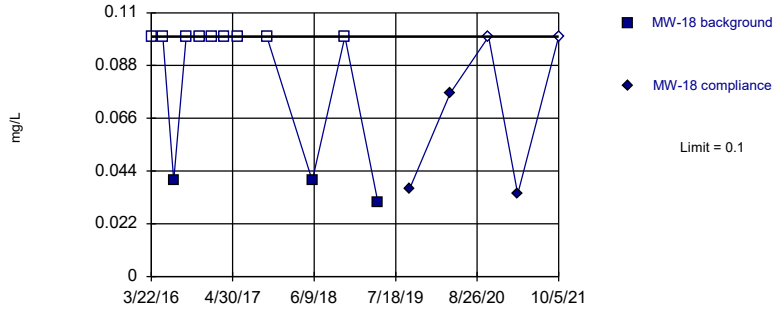
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

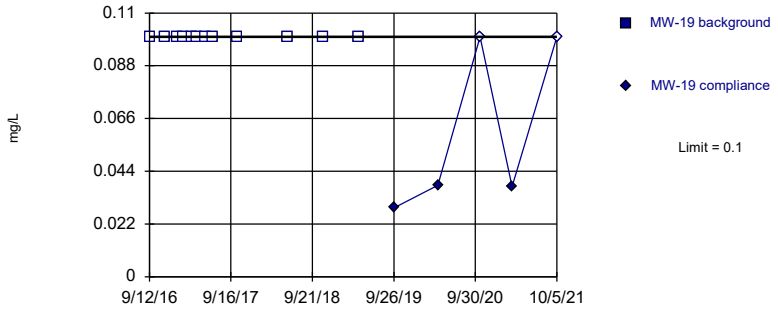
Plant Daniel Client: Southern Company Data: NAMU CCR

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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

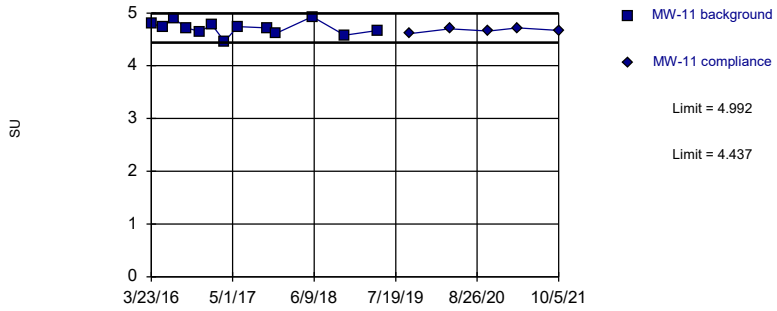
Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.715, Std. Dev.=0.1267, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

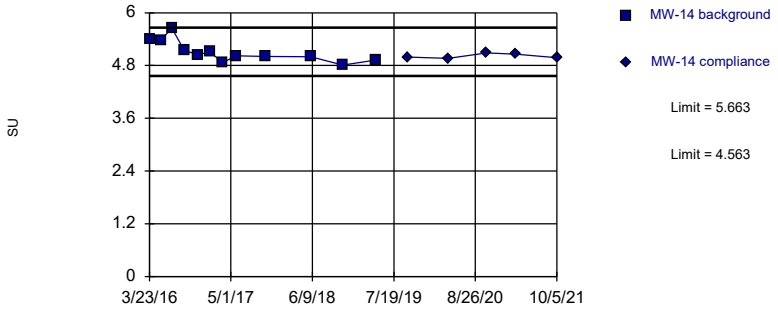
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.113, Std. Dev.=0.2464, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

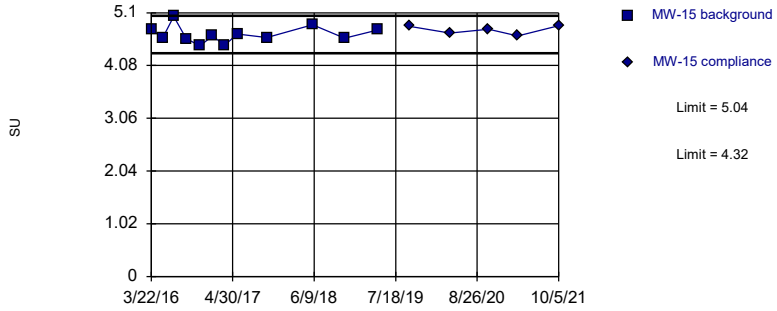
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.68, Std. Dev.=0.1615, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

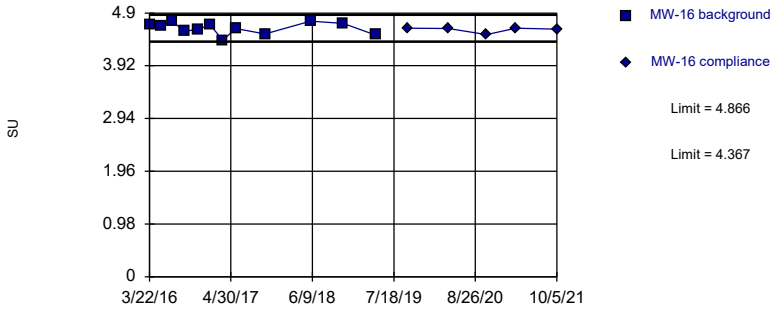
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.617, Std. Dev.=0.1118, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

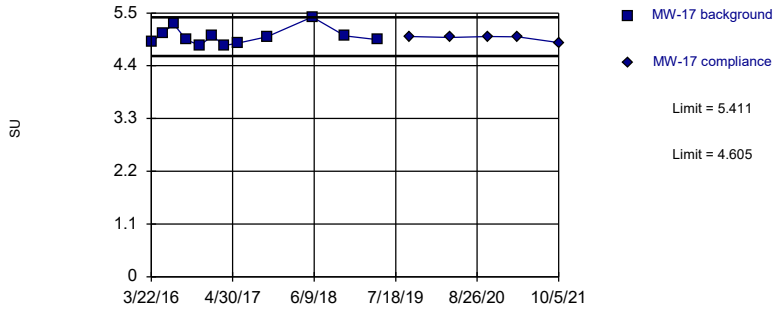
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.008, Std. Dev.=0.1805, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

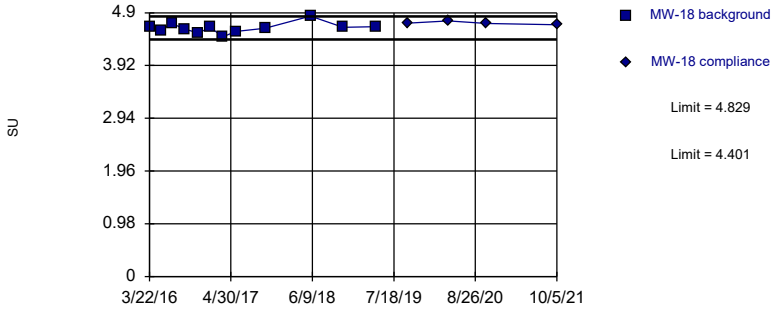
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.615, Std. Dev.=0.09587, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

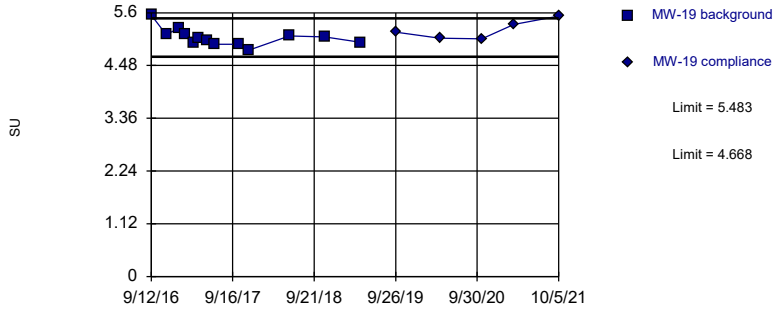
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.075, Std. Dev.=0.1858, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

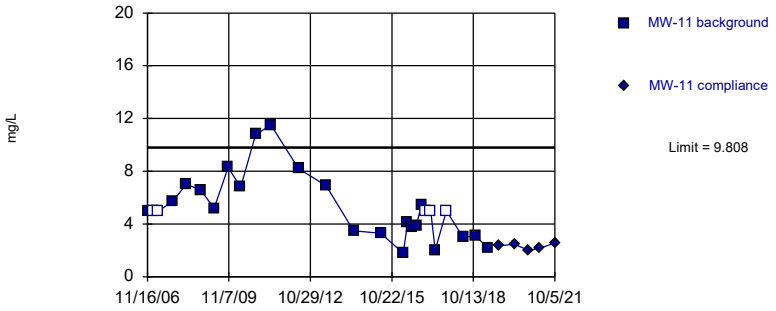
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.944, Std. Dev.=2.552, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

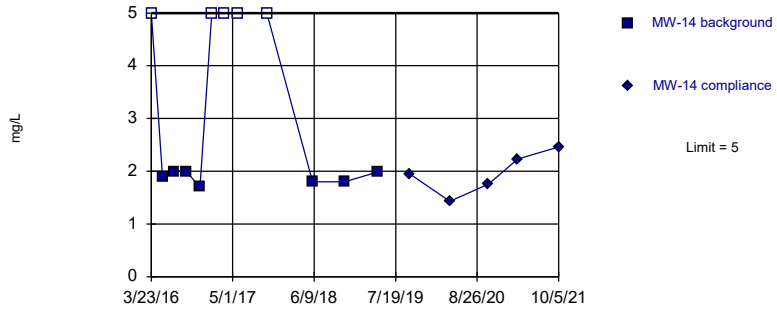
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

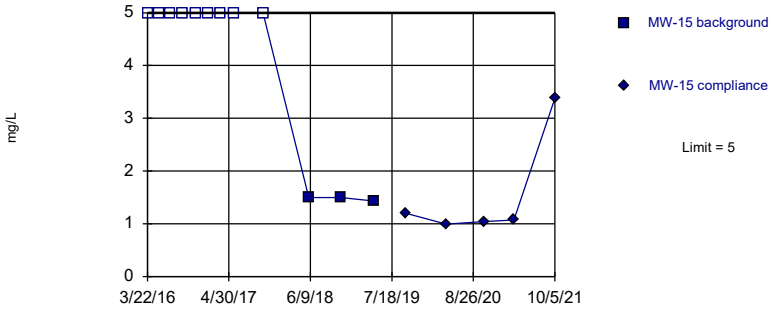
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

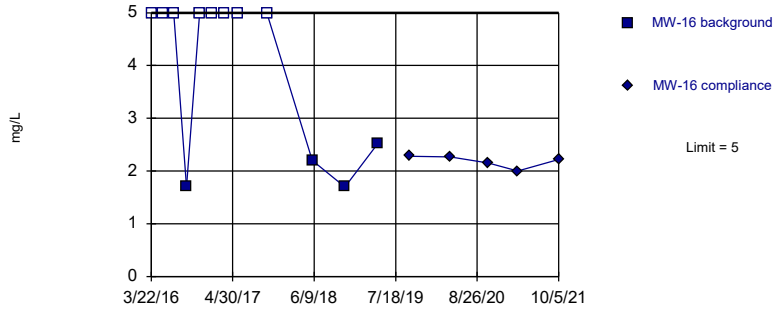
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

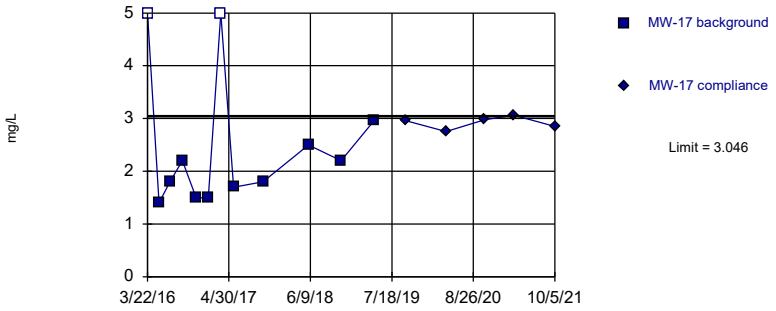
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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=1.349, Std. Dev.=0.1777, n=12, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

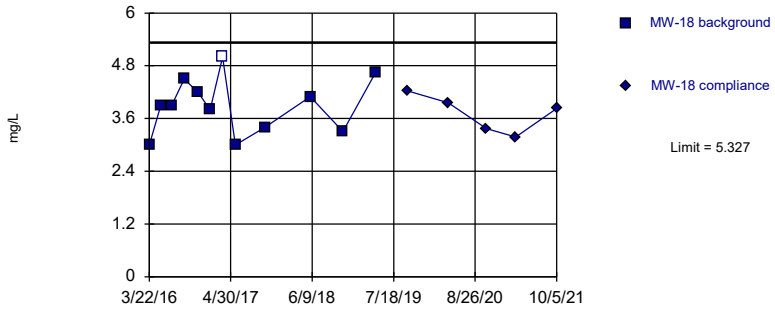
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.897, Std. Dev.=0.6408, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9606, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

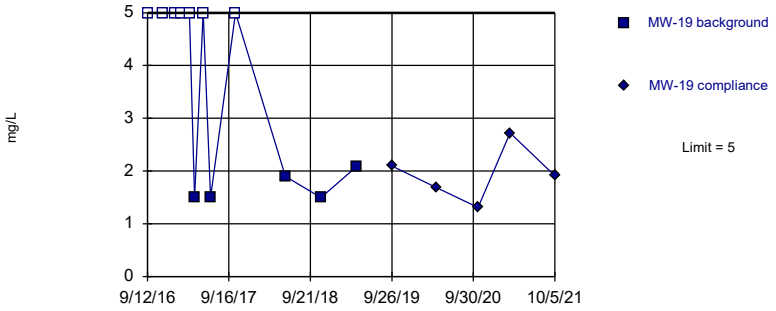
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

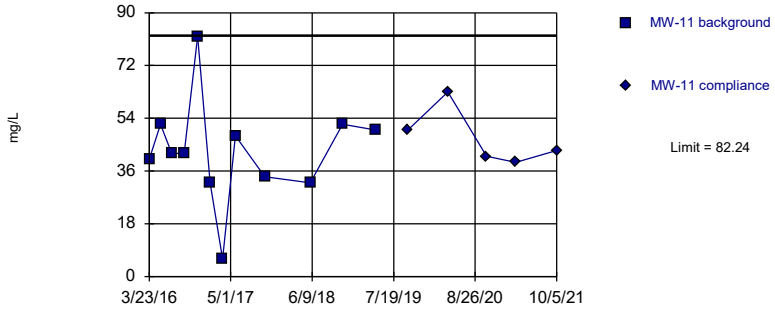
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.67, Std. Dev.=17.73, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

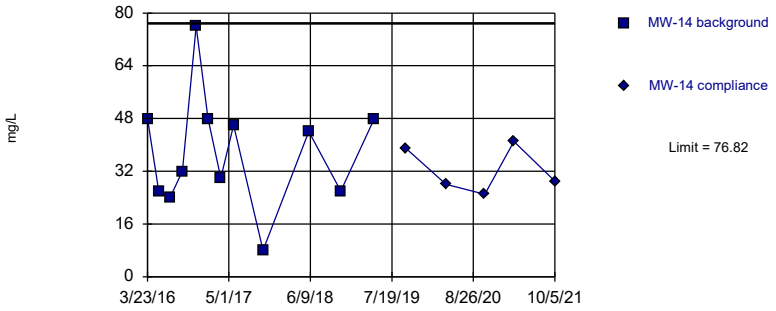
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38, Std. Dev.=17.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

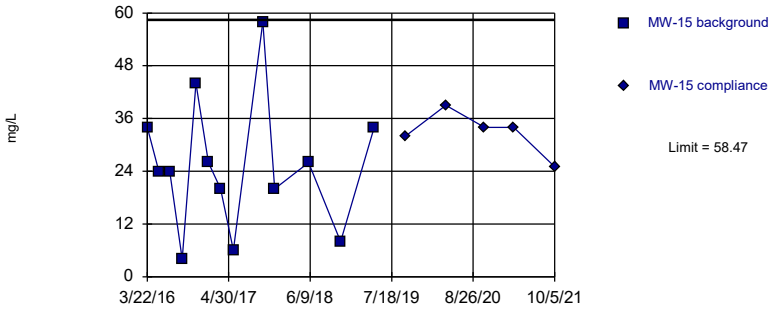
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.23, Std. Dev.=15.16, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

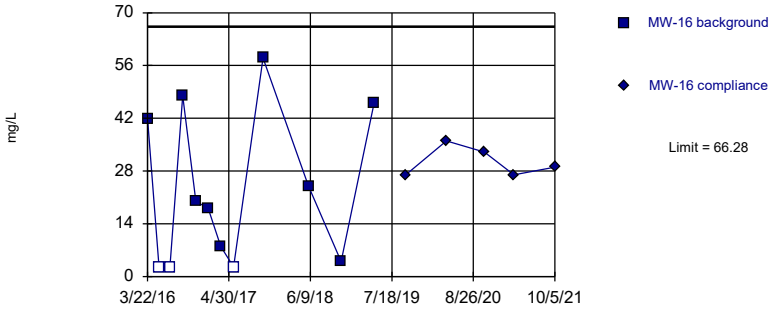
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=23.33, Std. Dev.=19.24, n=12, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8666, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

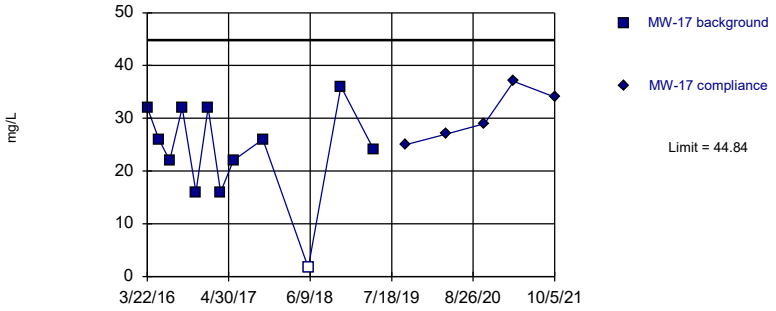
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.81, Std. Dev.=9.424, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

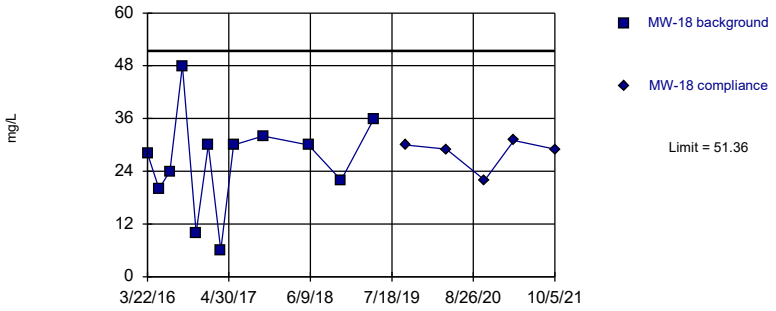
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=26.33, Std. Dev.=11.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

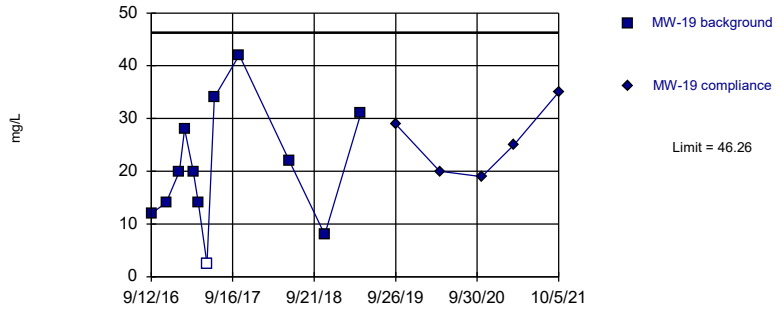
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.63, Std. Dev.=11.48, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9792, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/19/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
5/31/2018	<0.08	
11/7/2018	<0.08	
4/22/2019	<0.08	
9/27/2019		0.0443 (J)
4/13/2020		<0.08
10/22/2020		0.103
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/18/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0559 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/19/2017	<0.08	
3/21/2017	<0.08	
5/23/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0437 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	0.026 (J)	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/18/2017	<0.08	
3/21/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	0.025 (J)	
5/31/2018	0.022 (J)	
11/8/2018	<0.08	
4/22/2019	<0.08	
9/26/2019		0.042 (J)
4/14/2020		<0.08
10/22/2020		0.0401 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<1.9 (*)	
5/18/2016	1.8	
7/12/2016	1.9	
9/12/2016	2	
11/18/2016	2	
1/19/2017	1.8	
3/22/2017	1.8	
5/24/2017	2	
10/17/2017	2	
5/31/2018	1.8	
11/7/2018	2	
4/22/2019	1.71	
9/27/2019		1.99
4/13/2020		2.03
10/22/2020		2.02
3/16/2021		1.74
10/5/2021		1.87

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5.9 (*)	
5/18/2016	5.5	
7/12/2016	5.3	
9/12/2016	4.9	
11/19/2016	4.8	
1/18/2017	3.8	
3/22/2017	3.3	
5/24/2017	3.6	
10/17/2017	3.7	
6/1/2018	2.8	
11/7/2018	2.9	
4/23/2019	2.76	
9/26/2019		2.4
4/13/2020		2.74
10/22/2020		2.17
3/16/2021		2.4
10/5/2021		1.89

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	1.3 (B1)	
5/18/2016	1.2	
7/12/2016	1.1	
9/12/2016	1.4	
11/19/2016	1.3	
1/19/2017	1.3	
3/21/2017	1.3	
5/23/2017	1.4	
10/17/2017	1.1	
6/1/2018	0.97	
11/7/2018	1.1	
4/23/2019	1.01	
9/26/2019		1.08
4/13/2020		1.22
10/22/2020		1.35
3/16/2021		1.41
10/5/2021		0.632

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	0.61 (B1)	
5/18/2016	0.89	
7/11/2016	0.82	
9/13/2016	0.82	
11/17/2016	0.75	
1/18/2017	0.58	
3/21/2017	0.6	
5/23/2017	0.65	
10/17/2017	1.1	
12/15/2017	0.89 (RS)	
5/31/2018	1.1	
11/8/2018	0.76	
4/22/2019	1.09	
9/26/2019		0.758
4/14/2020		0.92
10/21/2020		0.798
3/16/2021		0.681
10/5/2021		0.793

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	1.4 (B1)	
5/18/2016	1	
7/12/2016	1.1	
9/12/2016	0.98	
11/18/2016	1	
1/18/2017	1	
3/21/2017	0.91	
5/24/2017	0.96	
10/17/2017	0.96	
5/31/2018	1.1	
11/8/2018	0.96	
4/22/2019	0.946	
9/26/2019		1.11
4/13/2020		1.03
10/22/2020		0.969
3/16/2021		1.12
10/5/2021		0.883

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	0.93 (B1)	
5/18/2016	0.85	
7/12/2016	0.69	
9/12/2016	0.86	
11/18/2016	0.41	
1/18/2017	0.81	
3/21/2017	0.76	
5/24/2017	0.8	
10/17/2017	0.69	
5/31/2018	0.75	
11/8/2018	0.78	
4/22/2019	0.531	
9/26/2019		0.631
4/14/2020		0.627
10/22/2020		0.553
3/16/2021		0.57
10/5/2021		0.43 (J)

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	0.92	
11/18/2016	0.68	
1/18/2017	0.64	
2/10/2017	0.58	
3/21/2017	0.56	
4/14/2017	0.51	
5/23/2017	0.54	
6/26/2017	0.66	
10/17/2017	0.58	
5/31/2018	0.56	
11/8/2018	0.57	
4/22/2019	0.634	
9/26/2019		1.24
4/13/2020		0.687
10/21/2020		0.806
3/16/2021		2.23
10/5/2021		3.67

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	8.5	
2/5/2007	8.8	
4/12/2007	9.5	
10/17/2007	12.1	
4/17/2008	13.1	
10/24/2008	13.7	
4/21/2009	11.9	
10/26/2009	11	
4/12/2010	12.5	
10/30/2010	10.8	
5/25/2011	10	
5/25/2012	10.9	
5/28/2013	11.4	
5/31/2014	9.2	
5/29/2015	11.5	
3/23/2016	13	
5/18/2016	13	
7/12/2016	13	
9/12/2016	13	
11/18/2016	14	
1/19/2017	13	
3/22/2017	15	
5/24/2017	14	
10/17/2017	15	
5/31/2018	12	
11/7/2018	14	
4/22/2019	13.3	
9/27/2019		13.4
4/13/2020		14.2
10/22/2020		17.4
3/16/2021		13.3
10/5/2021		12.5

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	8.8 (B1)	
5/18/2016	7.2	
7/12/2016	7.5	
9/12/2016	8.4	
11/19/2016	12	
1/18/2017	11	
3/22/2017	11	
5/24/2017	10	
10/17/2017	10	
6/1/2018	9.9	
11/7/2018	10	
4/23/2019	9.3	
9/26/2019		8.35
4/13/2020		7.9
10/22/2020		6.5
3/16/2021		7.32
10/5/2021		6.59

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	8.4 (B1)	
5/18/2016	6	
7/12/2016	7.1	
9/12/2016	7.3	
11/19/2016	8.9	
1/19/2017	8.3	
3/21/2017	8.8	
5/23/2017	9.3	
10/17/2017	7.1	
6/1/2018	6.4	
11/7/2018	8	
4/23/2019	6.75	
9/26/2019		7.66
4/13/2020		7.74
10/22/2020		8.69
3/16/2021		8.94
10/5/2021		9.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	6.9 (B1)	
5/18/2016	5.4	
7/11/2016	8.1	
9/13/2016	6.2	
11/17/2016	7.3	
1/18/2017	6.3	
3/21/2017	7.3	
5/23/2017	7.4	
10/17/2017	9.9	
12/19/2017	7.8 (RS)	
5/31/2018	8.7	
11/8/2018	7.6	
4/22/2019	10.2	
6/25/2019		9.4
9/26/2019		6.54
4/14/2020		7.03
10/21/2020		7.36
3/16/2021		7.14
10/5/2021		6.55

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	7.3 (B1)	
5/18/2016	6	
7/12/2016	5.7	
9/12/2016	5.7	
11/18/2016	8.2	
1/18/2017	7.4	
3/21/2017	7.9	
5/24/2017	7.4	
10/17/2017	6.5	
5/31/2018	6.5	
11/8/2018	6.9	
4/22/2019	6.64	
9/26/2019		6.7
4/13/2020		6.46
10/22/2020		6.37
3/16/2021		6.97
10/5/2021		5.91

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	11 (B1)	
5/18/2016	8.4	
7/12/2016	7.9	
9/12/2016	7.6	
11/18/2016	8.5	
1/18/2017	9.2	
3/21/2017	10	
5/24/2017	10	
10/17/2017	8.6	
5/31/2018	6.9	
11/8/2018	8.7	
4/22/2019	6.17	
9/26/2019		6.09
4/14/2020		6.15
10/22/2020		6.89
3/16/2021		8.18
10/5/2021		5.72

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5	
11/18/2016	<6.3 (*)	
1/18/2017	5.3	
2/10/2017	5.4	
3/21/2017	5.3	
4/14/2017	4.9 (B)	
5/23/2017	5.5	
6/26/2017	5.4	
10/17/2017	5.4	
5/31/2018	5	
11/8/2018	5.2	
4/22/2019	4.91	
9/26/2019		5.03
4/13/2020		4.9
10/21/2020		5.25
3/16/2021		5.72
10/5/2021		5.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.1	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	0.04 (J)	
11/18/2016	<0.1	
1/19/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	0.04 (J)	
5/31/2018	0.04 (J)	
11/7/2018	0.05 (J)	
4/22/2019	0.0353 (J)	
9/27/2019		0.0438 (J)
4/13/2020		0.0672 (J)
10/22/2020		<0.1
3/16/2021		0.0269 (J)
10/5/2021		0.0561 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/18/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0335 (J)	
9/26/2019		0.0272 (J)
4/13/2020		0.0411 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		0.03 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/19/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0275 (J)	
9/26/2019		<0.1
4/13/2020		0.0484 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/11/2016	<0.1	
9/13/2016	<0.1	
11/17/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	0.029 (J)	
9/26/2019		0.0302 (J)
4/14/2020		0.0496 (J)
10/21/2020		<0.1
3/16/2021		<0.1
10/5/2021		0.0264 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0263 (J)
4/13/2020		0.0511 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	0.04 (J)	
11/8/2018	<0.1	
4/22/2019	0.0311 (J)	
9/26/2019		0.0366 (J)
4/14/2020		0.0764 (J)
10/22/2020		<0.1
3/16/2021		0.0344 (J)
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
2/10/2017	<0.1	
3/21/2017	<0.1	
4/14/2017	<0.1	
5/23/2017	<0.1	
6/26/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0287 (J)
4/13/2020		0.0382 (J)
10/21/2020		<0.1
3/16/2021		0.0376 (J)
10/5/2021		<0.1

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	4.8	
5/18/2016	4.74	
7/12/2016	4.9	
9/12/2016	4.72	
11/18/2016	4.65	
1/19/2017	4.77	
3/22/2017	4.46	
5/24/2017	4.74	
10/17/2017	4.72	
11/30/2017	4.61	
5/31/2018	4.93	
11/7/2018	4.58	
4/22/2019	4.67	
9/27/2019		4.61
4/13/2020		4.7
10/22/2020		4.66
3/16/2021		4.72
10/5/2021		4.67

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	5.4	
5/18/2016	5.38	
7/12/2016	5.65	
9/12/2016	5.14	
11/19/2016	5.05	
1/18/2017	5.11	
3/22/2017	4.86	
5/24/2017	5.02	
10/17/2017	5.01	
6/1/2018	5	
11/7/2018	4.81	
4/23/2019	4.93	
9/26/2019		4.99
4/13/2020		4.96
10/22/2020		5.09
3/16/2021		5.06
10/5/2021		4.98

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	4.77	
5/18/2016	4.62	
7/12/2016	5.03	
9/12/2016	4.6	
11/19/2016	4.46	
1/19/2017	4.65	
3/21/2017	4.47	
5/23/2017	4.69	
10/17/2017	4.62	
6/1/2018	4.87	
11/7/2018	4.61	
4/23/2019	4.77	
9/26/2019		4.84
4/13/2020		4.71
10/22/2020		4.78
3/16/2021		4.65
10/5/2021		4.85

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	4.68	
5/18/2016	4.67	
7/11/2016	4.75	
9/13/2016	4.56	
11/17/2016	4.6	
1/18/2017	4.68	
3/21/2017	4.39	
5/23/2017	4.61	
10/17/2017	4.51	
5/31/2018	4.75	
11/8/2018	4.71	
4/22/2019	4.49	
9/26/2019		4.62
4/14/2020		4.61
10/21/2020		4.5
3/16/2021		4.62
10/5/2021		4.6

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	4.89	
5/18/2016	5.09	
7/12/2016	5.27	
9/12/2016	4.94	
11/18/2016	4.82	
1/18/2017	5.02	
3/21/2017	4.82	
5/24/2017	4.87	
10/17/2017	5	
5/31/2018	5.42	
11/8/2018	5.02	
4/22/2019	4.94	
9/26/2019		5.01
4/13/2020		4.99
10/22/2020		5.01
3/16/2021		5
10/5/2021		4.88

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	4.63	
5/18/2016	4.58	
7/12/2016	4.7	
9/12/2016	4.6	
11/18/2016	4.52	
1/18/2017	4.63	
3/21/2017	4.45	
5/24/2017	4.55	
10/17/2017	4.61	
5/31/2018	4.84	
11/8/2018	4.63	
4/22/2019	4.64	
9/26/2019		4.71
4/14/2020		4.75
10/22/2020		4.7
10/5/2021		4.68

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5.55	
11/18/2016	5.14	
1/18/2017	5.27	
2/10/2017	5.14	
3/21/2017	4.96	
4/14/2017	5.07	
5/23/2017	5.01	
6/26/2017	4.93	
10/17/2017	4.93	
11/30/2017	4.81	
5/31/2018	5.11	
11/8/2018	5.09	
4/22/2019	4.97	
9/26/2019		5.19
4/13/2020		5.06
10/21/2020		5.05
3/16/2021		5.35
10/5/2021		5.53

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	5	
2/5/2007	<5	
4/12/2007	<5	
10/17/2007	5.7	
4/17/2008	7	
10/24/2008	6.6	
4/21/2009	5.2	
10/26/2009	8.3	
4/12/2010	6.8	
10/30/2010	10.8	
5/25/2011	11.5	
5/25/2012	8.2	
5/28/2013	6.9	
5/31/2014	3.5	
5/29/2015	3.3	
3/23/2016	1.8 (J)	
5/18/2016	4.1	
7/12/2016	3.8 (J)	
9/12/2016	3.9 (J)	
11/18/2016	5.4	
1/19/2017	<5	
3/22/2017	<5	
5/24/2017	2 (J)	
10/17/2017	<5	
5/31/2018	3 (J)	
11/7/2018	3.1 (J)	
4/22/2019	2.22	
9/27/2019		2.36
4/13/2020		2.47
10/22/2020		2.01
3/16/2021		2.15
10/5/2021		2.57

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5	
5/18/2016	1.9	
7/12/2016	2 (J)	
9/12/2016	2 (J)	
11/19/2016	1.7 (J)	
1/18/2017	<5	
3/22/2017	<5	
5/24/2017	<5	
10/17/2017	<5	
6/1/2018	1.8 (J)	
11/7/2018	1.8 (J)	
4/23/2019	1.99	
9/26/2019		1.95
4/13/2020		1.43
10/22/2020		1.76
3/16/2021		2.23
10/5/2021		2.46

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<5	
5/18/2016	<5	
7/12/2016	<5	
9/12/2016	<5	
11/19/2016	<5	
1/19/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
6/1/2018	1.5 (J)	
11/7/2018	1.5 (J)	
4/23/2019	1.43	
9/26/2019		1.2
4/13/2020		0.992 (J)
10/22/2020		1.04
3/16/2021		1.07
10/5/2021		3.38

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<5	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	1.7 (J)	
11/17/2016	<5	
1/18/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
5/31/2018	2.2 (J)	
11/8/2018	1.7 (J)	
4/22/2019	2.52	
9/26/2019		2.28
4/14/2020		2.27
10/21/2020		2.15
3/16/2021		2
10/5/2021		2.22

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<5	
5/18/2016	1.4	
7/12/2016	1.8 (J)	
9/12/2016	2.2 (J)	
11/18/2016	1.5 (J)	
1/18/2017	1.5 (J)	
3/21/2017	<5	
5/24/2017	1.7 (J)	
10/17/2017	1.8 (J)	
5/31/2018	2.5 (J)	
11/8/2018	2.2 (J)	
4/22/2019	2.96	
9/26/2019		2.96
4/13/2020		2.75
10/22/2020		2.98
3/16/2021		3.06
10/5/2021		2.85

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	3 (J)	
5/18/2016	3.9 (J)	
7/12/2016	3.9 (J)	
9/12/2016	4.5 (J)	
11/18/2016	4.2 (J)	
1/18/2017	3.8 (J)	
3/21/2017	<5 (*)	
5/24/2017	3 (J)	
10/17/2017	3.4 (J)	
5/31/2018	4.1 (J)	
11/8/2018	3.3 (J)	
4/22/2019	4.66	
9/26/2019		4.23
4/14/2020		3.96
10/22/2020		3.37
3/16/2021		3.18
10/5/2021		3.83

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<5	
11/18/2016	<5	
1/18/2017	<5	
2/10/2017	<5	
3/21/2017	<5	
4/14/2017	1.5 (J)	
5/23/2017	<5	
6/26/2017	1.5 (J)	
10/17/2017	<5	
5/31/2018	1.9 (J)	
11/8/2018	1.5 (J)	
4/22/2019	2.09	
9/26/2019		2.1
4/13/2020		1.69
10/21/2020		1.31
3/16/2021		2.72
10/5/2021		1.91

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	40	
5/18/2016	52	
7/12/2016	42	
9/12/2016	42	
11/18/2016	82	
1/19/2017	32	
3/22/2017	6	
5/24/2017	48	
10/17/2017	34	
5/31/2018	32	
11/7/2018	52	
4/22/2019	50	
9/27/2019		50
4/13/2020		63
10/22/2020		41
3/16/2021		39
10/5/2021		43

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	48 (B1)	
5/18/2016	26	
7/12/2016	24	
9/12/2016	32	
11/19/2016	76	
1/18/2017	48	
3/22/2017	30	
5/24/2017	46	
10/17/2017	8	
6/1/2018	44	
11/7/2018	26	
4/23/2019	48	
9/26/2019		39
4/13/2020		28
10/22/2020		25
3/16/2021		41
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	34 (B1)	
5/18/2016	24	
7/12/2016	24	
9/12/2016	4 (J)	
11/19/2016	44	
1/19/2017	26	
3/21/2017	20	
5/23/2017	6	
10/17/2017	58	
12/15/2017	20 (RS)	
6/1/2018	26	
11/7/2018	8	
4/23/2019	34	
9/26/2019		32
4/13/2020		39
10/22/2020		34
3/16/2021		34
10/5/2021		25

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	42 (B1)	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	48	
11/17/2016	20	
1/18/2017	18	
3/21/2017	8	
5/23/2017	<5	
10/17/2017	58	
5/31/2018	24	
11/8/2018	4 (J)	
4/22/2019	46	
9/26/2019		27
4/14/2020		36
10/21/2020		33
3/16/2021		27
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	32 (B1)	
5/18/2016	26	
7/12/2016	22	
9/12/2016	32	
11/18/2016	16	
1/18/2017	32	
3/21/2017	16	
5/24/2017	22	
10/17/2017	26	
5/31/2018	<3.4	
11/8/2018	36	
4/22/2019	24	
9/26/2019		25
4/13/2020		27
10/22/2020		29
3/16/2021		37
10/5/2021		34

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	28 (B1)	
5/18/2016	20	
7/12/2016	24	
9/12/2016	48	
11/18/2016	10	
1/18/2017	30	
3/21/2017	6	
5/24/2017	30	
10/17/2017	32	
5/31/2018	30	
11/8/2018	22	
4/22/2019	36	
9/26/2019		30
4/14/2020		29
10/22/2020		22
3/16/2021		31
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017	42	
5/31/2018	22	
11/8/2018	8	
4/22/2019	31	
9/26/2019		29
4/13/2020		20
10/21/2020		19
3/16/2021		25
10/5/2021		35

FIGURE E.

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

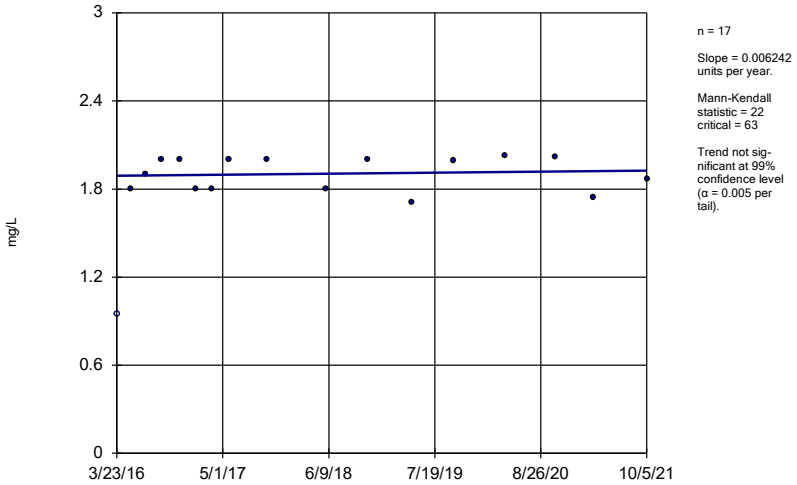
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.006242	22	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.0475	42	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	MW-11 (bg)	-0.01917	-41	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	MW-18 (bg)	0.02083	44	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	MW-19	-0.003948	-5	-68	No	18	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 17

Slope = 0.006242 units per year.

Mann-Kendall statistic = 22
critical = 63

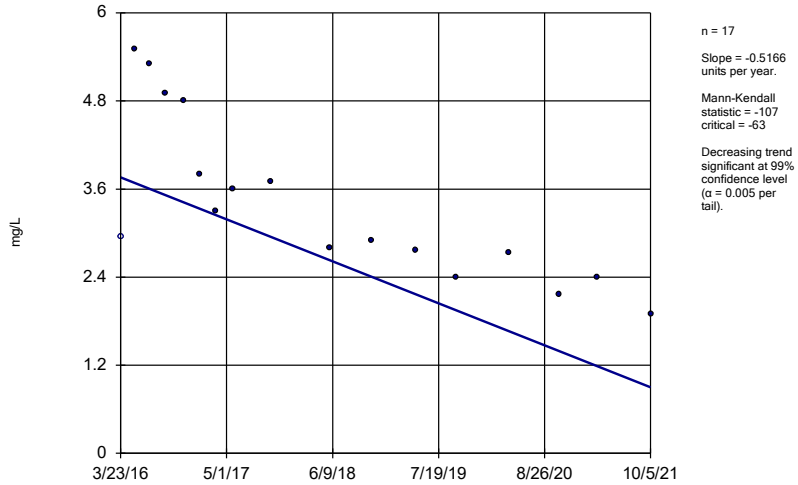
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 17

Slope = -0.5166 units per year.

Mann-Kendall statistic = -107
critical = -63

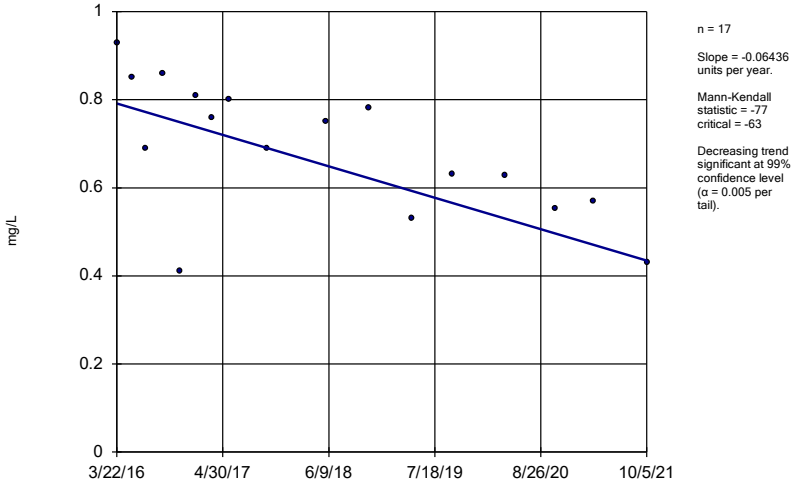
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 17

Slope = -0.06436 units per year.

Mann-Kendall statistic = -77
critical = -63

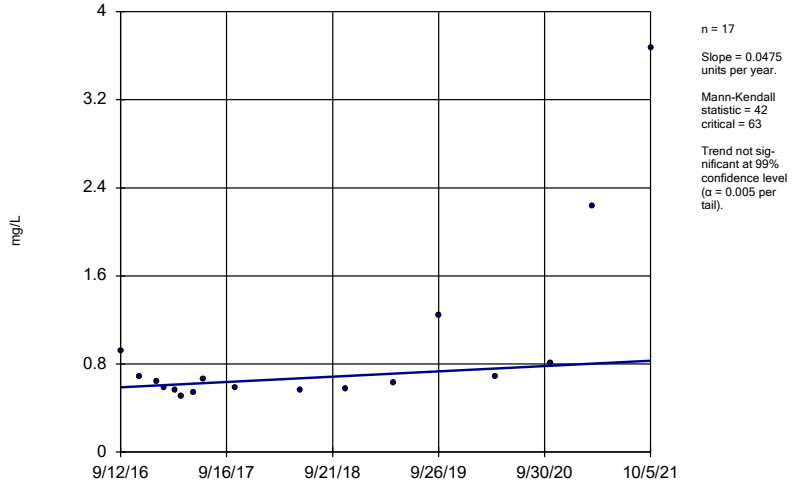
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 17

Slope = 0.0475 units per year.

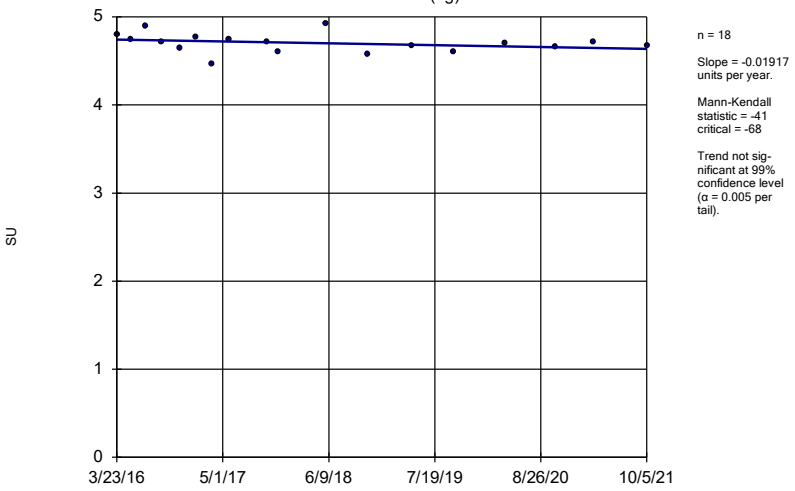
Mann-Kendall statistic = 42
critical = 63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sen's Slope Estimator

MW-11 (bg)



n = 18

Slope = -0.01917 units per year.

Mann-Kendall statistic = -41
critical = -68

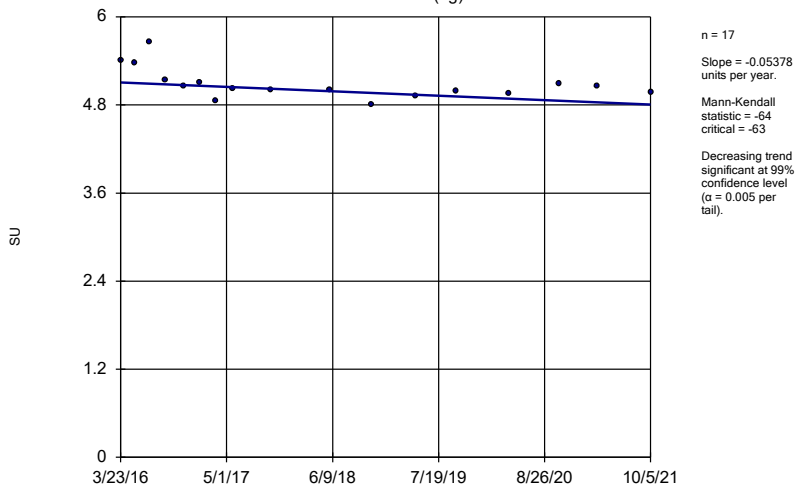
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14 (bg)



n = 17

Slope = -0.05378 units per year.

Mann-Kendall statistic = -64
critical = -63

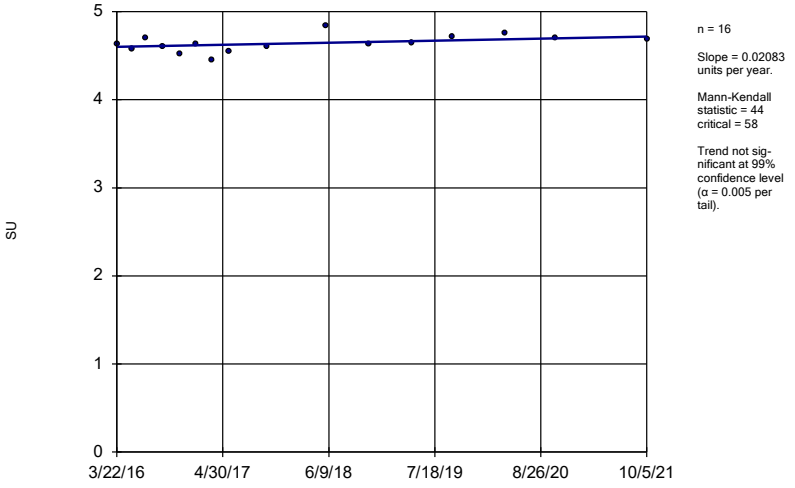
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = 0.02083 units per year.

Mann-Kendall statistic = 44
critical = 58

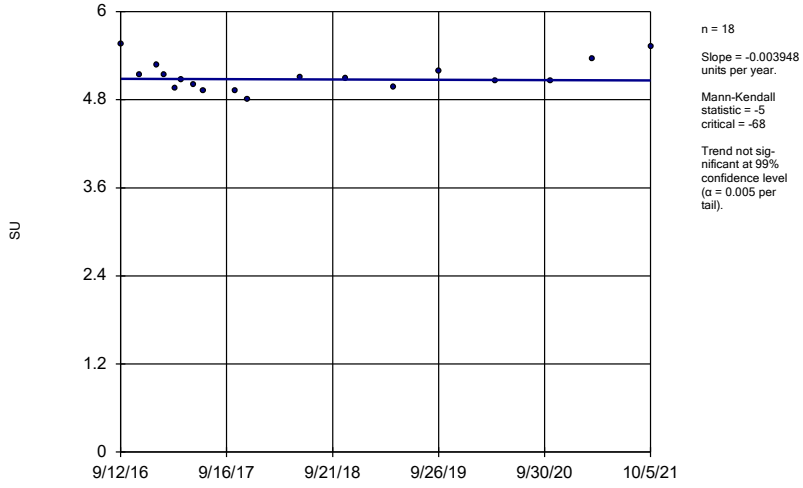
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 18

Slope = -0.003948 units per year.

Mann-Kendall statistic = -5
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Appendix C

ALTERNATE SOURCE DEMONSTRATION

2021 Semi-Annual Monitoring Events

MISSISSIPPI POWER COMPANY
PLANT VICTOR DANIEL
NORTH ASH MANAGEMENT UNIT

January 31, 2022

Prepared for

Mississippi Power Company
Gulfport, Mississippi

By

Southern Company Services
Environmental Solutions

CERTIFICATION STATEMENT

This *Alternate Source Demonstration*, 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 engineer with Southern Company Services, Inc.

I hereby certify that the information presented in this Alternate Source Demonstration is accurate as required by 40 CFR § 257.94(e)(2).

James C. Pegues, PE
MS Licensed Professional Engineer No. 18942

1/31/2022
Date

JAMES C. PEGUES
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REGISTERED PROFESSIONAL GEOLOGIST
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ERIC E. WALLIS

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Appendices

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule or The Rule), this Alternate Source Demonstration, Mississippi Power Company Plant Victor Daniel (Plant Daniel) North Ash Management Unit (NAMU), has been prepared to document an alternate source for Statistically Significant Increases (SSIs) observed at the NAMU during detection monitoring in the 2021 monitoring period. This document is prepared to satisfy the requirements of §257.94(e)(2), which allows the owner or operator to demonstrate that a source other than the CCR Unit has caused an SSI or that the SSI was the result of errors in sampling, analysis, statistical evaluation, or caused by natural variation in groundwater quality.

2.0 BACKGROUND

Plant Daniel NAMU is presently in detection monitoring and the semi-annual groundwater sampling events occurred in March and October of 2021. The groundwater monitoring network is comprised of seven monitoring wells. Monitoring well locations are presented on **Figure 1, Monitoring Well Location Map**, and **Table 1, Monitoring Well Network Summary**, summarizes the monitoring well construction details and design purpose for the NAMU. As detailed in the NAMU's PE-certified statistical analysis plan, intrawell prediction limits are used to compare the most recent sample results to prediction limits constructed from historical data from within the same well to determine if any concentrations exceed background levels. The selected statistical method includes a 1-of-2 verification resample plan.

Following statistical analysis of analytical data from the March 2021 detection monitoring event, the following SSIs were identified:

- Sulfate: MW-17
- Calcium: MW-19

The Sulfate SSI was not verified during the subsequent monitoring event. Following statistical analysis of analytical data from the October 2021 detection monitoring event, the following SSIs were identified:

- Calcium: MW-19
- pH: MW-19

As discussed in the following section, the SSIs identified at the NAMU are attributed to natural variability in groundwater quality and are not the result of a release from the CCR unit. Statistical analyses are included as **Appendix A, Statistical Analysis.**

3.0 ALTERNATE SOURCE DEMONSTRATION

Pursuant to 40 CFR § 257.94(e)(2), the following provides a demonstration that the SSIs reported during the 2021 semi-annual detection monitoring events are not the result of a release from the NAMU and that assessment monitoring is not required.

3.1 Sulfate at MW-17

Review of statistical analysis for well MW-17 identified a sulfate SSI resulting from a concentration slightly above the intrawell prediction limit. This SSI is likely the result of natural variability not accommodated by the background data for the site and are not the result of a release from the CCR unit. The following lines of evidence support this conclusion:

- The sulfate SSI observed during the first semi-annual monitoring event was not observed during the second-semi-annual monitoring event and concentrations are below the prediction limit. Therefore, there is no longer an SSI for sulfate observed at MW-17 and further action is not required.
- Sulfate concentrations are relatively low and there is no discernable trend. The SSI was the result of a slight increase in the data that was not repeated during the second semi-annual. Review of the PL charts in **Appendix A** show that sulfate concentrations in the well were low (3.06 milligrams per liter [mg/L]) during the first semi-annual event, and they only slightly exceed the prediction limit of 3.046 mg/L.
- The sulfate SSI occurred as a single-parameter exceedance at well MW-17. A release from the CCR unit will result in multiple parameters exceeding statistical limits. That was not observed.
- Trend test results included in **Appendix A** indicate sulfate trends in MW-17 are not statistically significant. A release from the unit would result in statistically significant increasing trends. These are not observed.

Based on the information provided here, the SSI for sulfate was the result of natural groundwater variability and not caused by a release from the CCR unit. Furthermore, the SSI is no longer observed in this well. Therefore, assessment monitoring will not be initiated as a result of the SSI observed during the first semi-annual monitoring event.

3.2 Calcium and pH at MW-19

Review of statistical analysis for well MW-19 identified a calcium SSI during the first semi-annual sampling event and SSIs for calcium and pH during the second semi-annual sampling event. As discussed below, the SSIs are not the results of a release from the NAMU. The following lines of evidence support

this conclusion:

- The increase in calcium concentrations is limited to MW-19. A release from the NAMU would likely result in lateral dispersion as the water migrates vertically through the unsaturated zone, and horizontally through the uppermost aquifer, resulting in a wide zone of impact that would be identifiable in multiple wells. This has not occurred.
- Historical concentrations of calcium observed in upgradient wells during previous monitoring periods have been similar to the concentrations observed at MW-19 during the 2021 monitoring period. Therefore, the concentration observed at well MW-19 is within the range of concentrations observed upgradient of the site.
- An upward trend in calcium concentrations has been observed; however, the lack of additional constituents usually associated with a release at MW-19 indicates that the upward trend is not associated with the NAMU. Boron and fluoride remain non-detect, and chloride and sulfate exhibit stable or decreasing trends.

For the reasons described above the SSI for calcium was the result of natural groundwater variability and not caused by a release from the CCR unit. Therefore, assessment monitoring will not be initiated as a result of the calcium SSI.

- pH is a field reading subject to instrument and user variability. Results may vary based on instrument calibration, changes in temperature, different instrumentation, purging, and user.
- The pH observed (5.53 Standard Units [SU]) only slightly exceeded the upper prediction limit of 5.483 SU and does not exhibit a statistically increasing trend.

For the reasons described above the SSI for pH was likely the result of natural groundwater variability or sampling error and not caused by a release from the CCR unit. Therefore, assessment monitoring will not be initiated as a result of the pH SSI.

4.0 CONCLUSION

This ASD has been prepared in response to SSIs identified for calcium, sulfate and pH in groundwater monitoring wells at the site. In accordance with § 257.94(e)(2), this ASD demonstrates that the SSIs are not the result of a release from the NAMU. Therefore, in accordance with § 257.94(e)(2), the NAMU will remain in detection monitoring.

Table

Table 1.
Monitoring Well Network Summary

Well ID	Purpose	Installation Date	Northing	Easting	Total Hole 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	32.00	25.24	23.22	-3.78	-8.78
MW-14	Upgradient	7/24/2015	384048.468	1068916.529	47.00	23.65	20.87	-11.83	-16.83
MW-15	Downgradient	7/24/2015	383503.877	1068571.153	37.00	21.53	18.69	-12.61	-17.61
MW-16	Downgradient	7/24/2015	383593.548	1067845.867	28.00	16.12	13.16	-6.94	-11.94
MW-17	Downgradient	7/24/2015	384781.265	1067808.459	27.00	15.41	12.59	-7.91	-12.91
MW-18	Upgradient	7/24/2015	385290.588	1068774.386	47.00	28.86	26.33	-10.27	-15.27
MW-19	Downgradient	7/26/2016	384157.41	1067711.624	30.00	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. MSL refers to Mean Sea Level.

Figure

Legend

- Upgradient Monitoring Well
- Downgradient Monitoring Well
- Piezometer (Water Level Only)
- North Ash Management Unit

N

0 400 800 Feet

1 inch = 250 feet

SCALE	1:3000
DATE	8/13/2021
DRAWN BY	KAR
CHECKED BY	RFS

DRAWING TITLE

MONITORING WELL LOCATION MAP
PLANT DANIEL
NORTH ASH MANAGEMENT UNIT

DRAWING NO

FIGURE 1

Southern Company

Appendix A

1st
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

May 20, 2021

Southern Company Services
Attn: Ms. Lauren Collins
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Daniel North Ash Management Unit (NAMU)
2021 Annual Statistical Analysis – March 2021 Sample Event

Dear Ms. Collins,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Monitoring Annual report 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 United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel NAMU 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 reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably throughout this report.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of well/constituent pairs with 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. For calculating intrawell prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. Note that in the case of boron, the reporting limit increased to 0.08 mg/L from 0.05 mg/L in 2020 due to changing laboratory practices.

Time series plots for Appendix III parameters are provided for all wells and are used to evaluate concentrations over time as well as for the purpose of updating statistical limits (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph; however, no values were flagged as outliers (Figure C). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

During the previous screening, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods:

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly

detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Conducted in October 2017

Outlier and Trend Testing

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

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

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

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a few statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Daniel NAMU for the majority of the Appendix III parameters. This facility is a lined unit with pre-waste data; therefore, due to variation noted among upgradient wells, intrawell prediction limits were recommended for this facility to accommodate the groundwater quality. A summary table of the ANOVA results was included with the screening.

Summary of Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for Appendix III constituents at all wells using Tukey's outlier test and visual screening on all historical data through the April 2019 sample event. Only one value was noted by Tukey's as a potential outlier; however, when Tukey's outlier test detects an outlier for the most recent sample, it often will not be flagged in the event that the data precede a trend that is more representative of current concentrations. Therefore, no values for Appendix III constituents were flagged as outliers at the time of the screening. An updated summary of Tukey's test results was included with the screening.

The Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through June 2017 to the new compliance samples at each well through April 2019 to evaluate whether the groups are statistically different at the 99% confidence level for each of the Appendix III parameters. When no differences exist, background data sets may be updated to include newer data for construction of prediction limits. This results in statistical limits that are representative of present-day conditions. No statistically significant differences were found between the two groups except for the following: calcium and sulfate in well MW-15. Note that the Mann-Whitney test could not be produced due to insufficient variation in the data for boron in wells MW-14, MW-15, MW-16, MW-17, and MW-19.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background are not updated to include the newer data but will be reconsidered in the future. For all well/constituent pairs except for sulfate in well MW-15, due to the limited data available and the variability in data shows some of the more recent data has similar concentrations to those reported in background, these data sets were updated. In the case of calcium at well MW-15, while there is a statistically significant difference between the two medians, the magnitude of the difference is minimal, and newer data more accurately represent concentrations present in nearby wells. Therefore, the background for this well/constituent pair was updated with new data. A summary of these results was included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – March 2021

Intrawell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters at each well using historical data through April 2019 for the March 2021 sample event (Figure D). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from each well were compared to the prediction limits to determine whether there are statistically significant increases (SSIs).

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. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- MW-17: Sulfate
- MW-19: Calcium

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an

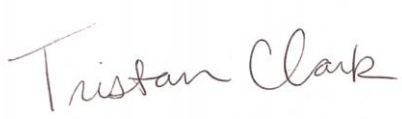
indication of natural variability in groundwater that is unrelated to practices at the site. Although no statistically significant increasing trends were noted, statistically significant decreasing trends were identified for the following well/constituent pairs:

Decreasing:

- MW-11 (upgradient): Sulfate
- MW-14 (upgradient): Calcium
- MW-18 (upgradient): Calcium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Daniel North Ash Management Unit. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects

Analysis Run 5/18/2021 1:45 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Boron (mg/L)
MW-16, MW-17, MW-19

Appendix III Trend Test - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test - Prediction Limit Exceedances - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.007498	24	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.03558	26	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-14 (bg)	-0.04474	-28	-58	No	16	31.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-17	0.2933	49	58	No	16	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-18 (bg)	-0.05772	-6	-58	No	16	6.25	n/a	n/a	0.01	NP

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

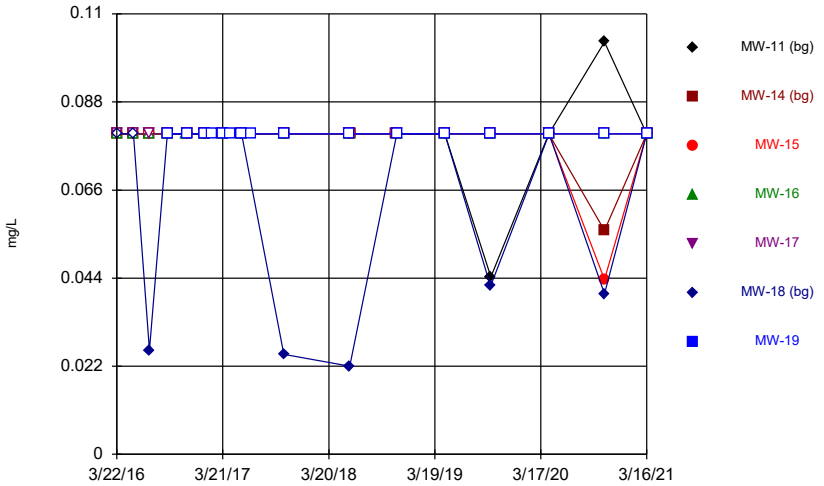
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	3/16/2021	1.74	No	12	12.03	4.544	8.333	None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	3/16/2021	2.4	No	12	3.859	1.01	8.333	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	3/16/2021	1.41	No	12	1.207	0.1472	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	3/16/2021	0.681	No	13	0.82	0.1886	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	3/16/2021	1.12	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	3/16/2021	0.57	No	12	0.7384	0.1448	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	3/16/2021	13.3	No	27	12.12	1.814	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	3/16/2021	7.32	No	12	9.592	1.433	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	3/16/2021	8.94	No	12	7.696	1.067	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	3/16/2021	7.14	No	13	7.623	1.377	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	3/16/2021	6.97	No	12	6.845	0.8197	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	3/16/2021	8.18	No	12	8.581	1.361	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	3/16/2021	5.72	No	12	3601	1285	8.333	None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	3/16/2021	0.0269J	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	3/16/2021	0.0344J	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	3/16/2021	0.0376J	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	3/16/2021	4.72	No	13	4.715	0.1267	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	3/16/2021	5.06	No	12	5.113	0.2464	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	3/16/2021	4.65	No	12	4.68	0.1615	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	3/16/2021	4.62	No	12	4.617	0.1118	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	3/16/2021	5	No	12	5.008	0.1805	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	3/16/2021	4.68	No	12	4.615	0.09587	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-19	5.483	4.668	3/16/2021	5.35	No	13	5.075	0.1858	0	None	No	0.0009398	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	9.808	n/a	3/16/2021	2.15	No	27	4.944	2.552	18.52	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	3/16/2021	2.23	No	12	n/a	n/a	41.67	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	3/16/2021	1.07	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	3/16/2021	2	No	12	n/a	n/a	66.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-18	5.327	n/a	3/16/2021	3.18	No	12	3.897	0.6408	8.333	None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	3/16/2021	2.72	No	12	n/a	n/a	58.33	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	3/16/2021	39	No	12	42.67	17.73	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	3/16/2021	41	No	12	38	17.39	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	3/16/2021	34	No	13	25.23	15.16	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	3/16/2021	27	No	12	23.33	19.24	25	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	3/16/2021	37	No	12	23.81	9.424	8.333	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	3/16/2021	31	No	12	26.33	11.21	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	3/16/2021	25	No	12	20.63	11.48	8.333	None	No	0.00188	Param Intra 1 of 2

FIGURE A.

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

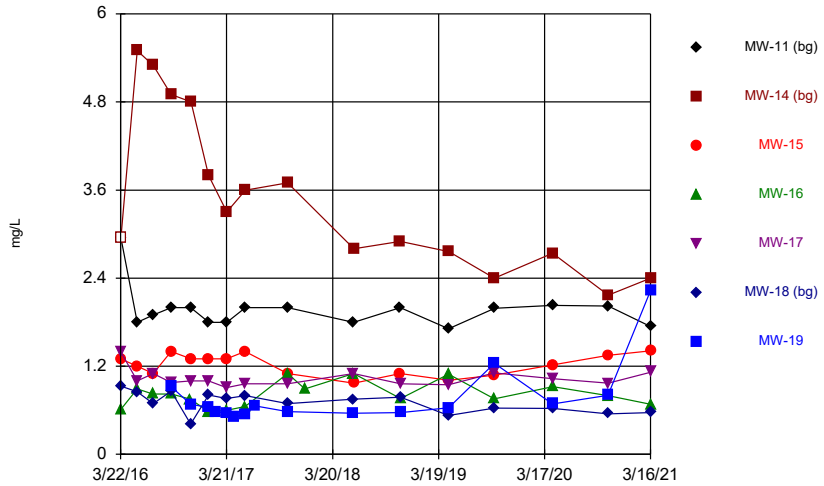
Time Series



Constituent: Boron Analysis Run 5/19/2021 4:30 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

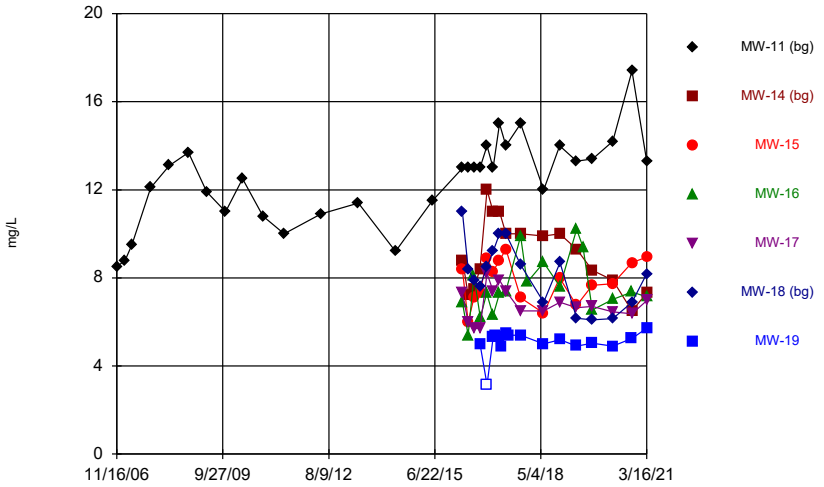
Time Series



Constituent: Calcium Analysis Run 5/19/2021 4:30 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

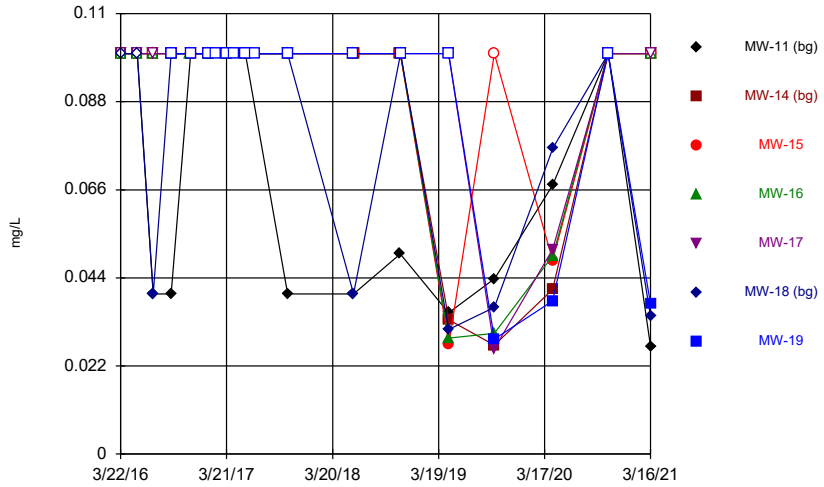
Time Series



Constituent: Chloride Analysis Run 5/19/2021 4:31 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

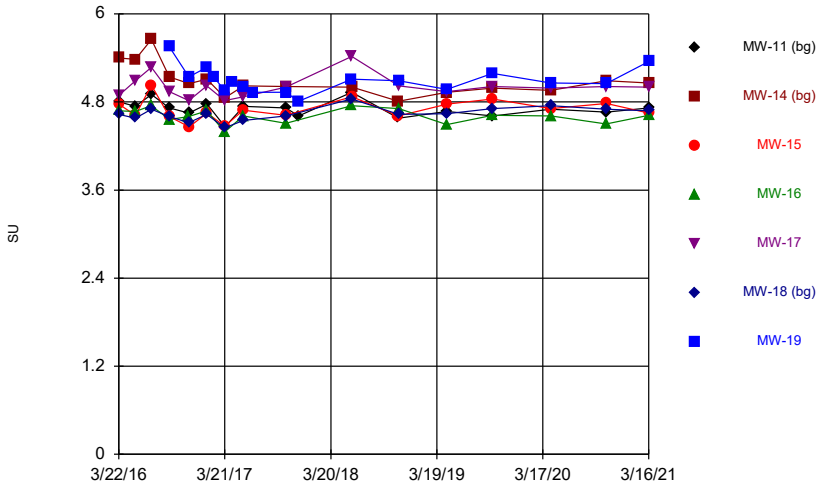
Time Series



Constituent: Fluoride Analysis Run 5/19/2021 4:31 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Time Series



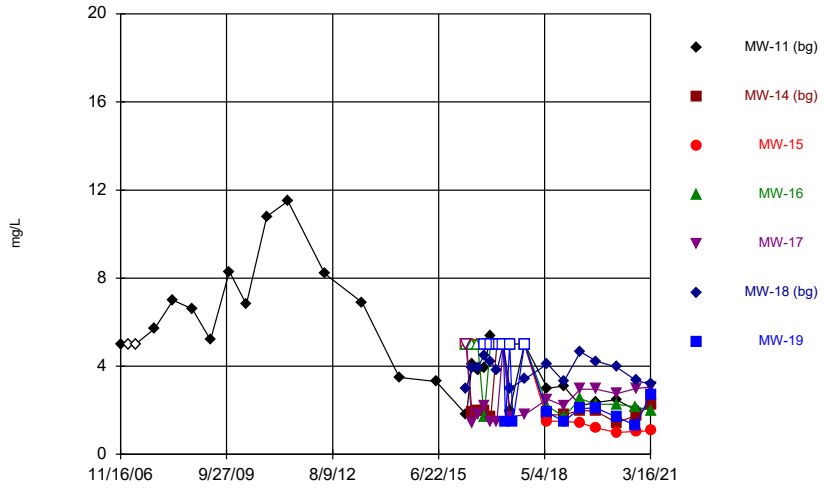
Constituent: pH Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



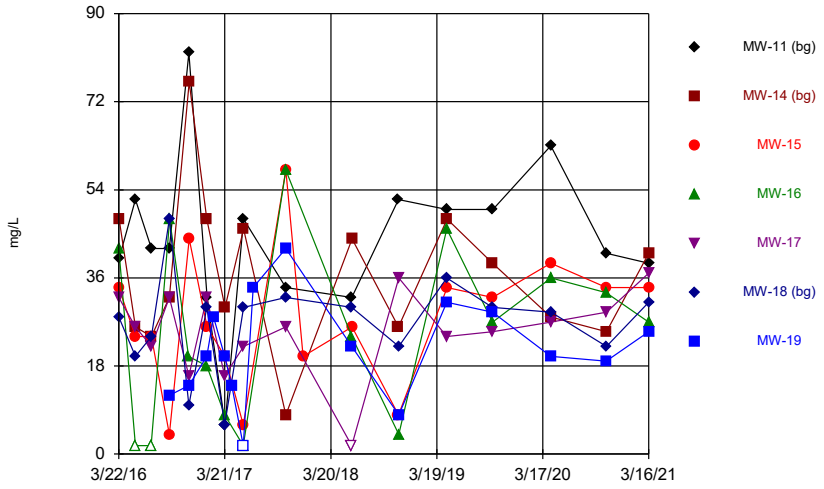
Constituent: Sulfate Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	
3/23/2016	<0.08 (B1)	<0.08 (B1)					
5/18/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
7/11/2016				<0.08			
7/12/2016	<0.08	<0.08	<0.08		<0.08	0.026 (J)	
9/12/2016	<0.08	<0.08	<0.08		<0.08	<0.08	<0.08
9/13/2016				<0.08			
11/17/2016				<0.08			
11/18/2016	<0.08				<0.08	<0.08	<0.08
11/19/2016		<0.08	<0.08				
1/18/2017		<0.08		<0.08	<0.08	<0.08	<0.08
1/19/2017	<0.08		<0.08				
2/10/2017							<0.08
3/21/2017			<0.08	<0.08	<0.08	<0.08	<0.08
3/22/2017	<0.08	<0.08					
4/14/2017							<0.08
5/23/2017			<0.08	<0.08			<0.08
5/24/2017	<0.08	<0.08			<0.08	<0.08	
6/26/2017							<0.08
10/17/2017	<0.08	<0.08	<0.08	<0.08	<0.08	0.025 (J)	<0.08
5/31/2018	<0.08			<0.08	<0.08	0.022 (J)	<0.08
6/1/2018		<0.08	<0.08				
11/7/2018	<0.08	<0.08	<0.08				
11/8/2018				<0.08	<0.08	<0.08	<0.08
4/22/2019	<0.08			<0.08	<0.08	<0.08	<0.08
4/23/2019		<0.08	<0.08				
9/26/2019		<0.08	<0.08	<0.08	<0.08	0.042 (J)	<0.08
9/27/2019	0.0443 (J)						
4/13/2020	<0.08	<0.08	<0.08		<0.08		<0.08
4/14/2020				<0.08		<0.08	
10/21/2020				<0.08			<0.08
10/22/2020	0.103	0.0559 (J)	0.0437 (J)		<0.08	0.0401 (J)	
3/16/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			1.3 (B1)	0.61 (B1)	1.4 (B1)	0.93 (B1)	
3/23/2016	<5.9 (*)	<5.9 (*)					
5/18/2016	1.8	5.5	1.2	0.89	1	0.85	
7/11/2016				0.82			
7/12/2016	1.9	5.3	1.1		1.1	0.69	
9/12/2016	2	4.9	1.4		0.98	0.86	0.92
9/13/2016				0.82			
11/17/2016				0.75			
11/18/2016	2				1	0.41	0.68
11/19/2016		4.8	1.3				
1/18/2017		3.8		0.58	1	0.81	0.64
1/19/2017	1.8		1.3				
2/10/2017							0.58
3/21/2017			1.3	0.6	0.91	0.76	0.56
3/22/2017	1.8	3.3					
4/14/2017							0.51
5/23/2017			1.4	0.65			0.54
5/24/2017	2	3.6			0.96	0.8	
6/26/2017							0.66
10/17/2017	2	3.7	1.1	1.1	0.96	0.69	0.58
12/15/2017				0.89 (RS)			
5/31/2018	1.8			1.1	1.1	0.75	0.56
6/1/2018		2.8	0.97				
11/7/2018	2	2.9	1.1				
11/8/2018				0.76	0.96	0.78	0.57
4/22/2019	1.71			1.09	0.946	0.531	0.634
4/23/2019		2.76	1.01				
9/26/2019		2.4	1.08	0.758	1.11	0.631	1.24
9/27/2019	1.99						
4/13/2020	2.03	2.74	1.22		1.03		0.687
4/14/2020				0.92		0.627	
10/21/2020				0.798			0.806
10/22/2020	2.02	2.17	1.35		0.969	0.553	
3/16/2021	1.74	2.4	1.41	0.681	1.12	0.57	2.23

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	8.5						
2/5/2007	8.8						
4/12/2007	9.5						
10/17/2007	12.1						
4/17/2008	13.1						
10/24/2008	13.7						
4/21/2009	11.9						
10/26/2009	11						
4/12/2010	12.5						
10/30/2010	10.8						
5/25/2011	10						
5/25/2012	10.9						
5/28/2013	11.4						
5/31/2014	9.2						
5/29/2015	11.5						
3/22/2016			8.4 (B1)	6.9 (B1)	7.3 (B1)	11 (B1)	
3/23/2016	13	8.8 (B1)					
5/18/2016	13	7.2	6	5.4	6	8.4	
7/11/2016				8.1			
7/12/2016	13	7.5	7.1		5.7	7.9	
9/12/2016	13	8.4	7.3		5.7	7.6	5
9/13/2016				6.2			
11/17/2016				7.3			
11/18/2016	14				8.2	8.5	<6.3 (*)
11/19/2016		12	8.9				
1/18/2017		11		6.3	7.4	9.2	5.3
1/19/2017	13		8.3				
2/10/2017							5.4
3/21/2017			8.8	7.3	7.9	10	5.3
3/22/2017	15	11					
4/14/2017							4.9 (B)
5/23/2017			9.3	7.4			5.5
5/24/2017	14	10			7.4	10	
6/26/2017							5.4
10/17/2017	15	10	7.1	9.9	6.5	8.6	5.4
12/19/2017				7.8 (RS)			
5/31/2018	12			8.7	6.5	6.9	5
6/1/2018		9.9	6.4				
11/7/2018	14	10	8				
11/8/2018				7.6	6.9	8.7	5.2
4/22/2019	13.3			10.2	6.64	6.17	4.91
4/23/2019		9.3	6.75				
6/25/2019				9.4			
9/26/2019		8.35	7.66	6.54	6.7	6.09	5.03
9/27/2019	13.4						
4/13/2020	14.2	7.9	7.74		6.46		4.9
4/14/2020				7.03		6.15	
10/21/2020				7.36			5.25
10/22/2020	17.4	6.5	8.69		6.37	6.89	
3/16/2021	13.3	7.32	8.94	7.14	6.97	8.18	5.72

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	
3/23/2016	<0.1	<0.1 (B1)					
5/18/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/2016				<0.1			
7/12/2016	0.04 (J)	<0.1	<0.1		<0.1	0.04 (J)	
9/12/2016	0.04 (J)	<0.1	<0.1		<0.1	<0.1	<0.1
9/13/2016				<0.1			
11/17/2016				<0.1			
11/18/2016	<0.1				<0.1	<0.1	<0.1
11/19/2016		<0.1	<0.1				
1/18/2017		<0.1		<0.1	<0.1	<0.1	<0.1
1/19/2017	<0.1		<0.1				
2/10/2017							<0.1
3/21/2017			<0.1	<0.1	<0.1	<0.1	<0.1
3/22/2017	<0.1	<0.1					
4/14/2017							<0.1
5/23/2017			<0.1	<0.1			<0.1
5/24/2017	<0.1	<0.1			<0.1	<0.1	
6/26/2017							<0.1
10/17/2017	0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5/31/2018	0.04 (J)			<0.1	<0.1	0.04 (J)	<0.1
6/1/2018		<0.1	<0.1				
11/7/2018	0.05 (J)	<0.1	<0.1				
11/8/2018				<0.1	<0.1	<0.1	<0.1
4/22/2019	0.0353 (J)			0.029 (J)	<0.1	0.0311 (J)	<0.1
4/23/2019		0.0335 (J)	0.0275 (J)				
9/26/2019		0.0272 (J)	<0.1	0.0302 (J)	0.0263 (J)	0.0366 (J)	0.0287 (J)
9/27/2019	0.0438 (J)						
4/13/2020	0.0672 (J)	0.0411 (J)	0.0484 (J)		0.0511 (J)		0.0382 (J)
4/14/2020				0.0496 (J)		0.0764 (J)	
10/21/2020				<0.1			<0.1
10/22/2020	<0.1	<0.1	<0.1		<0.1	<0.1	
3/16/2021	0.0269 (J)	<0.1	<0.1	<0.1	<0.1	0.0344 (J)	0.0376 (J)

Time Series

Constituent: pH (SU) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			4.77	4.68	4.89	4.63	
3/23/2016	4.8	5.4					
5/18/2016	4.74	5.38	4.62	4.67	5.09	4.58	
7/11/2016				4.75			
7/12/2016	4.9	5.65	5.03		5.27	4.7	
9/12/2016	4.72	5.14	4.6		4.94	4.6	5.55
9/13/2016				4.56			
11/17/2016				4.6			
11/18/2016	4.65				4.82	4.52	5.14
11/19/2016		5.05	4.46				
1/18/2017		5.11		4.68	5.02	4.63	5.27
1/19/2017	4.77		4.65				
2/10/2017							5.14
3/21/2017			4.47	4.39	4.82	4.45	4.96
3/22/2017	4.46	4.86					
4/14/2017							5.07
5/23/2017			4.69	4.61			5.01
5/24/2017	4.74	5.02			4.87	4.55	
6/26/2017							4.93
10/17/2017	4.72	5.01	4.62	4.51	5	4.61	4.93
11/30/2017	4.61						4.81
5/31/2018	4.93			4.75	5.42	4.84	5.11
6/1/2018		5	4.87				
11/7/2018	4.58	4.81	4.61				
11/8/2018				4.71	5.02	4.63	5.09
4/22/2019	4.67			4.49	4.94	4.64	4.97
4/23/2019		4.93	4.77				
9/26/2019		4.99	4.84	4.62	5.01	4.71	5.19
9/27/2019	4.61						
4/13/2020	4.7	4.96	4.71		4.99		5.06
4/14/2020				4.61		4.75	
10/21/2020				4.5			5.05
10/22/2020	4.66	5.09	4.78		5.01	4.7	
3/16/2021	4.72	5.06	4.65	4.62	5	4.68	5.35

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	5						
2/5/2007	<5						
4/12/2007	<5						
10/17/2007	5.7						
4/17/2008	7						
10/24/2008	6.6						
4/21/2009	5.2						
10/26/2009	8.3						
4/12/2010	6.8						
10/30/2010	10.8						
5/25/2011	11.5						
5/25/2012	8.2						
5/28/2013	6.9						
5/31/2014	3.5						
5/29/2015	3.3						
3/22/2016			<5	<5	<5	3 (J)	
3/23/2016	1.8 (J)	<5					
5/18/2016	4.1	1.9	<5	<5	1.4	3.9 (J)	
7/11/2016				<5			
7/12/2016	3.8 (J)	2 (J)	<5		1.8 (J)	3.9 (J)	
9/12/2016	3.9 (J)	2 (J)	<5		2.2 (J)	4.5 (J)	<5
9/13/2016				1.7 (J)			
11/17/2016				<5			
11/18/2016	5.4				1.5 (J)	4.2 (J)	<5
11/19/2016		1.7 (J)	<5				
1/18/2017		<5		<5	1.5 (J)	3.8 (J)	<5
1/19/2017	<5		<5				
2/10/2017							<5
3/21/2017			<5	<5	<5	<5 (*)	<5
3/22/2017	<5	<5					
4/14/2017							1.5 (J)
5/23/2017			<5	<5			<5
5/24/2017	2 (J)	<5			1.7 (J)	3 (J)	
6/26/2017							1.5 (J)
10/17/2017	<5	<5	<5	<5	1.8 (J)	3.4 (J)	<5
5/31/2018	3 (J)			2.2 (J)	2.5 (J)	4.1 (J)	1.9 (J)
6/1/2018		1.8 (J)	1.5 (J)				
11/7/2018	3.1 (J)	1.8 (J)	1.5 (J)				
11/8/2018				1.7 (J)	2.2 (J)	3.3 (J)	1.5 (J)
4/22/2019	2.22			2.52	2.96	4.66	2.09
4/23/2019		1.99	1.43				
9/26/2019		1.95	1.2	2.28	2.96	4.23	2.1
9/27/2019	2.36						
4/13/2020	2.47	1.43	0.992 (J)		2.75		1.69
4/14/2020				2.27		3.96	
10/21/2020				2.15			1.31
10/22/2020	2.01	1.76	1.04		2.98	3.37	
3/16/2021	2.15	2.23	1.07	2	3.06	3.18	2.72

Time Series

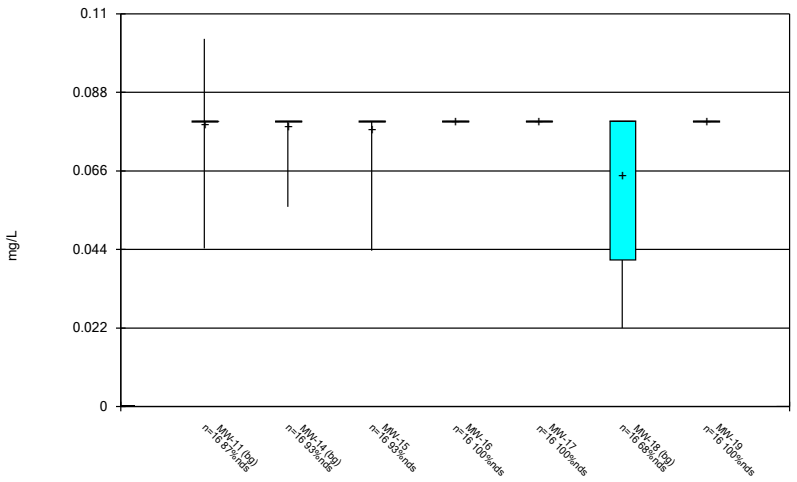
Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:31 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			34 (B1)	42 (B1)	32 (B1)	28 (B1)	
3/23/2016	40	48 (B1)					
5/18/2016	52	26	24	<3.4	26	20	
7/11/2016				<3.4			
7/12/2016	42	24	24		22	24	
9/12/2016	42	32	4 (J)		32	48	12
9/13/2016				48			
11/17/2016				20			
11/18/2016	82				16	10	14
11/19/2016		76	44				
1/18/2017		48		18	32	30	20
1/19/2017	32		26				
2/10/2017							28
3/21/2017			20	8	16	6	20
3/22/2017	6	30					
4/14/2017							14
5/23/2017			6	<3.4			<3.4
5/24/2017	48	46			22	30	
6/26/2017							34
10/17/2017	34	8	58	58	26	32	42
12/15/2017			20 (RS)				
5/31/2018	32			24	<3.4	30	22
6/1/2018		44	26				
11/7/2018	52	26	8				
11/8/2018				4 (J)	36	22	8
4/22/2019	50			46	24	36	31
4/23/2019		48	34				
9/26/2019		39	32	27	25	30	29
9/27/2019	50						
4/13/2020	63	28	39		27		20
4/14/2020				36		29	
10/21/2020				33			19
10/22/2020	41	25	34		29	22	
3/16/2021	39	41	34	27	37	31	25

FIGURE B.

Box & Whiskers Plot

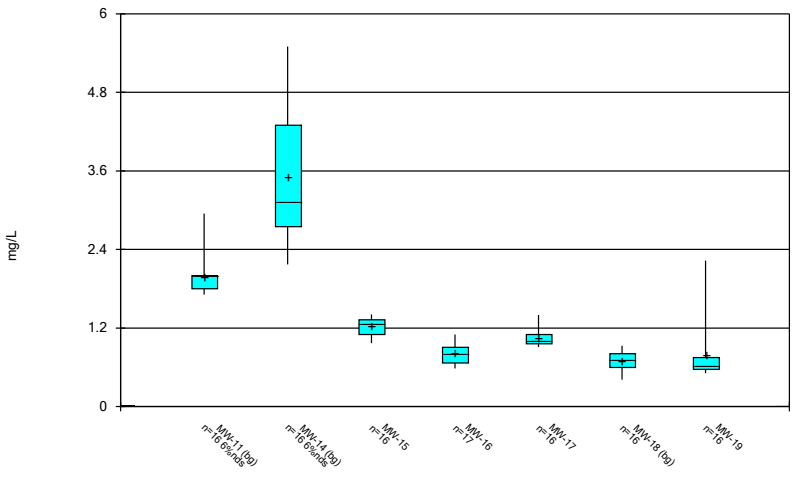


Constituent: Boron Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

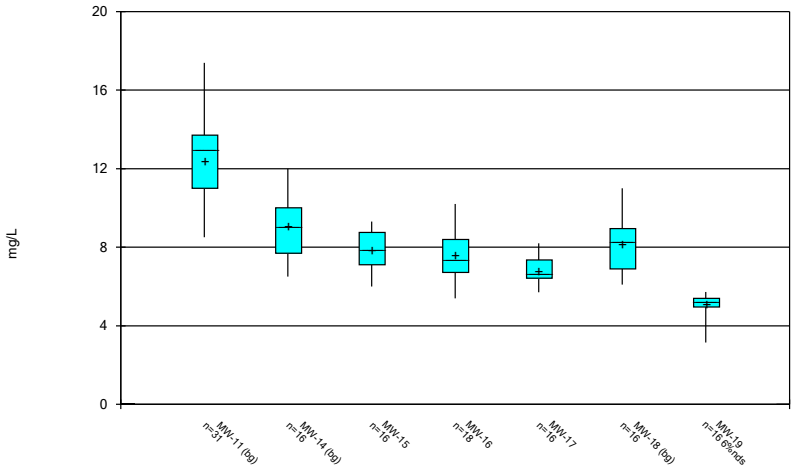


Constituent: Calcium Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

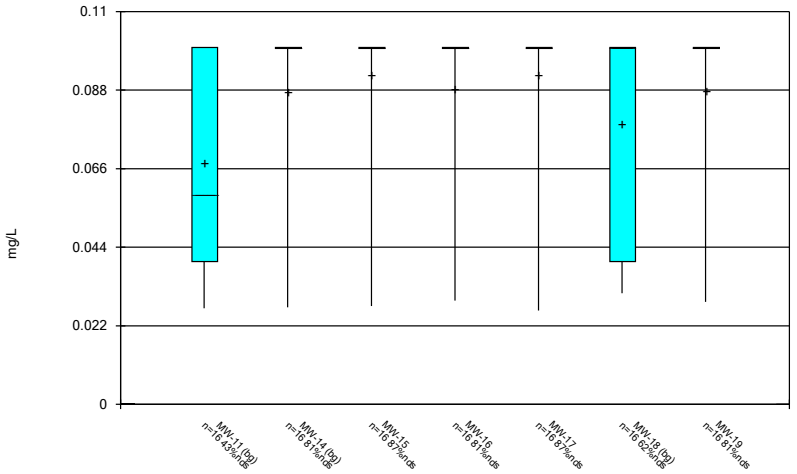


Constituent: Chloride Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

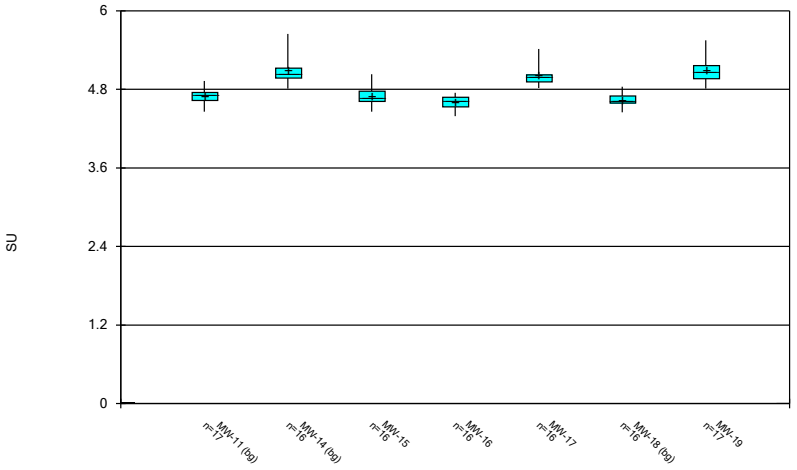


Constituent: Fluoride Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

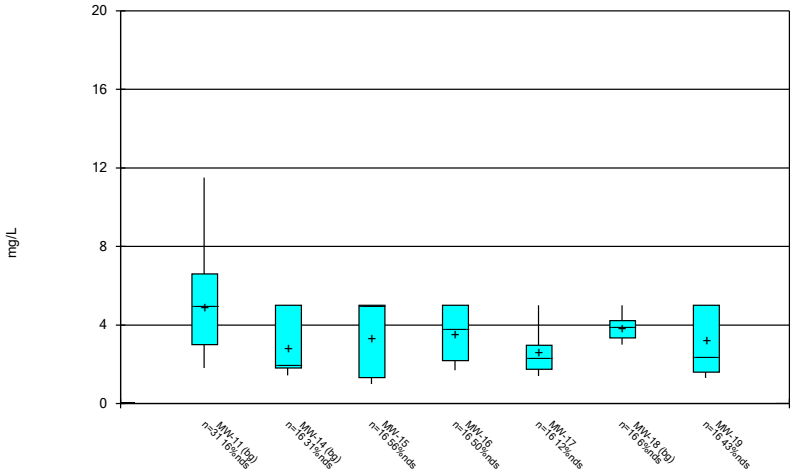


Constituent: pH Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot

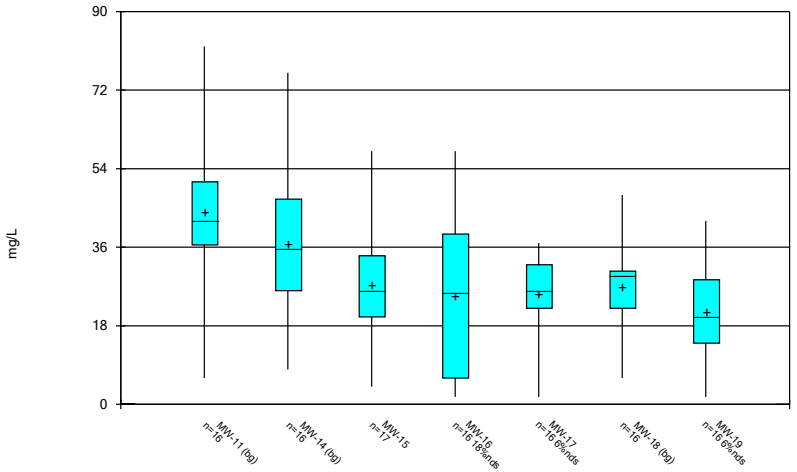


Constituent: Sulfate Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:32 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/17/2021, 2:36 PM

No outliers were flagged.

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/19/2021, 4:44 PM

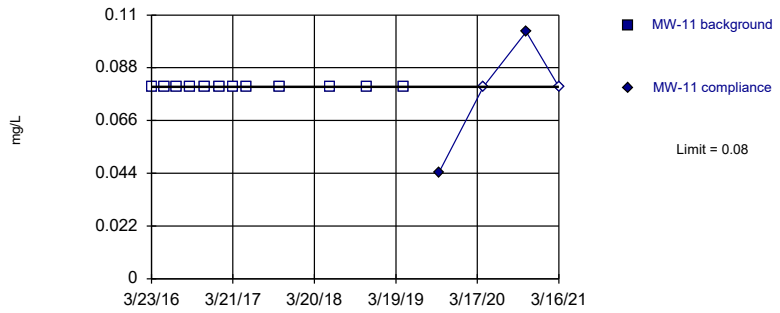
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	3/16/2021	0.08ND	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	3/16/2021	1.74	No	12	12.03	4.544	8.333	None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	3/16/2021	2.4	No	12	3.859	1.01	8.333	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	3/16/2021	1.41	No	12	1.207	0.1472	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	3/16/2021	0.681	No	13	0.82	0.1886	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	3/16/2021	1.12	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	3/16/2021	0.57	No	12	0.7384	0.1448	0	None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**3/16/2021**	**2.23**	**Yes**	**12**	**0.7847**	**0.06412**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	3/16/2021	13.3	No	27	12.12	1.814	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	3/16/2021	7.32	No	12	9.592	1.433	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	3/16/2021	8.94	No	12	7.696	1.067	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	3/16/2021	7.14	No	13	7.623	1.377	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	3/16/2021	6.97	No	12	6.845	0.8197	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	3/16/2021	8.18	No	12	8.581	1.361	0	None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	3/16/2021	5.72	No	12	3601	1285	8.333	None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	3/16/2021	0.0269J	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	91.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	3/16/2021	0.1ND	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	3/16/2021	0.0344J	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	3/16/2021	0.0376J	No	12	n/a	n/a	100	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	3/16/2021	4.72	No	13	4.715	0.1267	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	3/16/2021	5.06	No	12	5.113	0.2464	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	3/16/2021	4.65	No	12	4.68	0.1615	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	3/16/2021	4.62	No	12	4.617	0.1118	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	3/16/2021	5	No	12	5.008	0.1805	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	3/16/2021	4.68	No	12	4.615	0.09587	0	None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-19	5.483	4.668	3/16/2021	5.35	No	13	5.075	0.1858	0	None	No	0.0009398	Param Intra 1 of 2
Sulfate (mg/L)	MW-11	9.808	n/a	3/16/2021	2.15	No	27	4.944	2.552	18.52	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	3/16/2021	2.23	No	12	n/a	n/a	41.67	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	3/16/2021	1.07	No	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	3/16/2021	2	No	12	n/a	n/a	66.67	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**MW-17**	**3.046**	**n/a**	**3/16/2021**	**3.06**	**Yes**	**12**	**1.349**	**0.1777**	**16.67**	**Kaplan-Meier**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-18	5.327	n/a	3/16/2021	3.18	No	12	3.897	0.6408	8.333	None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	3/16/2021	2.72	No	12	n/a	n/a	58.33	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	3/16/2021	39	No	12	42.67	17.73	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	3/16/2021	41	No	12	38	17.39	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	3/16/2021	34	No	13	25.23	15.16	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	3/16/2021	27	No	12	23.33	19.24	25	Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	3/16/2021	37	No	12	23.81	9.424	8.333	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	3/16/2021	31	No	12	26.33	11.21	0	None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	3/16/2021	25	No	12	20.63	11.48	8.333	None	No	0.00188	Param Intra 1 of 2

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

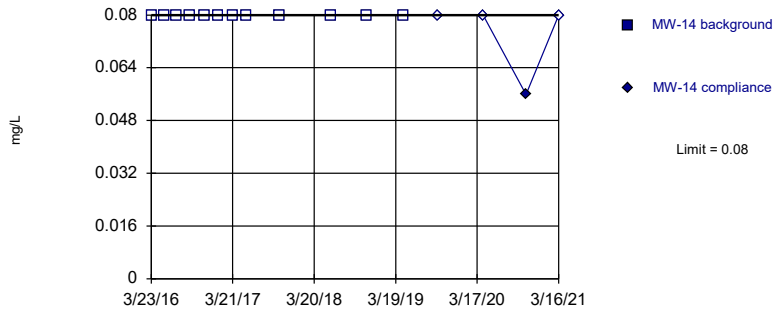
Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

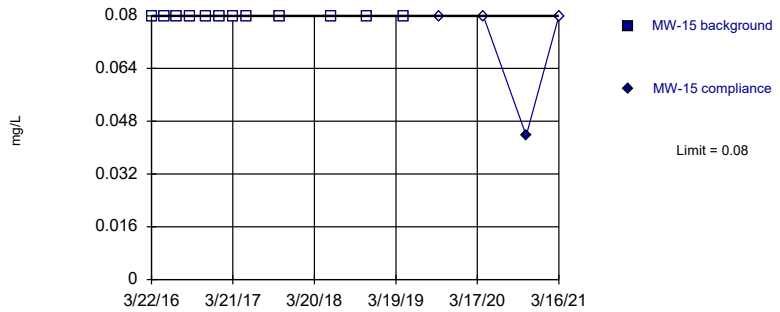
Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

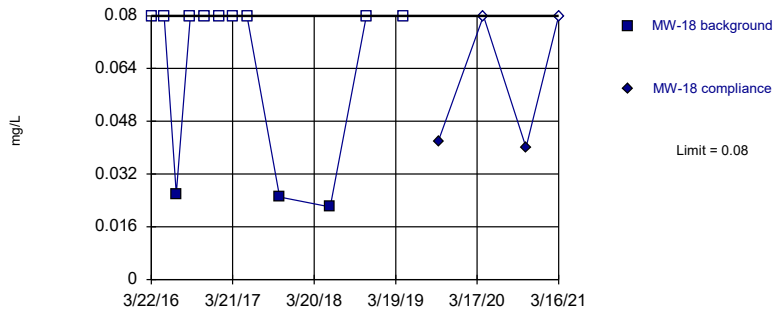
Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

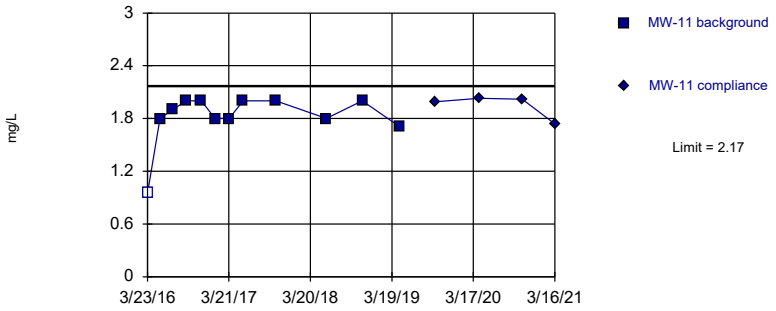
Constituent: Boron Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=12.03, Std. Dev.=4.544, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8072, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

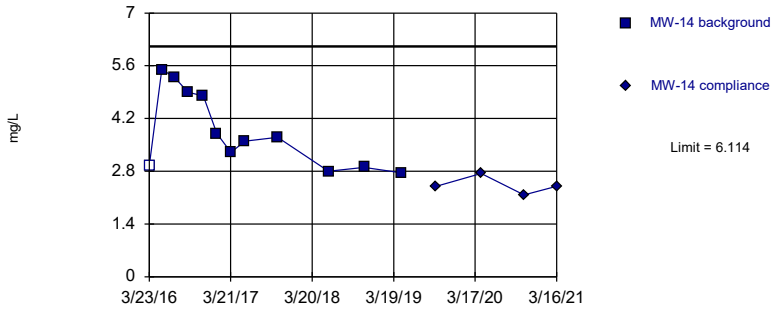
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.859, Std. Dev.=1.01, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

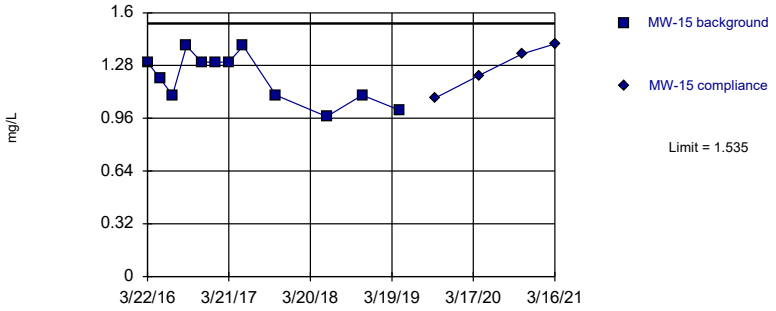
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.207, Std. Dev.=0.1472, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

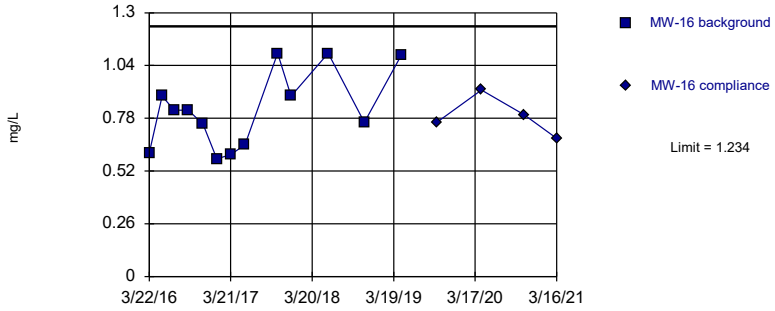
Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.82, Std. Dev.=0.1886, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9011, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

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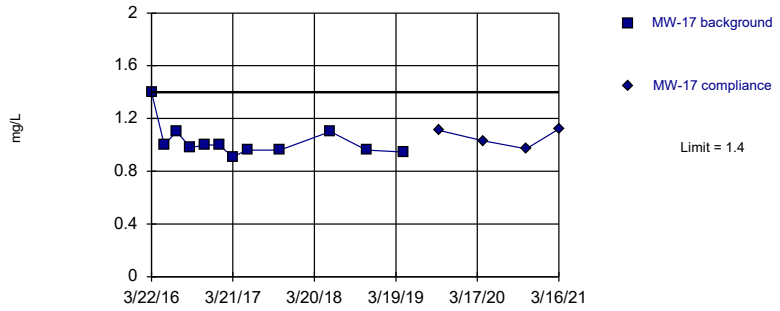
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

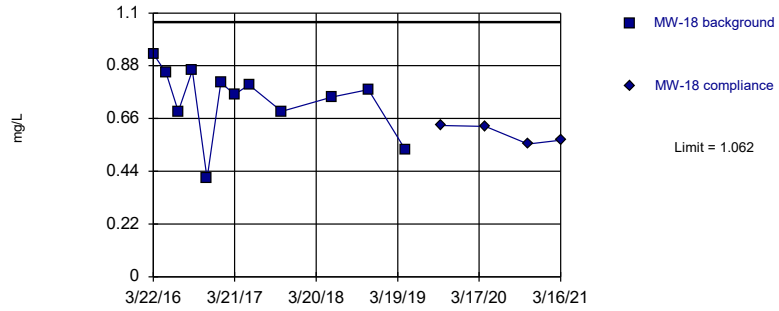
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7384, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

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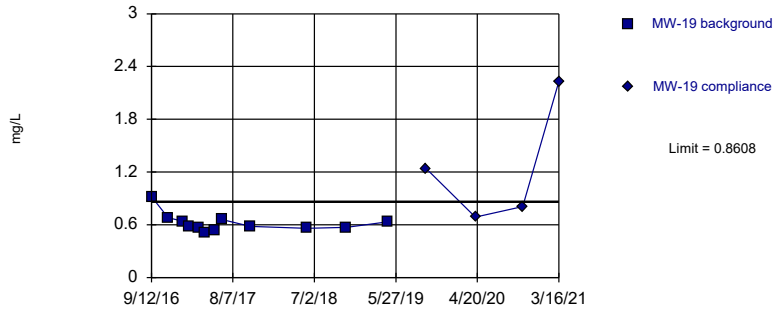
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.7847, Std. Dev.=0.06412, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 5/19/2021 4:41 PM View: Intrawell

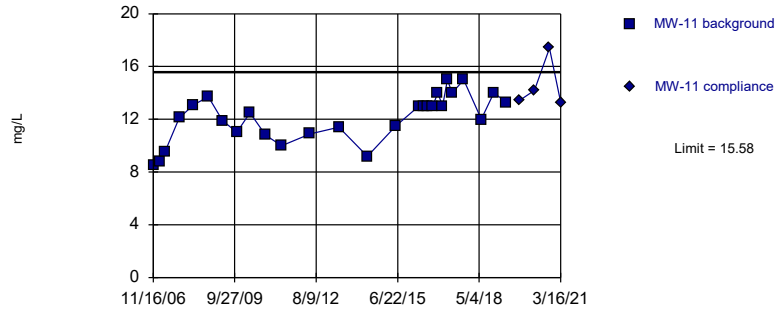
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12.12, Std. Dev.=1.814, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:41 PM View: Intrawell

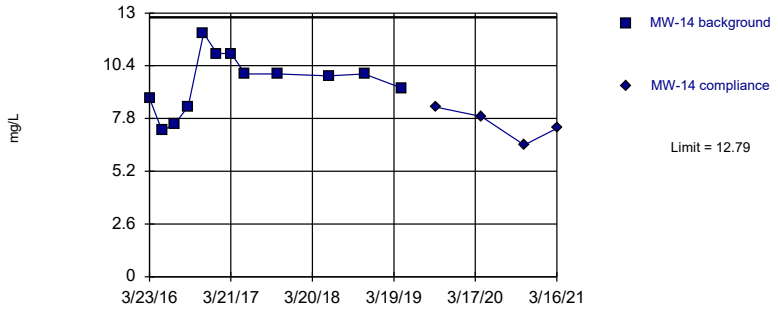
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.592, Std. Dev.=1.433, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:41 PM View: Intrawell

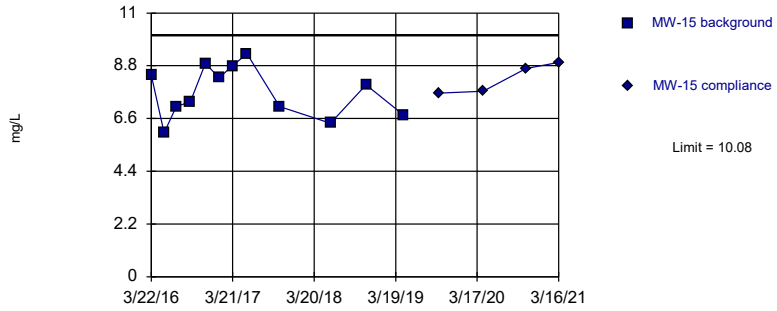
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.696, Std. Dev.=1.067, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

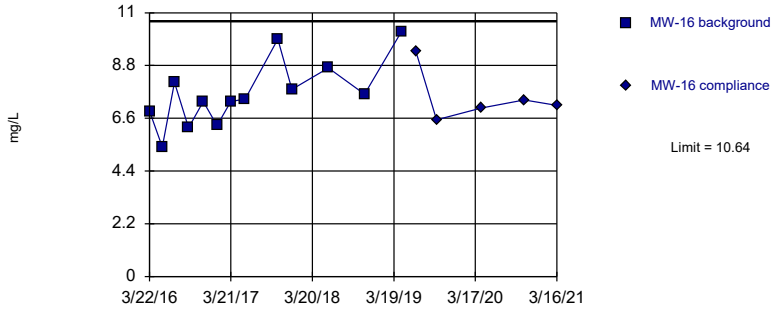
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.623, Std. Dev.=1.377, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9538, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

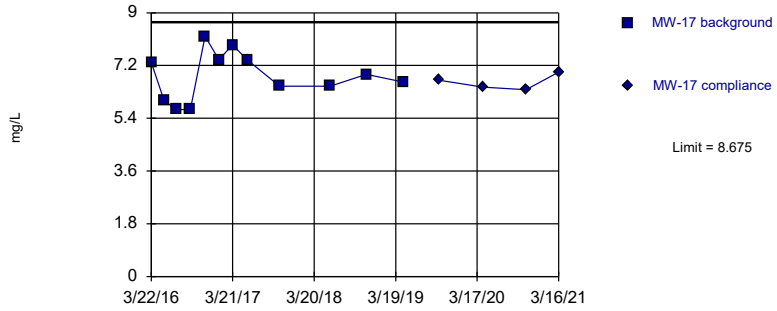
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.845, Std. Dev.=0.8197, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

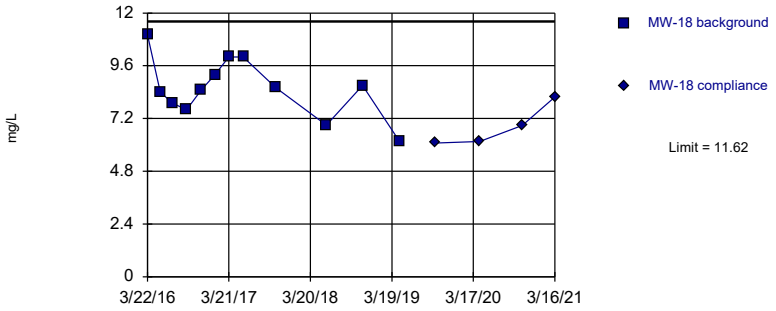
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.581, Std. Dev.=1.361, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

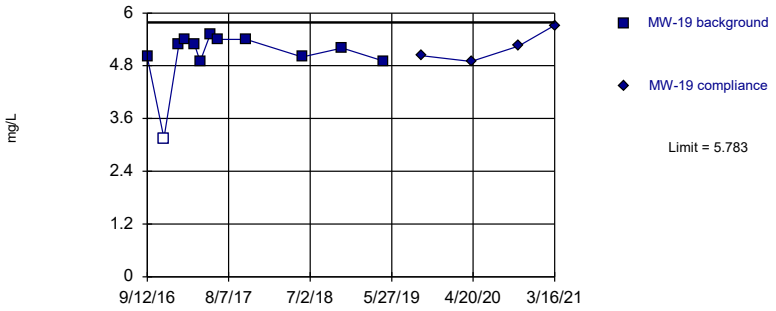
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=3601, Std. Dev.=1285, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8476, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

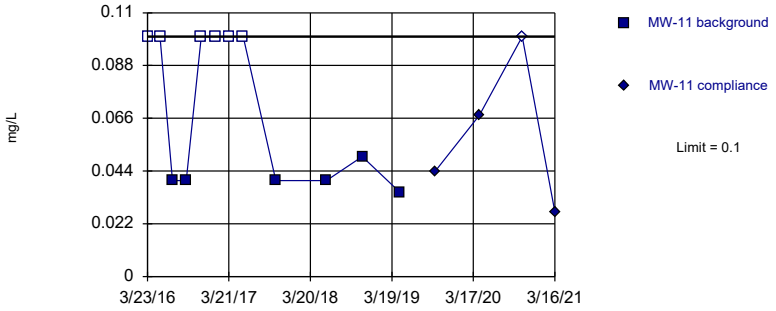
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

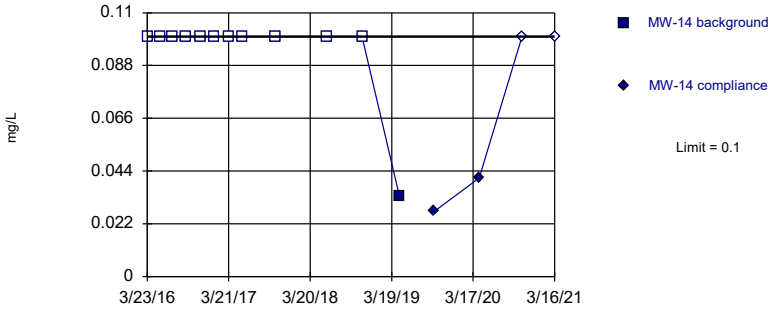
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell

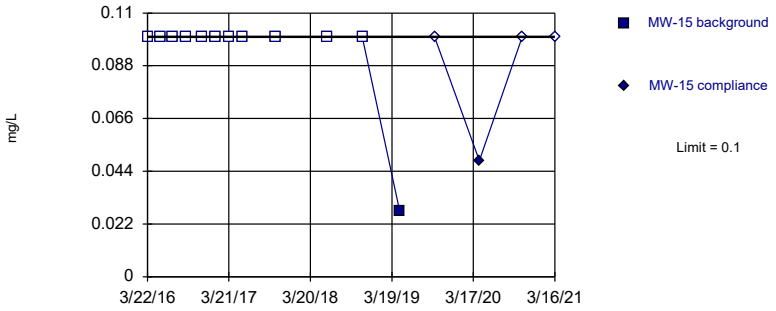
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

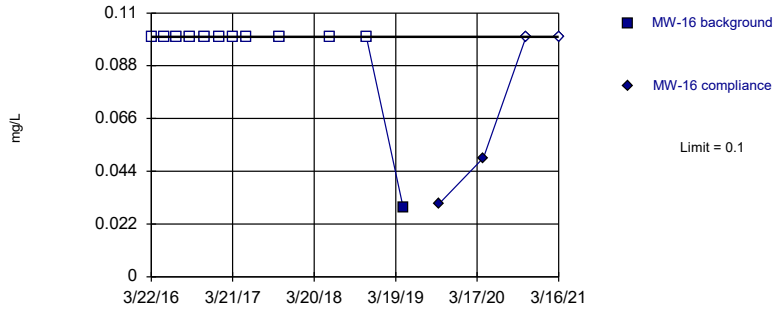
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

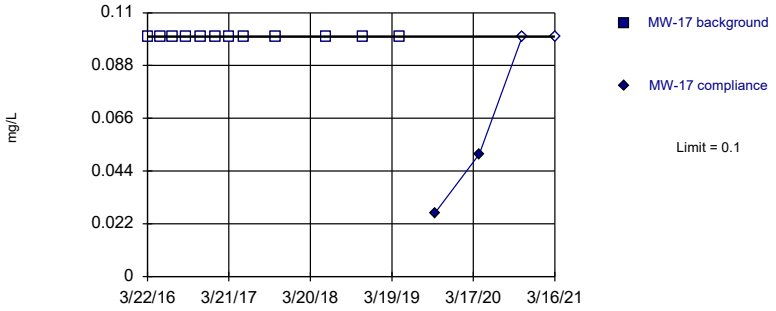
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

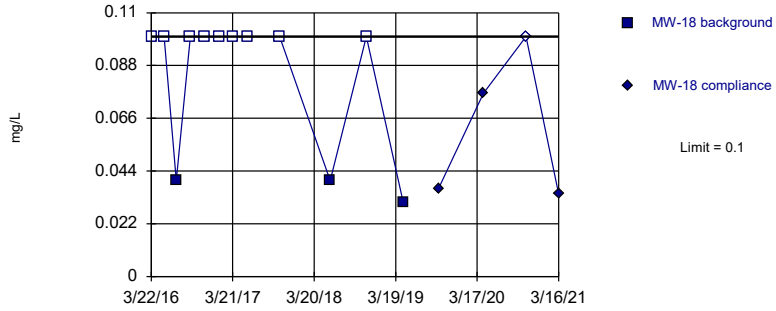
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

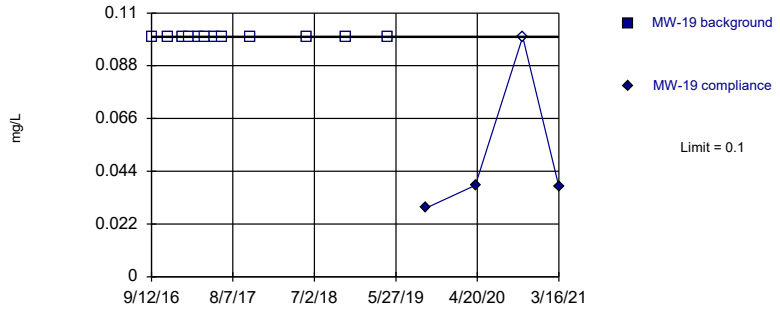
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

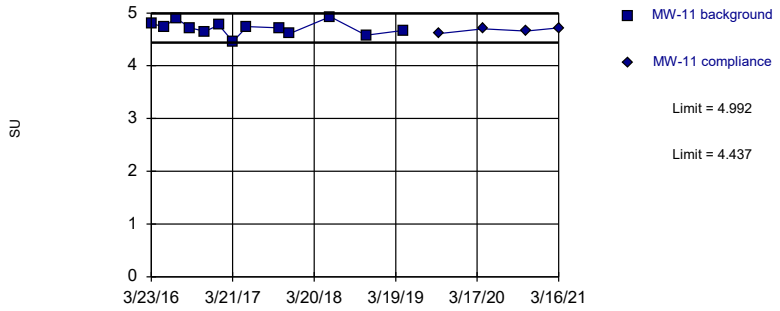
Constituent: Fluoride Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.715, Std. Dev.=0.1267, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

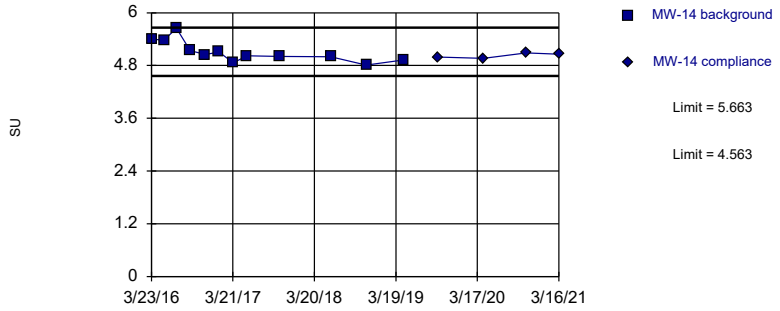
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.113, Std. Dev.=0.2464, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

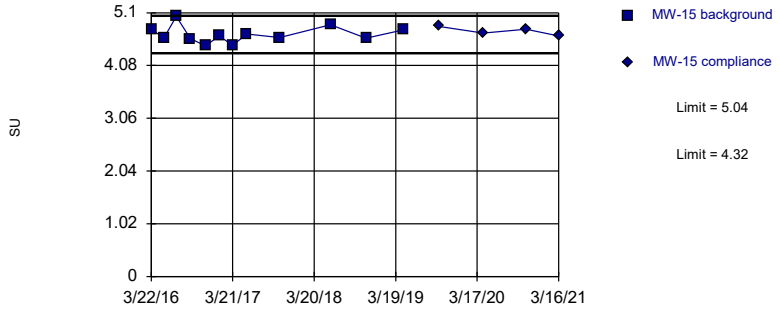
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



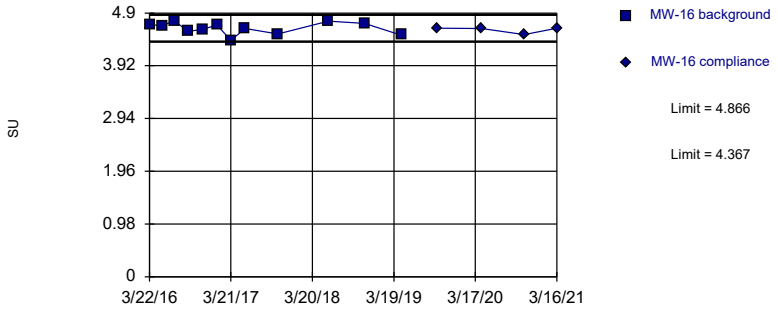
Background Data Summary: Mean=4.68, Std. Dev.=0.1615, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.617, Std. Dev.=0.1118, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

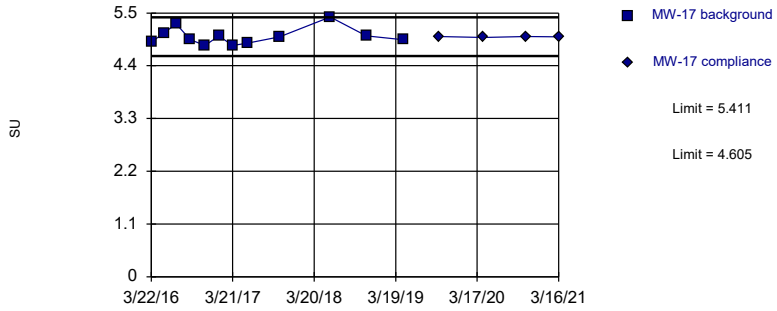
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.008, Std. Dev.=0.1805, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

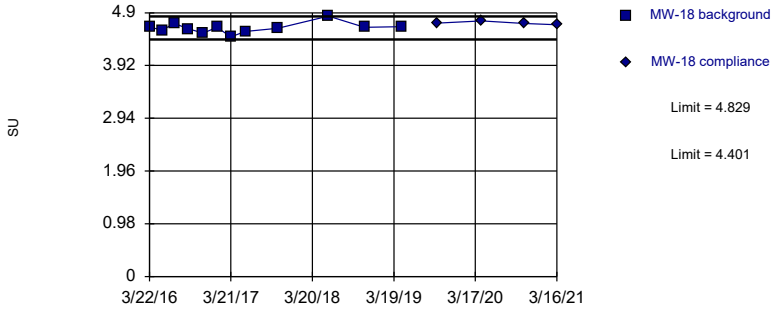
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.615, Std. Dev.=0.09587, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

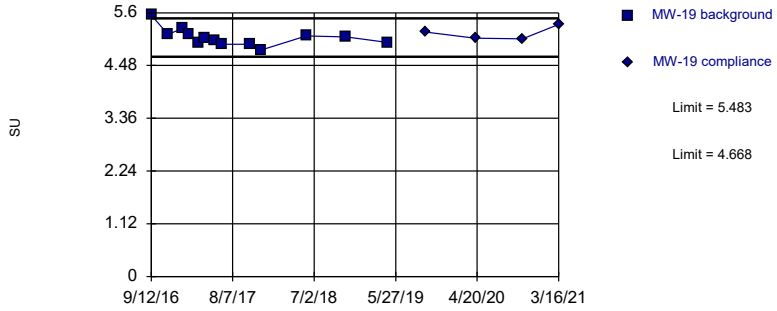
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.075, Std. Dev.=0.1858, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

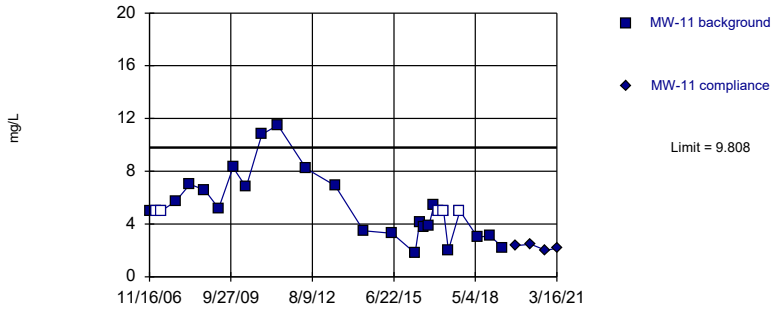
Constituent: pH Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.944, Std. Dev.=2.552, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

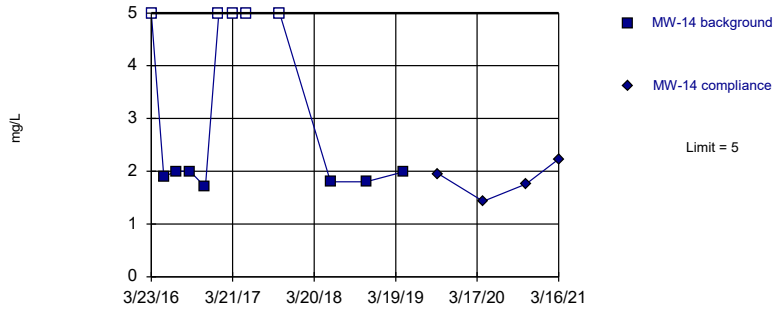
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

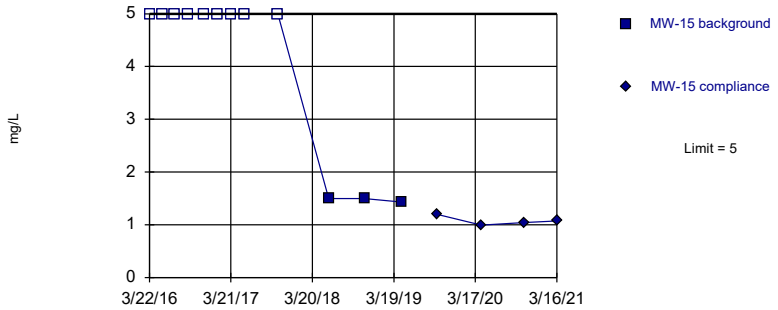
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

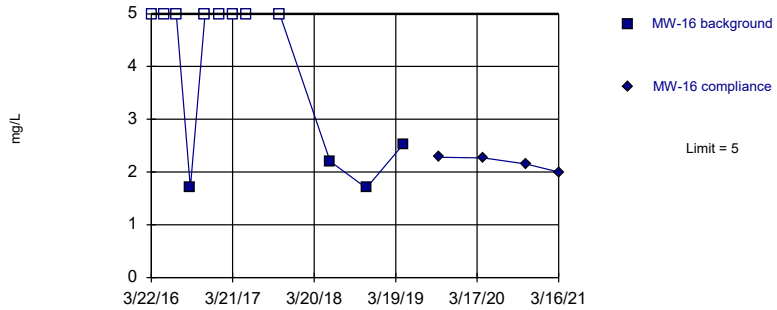
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

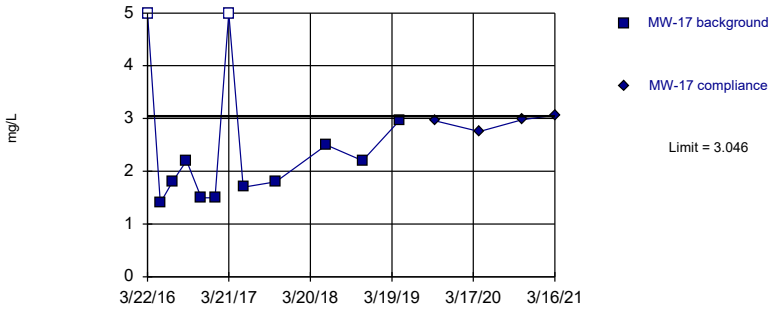
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.349, Std. Dev.=0.1777, n=12, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

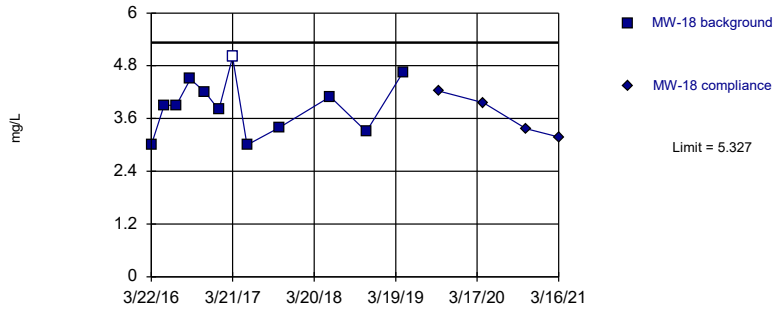
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.897, Std. Dev.=0.6408, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9606, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

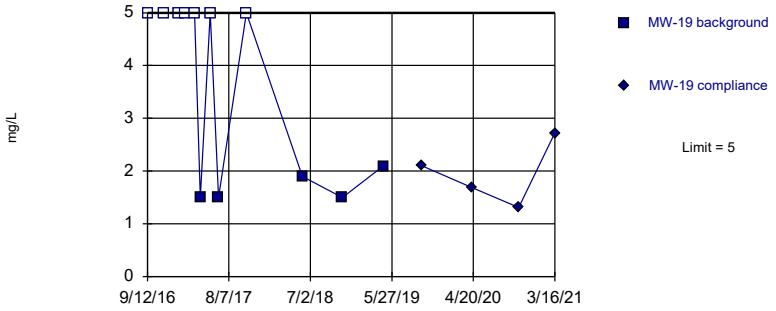
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. 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 12 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

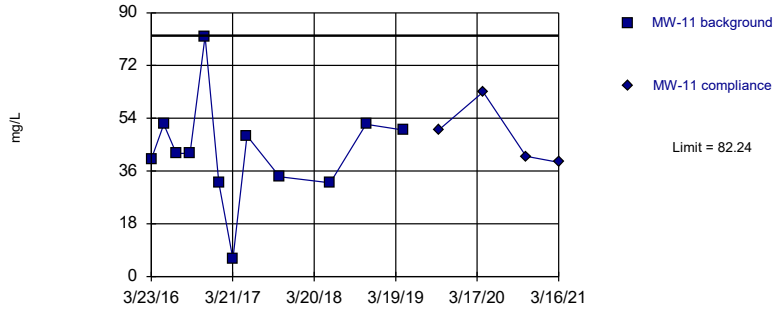
Constituent: Sulfate Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.67, Std. Dev.=17.73, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

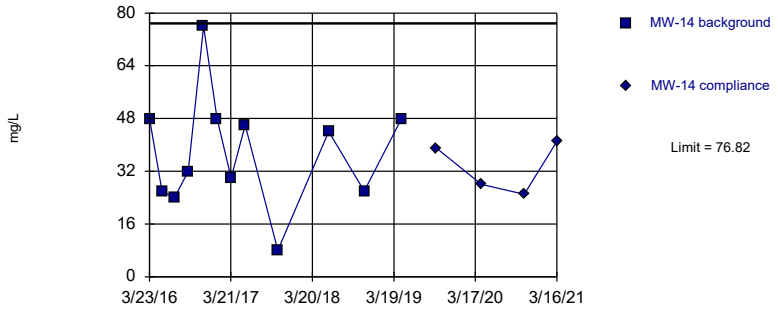
Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38, Std. Dev.=17.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

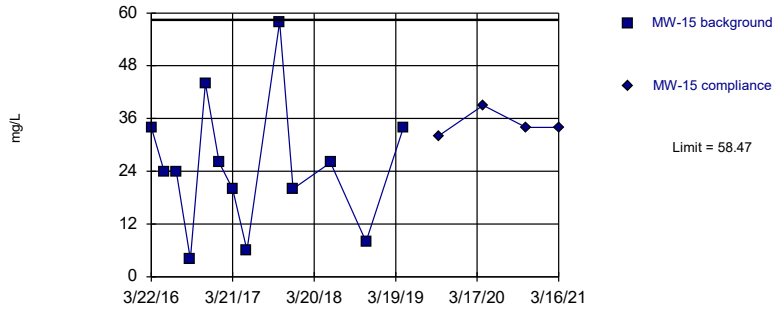
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.23, Std. Dev.=15.16, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

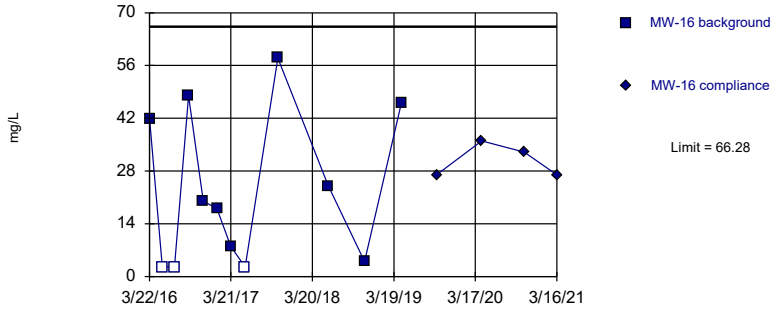
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=23.33, Std. Dev.=19.24, n=12, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8666, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

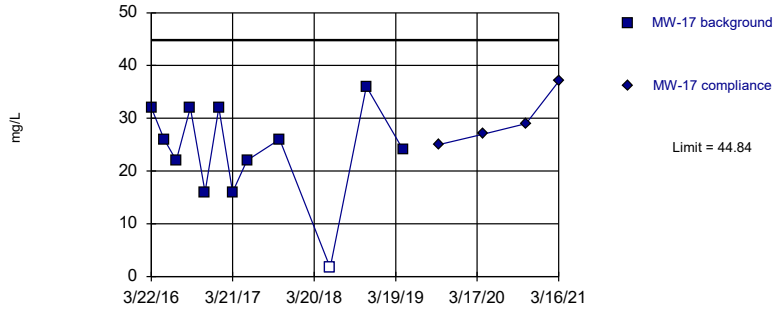
Sanitas™ v.9.6.28 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.81, Std. Dev.=9.424, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

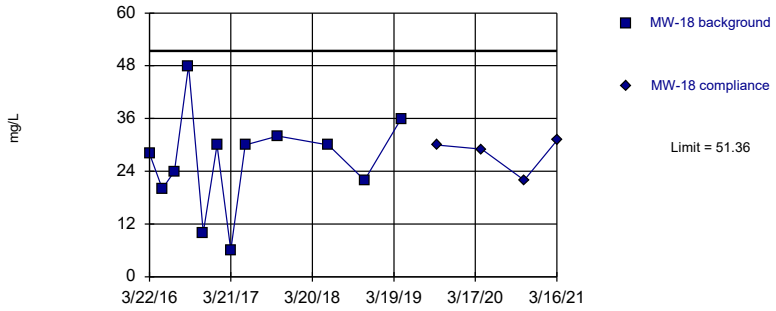
Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=26.33, Std. Dev.=11.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

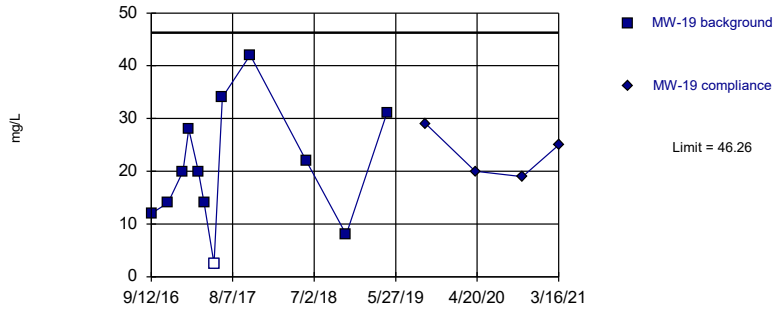
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.63, Std. Dev.=11.48, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9792, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 5/19/2021 4:42 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/19/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
5/31/2018	<0.08	
11/7/2018	<0.08	
4/22/2019	<0.08	
9/27/2019		0.0443 (J)
4/13/2020		<0.08
10/22/2020		0.103
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/18/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0559 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/19/2017	<0.08	
3/21/2017	<0.08	
5/23/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0437 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	0.026 (J)	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/18/2017	<0.08	
3/21/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	0.025 (J)	
5/31/2018	0.022 (J)	
11/8/2018	<0.08	
4/22/2019	<0.08	
9/26/2019		0.042 (J)
4/14/2020		<0.08
10/22/2020		0.0401 (J)
3/16/2021		<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<1.9 (*)	
5/18/2016	1.8	
7/12/2016	1.9	
9/12/2016	2	
11/18/2016	2	
1/19/2017	1.8	
3/22/2017	1.8	
5/24/2017	2	
10/17/2017	2	
5/31/2018	1.8	
11/7/2018	2	
4/22/2019	1.71	
9/27/2019		1.99
4/13/2020		2.03
10/22/2020		2.02
3/16/2021		1.74

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5.9 (*)	
5/18/2016	5.5	
7/12/2016	5.3	
9/12/2016	4.9	
11/19/2016	4.8	
1/18/2017	3.8	
3/22/2017	3.3	
5/24/2017	3.6	
10/17/2017	3.7	
6/1/2018	2.8	
11/7/2018	2.9	
4/23/2019	2.76	
9/26/2019		2.4
4/13/2020		2.74
10/22/2020		2.17
3/16/2021		2.4

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	1.3 (B1)	
5/18/2016	1.2	
7/12/2016	1.1	
9/12/2016	1.4	
11/19/2016	1.3	
1/19/2017	1.3	
3/21/2017	1.3	
5/23/2017	1.4	
10/17/2017	1.1	
6/1/2018	0.97	
11/7/2018	1.1	
4/23/2019	1.01	
9/26/2019		1.08
4/13/2020		1.22
10/22/2020		1.35
3/16/2021		1.41

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	0.61 (B1)	
5/18/2016	0.89	
7/11/2016	0.82	
9/13/2016	0.82	
11/17/2016	0.75	
1/18/2017	0.58	
3/21/2017	0.6	
5/23/2017	0.65	
10/17/2017	1.1	
12/15/2017	0.89 (RS)	
5/31/2018	1.1	
11/8/2018	0.76	
4/22/2019	1.09	
9/26/2019		0.758
4/14/2020		0.92
10/21/2020		0.798
3/16/2021		0.681

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	1.4 (B1)	
5/18/2016	1	
7/12/2016	1.1	
9/12/2016	0.98	
11/18/2016	1	
1/18/2017	1	
3/21/2017	0.91	
5/24/2017	0.96	
10/17/2017	0.96	
5/31/2018	1.1	
11/8/2018	0.96	
4/22/2019	0.946	
9/26/2019		1.11
4/13/2020		1.03
10/22/2020		0.969
3/16/2021		1.12

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	0.93 (B1)	
5/18/2016	0.85	
7/12/2016	0.69	
9/12/2016	0.86	
11/18/2016	0.41	
1/18/2017	0.81	
3/21/2017	0.76	
5/24/2017	0.8	
10/17/2017	0.69	
5/31/2018	0.75	
11/8/2018	0.78	
4/22/2019	0.531	
9/26/2019		0.631
4/14/2020		0.627
10/22/2020		0.553
3/16/2021		0.57

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	0.92	
11/18/2016	0.68	
1/18/2017	0.64	
2/10/2017	0.58	
3/21/2017	0.56	
4/14/2017	0.51	
5/23/2017	0.54	
6/26/2017	0.66	
10/17/2017	0.58	
5/31/2018	0.56	
11/8/2018	0.57	
4/22/2019	0.634	
9/26/2019		1.24
4/13/2020		0.687
10/21/2020		0.806
3/16/2021		2.23

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	8.5	
2/5/2007	8.8	
4/12/2007	9.5	
10/17/2007	12.1	
4/17/2008	13.1	
10/24/2008	13.7	
4/21/2009	11.9	
10/26/2009	11	
4/12/2010	12.5	
10/30/2010	10.8	
5/25/2011	10	
5/25/2012	10.9	
5/28/2013	11.4	
5/31/2014	9.2	
5/29/2015	11.5	
3/23/2016	13	
5/18/2016	13	
7/12/2016	13	
9/12/2016	13	
11/18/2016	14	
1/19/2017	13	
3/22/2017	15	
5/24/2017	14	
10/17/2017	15	
5/31/2018	12	
11/7/2018	14	
4/22/2019	13.3	
9/27/2019		13.4
4/13/2020		14.2
10/22/2020		17.4
3/16/2021		13.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	8.8 (B1)	
5/18/2016	7.2	
7/12/2016	7.5	
9/12/2016	8.4	
11/19/2016	12	
1/18/2017	11	
3/22/2017	11	
5/24/2017	10	
10/17/2017	10	
6/1/2018	9.9	
11/7/2018	10	
4/23/2019	9.3	
9/26/2019		8.35
4/13/2020		7.9
10/22/2020		6.5
3/16/2021		7.32

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	8.4 (B1)	
5/18/2016	6	
7/12/2016	7.1	
9/12/2016	7.3	
11/19/2016	8.9	
1/19/2017	8.3	
3/21/2017	8.8	
5/23/2017	9.3	
10/17/2017	7.1	
6/1/2018	6.4	
11/7/2018	8	
4/23/2019	6.75	
9/26/2019		7.66
4/13/2020		7.74
10/22/2020		8.69
3/16/2021		8.94

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	6.9 (B1)	
5/18/2016	5.4	
7/11/2016	8.1	
9/13/2016	6.2	
11/17/2016	7.3	
1/18/2017	6.3	
3/21/2017	7.3	
5/23/2017	7.4	
10/17/2017	9.9	
12/19/2017	7.8 (RS)	
5/31/2018	8.7	
11/8/2018	7.6	
4/22/2019	10.2	
6/25/2019		9.4
9/26/2019		6.54
4/14/2020		7.03
10/21/2020		7.36
3/16/2021		7.14

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	7.3 (B1)	
5/18/2016	6	
7/12/2016	5.7	
9/12/2016	5.7	
11/18/2016	8.2	
1/18/2017	7.4	
3/21/2017	7.9	
5/24/2017	7.4	
10/17/2017	6.5	
5/31/2018	6.5	
11/8/2018	6.9	
4/22/2019	6.64	
9/26/2019		6.7
4/13/2020		6.46
10/22/2020		6.37
3/16/2021		6.97

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	11 (B1)	
5/18/2016	8.4	
7/12/2016	7.9	
9/12/2016	7.6	
11/18/2016	8.5	
1/18/2017	9.2	
3/21/2017	10	
5/24/2017	10	
10/17/2017	8.6	
5/31/2018	6.9	
11/8/2018	8.7	
4/22/2019	6.17	
9/26/2019		6.09
4/14/2020		6.15
10/22/2020		6.89
3/16/2021		8.18

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5	
11/18/2016	<6.3 (*)	
1/18/2017	5.3	
2/10/2017	5.4	
3/21/2017	5.3	
4/14/2017	4.9 (B)	
5/23/2017	5.5	
6/26/2017	5.4	
10/17/2017	5.4	
5/31/2018	5	
11/8/2018	5.2	
4/22/2019	4.91	
9/26/2019		5.03
4/13/2020		4.9
10/21/2020		5.25
3/16/2021		5.72

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.1	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	0.04 (J)	
11/18/2016	<0.1	
1/19/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	0.04 (J)	
5/31/2018	0.04 (J)	
11/7/2018	0.05 (J)	
4/22/2019	0.0353 (J)	
9/27/2019		0.0438 (J)
4/13/2020		0.0672 (J)
10/22/2020		<0.1
3/16/2021		0.0269 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/18/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0335 (J)	
9/26/2019		0.0272 (J)
4/13/2020		0.0411 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/19/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0275 (J)	
9/26/2019		<0.1
4/13/2020		0.0484 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/11/2016	<0.1	
9/13/2016	<0.1	
11/17/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	0.029 (J)	
9/26/2019		0.0302 (J)
4/14/2020		0.0496 (J)
10/21/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0263 (J)
4/13/2020		0.0511 (J)
10/22/2020		<0.1
3/16/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	0.04 (J)	
11/8/2018	<0.1	
4/22/2019	0.0311 (J)	
9/26/2019		0.0366 (J)
4/14/2020		0.0764 (J)
10/22/2020		<0.1
3/16/2021		0.0344 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
2/10/2017	<0.1	
3/21/2017	<0.1	
4/14/2017	<0.1	
5/23/2017	<0.1	
6/26/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0287 (J)
4/13/2020		0.0382 (J)
10/21/2020		<0.1
3/16/2021		0.0376 (J)

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	4.8	
5/18/2016	4.74	
7/12/2016	4.9	
9/12/2016	4.72	
11/18/2016	4.65	
1/19/2017	4.77	
3/22/2017	4.46	
5/24/2017	4.74	
10/17/2017	4.72	
11/30/2017	4.61	
5/31/2018	4.93	
11/7/2018	4.58	
4/22/2019	4.67	
9/27/2019		4.61
4/13/2020		4.7
10/22/2020		4.66
3/16/2021		4.72

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	5.4	
5/18/2016	5.38	
7/12/2016	5.65	
9/12/2016	5.14	
11/19/2016	5.05	
1/18/2017	5.11	
3/22/2017	4.86	
5/24/2017	5.02	
10/17/2017	5.01	
6/1/2018	5	
11/7/2018	4.81	
4/23/2019	4.93	
9/26/2019		4.99
4/13/2020		4.96
10/22/2020		5.09
3/16/2021		5.06

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	4.77	
5/18/2016	4.62	
7/12/2016	5.03	
9/12/2016	4.6	
11/19/2016	4.46	
1/19/2017	4.65	
3/21/2017	4.47	
5/23/2017	4.69	
10/17/2017	4.62	
6/1/2018	4.87	
11/7/2018	4.61	
4/23/2019	4.77	
9/26/2019		4.84
4/13/2020		4.71
10/22/2020		4.78
3/16/2021		4.65

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	4.68	
5/18/2016	4.67	
7/11/2016	4.75	
9/13/2016	4.56	
11/17/2016	4.6	
1/18/2017	4.68	
3/21/2017	4.39	
5/23/2017	4.61	
10/17/2017	4.51	
5/31/2018	4.75	
11/8/2018	4.71	
4/22/2019	4.49	
9/26/2019		4.62
4/14/2020		4.61
10/21/2020		4.5
3/16/2021		4.62

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	4.89	
5/18/2016	5.09	
7/12/2016	5.27	
9/12/2016	4.94	
11/18/2016	4.82	
1/18/2017	5.02	
3/21/2017	4.82	
5/24/2017	4.87	
10/17/2017	5	
5/31/2018	5.42	
11/8/2018	5.02	
4/22/2019	4.94	
9/26/2019		5.01
4/13/2020		4.99
10/22/2020		5.01
3/16/2021		5

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	4.63	
5/18/2016	4.58	
7/12/2016	4.7	
9/12/2016	4.6	
11/18/2016	4.52	
1/18/2017	4.63	
3/21/2017	4.45	
5/24/2017	4.55	
10/17/2017	4.61	
5/31/2018	4.84	
11/8/2018	4.63	
4/22/2019	4.64	
9/26/2019		4.71
4/14/2020		4.75
10/22/2020		4.7
3/16/2021		4.68

Prediction Limit

Constituent: pH (SU) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5.55	
11/18/2016	5.14	
1/18/2017	5.27	
2/10/2017	5.14	
3/21/2017	4.96	
4/14/2017	5.07	
5/23/2017	5.01	
6/26/2017	4.93	
10/17/2017	4.93	
11/30/2017	4.81	
5/31/2018	5.11	
11/8/2018	5.09	
4/22/2019	4.97	
9/26/2019		5.19
4/13/2020		5.06
10/21/2020		5.05
3/16/2021		5.35

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	5	
2/5/2007	<5	
4/12/2007	<5	
10/17/2007	5.7	
4/17/2008	7	
10/24/2008	6.6	
4/21/2009	5.2	
10/26/2009	8.3	
4/12/2010	6.8	
10/30/2010	10.8	
5/25/2011	11.5	
5/25/2012	8.2	
5/28/2013	6.9	
5/31/2014	3.5	
5/29/2015	3.3	
3/23/2016	1.8 (J)	
5/18/2016	4.1	
7/12/2016	3.8 (J)	
9/12/2016	3.9 (J)	
11/18/2016	5.4	
1/19/2017	<5	
3/22/2017	<5	
5/24/2017	2 (J)	
10/17/2017	<5	
5/31/2018	3 (J)	
11/7/2018	3.1 (J)	
4/22/2019	2.22	
9/27/2019		2.36
4/13/2020		2.47
10/22/2020		2.01
3/16/2021		2.15

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5	
5/18/2016	1.9	
7/12/2016	2 (J)	
9/12/2016	2 (J)	
11/19/2016	1.7 (J)	
1/18/2017	<5	
3/22/2017	<5	
5/24/2017	<5	
10/17/2017	<5	
6/1/2018	1.8 (J)	
11/7/2018	1.8 (J)	
4/23/2019	1.99	
9/26/2019		1.95
4/13/2020		1.43
10/22/2020		1.76
3/16/2021		2.23

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<5	
5/18/2016	<5	
7/12/2016	<5	
9/12/2016	<5	
11/19/2016	<5	
1/19/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
6/1/2018	1.5 (J)	
11/7/2018	1.5 (J)	
4/23/2019	1.43	
9/26/2019		1.2
4/13/2020		0.992 (J)
10/22/2020		1.04
3/16/2021		1.07

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<5	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	1.7 (J)	
11/17/2016	<5	
1/18/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
5/31/2018	2.2 (J)	
11/8/2018	1.7 (J)	
4/22/2019	2.52	
9/26/2019		2.28
4/14/2020		2.27
10/21/2020		2.15
3/16/2021		2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<5	
5/18/2016	1.4	
7/12/2016	1.8 (J)	
9/12/2016	2.2 (J)	
11/18/2016	1.5 (J)	
1/18/2017	1.5 (J)	
3/21/2017	<5	
5/24/2017	1.7 (J)	
10/17/2017	1.8 (J)	
5/31/2018	2.5 (J)	
11/8/2018	2.2 (J)	
4/22/2019	2.96	
9/26/2019		2.96
4/13/2020		2.75
10/22/2020		2.98
3/16/2021		3.06

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	3 (J)	
5/18/2016	3.9 (J)	
7/12/2016	3.9 (J)	
9/12/2016	4.5 (J)	
11/18/2016	4.2 (J)	
1/18/2017	3.8 (J)	
3/21/2017	<5 (*)	
5/24/2017	3 (J)	
10/17/2017	3.4 (J)	
5/31/2018	4.1 (J)	
11/8/2018	3.3 (J)	
4/22/2019	4.66	
9/26/2019		4.23
4/14/2020		3.96
10/22/2020		3.37
3/16/2021		3.18

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<5	
11/18/2016	<5	
1/18/2017	<5	
2/10/2017	<5	
3/21/2017	<5	
4/14/2017	1.5 (J)	
5/23/2017	<5	
6/26/2017	1.5 (J)	
10/17/2017	<5	
5/31/2018	1.9 (J)	
11/8/2018	1.5 (J)	
4/22/2019	2.09	
9/26/2019		2.1
4/13/2020		1.69
10/21/2020		1.31
3/16/2021		2.72

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	40	
5/18/2016	52	
7/12/2016	42	
9/12/2016	42	
11/18/2016	82	
1/19/2017	32	
3/22/2017	6	
5/24/2017	48	
10/17/2017	34	
5/31/2018	32	
11/7/2018	52	
4/22/2019	50	
9/27/2019		50
4/13/2020		63
10/22/2020		41
3/16/2021		39

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	48 (B1)	
5/18/2016	26	
7/12/2016	24	
9/12/2016	32	
11/19/2016	76	
1/18/2017	48	
3/22/2017	30	
5/24/2017	46	
10/17/2017	8	
6/1/2018	44	
11/7/2018	26	
4/23/2019	48	
9/26/2019		39
4/13/2020		28
10/22/2020		25
3/16/2021		41

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	34 (B1)	
5/18/2016	24	
7/12/2016	24	
9/12/2016	4 (J)	
11/19/2016	44	
1/19/2017	26	
3/21/2017	20	
5/23/2017	6	
10/17/2017	58	
12/15/2017	20 (RS)	
6/1/2018	26	
11/7/2018	8	
4/23/2019	34	
9/26/2019		32
4/13/2020		39
10/22/2020		34
3/16/2021		34

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	42 (B1)	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	48	
11/17/2016	20	
1/18/2017	18	
3/21/2017	8	
5/23/2017	<5	
10/17/2017	58	
5/31/2018	24	
11/8/2018	4 (J)	
4/22/2019	46	
9/26/2019		27
4/14/2020		36
10/21/2020		33
3/16/2021		27

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	32 (B1)	
5/18/2016	26	
7/12/2016	22	
9/12/2016	32	
11/18/2016	16	
1/18/2017	32	
3/21/2017	16	
5/24/2017	22	
10/17/2017	26	
5/31/2018	<3.4	
11/8/2018	36	
4/22/2019	24	
9/26/2019		25
4/13/2020		27
10/22/2020		29
3/16/2021		37

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	28 (B1)	
5/18/2016	20	
7/12/2016	24	
9/12/2016	48	
11/18/2016	10	
1/18/2017	30	
3/21/2017	6	
5/24/2017	30	
10/17/2017	32	
5/31/2018	30	
11/8/2018	22	
4/22/2019	36	
9/26/2019		30
4/14/2020		29
10/22/2020		22
3/16/2021		31

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/19/2021 4:44 PM View: Intrawell

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017	42	
5/31/2018	22	
11/8/2018	8	
4/22/2019	31	
9/26/2019		29
4/13/2020		20
10/21/2020		19
3/16/2021		25

FIGURE E.

Appendix III Trend Test - Prediction Limit Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test - Prediction Limit Exceedances - All Results

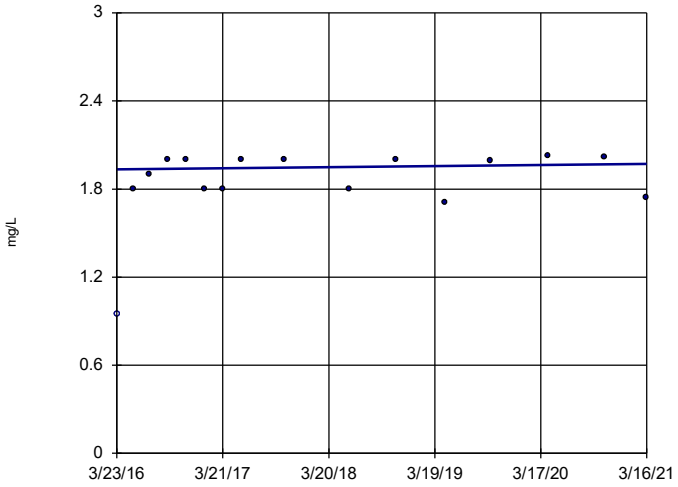
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 5/18/2021, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.007498	24	58	No	16	6.25	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5456**	**-91**	**-58**	**Yes**	**16**	**6.25**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.05969**	**-63**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.03558	26	58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**MW-11 (bg)**	**-0.2963**	**-210**	**-152**	**Yes**	**31**	**16.13**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	MW-14 (bg)	-0.04474	-28	-58	No	16	31.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-17	0.2933	49	58	No	16	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	MW-18 (bg)	-0.05772	-6	-58	No	16	6.25	n/a	n/a	0.01	NP

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 16

Slope = 0.007498 units per year.

Mann-Kendall statistic = 24
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

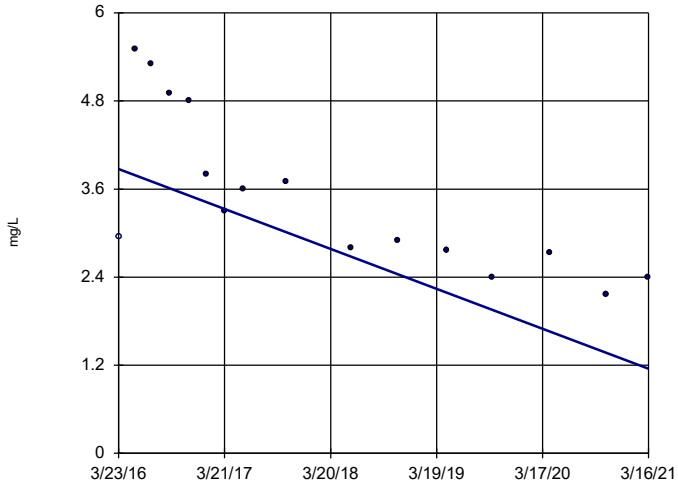
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 16

Slope = -0.5456 units per year.

Mann-Kendall statistic = -91
critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

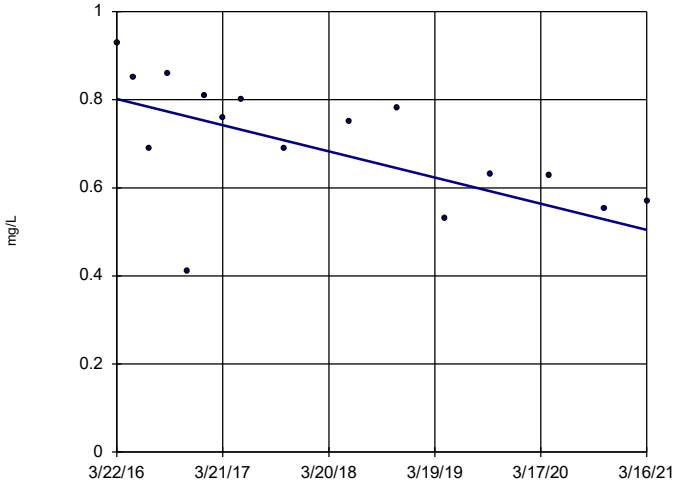
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = -0.05969 units per year.

Mann-Kendall statistic = -63
critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

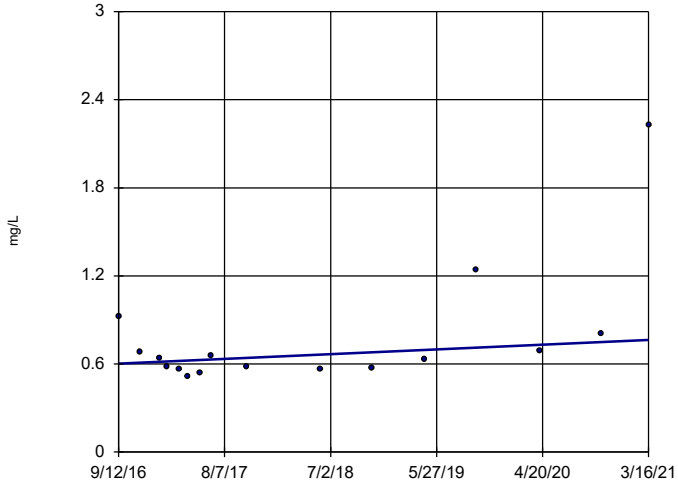
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 16

Slope = 0.03558 units per year.

Mann-Kendall statistic = 26
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

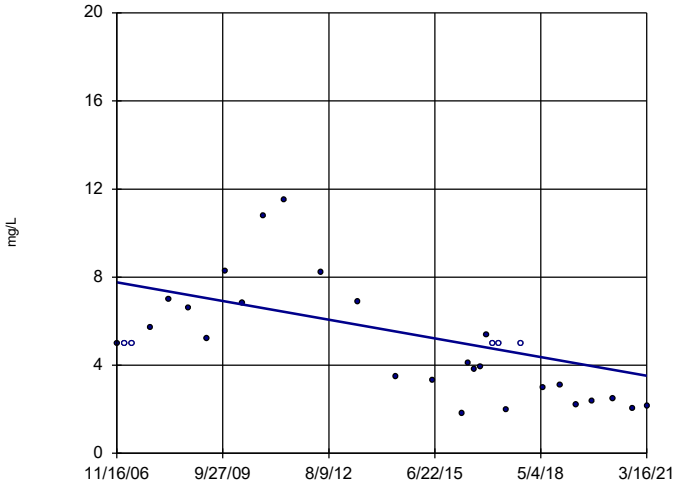
Constituent: Calcium Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 31

Slope = -0.2963 units per year.

Mann-Kendall statistic = -210
critical = -152

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

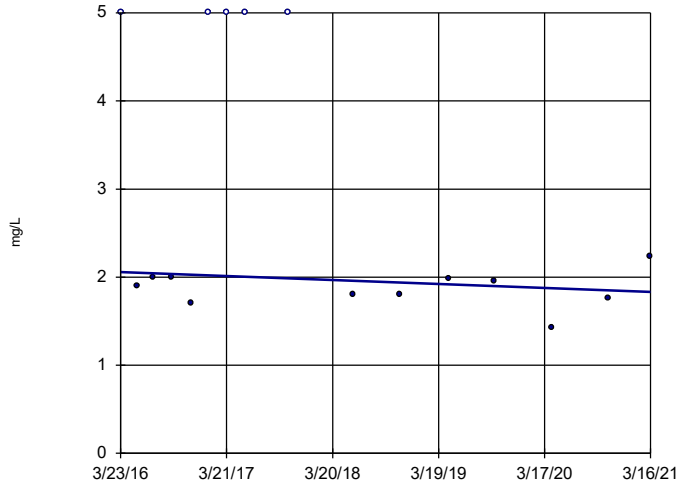
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 16

Slope = -0.04474 units per year.

Mann-Kendall statistic = -28
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

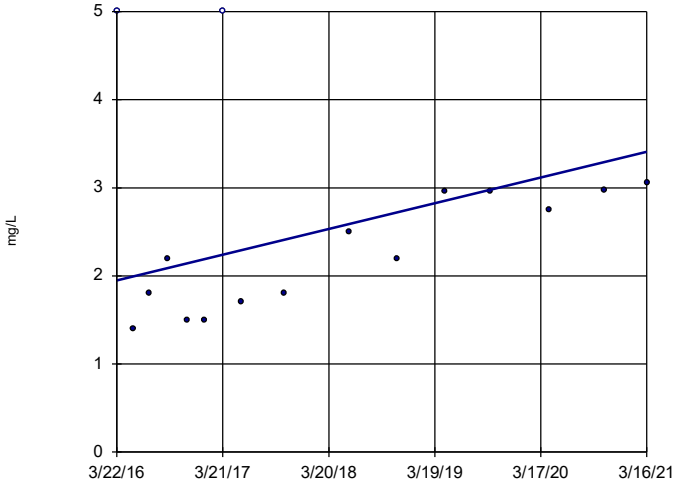
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-17



n = 16

Slope = 0.2933 units per year.

Mann-Kendall statistic = 49
critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

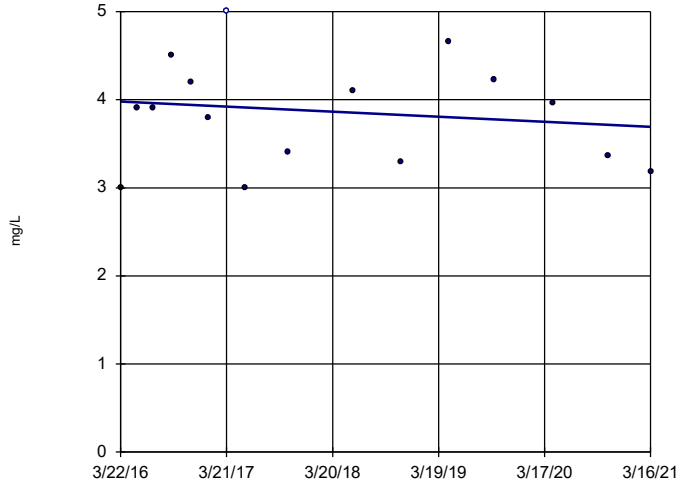
Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.28 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = -0.05772 units per year.

Mann-Kendall statistic = -6
critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 5/18/2021 3:58 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

2nd
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

December 15, 2021

Southern Company Services
Attn: Mr. Trey Singleton
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Daniel North Ash Management Unit (NAMU)
2021 Annual Statistical Analysis – October 2021 Sample Event

Dear Mr. Singleton,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2021 Groundwater Monitoring Annual report 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 United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at Daniel NAMU 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 reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program monitors the constituents listed below. The terms "parameters" and "constituents" are used interchangeably throughout this report.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A list of well/constituent pairs containing 100% non-detects follow this letter.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. For calculating intrawell prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case. For the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group.

Time series plots for Appendix III parameters are provided for all wells and are used to evaluate concentrations over time as well as for the purpose of updating statistical limits (Figure A). Additionally, box plots are included for all constituents at upgradient and downgradient wells (Figure B). Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graph; however, no values were flagged as outliers (Figure C). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells.

During the previous screening, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods were recommended. Power curves were provided with the screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance recommendations as discussed below.

Summary of Statistical Methods

Based on the evaluation for federal regulatory requirements, the following methods were selected for Appendix III constituents:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit will be shown as the original reporting limit.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents are re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. While this was not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Conducted in October 2017

Outlier Analysis

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

No suspected outliers were observed in any of the data sets for Appendix III parameters. When any values are identified as outliers, they are plotted in a lighter font on the time series graph.

Seasonality

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

Trend Test Evaluation

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a few statistically significant decreasing and increasing trends. All trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified variation among upgradient well data at Plant Daniel NAMU for the majority of the Appendix III parameters. This facility is a lined unit with pre-waste data; therefore, due to variation noted among upgradient wells, intrawell prediction limits were recommended for this facility to accommodate the groundwater quality. A summary table of the ANOVA results was included with the screening.

Summary of Background Update – Appendix III Parameters – November 2019

Prior to updating background data, samples were re-evaluated for Appendix III constituents at all wells using Tukey's outlier test and visual screening on all historical data through the April 2019 sample event. Only one value was noted by Tukey's as a potential outlier; however, when Tukey's outlier test detects an outlier for the most recent sample, it often will not be flagged in the event that the data precede a trend that is more representative of current concentrations. Therefore, no values for Appendix III constituents were flagged as outliers at the time of the screening. An updated summary of Tukey's test results was included with the screening.

The Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through June 2017 to the new compliance samples at each well through April 2019 to evaluate whether the groups are statistically different at the 99% confidence level for each of the Appendix III parameters. When no differences exist, background data sets may be updated to include newer data for construction of prediction limits. This results in statistical limits that are representative of present-day conditions. No statistically significant differences were found between the two groups except for the following: calcium and sulfate in well MW-15. Note that the Mann-Whitney test could not be produced due to insufficient variation in the data for boron in wells MW-14, MW-15, MW-16, MW-17, and MW-19.

Typically, when the test concludes that the medians of the two groups are significantly different, particularly in the downgradient wells, the background are not updated to include the newer data but will be reconsidered in the future. For all well/constituent pairs except for sulfate in well MW-15, due to the limited data available and the variability in data shows some of the more recent data has similar concentrations to those reported in background, these data sets were updated. In the case of calcium at well MW-15, while there is a statistically significant difference between the two medians, the magnitude of the difference is minimal, and newer data more accurately represent concentrations present in nearby wells. Therefore, the background for this well/constituent pair was updated with new data. A summary of these results was included in the 2019 Background Update report.

Statistical Analysis of Appendix III Parameters – October 2021

Intrawell Prediction Limits

Intrawell prediction limits, combined with a 1-of-2 resample strategy, were established for each of the Appendix III parameters at each well using historical data through April 2019 for the October 2021 sample event (Figure D). Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The October 2021 sample from each well was compared to the prediction limits to determine whether initial exceedances are present.

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. Complete graphical results of the prediction limits may be found following this letter. Exceedances were identified for the following well/constituent pairs:

- MW-19: Calcium and pH

Trend Test Evaluation

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient

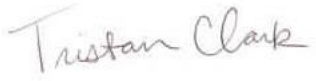
wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. The existence of similar trends in both upgradient and downgradient wells is an indication of natural variability in groundwater that is unrelated to practices at the site. Although no statistically significant increasing trends were noted, statistically significant decreasing trends were identified for the following well/constituent pairs:

Decreasing:

- MW-14 (upgradient): Calcium, pH
- MW-18 (upgradient): Calcium

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Daniel North Ash Management Unit. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects

Analysis Run 12/14/2021 2:16 PM View: PLs Time Series
Plant Daniel Client: Southern Company Data: NAMU CCR

Boron (mg/L)
MW-16, MW-17, MW-19

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**	**None**	**No**	**0.0009398**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:36 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	10/5/2021	0.08ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	10/5/2021	1.87	No	12	8.333		None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	10/5/2021	1.89	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	10/5/2021	0.632	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	10/5/2021	0.793	No	13	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	10/5/2021	0.883	No	12	0		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	10/5/2021	0.43J	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**		**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	10/5/2021	12.5	No	27	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	10/5/2021	6.59	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	10/5/2021	9.3	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	10/5/2021	6.55	No	13	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	10/5/2021	5.91	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	10/5/2021	5.72	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	10/5/2021	5.1	No	12	8.333		None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	10/5/2021	0.0561J	No	12	50		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	10/5/2021	0.03J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	10/5/2021	0.1ND	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	10/5/2021	0.0264J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	10/5/2021	0.1ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	10/5/2021	4.67	No	13	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	10/5/2021	4.98	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	10/5/2021	4.85	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	10/5/2021	4.6	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	10/5/2021	4.88	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	10/5/2021	4.68	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**		**None**	**No**	**0.0009398**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-11	9.808	n/a	10/5/2021	2.57	No	27	18.52		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	10/5/2021	2.46	No	12	41.67		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	10/5/2021	3.38	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	10/5/2021	2.22	No	12	66.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	3.046	n/a	10/5/2021	2.85	No	12	16.67		Kaplan-Meier	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.327	n/a	10/5/2021	3.83	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	10/5/2021	1.91	No	12	58.33		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	10/5/2021	43	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	10/5/2021	25	No	13	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	10/5/2021	29	No	12	25		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	10/5/2021	34	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	10/5/2021	35	No	12	8.333		None	No	0.00188	Param Intra 1 of 2

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

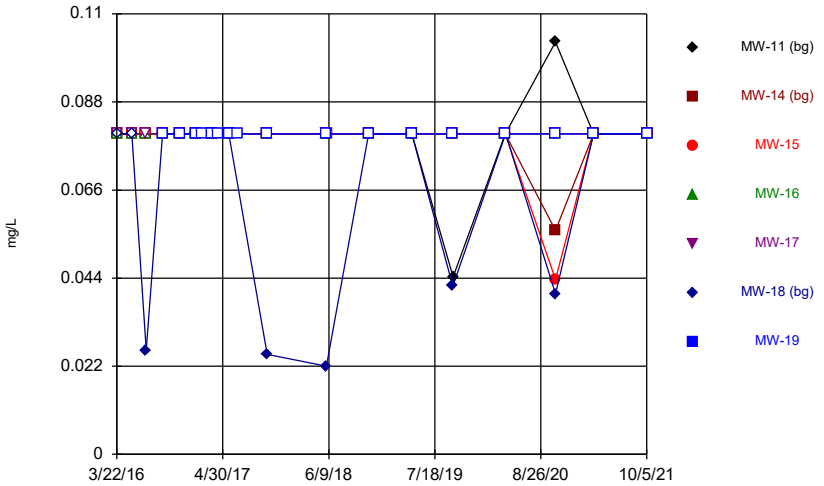
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.006242	22	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.0475	42	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	MW-11 (bg)	-0.01917	-41	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	MW-18 (bg)	0.02083	44	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	MW-19	-0.003948	-5	-68	No	18	0	n/a	n/a	0.01	NP

FIGURE A.

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

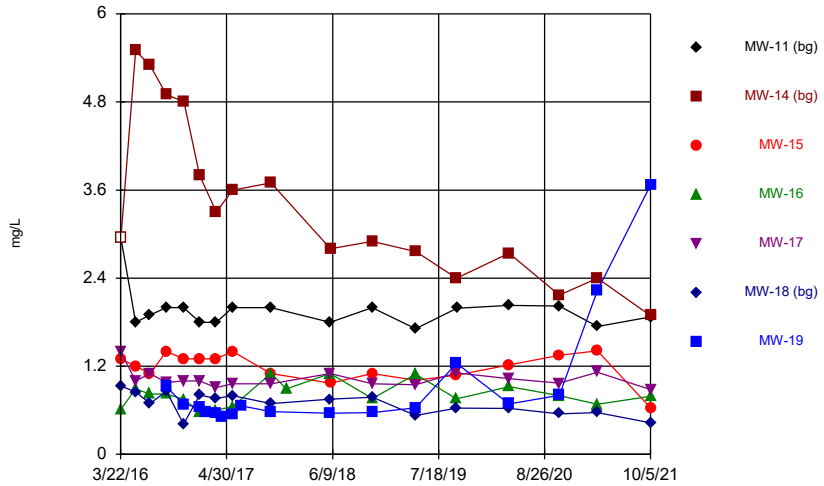
Time Series



Constituent: Boron Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

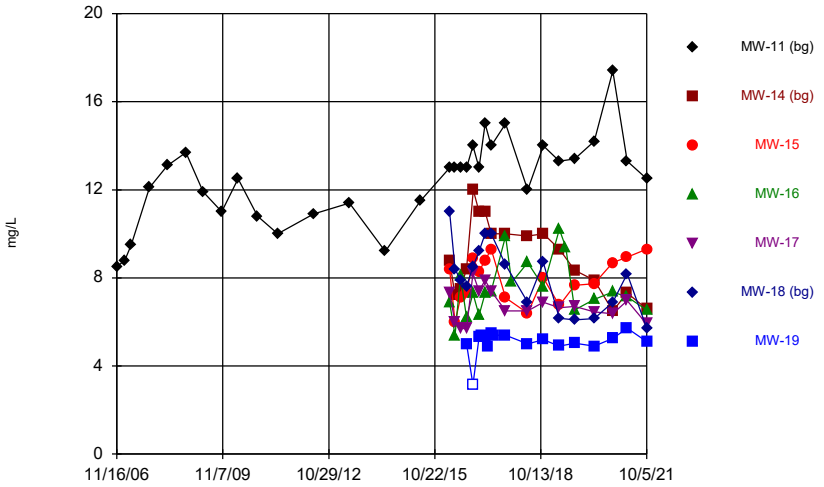
Time Series



Constituent: Calcium Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

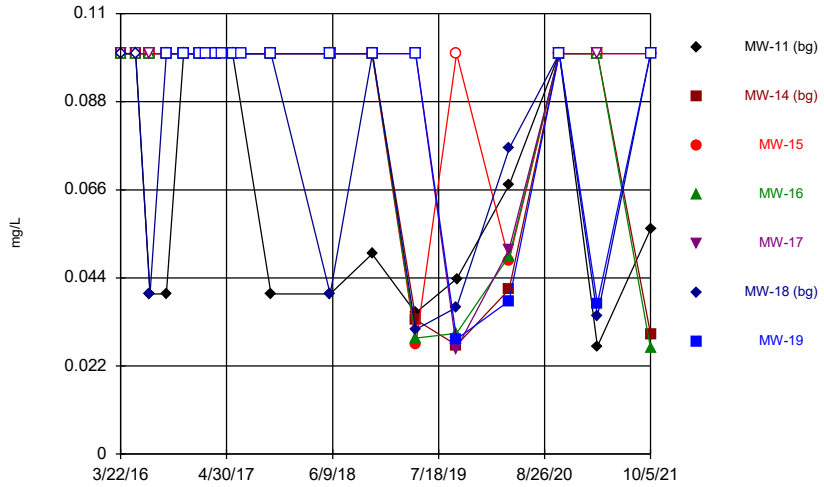
Time Series



Constituent: Chloride Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

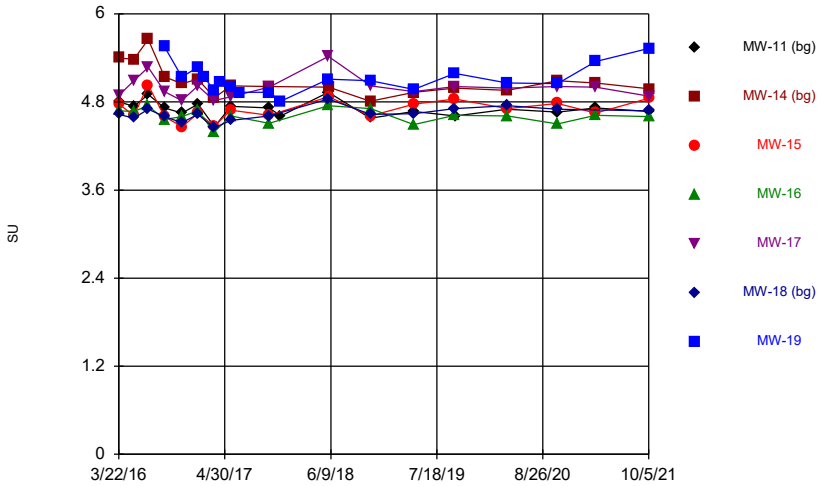
Time Series



Constituent: Fluoride Analysis Run 12/13/2021 4:10 PM
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



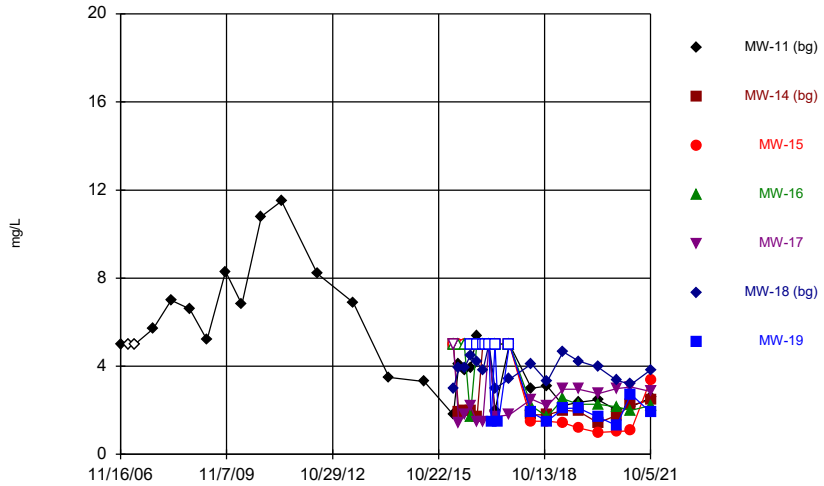
Constituent: pH Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



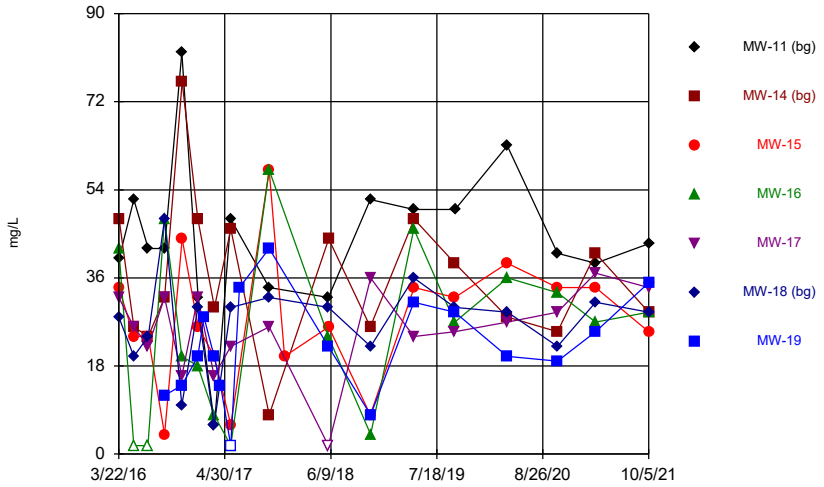
Constituent: Sulfate Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 4:10 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Time Series

Constituent: Boron (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	<0.08 (B1)	
3/23/2016	<0.08 (B1)	<0.08 (B1)					
5/18/2016	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
7/11/2016				<0.08			
7/12/2016	<0.08	<0.08	<0.08		<0.08	0.026 (J)	
9/12/2016	<0.08	<0.08	<0.08		<0.08	<0.08	<0.08
9/13/2016				<0.08			
11/17/2016				<0.08			
11/18/2016	<0.08				<0.08	<0.08	<0.08
11/19/2016		<0.08	<0.08				
1/18/2017		<0.08		<0.08	<0.08	<0.08	<0.08
1/19/2017	<0.08		<0.08				
2/10/2017							<0.08
3/21/2017			<0.08	<0.08	<0.08	<0.08	<0.08
3/22/2017	<0.08	<0.08					
4/14/2017							<0.08
5/23/2017			<0.08	<0.08			<0.08
5/24/2017	<0.08	<0.08			<0.08	<0.08	
6/26/2017							<0.08
10/17/2017	<0.08	<0.08	<0.08	<0.08	<0.08	0.025 (J)	<0.08
5/31/2018	<0.08			<0.08	<0.08	0.022 (J)	<0.08
6/1/2018		<0.08	<0.08				
11/7/2018	<0.08	<0.08	<0.08				
11/8/2018				<0.08	<0.08	<0.08	<0.08
4/22/2019	<0.08			<0.08	<0.08	<0.08	<0.08
4/23/2019		<0.08	<0.08				
9/26/2019		<0.08	<0.08	<0.08	<0.08	0.042 (J)	<0.08
9/27/2019	0.0443 (J)						
4/13/2020	<0.08	<0.08	<0.08		<0.08		<0.08
4/14/2020				<0.08		<0.08	
10/21/2020				<0.08			<0.08
10/22/2020	0.103	0.0559 (J)	0.0437 (J)		<0.08	0.0401 (J)	
3/16/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
10/5/2021	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			1.3 (B1)	0.61 (B1)	1.4 (B1)	0.93 (B1)	
3/23/2016	<5.9 (*)	<5.9 (*)					
5/18/2016	1.8	5.5	1.2	0.89	1	0.85	
7/11/2016				0.82			
7/12/2016	1.9	5.3	1.1		1.1	0.69	
9/12/2016	2	4.9	1.4		0.98	0.86	0.92
9/13/2016				0.82			
11/17/2016				0.75			
11/18/2016	2				1	0.41	0.68
11/19/2016		4.8	1.3				
1/18/2017		3.8		0.58	1	0.81	0.64
1/19/2017	1.8		1.3				
2/10/2017							0.58
3/21/2017			1.3	0.6	0.91	0.76	0.56
3/22/2017	1.8	3.3					
4/14/2017							0.51
5/23/2017			1.4	0.65			0.54
5/24/2017	2	3.6			0.96	0.8	
6/26/2017							0.66
10/17/2017	2	3.7	1.1	1.1	0.96	0.69	0.58
12/15/2017				0.89 (RS)			
5/31/2018	1.8			1.1	1.1	0.75	0.56
6/1/2018		2.8	0.97				
11/7/2018	2	2.9	1.1				
11/8/2018				0.76	0.96	0.78	0.57
4/22/2019	1.71			1.09	0.946	0.531	0.634
4/23/2019		2.76	1.01				
9/26/2019		2.4	1.08	0.758	1.11	0.631	1.24
9/27/2019	1.99						
4/13/2020	2.03	2.74	1.22		1.03		0.687
4/14/2020				0.92		0.627	
10/21/2020				0.798			0.806
10/22/2020	2.02	2.17	1.35		0.969	0.553	
3/16/2021	1.74	2.4	1.41	0.681	1.12	0.57	2.23
10/5/2021	1.87	1.89	0.632	0.793	0.883	0.43 (J)	3.67

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	8.5						
2/5/2007	8.8						
4/12/2007	9.5						
10/17/2007	12.1						
4/17/2008	13.1						
10/24/2008	13.7						
4/21/2009	11.9						
10/26/2009	11						
4/12/2010	12.5						
10/30/2010	10.8						
5/25/2011	10						
5/25/2012	10.9						
5/28/2013	11.4						
5/31/2014	9.2						
5/29/2015	11.5						
3/22/2016			8.4 (B1)	6.9 (B1)	7.3 (B1)	11 (B1)	
3/23/2016	13	8.8 (B1)					
5/18/2016	13	7.2	6	5.4	6	8.4	
7/11/2016				8.1			
7/12/2016	13	7.5	7.1		5.7	7.9	
9/12/2016	13	8.4	7.3		5.7	7.6	5
9/13/2016				6.2			
11/17/2016				7.3			
11/18/2016	14				8.2	8.5	<6.3 (*)
11/19/2016		12	8.9				
1/18/2017		11		6.3	7.4	9.2	5.3
1/19/2017	13		8.3				
2/10/2017							5.4
3/21/2017			8.8	7.3	7.9	10	5.3
3/22/2017	15	11					
4/14/2017							4.9 (B)
5/23/2017			9.3	7.4			5.5
5/24/2017	14	10			7.4	10	
6/26/2017							5.4
10/17/2017	15	10	7.1	9.9	6.5	8.6	5.4
12/19/2017				7.8 (RS)			
5/31/2018	12			8.7	6.5	6.9	5
6/1/2018		9.9	6.4				
11/7/2018	14	10	8				
11/8/2018				7.6	6.9	8.7	5.2
4/22/2019	13.3			10.2	6.64	6.17	4.91
4/23/2019		9.3	6.75				
6/25/2019				9.4			
9/26/2019		8.35	7.66	6.54	6.7	6.09	5.03
9/27/2019	13.4						
4/13/2020	14.2	7.9	7.74		6.46		4.9
4/14/2020				7.03		6.15	
10/21/2020				7.36			5.25
10/22/2020	17.4	6.5	8.69		6.37	6.89	
3/16/2021	13.3	7.32	8.94	7.14	6.97	8.18	5.72
10/5/2021	12.5	6.59	9.3	6.55	5.91	5.72	5.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	<0.1 (B1)	
3/23/2016	<0.1	<0.1 (B1)					
5/18/2016	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
7/11/2016				<0.1			
7/12/2016	0.04 (J)	<0.1	<0.1		<0.1	0.04 (J)	
9/12/2016	0.04 (J)	<0.1	<0.1		<0.1	<0.1	<0.1
9/13/2016				<0.1			
11/17/2016				<0.1			
11/18/2016	<0.1				<0.1	<0.1	<0.1
11/19/2016		<0.1	<0.1				
1/18/2017		<0.1		<0.1	<0.1	<0.1	<0.1
1/19/2017	<0.1		<0.1				
2/10/2017							<0.1
3/21/2017			<0.1	<0.1	<0.1	<0.1	<0.1
3/22/2017	<0.1	<0.1					
4/14/2017							<0.1
5/23/2017			<0.1	<0.1			<0.1
5/24/2017	<0.1	<0.1			<0.1	<0.1	
6/26/2017							<0.1
10/17/2017	0.04 (J)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
5/31/2018	0.04 (J)			<0.1	<0.1	0.04 (J)	<0.1
6/1/2018		<0.1	<0.1				
11/7/2018	0.05 (J)	<0.1	<0.1				
11/8/2018				<0.1	<0.1	<0.1	<0.1
4/22/2019	0.0353 (J)			0.029 (J)	<0.1	0.0311 (J)	<0.1
4/23/2019		0.0335 (J)	0.0275 (J)				
9/26/2019		0.0272 (J)	<0.1	0.0302 (J)	0.0263 (J)	0.0366 (J)	0.0287 (J)
9/27/2019	0.0438 (J)						
4/13/2020	0.0672 (J)	0.0411 (J)	0.0484 (J)		0.0511 (J)		0.0382 (J)
4/14/2020				0.0496 (J)		0.0764 (J)	
10/21/2020				<0.1			<0.1
10/22/2020	<0.1	<0.1	<0.1		<0.1	<0.1	
3/16/2021	0.0269 (J)	<0.1	<0.1	<0.1	<0.1	0.0344 (J)	0.0376 (J)
10/5/2021	0.0561 (J)	0.03 (J)	<0.1	0.0264 (J)	<0.1	<0.1	<0.1

Time Series

Constituent: pH (SU) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			4.77	4.68	4.89	4.63	
3/23/2016	4.8	5.4					
5/18/2016	4.74	5.38	4.62	4.67	5.09	4.58	
7/11/2016				4.75			
7/12/2016	4.9	5.65	5.03		5.27	4.7	
9/12/2016	4.72	5.14	4.6		4.94	4.6	5.55
9/13/2016				4.56			
11/17/2016				4.6			
11/18/2016	4.65				4.82	4.52	5.14
11/19/2016		5.05	4.46				
1/18/2017		5.11		4.68	5.02	4.63	5.27
1/19/2017	4.77		4.65				
2/10/2017							5.14
3/21/2017			4.47	4.39	4.82	4.45	4.96
3/22/2017	4.46	4.86					
4/14/2017							5.07
5/23/2017			4.69	4.61			5.01
5/24/2017	4.74	5.02			4.87	4.55	
6/26/2017							4.93
10/17/2017	4.72	5.01	4.62	4.51	5	4.61	4.93
11/30/2017	4.61						4.81
5/31/2018	4.93			4.75	5.42	4.84	5.11
6/1/2018		5	4.87				
11/7/2018	4.58	4.81	4.61				
11/8/2018				4.71	5.02	4.63	5.09
4/22/2019	4.67			4.49	4.94	4.64	4.97
4/23/2019		4.93	4.77				
9/26/2019		4.99	4.84	4.62	5.01	4.71	5.19
9/27/2019	4.61						
4/13/2020	4.7	4.96	4.71		4.99		5.06
4/14/2020				4.61		4.75	
10/21/2020				4.5			5.05
10/22/2020	4.66	5.09	4.78		5.01	4.7	
3/16/2021	4.72	5.06	4.65	4.62	5		5.35
10/5/2021	4.67	4.98	4.85	4.6	4.88	4.68	5.53

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
11/16/2006	5						
2/5/2007	<5						
4/12/2007	<5						
10/17/2007	5.7						
4/17/2008	7						
10/24/2008	6.6						
4/21/2009	5.2						
10/26/2009	8.3						
4/12/2010	6.8						
10/30/2010	10.8						
5/25/2011	11.5						
5/25/2012	8.2						
5/28/2013	6.9						
5/31/2014	3.5						
5/29/2015	3.3						
3/22/2016			<5	<5	<5	3 (J)	
3/23/2016	1.8 (J)	<5					
5/18/2016	4.1	1.9	<5	<5	1.4	3.9 (J)	
7/11/2016				<5			
7/12/2016	3.8 (J)	2 (J)	<5		1.8 (J)	3.9 (J)	
9/12/2016	3.9 (J)	2 (J)	<5		2.2 (J)	4.5 (J)	<5
9/13/2016				1.7 (J)			
11/17/2016				<5			
11/18/2016	5.4				1.5 (J)	4.2 (J)	<5
11/19/2016		1.7 (J)	<5				
1/18/2017		<5		<5	1.5 (J)	3.8 (J)	<5
1/19/2017	<5		<5				
2/10/2017							<5
3/21/2017			<5	<5	<5	<5 (*)	<5
3/22/2017	<5	<5					
4/14/2017							1.5 (J)
5/23/2017			<5	<5			<5
5/24/2017	2 (J)	<5			1.7 (J)	3 (J)	
6/26/2017							1.5 (J)
10/17/2017	<5	<5	<5	<5	1.8 (J)	3.4 (J)	<5
5/31/2018	3 (J)			2.2 (J)	2.5 (J)	4.1 (J)	1.9 (J)
6/1/2018		1.8 (J)	1.5 (J)				
11/7/2018	3.1 (J)	1.8 (J)	1.5 (J)				
11/8/2018				1.7 (J)	2.2 (J)	3.3 (J)	1.5 (J)
4/22/2019	2.22			2.52	2.96	4.66	2.09
4/23/2019		1.99	1.43				
9/26/2019		1.95	1.2	2.28	2.96	4.23	2.1
9/27/2019	2.36						
4/13/2020	2.47	1.43	0.992 (J)		2.75		1.69
4/14/2020				2.27		3.96	
10/21/2020				2.15			1.31
10/22/2020	2.01	1.76	1.04		2.98	3.37	
3/16/2021	2.15	2.23	1.07	2	3.06	3.18	2.72
10/5/2021	2.57	2.46	3.38	2.22	2.85	3.83	1.91

Time Series

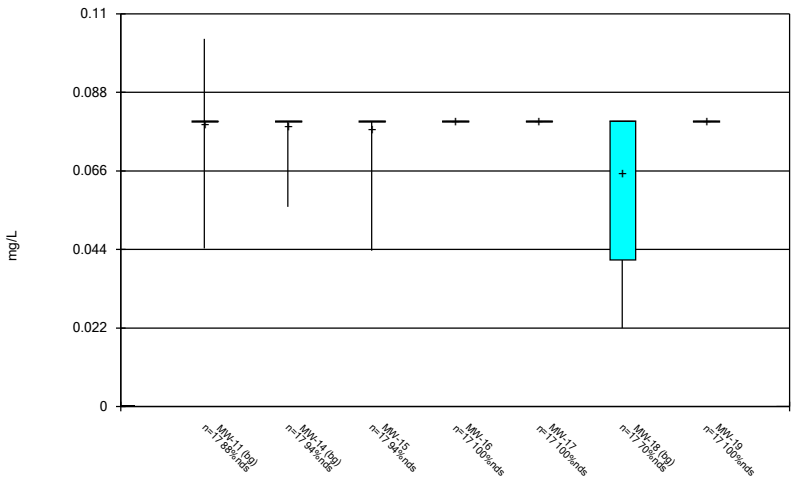
Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11 (bg)	MW-14 (bg)	MW-15	MW-16	MW-17	MW-18 (bg)	MW-19
3/22/2016			34 (B1)	42 (B1)	32 (B1)	28 (B1)	
3/23/2016	40	48 (B1)					
5/18/2016	52	26	24	<3.4	26	20	
7/11/2016				<3.4			
7/12/2016	42	24	24		22	24	
9/12/2016	42	32	4 (J)		32	48	12
9/13/2016				48			
11/17/2016				20			
11/18/2016	82				16	10	14
11/19/2016		76	44				
1/18/2017		48		18	32	30	20
1/19/2017	32		26				
2/10/2017							28
3/21/2017			20	8	16	6	20
3/22/2017	6	30					
4/14/2017							14
5/23/2017			6	<3.4			<3.4
5/24/2017	48	46			22	30	
6/26/2017							34
10/17/2017	34	8	58	58	26	32	42
12/15/2017			20 (RS)				
5/31/2018	32			24	<3.4	30	22
6/1/2018		44	26				
11/7/2018	52	26	8				
11/8/2018				4 (J)	36	22	8
4/22/2019	50			46	24	36	31
4/23/2019		48	34				
9/26/2019		39	32	27	25	30	29
9/27/2019	50						
4/13/2020	63	28	39		27		20
4/14/2020				36		29	
10/21/2020				33			19
10/22/2020	41	25	34		29	22	
3/16/2021	39	41	34	27	37	31	25
10/5/2021	43	29	25	29	34	29	35

FIGURE B.

Box & Whiskers Plot

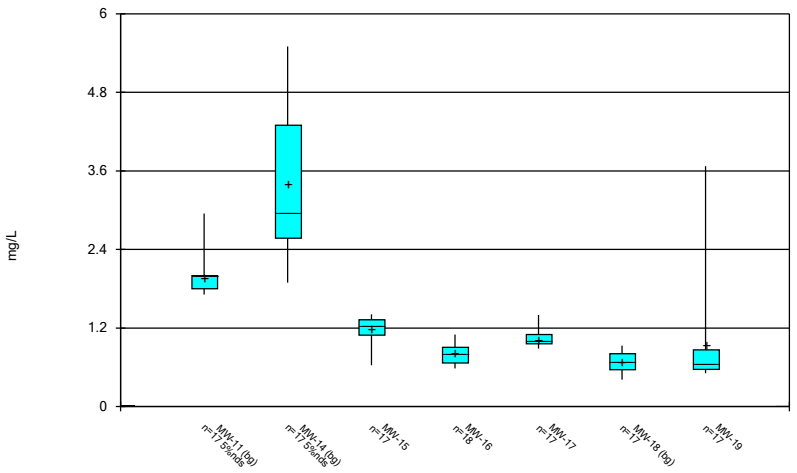


Constituent: Boron Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

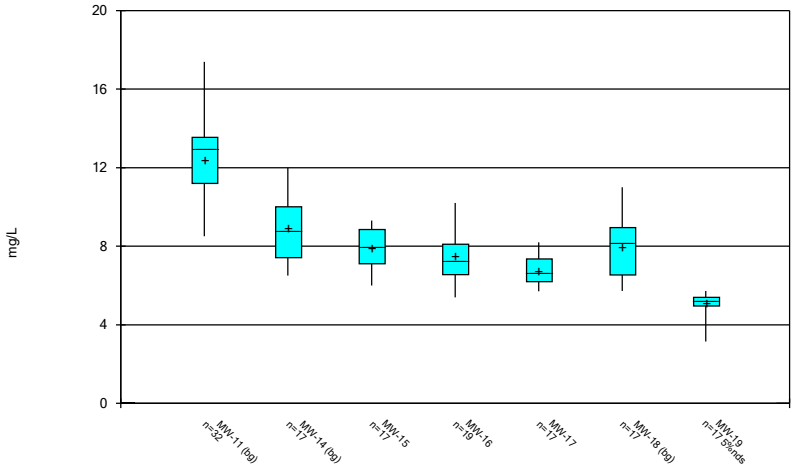


Constituent: Calcium Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

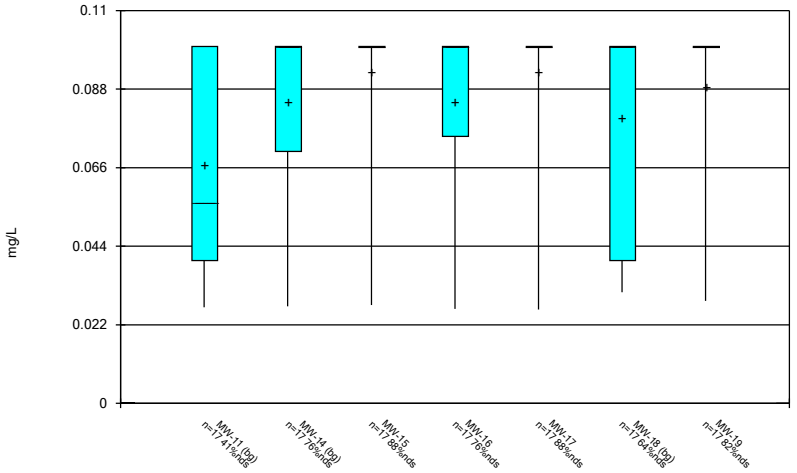


Constituent: Chloride Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

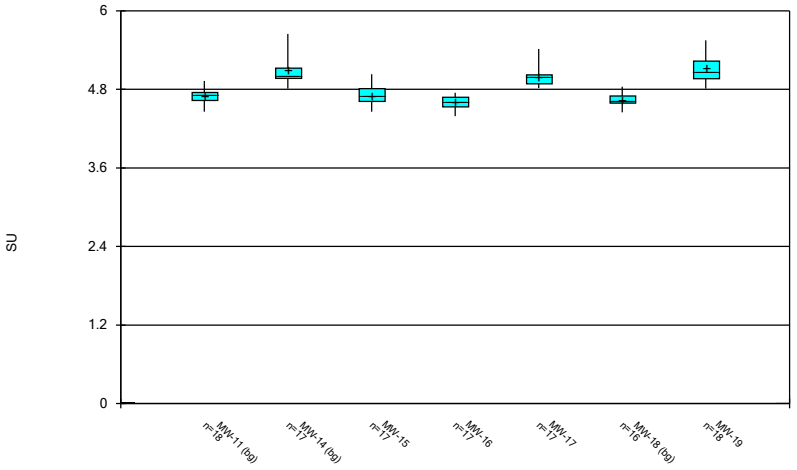
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Box & Whiskers Plot

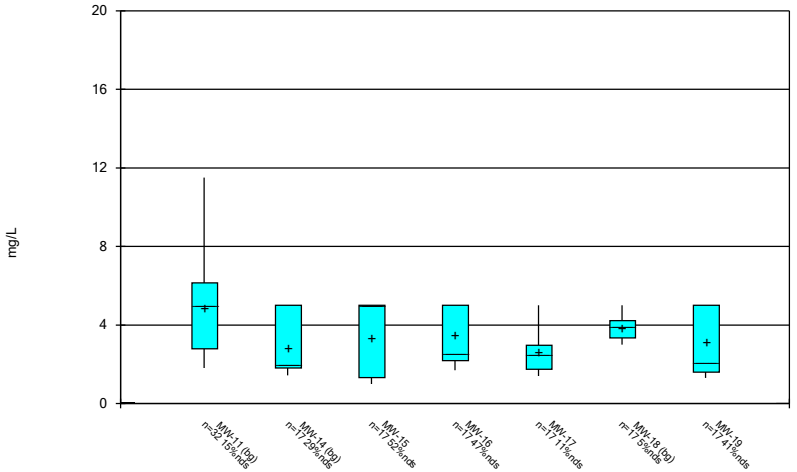


Constituent: pH Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot

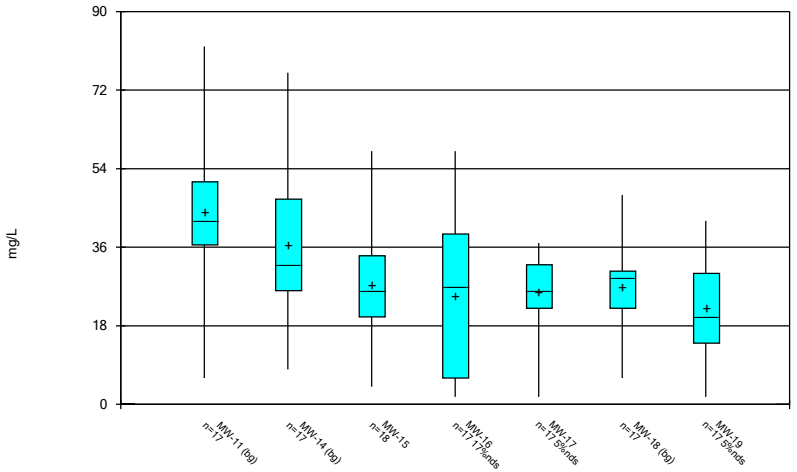


Constituent: Sulfate Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 12/13/2021 4:11 PM

Plant Daniel Client: Southern Company Data: NAMU CCR

FIGURE C.

Outlier Summary

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/13/2021, 4:13 PM

No outliers were flagged.

FIGURE D.

Appendix III Intrawell Prediction Limits - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:24 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**	**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**	**None**	**No**	**0.0009398**	**Param Intra 1 of 2**

Appendix III Intrawell Prediction Limits - All Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/14/2021, 3:36 PM

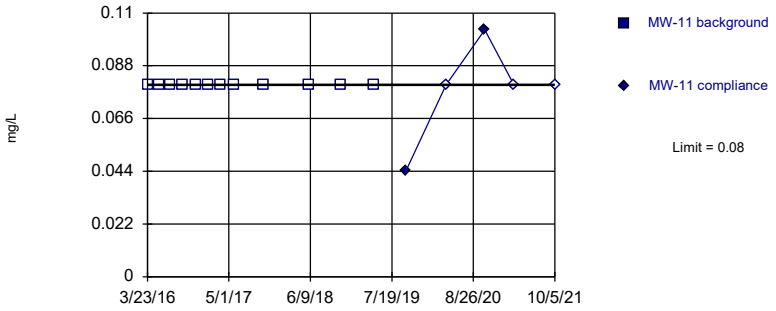
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	MW-11	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-14	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-15	0.08	n/a	10/5/2021	0.08ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Boron (mg/L)	MW-18	0.08	n/a	10/5/2021	0.08ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-11	2.17	n/a	10/5/2021	1.87	No	12	8.333		None	x^4	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-14	6.114	n/a	10/5/2021	1.89	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-15	1.535	n/a	10/5/2021	0.632	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-16	1.234	n/a	10/5/2021	0.793	No	13	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	MW-17	1.4	n/a	10/5/2021	0.883	No	12	0		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Calcium (mg/L)	MW-18	1.062	n/a	10/5/2021	0.43J	No	12	0		None	No	0.00188	Param Intra 1 of 2
Calcium (mg/L)	**MW-19**	**0.8608**	**n/a**	**10/5/2021**	**3.67**	**Yes**	**12**	**0**		**None**	**sqrt(x)**	**0.00188**	**Param Intra 1 of 2**
Chloride (mg/L)	MW-11	15.58	n/a	10/5/2021	12.5	No	27	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-14	12.79	n/a	10/5/2021	6.59	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-15	10.08	n/a	10/5/2021	9.3	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-16	10.64	n/a	10/5/2021	6.55	No	13	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-17	8.675	n/a	10/5/2021	5.91	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-18	11.62	n/a	10/5/2021	5.72	No	12	0		None	No	0.00188	Param Intra 1 of 2
Chloride (mg/L)	MW-19	5.783	n/a	10/5/2021	5.1	No	12	8.333		None	x^5	0.00188	Param Intra 1 of 2
Fluoride (mg/L)	MW-11	0.1	n/a	10/5/2021	0.0561J	No	12	50		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Fluoride (mg/L)	MW-14	0.1	n/a	10/5/2021	0.03J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-15	0.1	n/a	10/5/2021	0.1ND	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-16	0.1	n/a	10/5/2021	0.0264J	No	12	91.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-17	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-18	0.1	n/a	10/5/2021	0.1ND	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-19	0.1	n/a	10/5/2021	0.1ND	No	12	100		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
pH (SU)	MW-11	4.992	4.437	10/5/2021	4.67	No	13	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-14	5.663	4.563	10/5/2021	4.98	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-15	5.04	4.32	10/5/2021	4.85	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-16	4.866	4.367	10/5/2021	4.6	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-17	5.411	4.605	10/5/2021	4.88	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	MW-18	4.829	4.401	10/5/2021	4.68	No	12	0		None	No	0.0009398	Param Intra 1 of 2
pH (SU)	**MW-19**	**5.483**	**4.668**	**10/5/2021**	**5.53**	**Yes**	**13**	**0**		**None**	**No**	**0.0009398**	**Param Intra 1 of 2**
Sulfate (mg/L)	MW-11	9.808	n/a	10/5/2021	2.57	No	27	18.52		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-14	5	n/a	10/5/2021	2.46	No	12	41.67		n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	MW-15	5	n/a	10/5/2021	3.38	No	12	75		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-16	5	n/a	10/5/2021	2.22	No	12	66.67		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	MW-17	3.046	n/a	10/5/2021	2.85	No	12	16.67		Kaplan-Meier	sqrt(x)	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-18	5.327	n/a	10/5/2021	3.83	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Sulfate (mg/L)	MW-19	5	n/a	10/5/2021	1.91	No	12	58.33		n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-11	82.24	n/a	10/5/2021	43	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-14	76.82	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-15	58.47	n/a	10/5/2021	25	No	13	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-16	66.28	n/a	10/5/2021	29	No	12	25		Kaplan-Meier	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-17	44.84	n/a	10/5/2021	34	No	12	8.333		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-18	51.36	n/a	10/5/2021	29	No	12	0		None	No	0.00188	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-19	46.26	n/a	10/5/2021	35	No	12	8.333		None	No	0.00188	Param Intra 1 of 2

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

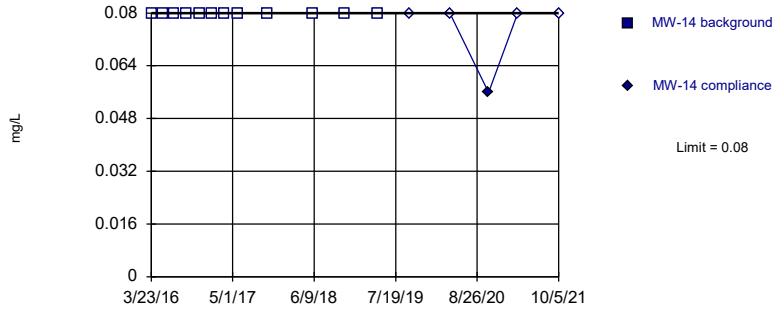
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

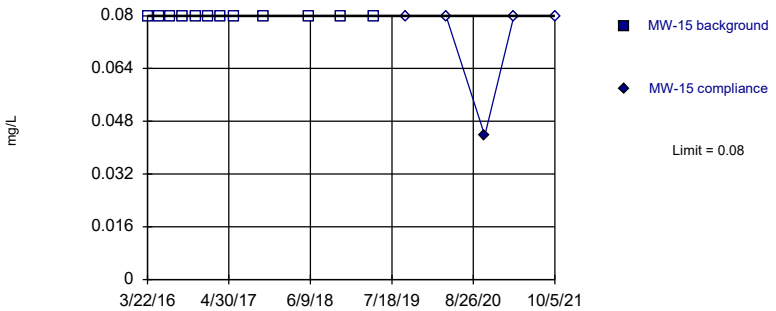
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

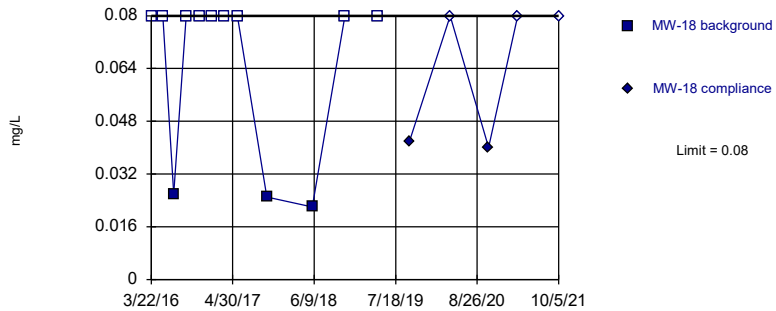
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Boron Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

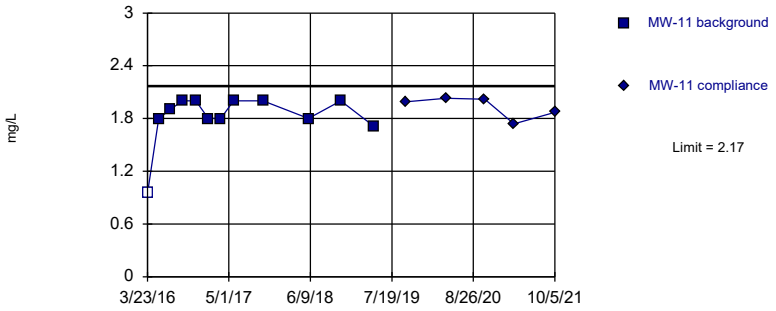
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=12.03, Std. Dev.=4.544, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8072, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

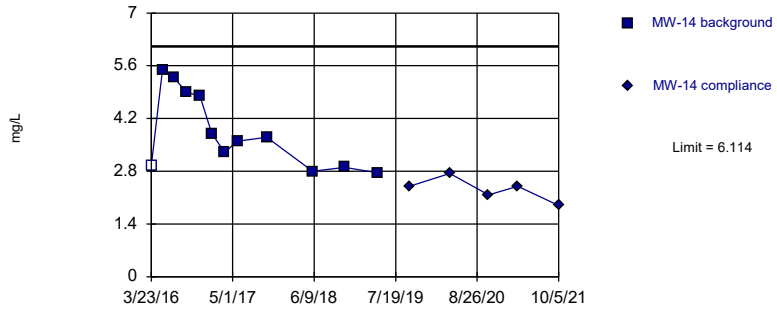
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.859, Std. Dev.=1.01, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

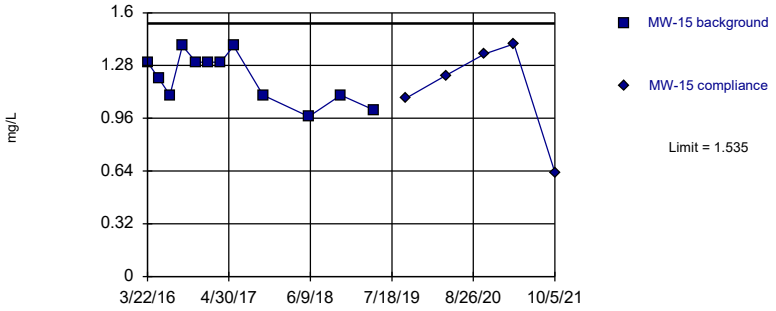
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.207, Std. Dev.=0.1472, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

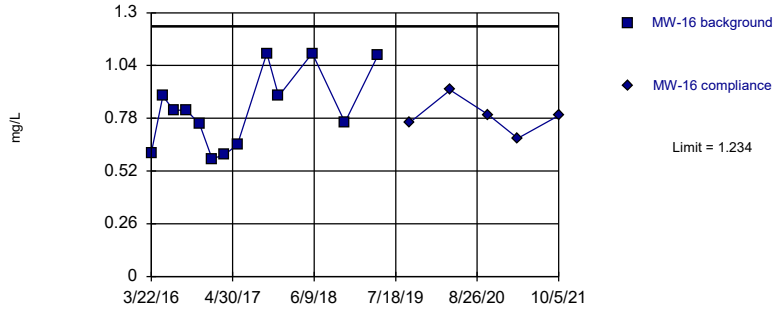
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.82, Std. Dev.=0.1886, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9011, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

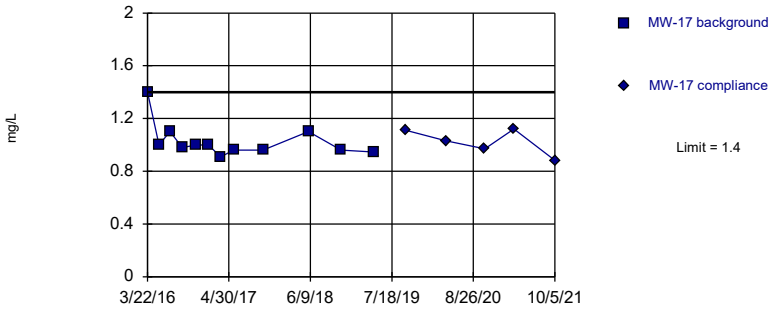
Constituent: Calcium Analysis Run 12/14/2021 2:16 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

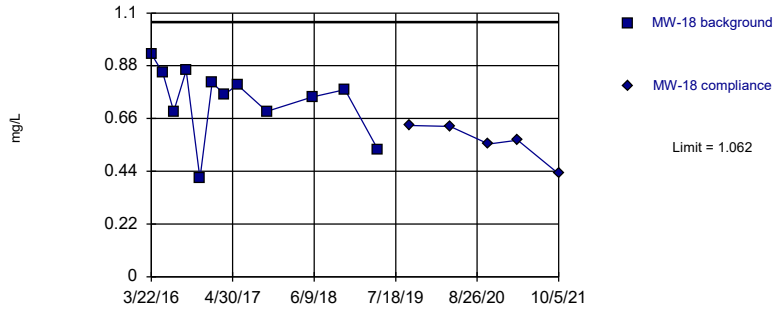
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.7384, Std. Dev.=0.1448, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9007, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

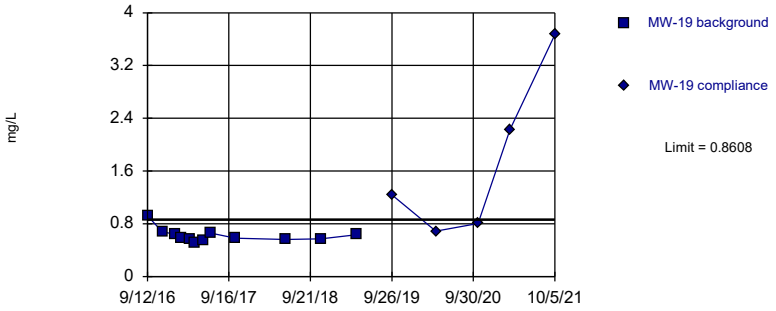
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.7847, Std. Dev.=0.06412, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8069, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Calcium Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

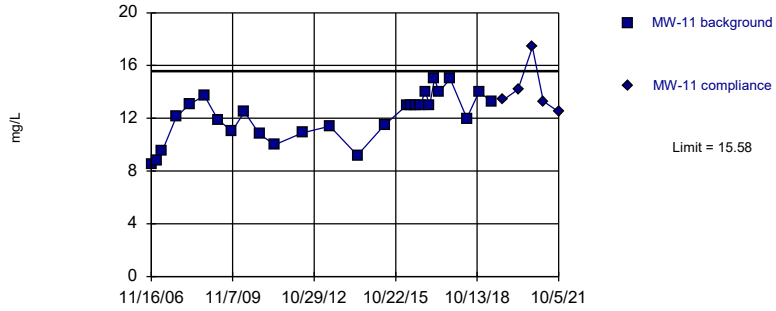
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12.12, Std. Dev.=1.814, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

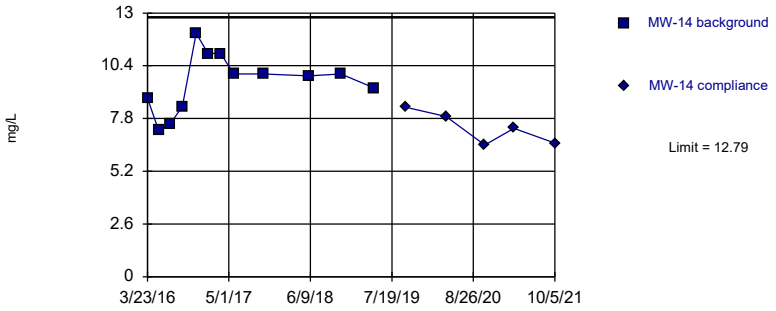
Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=9.592, Std. Dev.=1.433, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9613, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

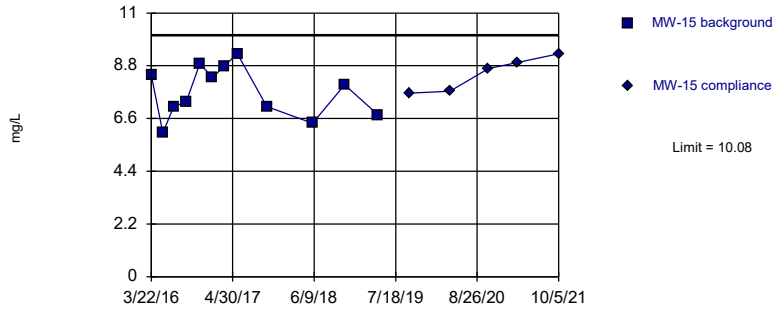
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.696, Std. Dev.=1.067, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9552, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

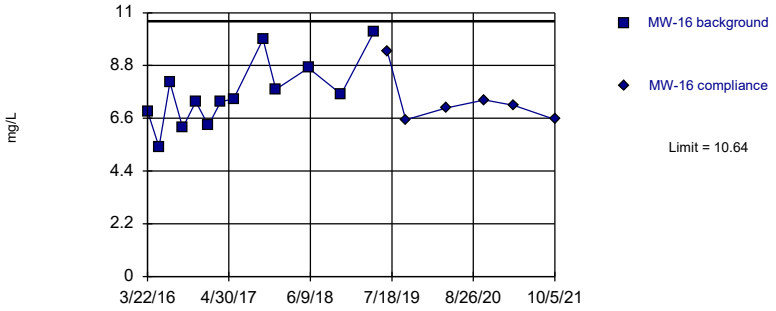
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.623, Std. Dev.=1.377, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9538, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

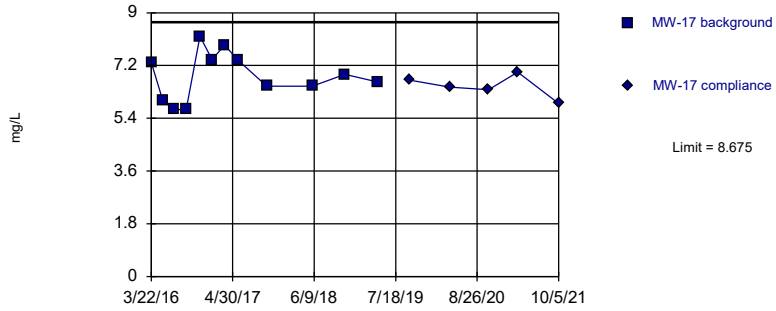
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.845, Std. Dev.=0.8197, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

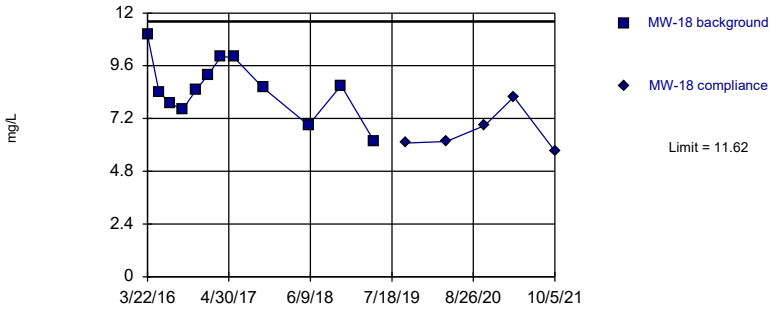
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.581, Std. Dev.=1.361, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9827, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

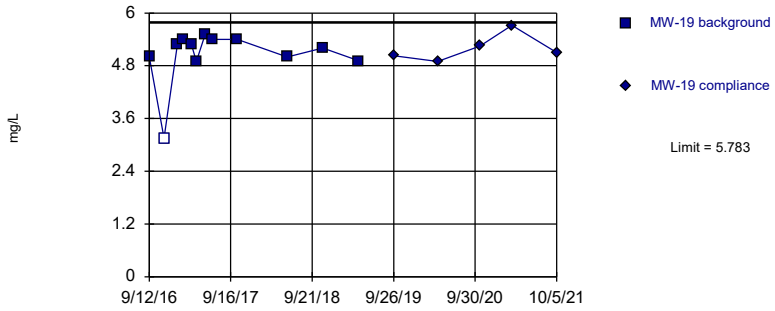
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^5 transformation): Mean=3601, Std. Dev.=1285, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8476, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Chloride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

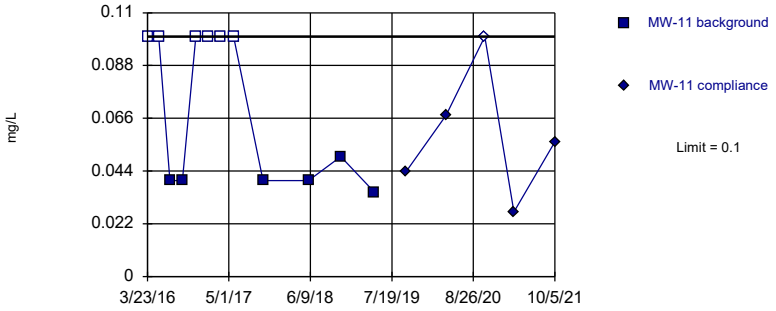
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

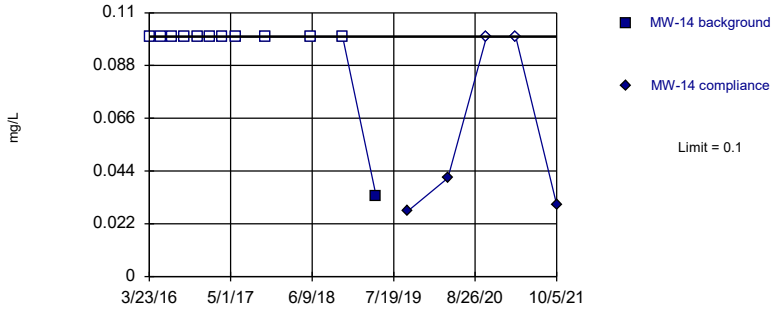
Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

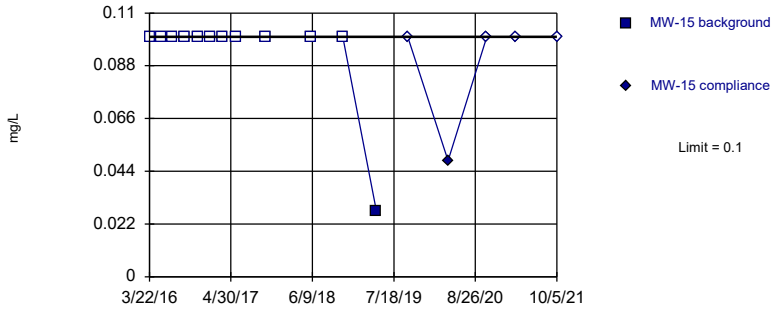
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

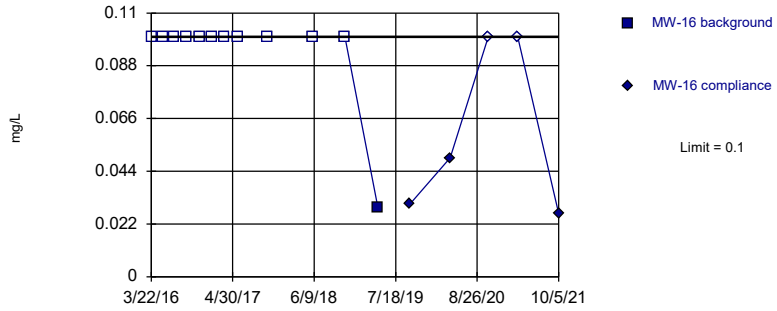
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

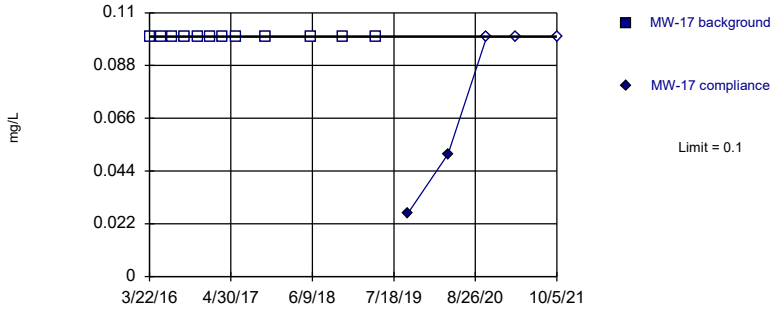
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

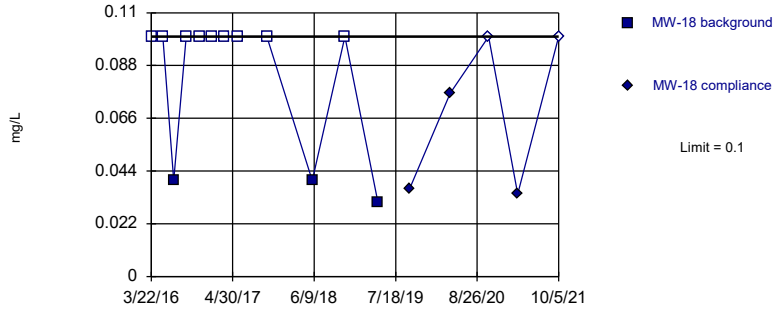
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

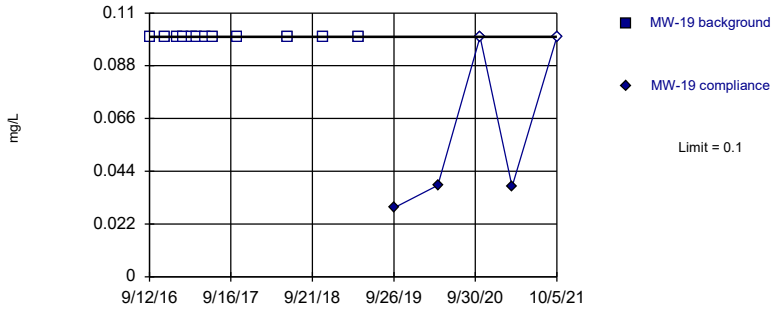
Plant Daniel Client: Southern Company Data: NAMU CCR

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 = 12) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

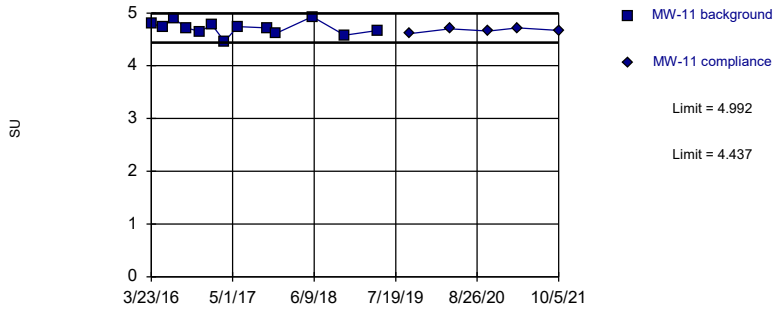
Constituent: Fluoride Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.715, Std. Dev.=0.1267, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

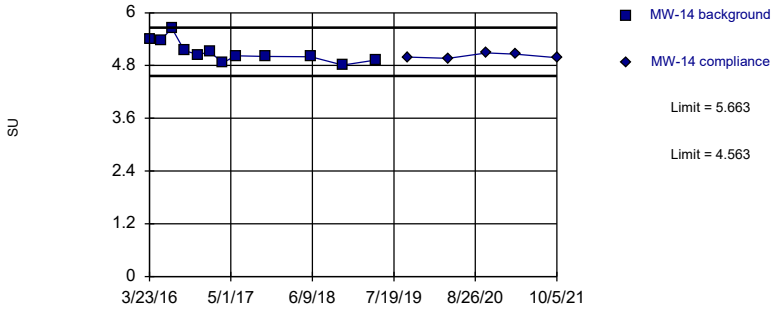
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.113, Std. Dev.=0.2464, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9046, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

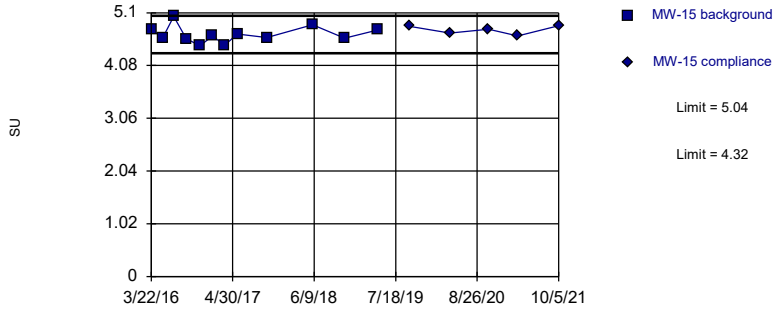
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.68, Std. Dev.=0.1615, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9345, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

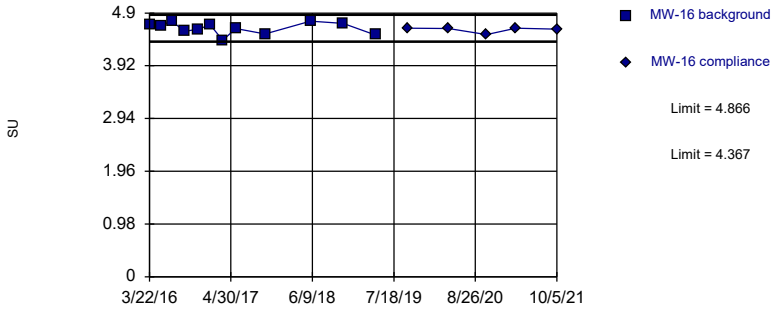
Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.617, Std. Dev.=0.1118, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9361, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

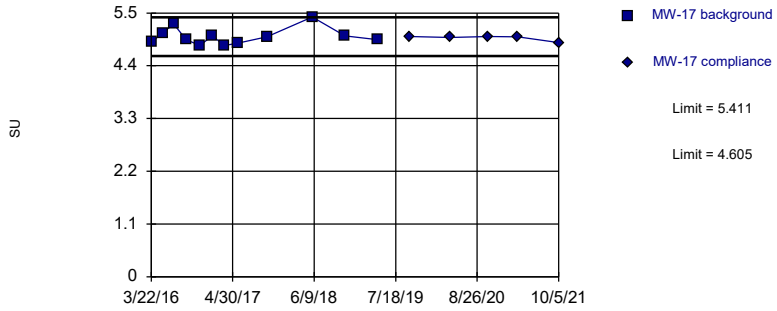
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.008, Std. Dev.=0.1805, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

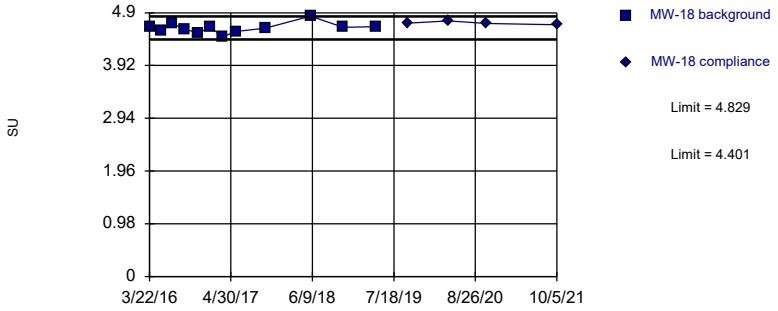
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.615, Std. Dev.=0.09587, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

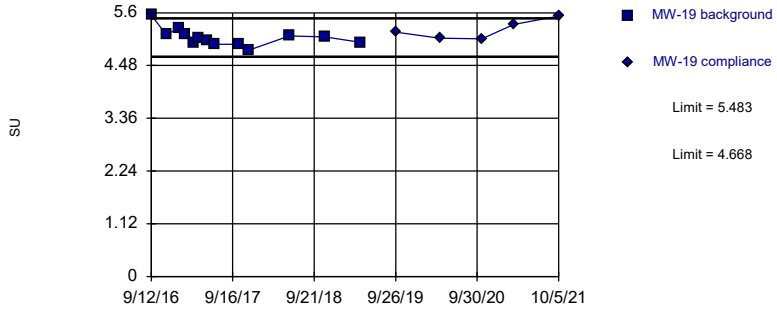
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.075, Std. Dev.=0.1858, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: pH Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

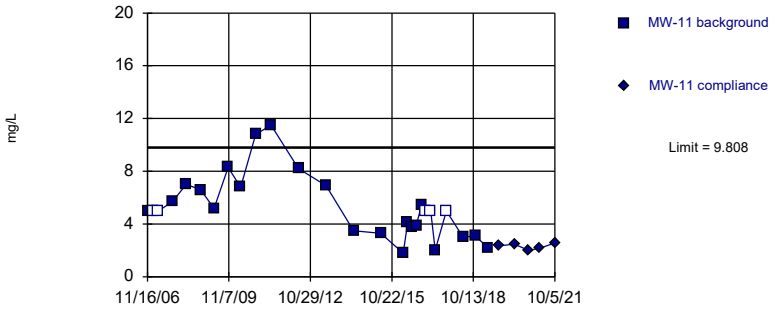
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=4.944, Std. Dev.=2.552, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.894. Kappa = 1.906 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

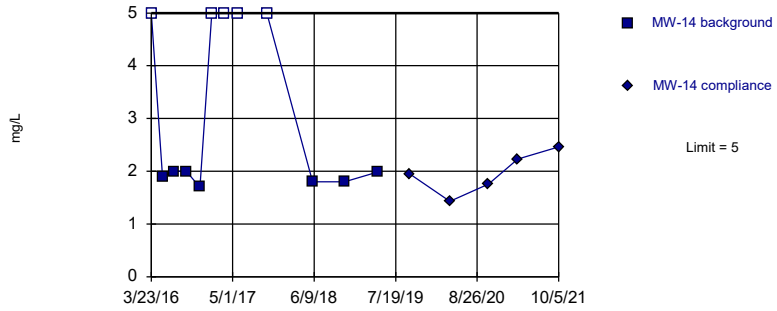
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

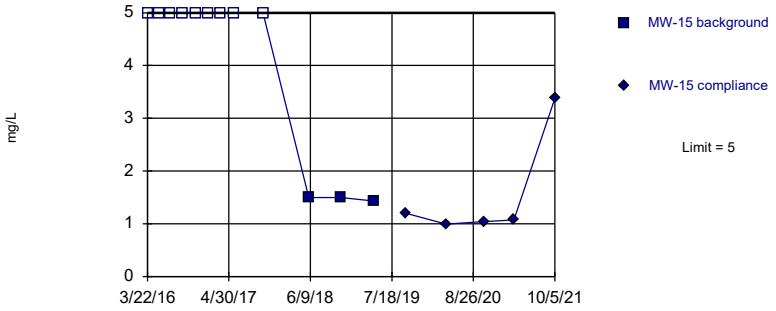
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

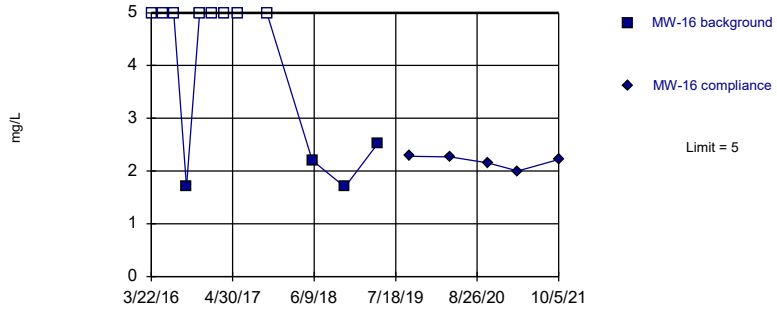
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

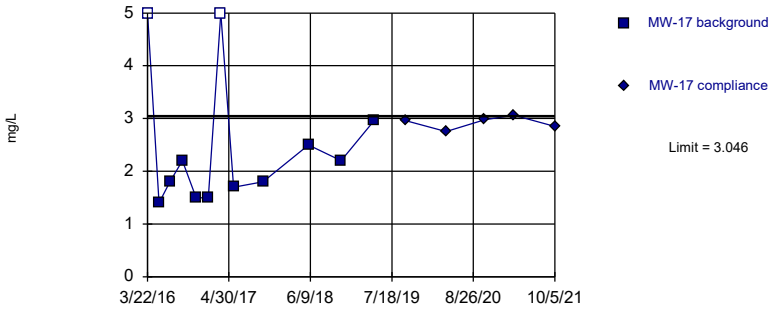
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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=1.349, Std. Dev.=0.1777, n=12, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8093, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

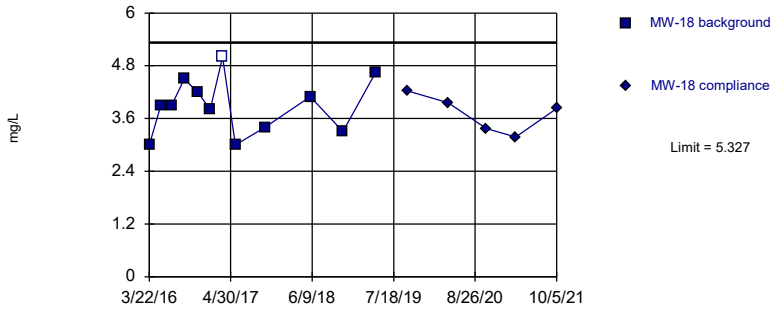
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=3.897, Std. Dev.=0.6408, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9606, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

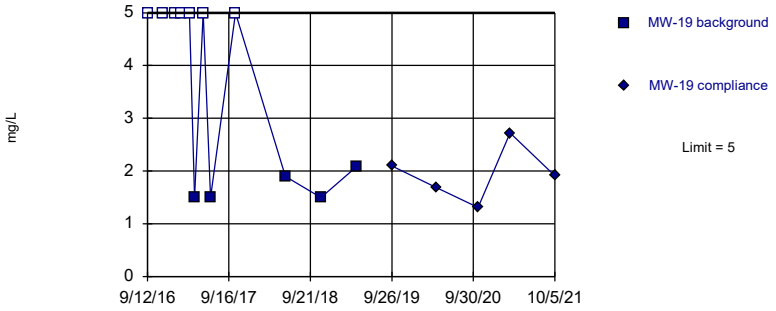
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. 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 12 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

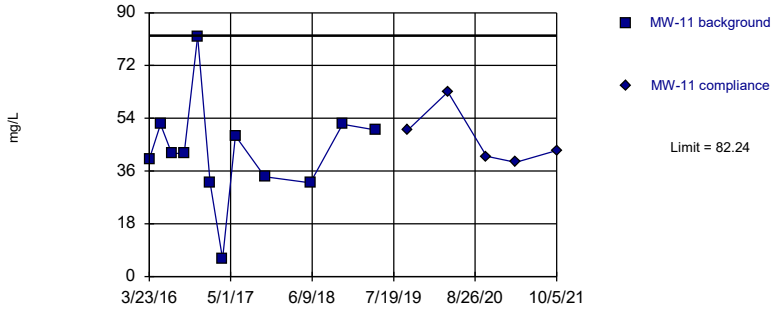
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.31 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.67, Std. Dev.=17.73, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9141, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

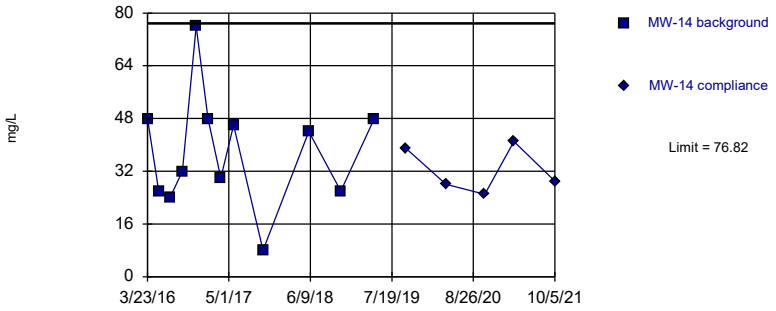
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38, Std. Dev.=17.39, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9323, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

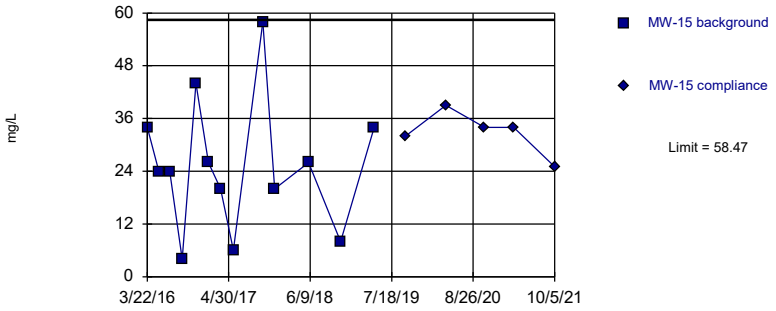
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.23, Std. Dev.=15.16, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9437, critical = 0.814. Kappa = 2.193 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

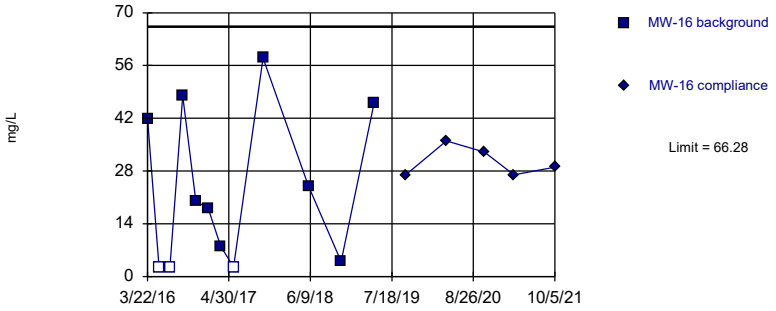
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=23.33, Std. Dev.=19.24, n=12, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8666, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

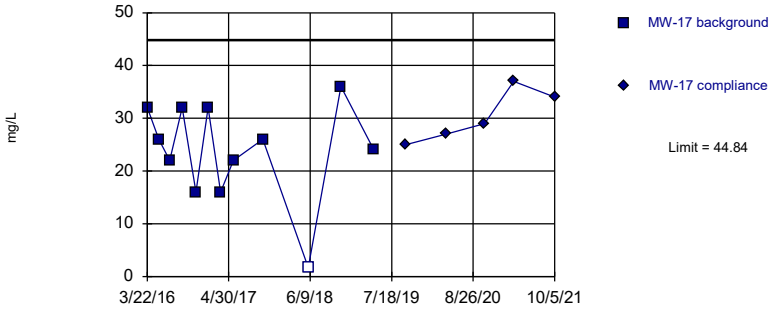
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=23.81, Std. Dev.=9.424, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

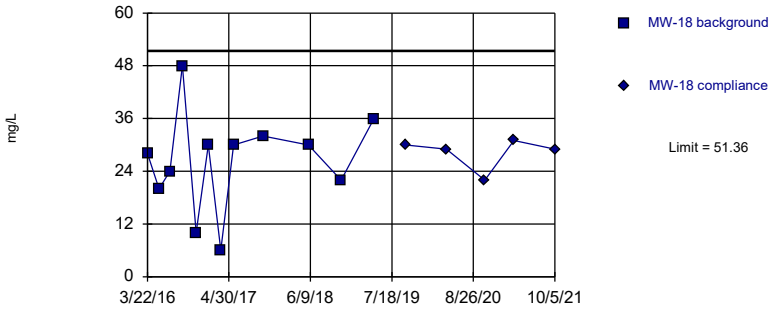
Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=26.33, Std. Dev.=11.21, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9551, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

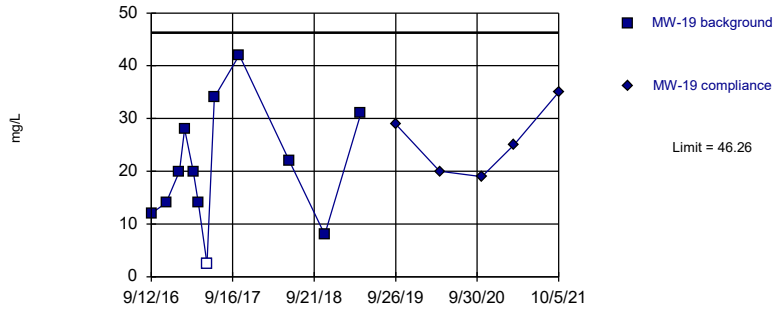
Plant Daniel Client: Southern Company Data: NAMU CCR

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.63, Std. Dev.=11.48, n=12, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9792, critical = 0.805. Kappa = 2.232 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Total Dissolved Solids Analysis Run 12/14/2021 2:17 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/19/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
5/31/2018	<0.08	
11/7/2018	<0.08	
4/22/2019	<0.08	
9/27/2019		0.0443 (J)
4/13/2020		<0.08
10/22/2020		0.103
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/18/2017	<0.08	
3/22/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0559 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	<0.08	
9/12/2016	<0.08	
11/19/2016	<0.08	
1/19/2017	<0.08	
3/21/2017	<0.08	
5/23/2017	<0.08	
10/17/2017	<0.08	
6/1/2018	<0.08	
11/7/2018	<0.08	
4/23/2019	<0.08	
9/26/2019		<0.08
4/13/2020		<0.08
10/22/2020		0.0437 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.08 (B1)	
5/18/2016	<0.08	
7/12/2016	0.026 (J)	
9/12/2016	<0.08	
11/18/2016	<0.08	
1/18/2017	<0.08	
3/21/2017	<0.08	
5/24/2017	<0.08	
10/17/2017	0.025 (J)	
5/31/2018	0.022 (J)	
11/8/2018	<0.08	
4/22/2019	<0.08	
9/26/2019		0.042 (J)
4/14/2020		<0.08
10/22/2020		0.0401 (J)
3/16/2021		<0.08
10/5/2021		<0.08

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<1.9 (*)	
5/18/2016	1.8	
7/12/2016	1.9	
9/12/2016	2	
11/18/2016	2	
1/19/2017	1.8	
3/22/2017	1.8	
5/24/2017	2	
10/17/2017	2	
5/31/2018	1.8	
11/7/2018	2	
4/22/2019	1.71	
9/27/2019		1.99
4/13/2020		2.03
10/22/2020		2.02
3/16/2021		1.74
10/5/2021		1.87

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5.9 (*)	
5/18/2016	5.5	
7/12/2016	5.3	
9/12/2016	4.9	
11/19/2016	4.8	
1/18/2017	3.8	
3/22/2017	3.3	
5/24/2017	3.6	
10/17/2017	3.7	
6/1/2018	2.8	
11/7/2018	2.9	
4/23/2019	2.76	
9/26/2019		2.4
4/13/2020		2.74
10/22/2020		2.17
3/16/2021		2.4
10/5/2021		1.89

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	1.3 (B1)	
5/18/2016	1.2	
7/12/2016	1.1	
9/12/2016	1.4	
11/19/2016	1.3	
1/19/2017	1.3	
3/21/2017	1.3	
5/23/2017	1.4	
10/17/2017	1.1	
6/1/2018	0.97	
11/7/2018	1.1	
4/23/2019	1.01	
9/26/2019		1.08
4/13/2020		1.22
10/22/2020		1.35
3/16/2021		1.41
10/5/2021		0.632

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	0.61 (B1)	
5/18/2016	0.89	
7/11/2016	0.82	
9/13/2016	0.82	
11/17/2016	0.75	
1/18/2017	0.58	
3/21/2017	0.6	
5/23/2017	0.65	
10/17/2017	1.1	
12/15/2017	0.89 (RS)	
5/31/2018	1.1	
11/8/2018	0.76	
4/22/2019	1.09	
9/26/2019		0.758
4/14/2020		0.92
10/21/2020		0.798
3/16/2021		0.681
10/5/2021		0.793

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	1.4 (B1)	
5/18/2016	1	
7/12/2016	1.1	
9/12/2016	0.98	
11/18/2016	1	
1/18/2017	1	
3/21/2017	0.91	
5/24/2017	0.96	
10/17/2017	0.96	
5/31/2018	1.1	
11/8/2018	0.96	
4/22/2019	0.946	
9/26/2019		1.11
4/13/2020		1.03
10/22/2020		0.969
3/16/2021		1.12
10/5/2021		0.883

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	0.93 (B1)	
5/18/2016	0.85	
7/12/2016	0.69	
9/12/2016	0.86	
11/18/2016	0.41	
1/18/2017	0.81	
3/21/2017	0.76	
5/24/2017	0.8	
10/17/2017	0.69	
5/31/2018	0.75	
11/8/2018	0.78	
4/22/2019	0.531	
9/26/2019		0.631
4/14/2020		0.627
10/22/2020		0.553
3/16/2021		0.57
10/5/2021		0.43 (J)

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	0.92	
11/18/2016	0.68	
1/18/2017	0.64	
2/10/2017	0.58	
3/21/2017	0.56	
4/14/2017	0.51	
5/23/2017	0.54	
6/26/2017	0.66	
10/17/2017	0.58	
5/31/2018	0.56	
11/8/2018	0.57	
4/22/2019	0.634	
9/26/2019		1.24
4/13/2020		0.687
10/21/2020		0.806
3/16/2021		2.23
10/5/2021		3.67

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	8.5	
2/5/2007	8.8	
4/12/2007	9.5	
10/17/2007	12.1	
4/17/2008	13.1	
10/24/2008	13.7	
4/21/2009	11.9	
10/26/2009	11	
4/12/2010	12.5	
10/30/2010	10.8	
5/25/2011	10	
5/25/2012	10.9	
5/28/2013	11.4	
5/31/2014	9.2	
5/29/2015	11.5	
3/23/2016	13	
5/18/2016	13	
7/12/2016	13	
9/12/2016	13	
11/18/2016	14	
1/19/2017	13	
3/22/2017	15	
5/24/2017	14	
10/17/2017	15	
5/31/2018	12	
11/7/2018	14	
4/22/2019	13.3	
9/27/2019		13.4
4/13/2020		14.2
10/22/2020		17.4
3/16/2021		13.3
10/5/2021		12.5

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	8.8 (B1)	
5/18/2016	7.2	
7/12/2016	7.5	
9/12/2016	8.4	
11/19/2016	12	
1/18/2017	11	
3/22/2017	11	
5/24/2017	10	
10/17/2017	10	
6/1/2018	9.9	
11/7/2018	10	
4/23/2019	9.3	
9/26/2019		8.35
4/13/2020		7.9
10/22/2020		6.5
3/16/2021		7.32
10/5/2021		6.59

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	8.4 (B1)	
5/18/2016	6	
7/12/2016	7.1	
9/12/2016	7.3	
11/19/2016	8.9	
1/19/2017	8.3	
3/21/2017	8.8	
5/23/2017	9.3	
10/17/2017	7.1	
6/1/2018	6.4	
11/7/2018	8	
4/23/2019	6.75	
9/26/2019		7.66
4/13/2020		7.74
10/22/2020		8.69
3/16/2021		8.94
10/5/2021		9.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	6.9 (B1)	
5/18/2016	5.4	
7/11/2016	8.1	
9/13/2016	6.2	
11/17/2016	7.3	
1/18/2017	6.3	
3/21/2017	7.3	
5/23/2017	7.4	
10/17/2017	9.9	
12/19/2017	7.8 (RS)	
5/31/2018	8.7	
11/8/2018	7.6	
4/22/2019	10.2	
6/25/2019		9.4
9/26/2019		6.54
4/14/2020		7.03
10/21/2020		7.36
3/16/2021		7.14
10/5/2021		6.55

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	7.3 (B1)	
5/18/2016	6	
7/12/2016	5.7	
9/12/2016	5.7	
11/18/2016	8.2	
1/18/2017	7.4	
3/21/2017	7.9	
5/24/2017	7.4	
10/17/2017	6.5	
5/31/2018	6.5	
11/8/2018	6.9	
4/22/2019	6.64	
9/26/2019		6.7
4/13/2020		6.46
10/22/2020		6.37
3/16/2021		6.97
10/5/2021		5.91

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	11 (B1)	
5/18/2016	8.4	
7/12/2016	7.9	
9/12/2016	7.6	
11/18/2016	8.5	
1/18/2017	9.2	
3/21/2017	10	
5/24/2017	10	
10/17/2017	8.6	
5/31/2018	6.9	
11/8/2018	8.7	
4/22/2019	6.17	
9/26/2019		6.09
4/14/2020		6.15
10/22/2020		6.89
3/16/2021		8.18
10/5/2021		5.72

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5	
11/18/2016	<6.3 (*)	
1/18/2017	5.3	
2/10/2017	5.4	
3/21/2017	5.3	
4/14/2017	4.9 (B)	
5/23/2017	5.5	
6/26/2017	5.4	
10/17/2017	5.4	
5/31/2018	5	
11/8/2018	5.2	
4/22/2019	4.91	
9/26/2019		5.03
4/13/2020		4.9
10/21/2020		5.25
3/16/2021		5.72
10/5/2021		5.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	<0.1	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	0.04 (J)	
11/18/2016	<0.1	
1/19/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	0.04 (J)	
5/31/2018	0.04 (J)	
11/7/2018	0.05 (J)	
4/22/2019	0.0353 (J)	
9/27/2019		0.0438 (J)
4/13/2020		0.0672 (J)
10/22/2020		<0.1
3/16/2021		0.0269 (J)
10/5/2021		0.0561 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/18/2017	<0.1	
3/22/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0335 (J)	
9/26/2019		0.0272 (J)
4/13/2020		0.0411 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		0.03 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/19/2016	<0.1	
1/19/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
6/1/2018	<0.1	
11/7/2018	<0.1	
4/23/2019	0.0275 (J)	
9/26/2019		<0.1
4/13/2020		0.0484 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/11/2016	<0.1	
9/13/2016	<0.1	
11/17/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/23/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	0.029 (J)	
9/26/2019		0.0302 (J)
4/14/2020		0.0496 (J)
10/21/2020		<0.1
3/16/2021		<0.1
10/5/2021		0.0264 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	<0.1	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0263 (J)
4/13/2020		0.0511 (J)
10/22/2020		<0.1
3/16/2021		<0.1
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	<0.1 (B1)	
5/18/2016	<0.1	
7/12/2016	0.04 (J)	
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
3/21/2017	<0.1	
5/24/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	0.04 (J)	
11/8/2018	<0.1	
4/22/2019	0.0311 (J)	
9/26/2019		0.0366 (J)
4/14/2020		0.0764 (J)
10/22/2020		<0.1
3/16/2021		0.0344 (J)
10/5/2021		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<0.1	
11/18/2016	<0.1	
1/18/2017	<0.1	
2/10/2017	<0.1	
3/21/2017	<0.1	
4/14/2017	<0.1	
5/23/2017	<0.1	
6/26/2017	<0.1	
10/17/2017	<0.1	
5/31/2018	<0.1	
11/8/2018	<0.1	
4/22/2019	<0.1	
9/26/2019		0.0287 (J)
4/13/2020		0.0382 (J)
10/21/2020		<0.1
3/16/2021		0.0376 (J)
10/5/2021		<0.1

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	4.8	
5/18/2016	4.74	
7/12/2016	4.9	
9/12/2016	4.72	
11/18/2016	4.65	
1/19/2017	4.77	
3/22/2017	4.46	
5/24/2017	4.74	
10/17/2017	4.72	
11/30/2017	4.61	
5/31/2018	4.93	
11/7/2018	4.58	
4/22/2019	4.67	
9/27/2019		4.61
4/13/2020		4.7
10/22/2020		4.66
3/16/2021		4.72
10/5/2021		4.67

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	5.4	
5/18/2016	5.38	
7/12/2016	5.65	
9/12/2016	5.14	
11/19/2016	5.05	
1/18/2017	5.11	
3/22/2017	4.86	
5/24/2017	5.02	
10/17/2017	5.01	
6/1/2018	5	
11/7/2018	4.81	
4/23/2019	4.93	
9/26/2019		4.99
4/13/2020		4.96
10/22/2020		5.09
3/16/2021		5.06
10/5/2021		4.98

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	4.77	
5/18/2016	4.62	
7/12/2016	5.03	
9/12/2016	4.6	
11/19/2016	4.46	
1/19/2017	4.65	
3/21/2017	4.47	
5/23/2017	4.69	
10/17/2017	4.62	
6/1/2018	4.87	
11/7/2018	4.61	
4/23/2019	4.77	
9/26/2019		4.84
4/13/2020		4.71
10/22/2020		4.78
3/16/2021		4.65
10/5/2021		4.85

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	4.68	
5/18/2016	4.67	
7/11/2016	4.75	
9/13/2016	4.56	
11/17/2016	4.6	
1/18/2017	4.68	
3/21/2017	4.39	
5/23/2017	4.61	
10/17/2017	4.51	
5/31/2018	4.75	
11/8/2018	4.71	
4/22/2019	4.49	
9/26/2019		4.62
4/14/2020		4.61
10/21/2020		4.5
3/16/2021		4.62
10/5/2021		4.6

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	4.89	
5/18/2016	5.09	
7/12/2016	5.27	
9/12/2016	4.94	
11/18/2016	4.82	
1/18/2017	5.02	
3/21/2017	4.82	
5/24/2017	4.87	
10/17/2017	5	
5/31/2018	5.42	
11/8/2018	5.02	
4/22/2019	4.94	
9/26/2019		5.01
4/13/2020		4.99
10/22/2020		5.01
3/16/2021		5
10/5/2021		4.88

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	4.63	
5/18/2016	4.58	
7/12/2016	4.7	
9/12/2016	4.6	
11/18/2016	4.52	
1/18/2017	4.63	
3/21/2017	4.45	
5/24/2017	4.55	
10/17/2017	4.61	
5/31/2018	4.84	
11/8/2018	4.63	
4/22/2019	4.64	
9/26/2019		4.71
4/14/2020		4.75
10/22/2020		4.7
10/5/2021		4.68

Prediction Limit

Constituent: pH (SU) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	5.55	
11/18/2016	5.14	
1/18/2017	5.27	
2/10/2017	5.14	
3/21/2017	4.96	
4/14/2017	5.07	
5/23/2017	5.01	
6/26/2017	4.93	
10/17/2017	4.93	
11/30/2017	4.81	
5/31/2018	5.11	
11/8/2018	5.09	
4/22/2019	4.97	
9/26/2019		5.19
4/13/2020		5.06
10/21/2020		5.05
3/16/2021		5.35
10/5/2021		5.53

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
11/16/2006	5	
2/5/2007	<5	
4/12/2007	<5	
10/17/2007	5.7	
4/17/2008	7	
10/24/2008	6.6	
4/21/2009	5.2	
10/26/2009	8.3	
4/12/2010	6.8	
10/30/2010	10.8	
5/25/2011	11.5	
5/25/2012	8.2	
5/28/2013	6.9	
5/31/2014	3.5	
5/29/2015	3.3	
3/23/2016	1.8 (J)	
5/18/2016	4.1	
7/12/2016	3.8 (J)	
9/12/2016	3.9 (J)	
11/18/2016	5.4	
1/19/2017	<5	
3/22/2017	<5	
5/24/2017	2 (J)	
10/17/2017	<5	
5/31/2018	3 (J)	
11/7/2018	3.1 (J)	
4/22/2019	2.22	
9/27/2019		2.36
4/13/2020		2.47
10/22/2020		2.01
3/16/2021		2.15
10/5/2021		2.57

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	<5	
5/18/2016	1.9	
7/12/2016	2 (J)	
9/12/2016	2 (J)	
11/19/2016	1.7 (J)	
1/18/2017	<5	
3/22/2017	<5	
5/24/2017	<5	
10/17/2017	<5	
6/1/2018	1.8 (J)	
11/7/2018	1.8 (J)	
4/23/2019	1.99	
9/26/2019		1.95
4/13/2020		1.43
10/22/2020		1.76
3/16/2021		2.23
10/5/2021		2.46

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	<5	
5/18/2016	<5	
7/12/2016	<5	
9/12/2016	<5	
11/19/2016	<5	
1/19/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
6/1/2018	1.5 (J)	
11/7/2018	1.5 (J)	
4/23/2019	1.43	
9/26/2019		1.2
4/13/2020		0.992 (J)
10/22/2020		1.04
3/16/2021		1.07
10/5/2021		3.38

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	<5	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	1.7 (J)	
11/17/2016	<5	
1/18/2017	<5	
3/21/2017	<5	
5/23/2017	<5	
10/17/2017	<5	
5/31/2018	2.2 (J)	
11/8/2018	1.7 (J)	
4/22/2019	2.52	
9/26/2019		2.28
4/14/2020		2.27
10/21/2020		2.15
3/16/2021		2
10/5/2021		2.22

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	<5	
5/18/2016	1.4	
7/12/2016	1.8 (J)	
9/12/2016	2.2 (J)	
11/18/2016	1.5 (J)	
1/18/2017	1.5 (J)	
3/21/2017	<5	
5/24/2017	1.7 (J)	
10/17/2017	1.8 (J)	
5/31/2018	2.5 (J)	
11/8/2018	2.2 (J)	
4/22/2019	2.96	
9/26/2019		2.96
4/13/2020		2.75
10/22/2020		2.98
3/16/2021		3.06
10/5/2021		2.85

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	3 (J)	
5/18/2016	3.9 (J)	
7/12/2016	3.9 (J)	
9/12/2016	4.5 (J)	
11/18/2016	4.2 (J)	
1/18/2017	3.8 (J)	
3/21/2017	<5 (*)	
5/24/2017	3 (J)	
10/17/2017	3.4 (J)	
5/31/2018	4.1 (J)	
11/8/2018	3.3 (J)	
4/22/2019	4.66	
9/26/2019		4.23
4/14/2020		3.96
10/22/2020		3.37
3/16/2021		3.18
10/5/2021		3.83

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	<5	
11/18/2016	<5	
1/18/2017	<5	
2/10/2017	<5	
3/21/2017	<5	
4/14/2017	1.5 (J)	
5/23/2017	<5	
6/26/2017	1.5 (J)	
10/17/2017	<5	
5/31/2018	1.9 (J)	
11/8/2018	1.5 (J)	
4/22/2019	2.09	
9/26/2019		2.1
4/13/2020		1.69
10/21/2020		1.31
3/16/2021		2.72
10/5/2021		1.91

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-11	MW-11
3/23/2016	40	
5/18/2016	52	
7/12/2016	42	
9/12/2016	42	
11/18/2016	82	
1/19/2017	32	
3/22/2017	6	
5/24/2017	48	
10/17/2017	34	
5/31/2018	32	
11/7/2018	52	
4/22/2019	50	
9/27/2019		50
4/13/2020		63
10/22/2020		41
3/16/2021		39
10/5/2021		43

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-14	MW-14
3/23/2016	48 (B1)	
5/18/2016	26	
7/12/2016	24	
9/12/2016	32	
11/19/2016	76	
1/18/2017	48	
3/22/2017	30	
5/24/2017	46	
10/17/2017	8	
6/1/2018	44	
11/7/2018	26	
4/23/2019	48	
9/26/2019		39
4/13/2020		28
10/22/2020		25
3/16/2021		41
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-15	MW-15
3/22/2016	34 (B1)	
5/18/2016	24	
7/12/2016	24	
9/12/2016	4 (J)	
11/19/2016	44	
1/19/2017	26	
3/21/2017	20	
5/23/2017	6	
10/17/2017	58	
12/15/2017	20 (RS)	
6/1/2018	26	
11/7/2018	8	
4/23/2019	34	
9/26/2019		32
4/13/2020		39
10/22/2020		34
3/16/2021		34
10/5/2021		25

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-16	MW-16
3/22/2016	42 (B1)	
5/18/2016	<5	
7/11/2016	<5	
9/13/2016	48	
11/17/2016	20	
1/18/2017	18	
3/21/2017	8	
5/23/2017	<5	
10/17/2017	58	
5/31/2018	24	
11/8/2018	4 (J)	
4/22/2019	46	
9/26/2019		27
4/14/2020		36
10/21/2020		33
3/16/2021		27
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-17	MW-17
3/22/2016	32 (B1)	
5/18/2016	26	
7/12/2016	22	
9/12/2016	32	
11/18/2016	16	
1/18/2017	32	
3/21/2017	16	
5/24/2017	22	
10/17/2017	26	
5/31/2018	<3.4	
11/8/2018	36	
4/22/2019	24	
9/26/2019		25
4/13/2020		27
10/22/2020		29
3/16/2021		37
10/5/2021		34

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-18	MW-18
3/22/2016	28 (B1)	
5/18/2016	20	
7/12/2016	24	
9/12/2016	48	
11/18/2016	10	
1/18/2017	30	
3/21/2017	6	
5/24/2017	30	
10/17/2017	32	
5/31/2018	30	
11/8/2018	22	
4/22/2019	36	
9/26/2019		30
4/14/2020		29
10/22/2020		22
3/16/2021		31
10/5/2021		29

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/14/2021 2:20 PM View: PLs Time Series

Plant Daniel Client: Southern Company Data: NAMU CCR

	MW-19	MW-19
9/12/2016	12	
11/18/2016	14	
1/18/2017	20	
2/10/2017	28	
3/21/2017	20	
4/14/2017	14	
5/23/2017	<5	
6/26/2017	34	
10/17/2017	42	
5/31/2018	22	
11/8/2018	8	
4/22/2019	31	
9/26/2019		29
4/13/2020		20
10/21/2020		19
3/16/2021		25
10/5/2021		35

FIGURE E.

Appendix III Trend Tests - Prediction Limits Exceedances - Significant Results

Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limits Exceedances - All Results

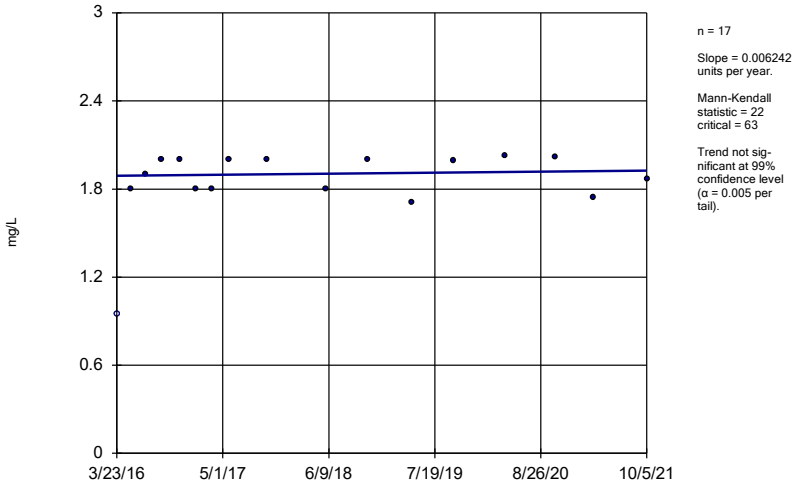
Plant Daniel Client: Southern Company Data: NAMU CCR Printed 12/15/2021, 5:11 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	MW-11 (bg)	0.006242	22	63	No	17	5.882	n/a	n/a	0.01	NP
Calcium (mg/L)	**MW-14 (bg)**	**-0.5166**	**-107**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**MW-18 (bg)**	**-0.06436**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	MW-19	0.0475	42	63	No	17	0	n/a	n/a	0.01	NP
pH (SU)	MW-11 (bg)	-0.01917	-41	-68	No	18	0	n/a	n/a	0.01	NP
pH (SU)	**MW-14 (bg)**	**-0.05378**	**-64**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (SU)	MW-18 (bg)	0.02083	44	58	No	16	0	n/a	n/a	0.01	NP
pH (SU)	MW-19	-0.003948	-5	-68	No	18	0	n/a	n/a	0.01	NP

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-11 (bg)



n = 17

Slope = 0.006242 units per year.

Mann-Kendall statistic = 22
critical = 63

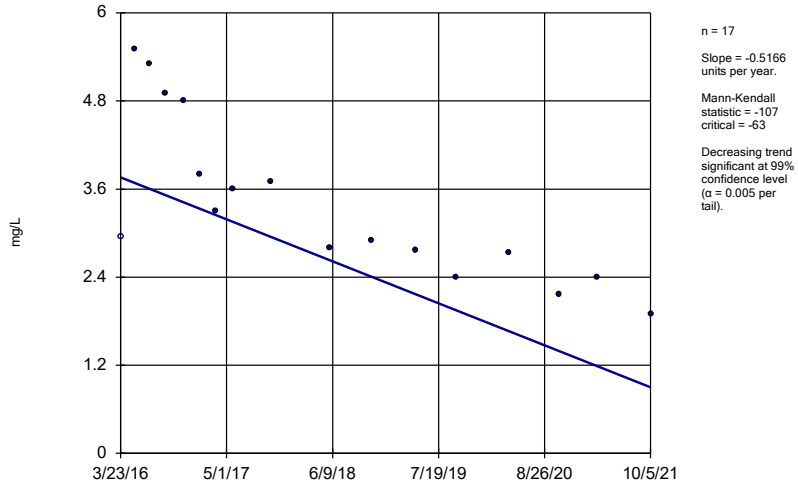
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-14 (bg)



n = 17

Slope = -0.5166 units per year.

Mann-Kendall statistic = -107
critical = -63

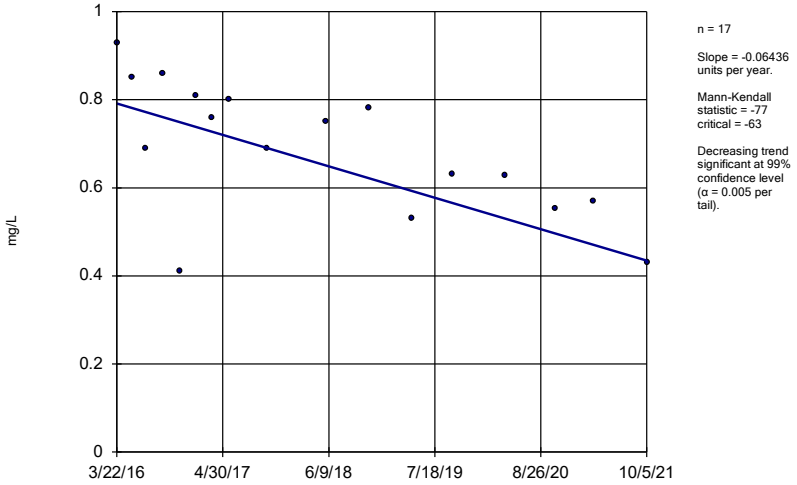
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 17

Slope = -0.06436 units per year.

Mann-Kendall statistic = -77
critical = -63

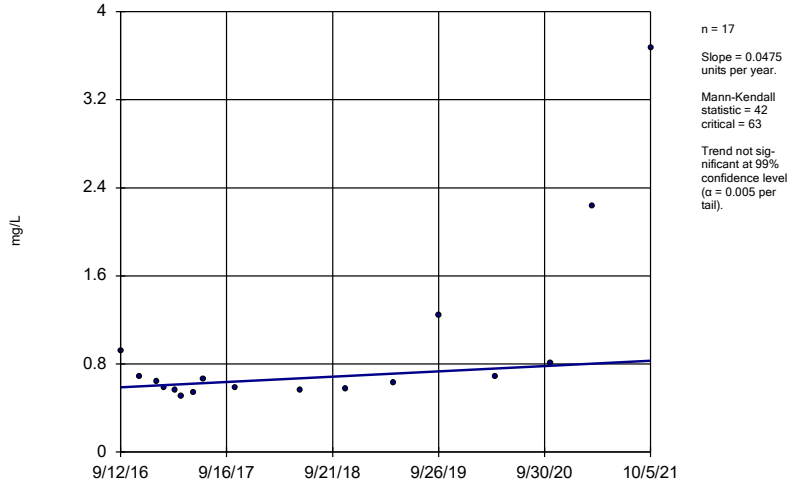
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 17

Slope = 0.0475 units per year.

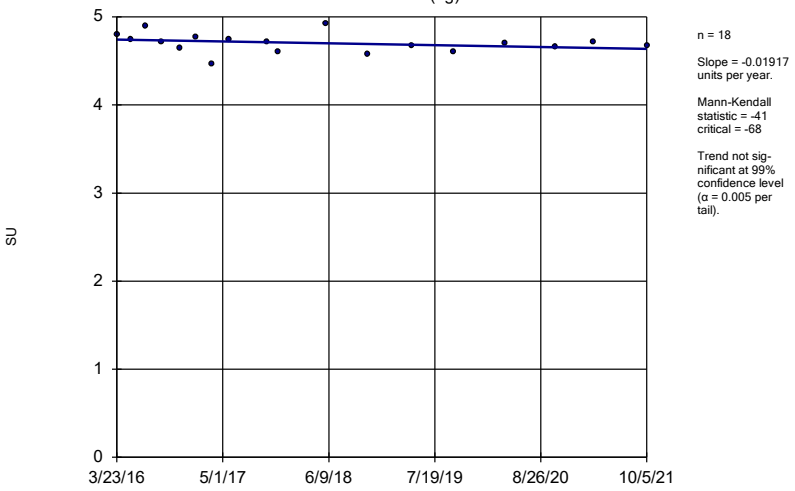
Mann-Kendall statistic = 42
critical = 63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sen's Slope Estimator

MW-11 (bg)



n = 18

Slope = -0.01917 units per year.

Mann-Kendall statistic = -41
critical = -68

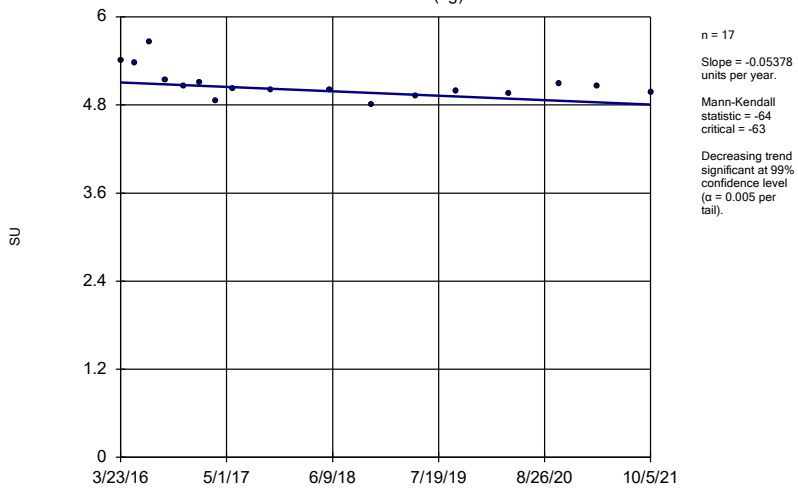
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-14 (bg)



n = 17

Slope = -0.05378 units per year.

Mann-Kendall statistic = -64
critical = -63

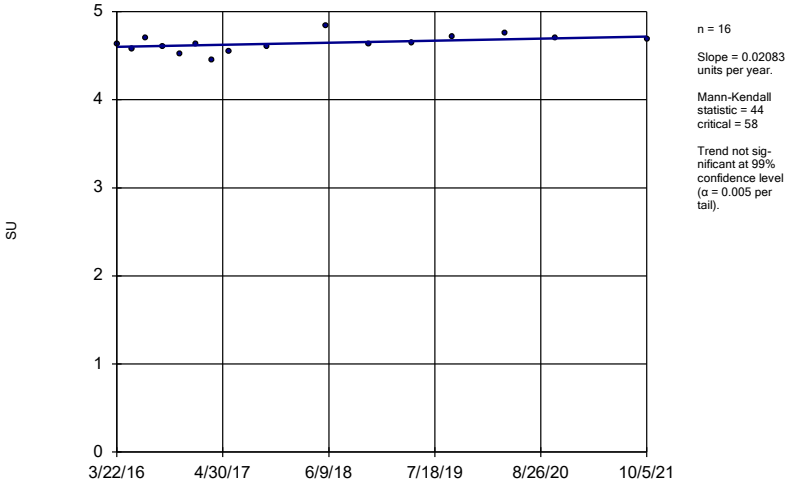
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-18 (bg)



n = 16

Slope = 0.02083 units per year.

Mann-Kendall statistic = 44
critical = 58

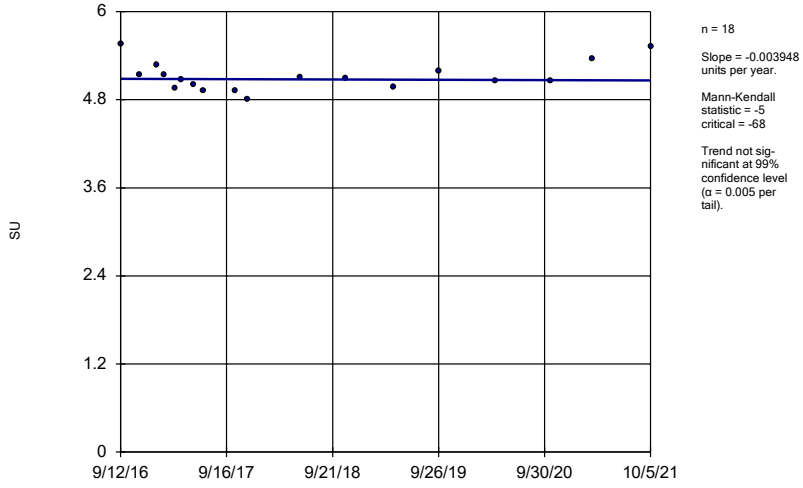
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR

Sanitas™ v.9.6.32 Groundwater Stats Consulting. UG

Sen's Slope Estimator

MW-19



n = 18

Slope = -0.003948 units per year.

Mann-Kendall statistic = -5
critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/15/2021 5:10 PM View: Intrawell - Trend Tests
Plant Daniel Client: Southern Company Data: NAMU CCR