

2025 Annual Groundwater Monitoring and Corrective Action Report

Lon D. Wright Power Plant

Fossil Fuel Combustion Ash (FFCA)
Monofill

City of Fremont Department of Utilities
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Table of Contents

Section	Page
1.0 Introduction	1
1.1 §257.90(e)(6) Summary	1
1.1.1 §257.90(e)(6)(i) Initial Monitoring Program.....	1
1.1.2 §257.90(e)(6)(ii) Final Monitoring Program.....	1
1.1.3 §257.90(e)(6)(iii) Statistically Significant Increases	1
1.1.4 §257.90(e)(6)(iv) Statistically Significant Levels.....	2
1.1.5 §257.90(e)(6)(v) Selection of Remedy.....	3
1.1.6 §257.90(e)(6)(vi) Remedial Activities	3
2.0 §257.90(e) Annual Report Requirements	3
2.1 §257.90(e)(1) Site Map.....	3
2.2 §257.90(e)(2) Monitoring System Changes	4
2.3 §257.90(e)(3) Summary of Sampling Events	4
2.4 §257.90(e)(4) Monitoring Transition Narrative	4
2.5 §257.90(e)(5) Other Requirements	4
2.5.1 §257.90(e) General Requirements	5
2.5.2 §257.94(d) Alternative Detection Monitoring Frequency	5
2.5.3 §257.94(e)(2) Alternative Source Demonstration for Detection Monitoring.....	5
2.5.4 §257.95(c) Alternative Assessment Monitoring Frequency	6
2.5.5 §257.95(d)(3) Assessment Monitoring Results and Standards.....	6
2.5.6 §257.95(g)(3)(ii) Alternative Source Demonstration for Assessment Monitoring ..	6
2.5.7 §257.96(a) Extension of Time for Corrective Measures Assessment.....	6

Table

- 1 CCR Rule Groundwater Samples Summary

Figure

- 1 Site Map with Monitoring Wells
2 Potentiometric Contour Map

Appendix A – Groundwater Monitoring Program Reports

- A1 1st Quarter Groundwater Monitoring Program Report
A2 3rd Quarter Groundwater Monitoring Program Report

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1.0 INTRODUCTION

This 2025 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the “Coal Combustion Residuals (CCR) Final Rule” published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015), and subsequent revisions. Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90(e) and the Assessment Monitoring Program described in 40 CFR 257.95. The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2025 Annual Groundwater Monitoring and Corrective Action Report for the 11.36-acre CCR monofill at the Lon D. Wright Power Plant, which is owned by the City of Fremont Department of Utilities (FDU).

This report covers the period of groundwater monitoring from January 1, 2025 through December 31, 2025.

1.1 §257.90(E)(6) SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

1.1.1 §257.90(e)(6)(i) Initial Monitoring Program

At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;

At the start of the current annual reporting period, (January 1, 2025), the CCR Landfill was operating under an assessment monitoring program in compliance with §257.95.

1.1.2 §257.90(e)(6)(ii) Final Monitoring Program

At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95;

At the end of the current annual reporting period, (December 31, 2025), the CCR Landfill was operating under an assessment monitoring program in compliance with §257.95.

1.1.3 §257.90(e)(6)(iii) Statistically Significant Increases

If it was determined that there was a statistically significant increase (SSI) over background for one or more constituents listed in Appendix III to this part pursuant to §257.94(e):

- (A) *Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and,*

Constituent	Monitoring Well with SSI	
	First Quarter (February) Event	Third Quarter (August) Event
Arsenic	MW-1, MW-3, MW-4R, MW-6	MW-1, MW-3, MW-4R, MW-6
Boron	N/A	N/A
Barium	N/A	N/A
Calcium	N/A	N/A
Chloride	MW-1, MW-2, MW-3, MW-4R, MW-5, MW-7	MW-1, MW-2, MW-3, MW-4R, MW-5, MW-7, MW-8
Fluoride	MW-2	MW-2
Lead	N/A	N/A
Lithium	N/A	N/A
Molybdenum	N/A	N/A
Selenium	N/A	N/A
Total Dissolved Solids (TDS)	N/A	N/A

(B) *Provide the date when the assessment monitoring program was initiated for the CCR unit.*

Eight background groundwater monitoring events were completed from October 2016 through September 2017 under the detection monitoring program. Statistical analysis of the analytical results from the eight background groundwater monitoring events resulted in all seven downgradient wells having statistically significant increases (SSIs) in concentration above the background concentration data at MW-4R. The SSI determinations completed in 2017 resulted in the transition from the detection monitoring program into the assessment monitoring program in February 2018.

1.1.4 **§257.90(e)(6)(iv) Statistically Significant Levels**

If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to §257.95(g) include all of the following:

(A) *Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;*

No Appendix IV detects statistically exceeded the groundwater protection standard.

(B) *Provide the date when the assessment of corrective measures was initiated for the CCR unit;*

Not applicable as corrective measures are not required.

(C) *Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and*

Not applicable as corrective measures are not required.

(D) *Provide the date when the assessment of corrective measures was completed for the CCR unit.*

Not applicable as corrective measures are not required.

1.1.5 §257.90(e)(6)(v) Selection of Remedy

Whether a remedy was selected pursuant to §257.97 during the current annual reporting period, and if so, the date of remedy selection; and

Not applicable as corrective measures are not required.

1.1.6 §257.90(e)(6)(vi) Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

Not applicable as corrective measures are not required.

2.0 §257.90(E) ANNUAL REPORT REQUIREMENTS

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1). At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.1 §257.90(E)(1) SITE MAP

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

A site vicinity map with an aerial image showing the property boundary of the Lon D. Wright Power Plant is provided as **Figure 1**. This figure includes the CCR monofill and background (or upgradient) and downgradient monitoring wells with identification numbers for the groundwater monitoring program.

2.2 §257.90(E)(2) MONITORING SYSTEM CHANGES

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No new monitoring wells were installed and no wells were decommissioned as part of the groundwater monitoring program for the FFCA monofill in 2025. The groundwater monitoring system currently consists of eight monitoring wells (1 upgradient and 7 downgradient). Monitoring wells MW-1 through MW-5 were installed in 1996 to intercept the shallow groundwater table beneath the FFCA monofill. Monitoring wells MW-6 through MW-8 were installed in 2016 to increase the interception potential of predominant down- and cross-gradient flow migration pathways and to demonstrate compliance with 40 CFR 257.91. Background monitoring well MW-4 was replaced with MW-4R in 2016 due to the poor integrity of the monitoring well.

2.3 §257.90(E)(3) SUMMARY OF SAMPLING EVENTS

In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

Two groundwater samples were collected from each CCR monitoring well for the semi-annual assessment monitoring events. Samples from the first sampling event on February 6, 2025 and the second sampling event on July 16, 2025 were analyzed for both Appendix III and Appendix IV constituents. A summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs is included in **Table 1**. The Groundwater Monitoring Program Reports for the first and second sampling events were submitted to the Nebraska Department of Water, Energy, and Environment (DWE). These include the analytical reports, groundwater contour maps, field data sheets and statistical summaries, and are provided in **Appendices A1** and **A2**.

2.4 §257.90(E)(4) MONITORING TRANSITION NARRATIVE

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels);

As required by 40 CFR 257.90(b), eight background groundwater monitoring events were completed from October 2016 through September 2017 under the detection monitoring program. Statistical analysis of the analytical results from the eight background groundwater monitoring events resulted in all seven downgradient wells having statistically significant increases (SSIs) in concentration above the background concentration data at MW-4R. The SSI determinations completed in 2017 resulted in the transition from the detection monitoring program into the assessment monitoring program in February 2018. The site remained in the assessment monitoring program throughout 2025.

2.5 §257.90(E)(5) OTHER REQUIREMENTS

Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.

Additional potentially applicable requirements for the annual report, and the location of the requirement within the Rule, are provided in the following sections.

2.5.1 §257.90(e) General Requirements

For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year.

Status of Groundwater Monitoring and Corrective Action Program. The groundwater monitoring and corrective action program is currently in assessment monitoring.

Summary of Key Actions Completed. The facility conducted groundwater monitoring in accordance with assessment monitoring protocols and established groundwater protection standards.

Description of Any Problems Encountered. No problems were encountered involving the two groundwater monitoring events.

Discussion of Actions to Resolve the Problems. No problems were encountered involving the two groundwater monitoring events.

Projection of Key Activities for the Upcoming Year (2026):

Perform two semiannual assessment monitoring events in the first and third quarters of 2026.

Perform statistical evaluation and determination of any statistically significant increases for both semiannual assessment monitoring events.

2.5.2 §257.94(d) Alternative Detection Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. No alternative detection monitoring frequency has been proposed. The facility is currently in assessment monitoring.

2.5.3 §257.94(e)(2) Alternative Source Demonstration for Detection Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. No alternative source demonstration for detection monitoring was completed in 2025.

2.5.4 §257.95(c) Alternative Assessment Monitoring Frequency

The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Not applicable. No alternative assessment monitoring frequency has been proposed.

2.5.5 §257.95(d)(3) Assessment Monitoring Results and Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

Assessment Monitoring Results and Standards for the two assessment monitoring events can be found in the attached Groundwater Monitoring Program Reports submitted to the NDEE. These reports, which include the analytical reports, groundwater contour maps, field data sheets and statistical summaries, are provided in **Appendices A1** and **A2**.

2.5.6 §257.95(g)(3)(ii) Alternative Source Demonstration for Assessment Monitoring

The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. No alternative source demonstration for assessment monitoring was completed in 2025.

2.5.7 §257.96(a) Extension of Time for Corrective Measures Assessment

The assessment of corrective measures must be completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measure due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer.

Not applicable. A corrective measures assessment has not been initiated.

TABLE 1

CCR Rule Groundwater Samples Summary

Table 1
CCR Rule Groundwater Samples Summary
Lon D. Wright Power Plant FFCA Monofill
1st Quarter & 3rd Quarter - 2025

Well ID	Designation	Number of Samples Collected	Sampling Dates
MW-1	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-2	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-3	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-4R	Upgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-5	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-6	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-7	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025
MW-8	Downgradient	2 (1 each event)	2/6/2025
			7/16/2025

Note - All monitoring wells are currently in the assessment monitoring program

FIGURE 1

Site Map with Monitoring Wells

T:\27224080.00\AUTOCAD\EX-01 SITE VICINITY MAP.DWG



SCS ENGINEERS 14755 Grover Street Omaha, NE 68144 PH. (402) 884-6202 FAX. (913) 681-0012				CLIENT FREMONT DEPARTMENT OF UTILITIES LON D. WRIGHT POWER PLANT FREMONT, NEBRASKA				SHEET TITLE SITE VICINITY MAP				REV.	DATE	CK	BY
CADD FILE: 2022 SITE VICINITY MAP.DWG				DATE: 01/07/2024				DRAWING NO. F-01				Δ			
PROJ. NO. 27224080.00		DWG. BY MBS		QA/RVW BY ZEM		PROJ. MGR MBS		PROJ. NO. 27224080.00		DWG. BY MBS		QA/RVW BY ZEM		PROJ. MGR MBS	

FIGURE 2

Potentiometric Contour Map

APPENDIX A

Groundwater Monitoring Program Reports

A1 1st Quarter Groundwater Monitoring Program Report



Lon D. Wright Power Plant Statistical Summary of February 2025 Data

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27224080.01 | March 13, 2025

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Table of Contents

Section	Page
1 EVALUATION OF ANALYTICAL RESULTS.....	1
1.1 Site-Specific Statistical Program	1
1.2 Compliance Statistical Analysis.....	1
1.2.1 Time Series Plots.....	1
1.2.2 Intrawell Prediction Limits.....	1
1.2.3 Interwell Prediction Limits.....	2
1.2.4 Sen's Slope/Mann-Kendall Trend Analysis.....	2
1.2.5 Confidence Interval Analysis.....	2
1.2.6 Statistical Summary	3
2 GENERAL COMMENTS	6
3 REFERENCES	7

Tables

Table 1.	Previously identified to Current identified exceedances	3
Table 2.	Summary of Statistical Analysis	5

Attachments

A	Compliance Statistical Analysis
A.1	Time Series Plots
A.2	Intrawell Prediction Limits
A.3	Interwell Prediction Limits
A.4	Sen's Slope/Mann-Kendall Analysis
A.5	Confidence Interval Analysis
B	Figures
B.1	Groundwater Contours Map
C	Supporting information
C.1	Field Data Sheets
C.2	Chain of Custody
C.3	Testing Results

1 EVALUATION OF ANALYTICAL RESULTS

1.1 SITE-SPECIFIC STATISTICAL PROGRAM

Statistical analysis consisted of methods outlined in the Groundwater Monitoring Plan (GMP) (revised April 2021), 40 CFR Part 257, Subpart D (CCR rule) and EPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (Unified Guidance) dated March 2009 using Sanitas™ Statistical Software version 10.0. An intrawell statistical approach is the primary statistical method and interwell comparisons are supplementary statistical analyses used to give context to intrawell statistical results. If no intrawell statistical exceedance is noted, the additional statistical analysis is not used to make assessment monitoring determinations. Constituent/well pairs exceeding inter-and intrawell prediction limits but not displaying significant increasing trends are not entered into the assessment monitoring program. Additionally, in an assessment monitoring program, if one or more constituent/well pair statistically exceeds the intrawell prediction limit but does not exceed the Confidence Interval (ie GWPS) then assessment monitoring procedures for the site will continue and no changes to the sampling schedule are implemented. Based on current understanding of the Federal CCR rule, when assessment monitoring is required at one well then all wells must be in assessment monitoring. This understanding does not conflict with GMP requirements.

Because the site remains in assessment monitoring, each well at the site was sampled and analyzed following assessment monitoring procedures. During the February 2025 sampling event, samples from each well were analyzed for Appendix III and IV constituents. Detected Appendix III and Appendix IV constituent results were analyzed using time series plots, intrawell prediction limit analysis, interwell prediction limit analysis, Sen's slope trend analyses, and confidence interval analysis. The statistical results have been summarized in **Table 2** at the end of this Section.

Statistical output charts and tables are included in **Attachment A**.

1.2 COMPLIANCE STATISTICAL ANALYSIS

Compliance statistical analysis was performed on data collected from the February 2025 sampling event. Pertinent statistical results are summarized in **Table 2** at the end of this Section.

1.2.1 Time Series Plots

Time series plots were prepared for Appendix III and Appendix IV constituents to show concentration variations over time. Time series plots are included in **Attachment A.1**.

1.2.2 Intrawell Prediction Limits

An intrawell prediction limit analysis compares the historical data of a well to its own compliance data. The historical data is used to calculate the prediction limit that is compared to the compliance data point. If a compliance data point exceeds the calculated prediction limit, then an initial exceedance is noted; however, this may not indicate a statistically significant increase (SSI). The distribution of the data was calculated by applying the Shapiro-Wilk test for normality or the Ladder of Powers (Helsel & Hirsh, 1992) for transformed data. A parametric prediction limit was constructed for data determined to have a normal or transformed normal distribution. A non-parametric prediction limit was calculated for data not transformed normal or containing 51 percent to 90 percent non-detect results.

Intrawell prediction limits were used to statistically evaluate the detected constituents in each monitoring well using an established background dataset from October 2016 through June 2018 except for Boron where the background dataset is from October 2016 to February 2018. Outliers, if any, are removed from the background dataset.

Intrawell prediction limit analysis results are included in **Attachment A.2** and summarized in **Table 2**.

1.2.3 Interwell Prediction Limits

An interwell prediction limit analysis compares data collected from compliance (downgradient) monitoring wells with data collected from the background (upgradient) monitoring wells. Available upgradient monitoring well data (MW-4R) was used to calculate the interwell prediction limit and was used to determine if a single data point is statistically representative of a group of data points. The distribution of the data was calculated by applying the Shapiro-Wilk test for normality, or the Ladder of Powers (Helsel & Hirsh, 1992) for transformed data. A parametric prediction limit was constructed for data determined to have a normal or transformed normal distribution. A non-parametric prediction limit was calculated for data not transformed normal or containing 51 percent to 90 percent of observations less than the laboratory reporting limit (non-detects) results. A Poisson based prediction limit was calculated for data with greater than 90 percent non-detect results.

Interwell prediction limits were used as a supplementary statistical analysis to provide additional context and evaluation to the statistical evaluation of the detected constituents from the February 2025 sampling event data. Interwell prediction limits analysis results are included in **Attachment A.3** and summarized in **Table 2**.

1.2.4 Sen's Slope/Mann-Kendall Trend Analysis

A Sen's Slope/Mann-Kendall statistical analysis was performed on the detected constituent/well pairs using the background dataset and the February 2025 sampling event to determine trends in the concentration of these constituents. A trend is the general increase or decrease in observed values over time. A trend analysis can be used to determine the significance of an apparent trend and to estimate the magnitude of that trend. The Mann-Kendall test is nonparametric, meaning that it does not depend on an assumption of a particular underlying distribution. The test uses only the relative magnitude of data rather than actual values. Therefore, missing values are allowed, and values that are recorded as non-detects by the laboratory can still be used in the statistical analysis by assigning values equal to half their reporting limits. Sen's Slope is a simple nonparametric procedure developed to estimate the true slope. The advantage of this method over linear regression is that it is not greatly affected by gross data errors or outliers and can be computed when data is missing or non-detect. Significant trends should be identified as either increasing or decreasing and whether these trends are occurring in more than one well. Trends can result from naturally occurring changes to the groundwater, seasonal fluctuations, and disturbances from new well installations or facility activities. Sen's Slope/Mann-Kendall analysis results are included in **Attachment A.4** and summarized in **Table 3**.

1.2.5 Confidence Interval Analysis

Confidence Interval analysis was performed on the detected constituent/well pairs from the February 2025 sampling event. Confidence interval analysis is an intrawell test used to compare the compliance data to a fixed numerical limit (compliance limit). Since the wells are in assessment monitoring, the compliance limit is represented by the groundwater protection standard (GWPS). Based on the Unified Guidance, the confidence interval is bound by an upper and lower limit which defines the most probable range where either the average or median concentration is expected. A

potential statistical exceedance is indicated by confidence interval analysis when the lower limit of the confidence interval is above the compliance limit.

The GWPS for lithium and molybdenum were identified in the July 17, 2018 *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One); Final Rule* (July 2018 EPA CCR Amendment) and were utilized as the compliance limits. The average upgradient concentrations, derived from MW-4R, were used as the compliance limit for boron, calcium, and Total Radium because no GWPS exists for these constituents. MW-4R is sampled in the first and third quarters of each year. The average upgradient concentrations are reviewed and calculated after each sampling event to ensure consistent data. The confidence interval analysis results are included in **Attachment A.5** and summarized in **Table 2**.

1.2.6 Statistical Summary

The following table lists a summary of constituents having exceedances for the previous monitoring period, August 2024, and the current monitoring period, February 2025.

Table 1. Previously Identified and Currently Identified Exceedances

Well	Previously identified exceedances Aug-24		Currently identified exceedances Feb-25	
	Intrawell	Interwell	Intrawell	Interwell
MW-1	Chloride Sulfate	Sulfate	Chloride Sulfate	Sulfate
MW-2	Chloride Fluoride		Chloride	
MW-3	Arsenic		Arsenic Chloride	Barium Chloride
MW-4R (upgradient)	Arsenic Chloride		Arsenic Chloride	
MW-5	Chloride Sulfate	Sulfate	Chloride Sulfate	Sulfate
MW-6		Sulfate		Sulfate
MW-7	Barium Chloride Sulfate Total Dissolved Solids	Barium Calcium Chloride Sulfate Total Dissolved Solids	Selenium	Selenium
MW-8	Chloride		Chloride	

Intrawell exceedances were noted for arsenic (MW-3 and MW-4R) and chloride (MW-1, MW-2, MW-4R, MW-5, and MW-8) without corresponding interwell exceedances. Intrawell exceedances with corresponding interwell exceedances were noted for chloride (MW-3), selenium (MW-7), and sulfate (MW-1 and MW-5). No constituent/well pairs statistically exceeded the GWPS. Chloride and arsenic at upgradient well MW-4R were identified as intrawell exceedances and may indicate a natural change in the groundwater quality. This change in the groundwater quality may be the reason for similar exceedances identified in the downgradient wells.

Statistical exceedances above background are still present at some wells; however no Appendix IV detects statistically exceeded the GWPS. Based on the current understanding of the Federal CCR rule, when assessment monitoring is required at one well then all wells must be in assessment monitoring. Therefore, the site will remain in assessment monitoring during the next scheduled sampling event. The statistical analysis results from the February 2025 sampling event are summarized in **Table 2** below.

Table 2. Summary of Statistical Analysis

Well	Detected Constituents	Analytical Result	Intrawell Exceedance?	Interwell Exceedance?	Significant Increasing Trend?	Confidence Interval Exceedance?	GWPS MCL or Background Average
MW-1	Arsenic (ug/L)	3.86	No	No	Yes	No	<10
	Calcium (mg/L)	92.7	No	No	No	Yes	87 ³
	Chloride (mg/L)	35.3	Yes	No	Yes	No	<250
	Sulfate (mg/L)	77.7	Yes	Yes	No	No	<250
MW-2	Calcium (mg/L)	77.1	No	No	No	Yes	87 ³
	Chloride (mg/L)	31.9	Yes	No	Yes	No	<250
	Fluoride (mg/L)	1.09	No	No	Yes	No	<4.0
MW-3	Arsenic (ug/L)	3.39	Yes	No	Yes	No	<10
	Barium (ug/L)	161	No	Yes	No	No	<2000
	Calcium (mg/L)	95.8	No	No	No	Yes	87 ³
	Chloride (mg/L)	78.5	Yes	Yes	Yes	No	<250
MW-4R	Arsenic (ug/L)	5.87	Yes	See Note 2	Yes	No	<10
	Chloride (mg/L)	67.5	Yes		Yes	No	<250
MW-5	Calcium (mg/L)	86.4	No	No	No	Yes	87 ³
	Chloride (mg/L)	45.5	Yes	No	Yes	No	<250
	Sulfate (mg/L)	61.5	Yes	Yes	No	No	<250
MW-6	Arsenic (ug/L)	4.98	No	No	Yes	No	<10
	Sulfate (mg/L)	57.2	No	Yes	No	No	<250
MW-7	Calcium (mg/L)	70.0	No	No	No	Yes	87 ³
	Chloride (mg/L)	30.9	No	No	Yes	No	<250
	Selenium (ug/L)	15.3	Yes	Yes	No	No	<50
MW-8	Chloride (mg/L)	41.1	Yes	No	No	No	<250

¹ - GWPS were established by the NDEE Title 118 Groundwater Quality Standards or the July 2018 EPA CCR Amendment.

² - No interwell statistical comparison was performed on the upgradient well MW-4R.

³ - No GWPS has been established. MCL shown is based on the average background level established by upstream monitoring.

2 GENERAL COMMENTS

The sampling event was conducted under the supervision of Charles Joyce who holds a Nebraska Drilling and pump installation contractor's license (WD-PIC #39502). SCS Engineers does not warrant the work of third parties supplying information used in the assimilation of this document. This document has been prepared using the level of care and skill ordinarily exercised, under similar circumstances, by environmental professionals currently practicing in this locality. No other representation, express or implied, and no warranty or guarantee is included or intended.

3 REFERENCES

HDR, Appendix D Groundwater Monitoring Plan for Fremont Department of Utilities Fossil Fuel Combustion Ash Disposal Site, March 2016; Revised December 2018.

Layne GeoSciences, Inc. 1995. Hydrogeology of Proposed Fossil Fuel Combustion Ash Disposal Site. Prepared for Fremont Department of Utilities and HDR Engineering, Inc.

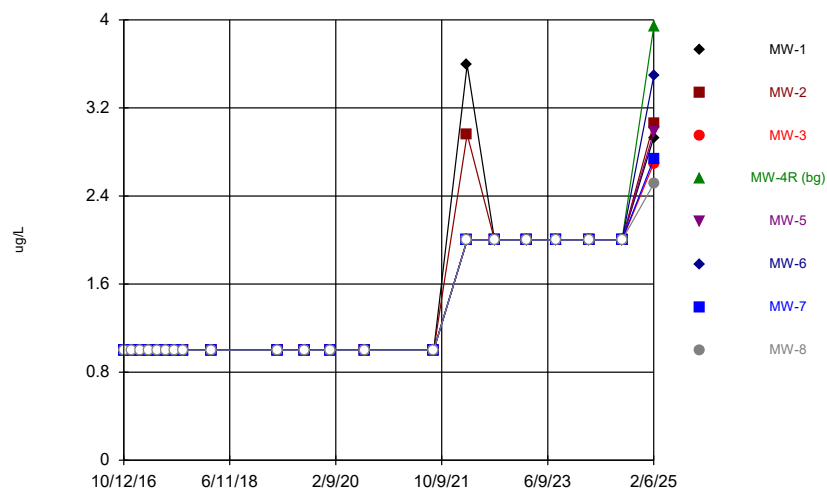
Sanitas Technologies, Sanitas Statistical Software v 10.0 and User Guide



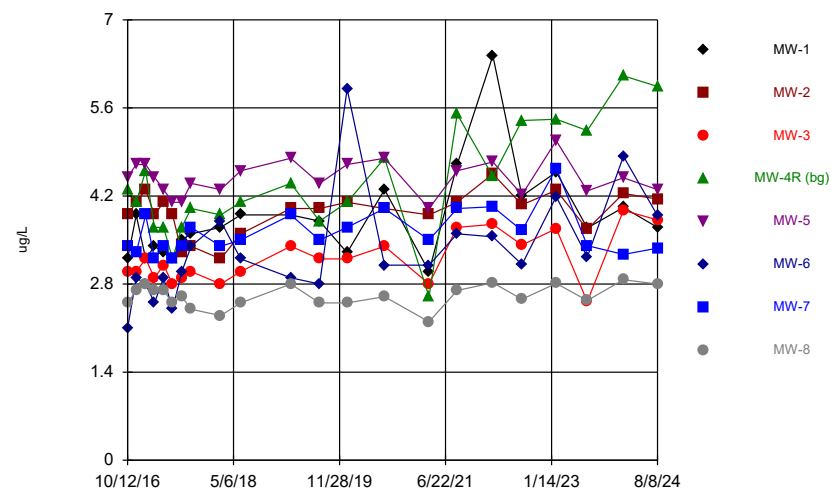
Attachment A. Compliance Statistical Analysis

A.1 Time Series Plots

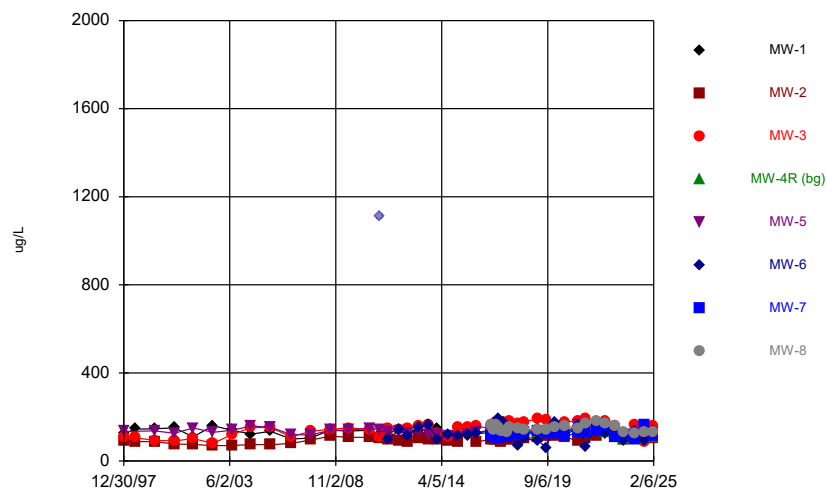
Time Series



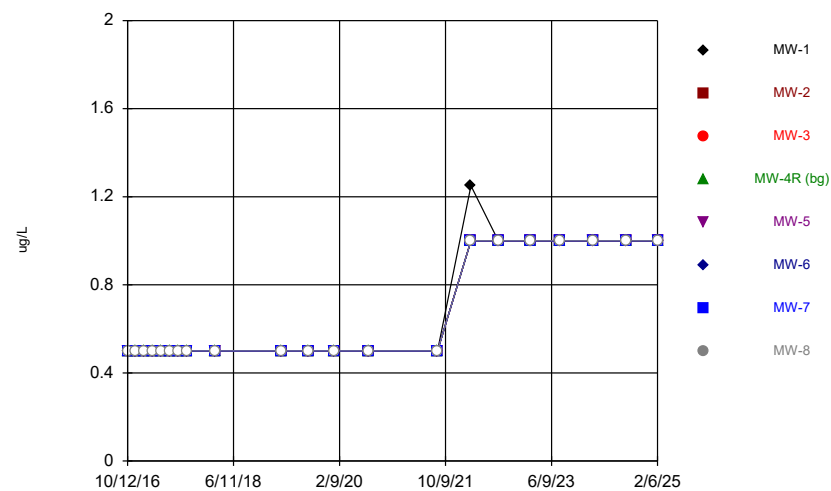
Time Series



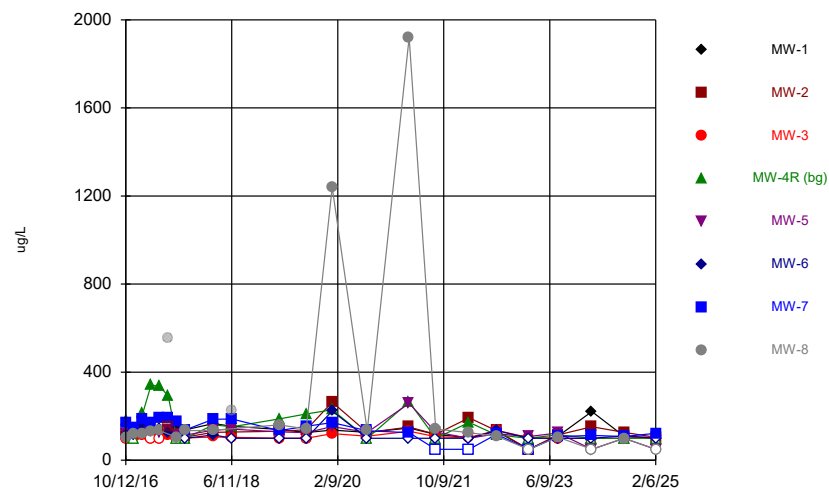
Time Series



Time Series

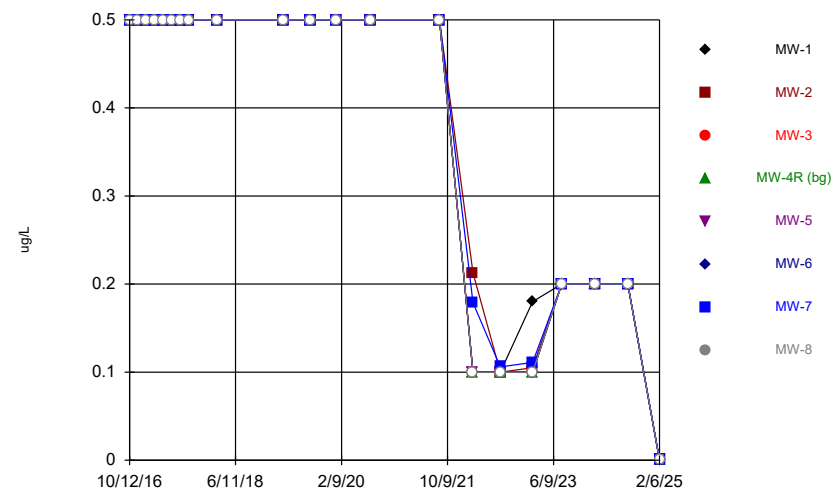


Time Series



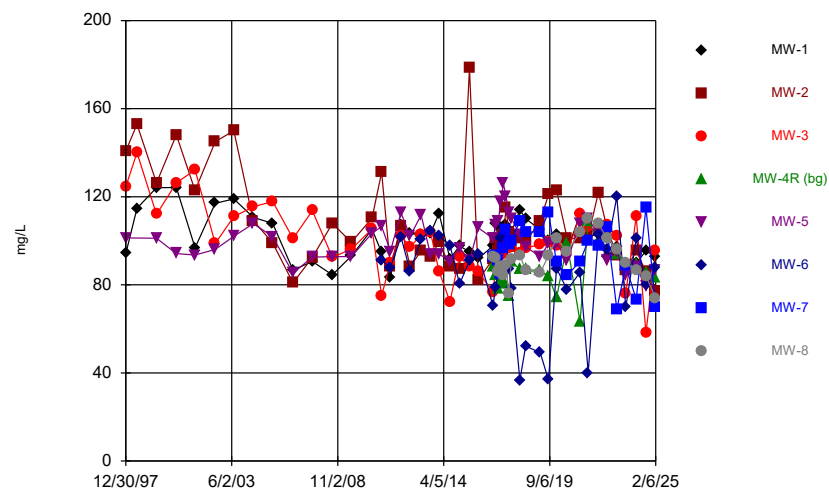
Constituent: Boron Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



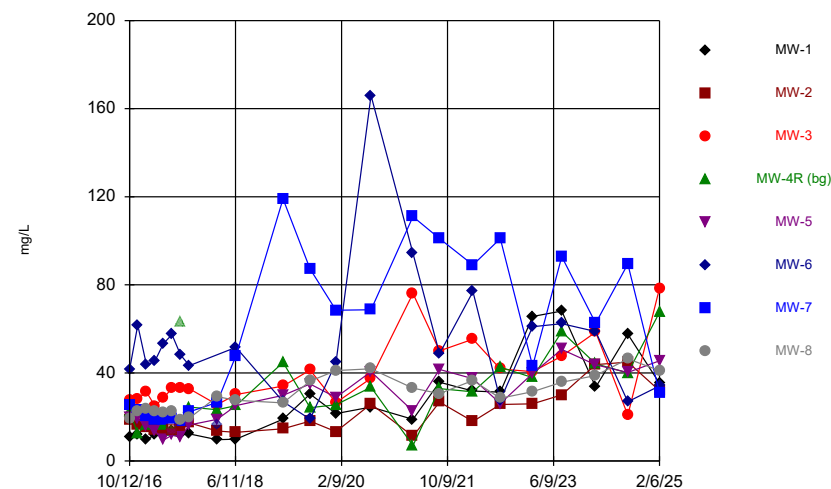
Constituent: Cadmium Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



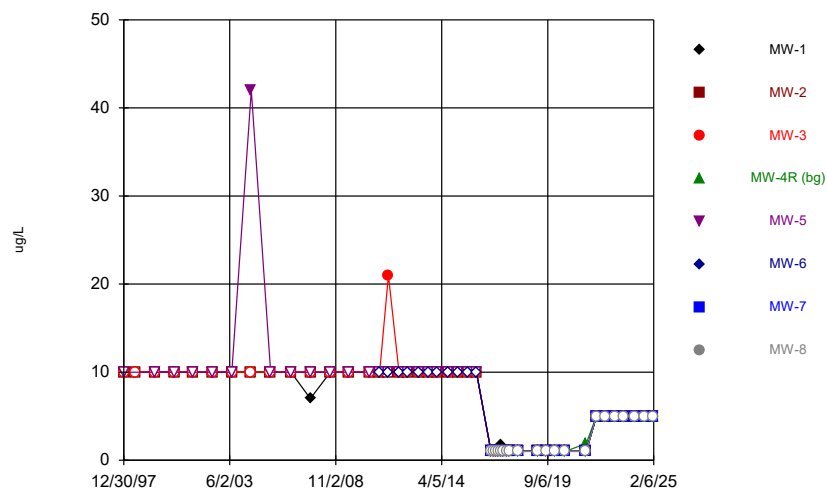
Constituent: Calcium Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series

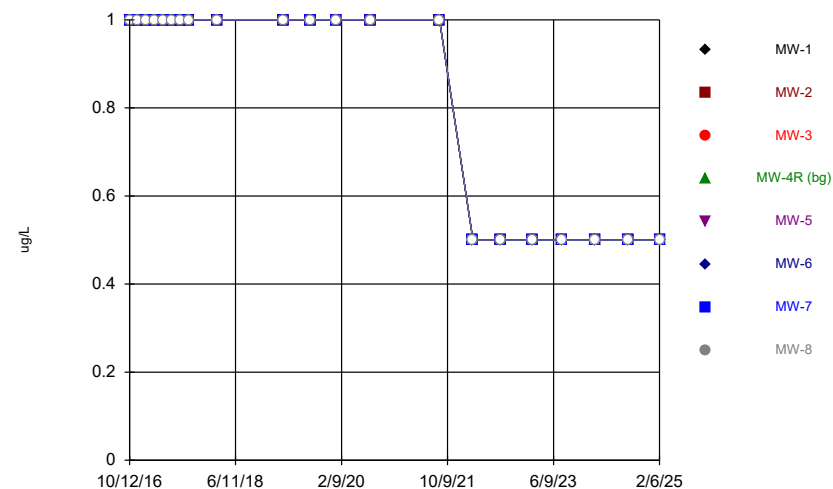


Constituent: Chloride Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

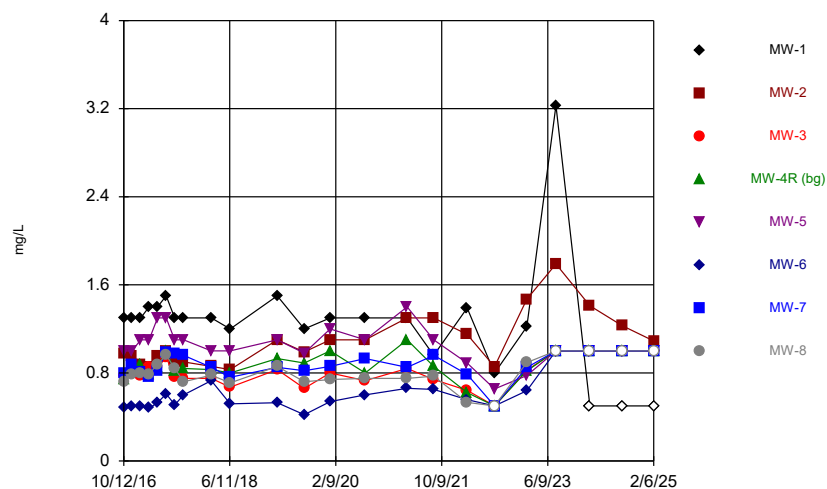
Time Series



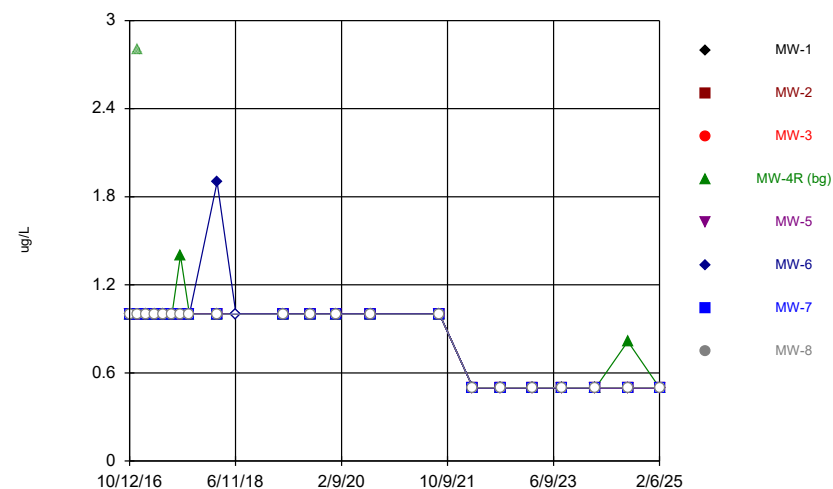
Time Series



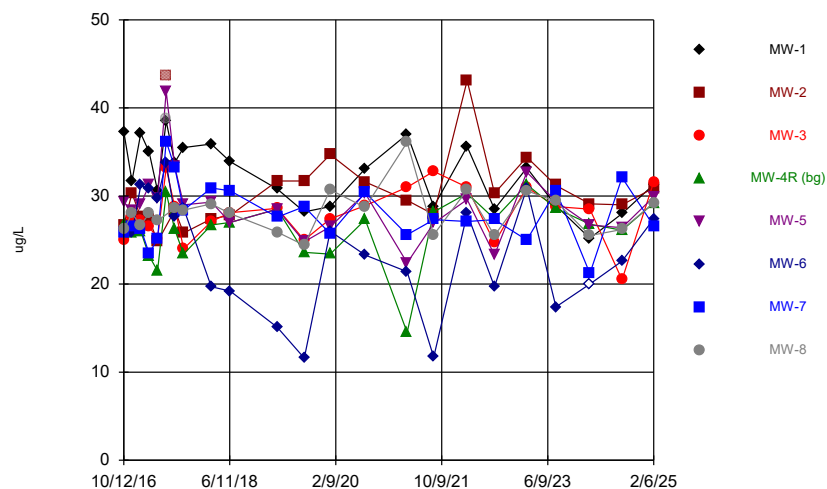
Time Series



Time Series

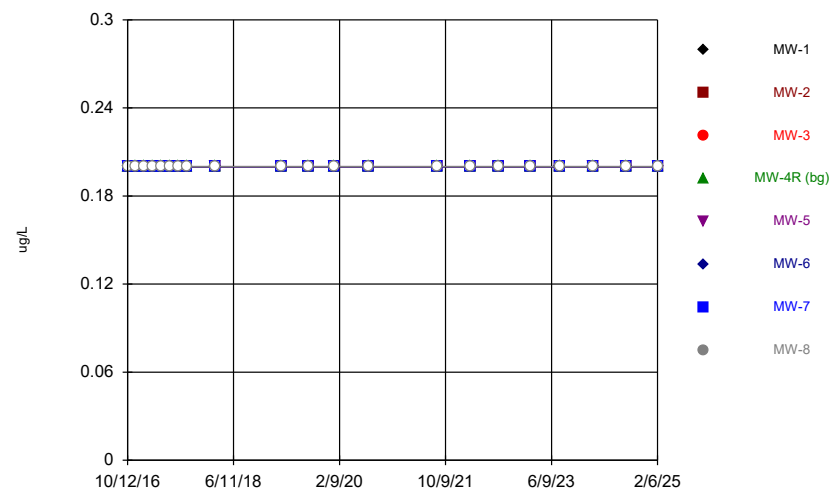


Time Series



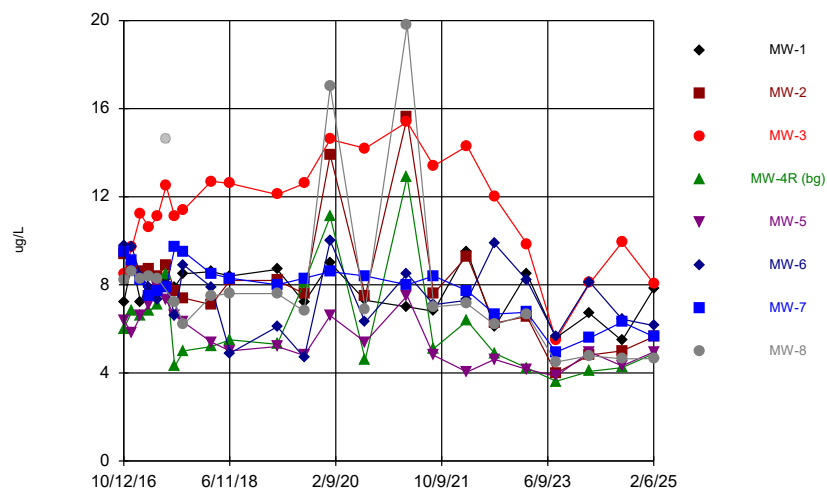
Constituent: Lithium Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



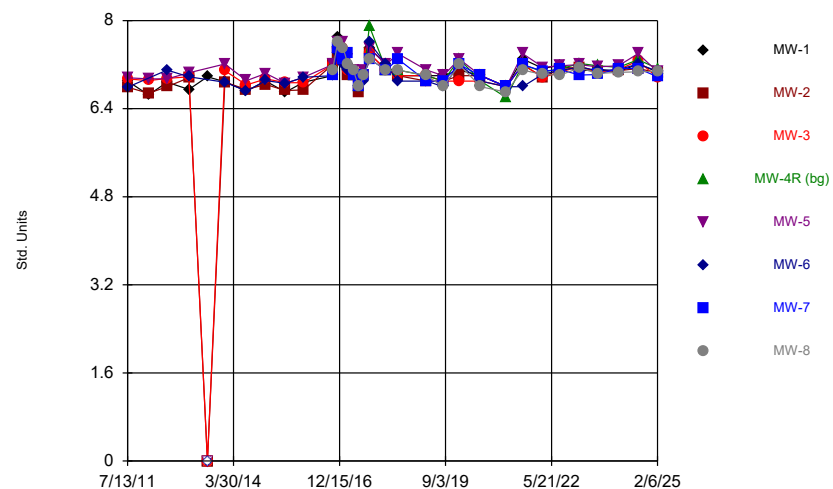
Constituent: Mercury Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



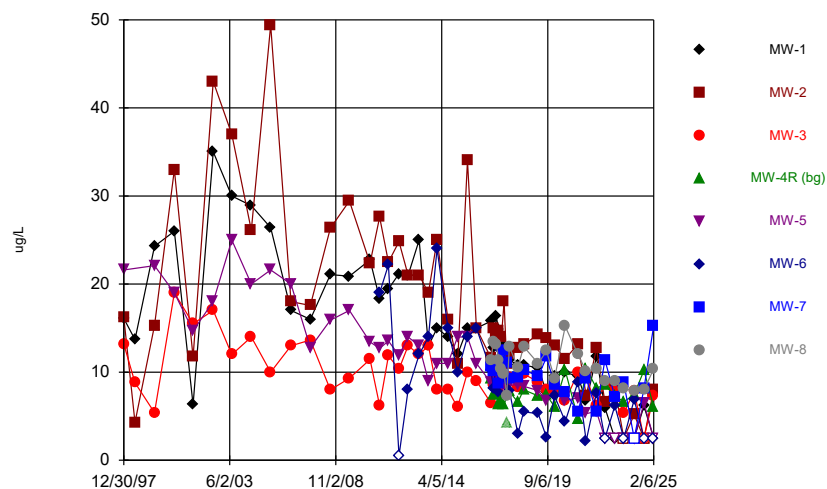
Constituent: Molybdenum Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



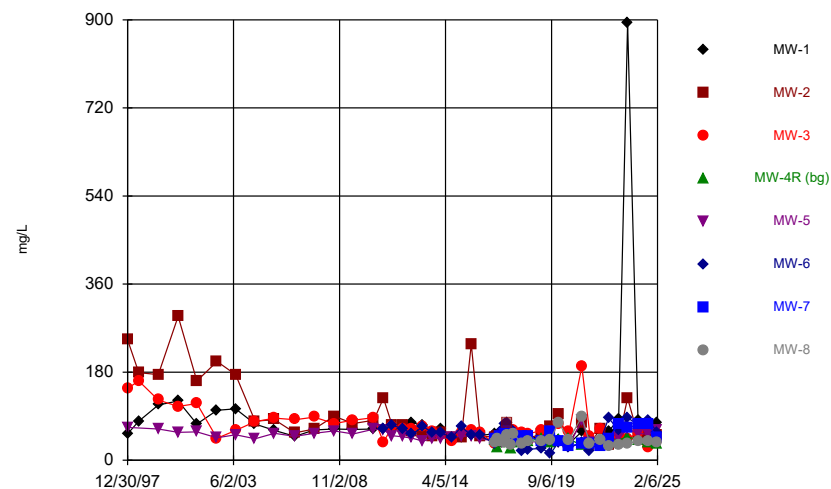
Constituent: pH Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



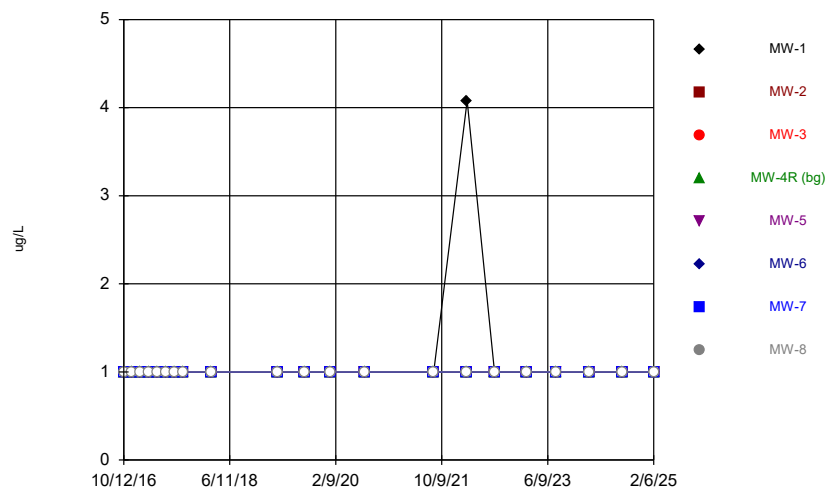
Constituent: Selenite Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



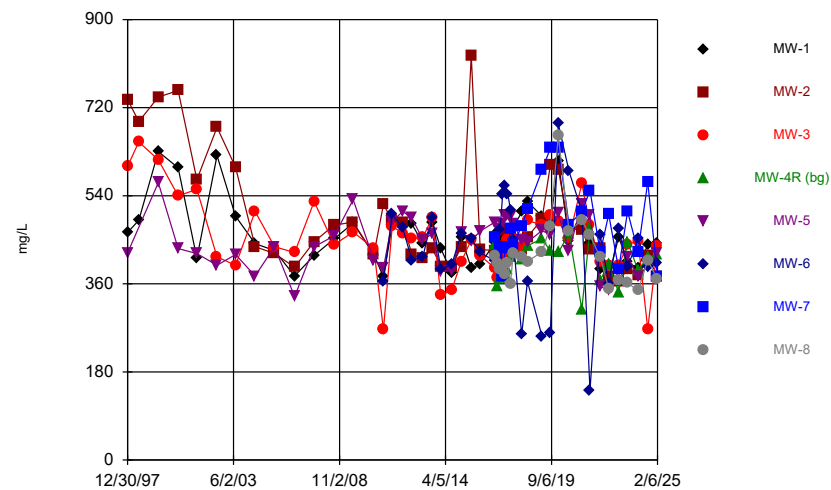
Constituent: Sulfate Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



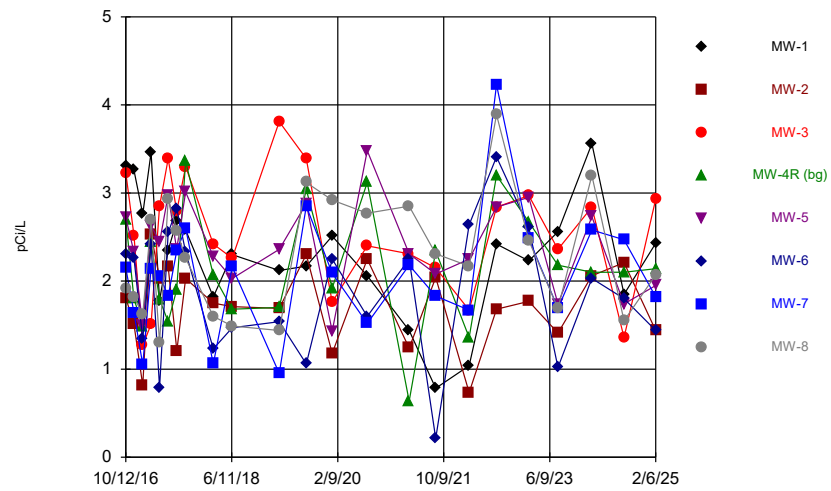
Constituent: Thallium Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



Constituent: Total Dissolved Solids Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



Constituent: Total Radium Analysis Run 3/13/2025 1:37 PM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

A.2 Intrawell Prediction Limits

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 3/17/2025, 10:01 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-1	4.296	n/a	8/8/2024	3.7	No	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-2	5.122	n/a	8/8/2024	4.15	No	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-3	3.417	n/a	8/8/2024	3.82	Yes	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-4R	5.287	n/a	8/8/2024	5.94	Yes	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-5	5.16	n/a	8/8/2024	4.3	No	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-6	4.617	n/a	8/8/2024	3.89	No	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-7	4.213	n/a	8/8/2024	3.37	No	9	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-8	3.136	n/a	8/8/2024	2.8	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-1	177	n/a	2/6/2025	125.7	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Barium (ug/L)	MW-2	114.7	n/a	2/6/2025	105	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-3	200.2	n/a	2/6/2025	161	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-4R	141.5	n/a	2/6/2025	106	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-5	175.3	n/a	2/6/2025	128	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-6	266	n/a	2/6/2025	135	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-7	130.5	n/a	2/6/2025	116	No	9	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-8	190.4	n/a	2/6/2025	132	No	9	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-1	181.1	n/a	2/6/2025	100	No	9	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-2	139.9	n/a	2/6/2025	104	No	8	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-3	115	n/a	2/6/2025	108	No	9	44.44	n/a	0.01809	NP Intra (normality) ...
Boron (ug/L)	MW-4R	651	n/a	2/6/2025	100ND	No	9	33.33	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-5	157.7	n/a	2/6/2025	50ND	No	9	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-6	229.2	n/a	2/6/2025	50ND	No	9	11.11	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-7	237.6	n/a	2/6/2025	122	No	9	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-8	171.5	n/a	2/6/2025	50ND	No	8	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-1	120.8	n/a	2/6/2025	92.7	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-2	123.1	n/a	2/6/2025	77.1	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-3	118.2	n/a	2/6/2025	95.8	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-4R	100.4	n/a	2/6/2025	83.3	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-5	139.7	n/a	2/6/2025	86.4	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-6	153.9	n/a	2/6/2025	87.5	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-7	121.8	n/a	2/6/2025	70	No	9	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-8	107	n/a	2/6/2025	73.9	No	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-1	15.56	n/a	2/6/2025	35.3	Yes	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-2	22.29	n/a	2/6/2025	31.9	Yes	8	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-3	40.17	n/a	2/6/2025	78.5	Yes	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-4R	34.91	n/a	2/6/2025	67.5	Yes	8	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-5	28.26	n/a	2/6/2025	45.5	Yes	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-6	100.7	n/a	2/6/2025	31.99	No	8	0	No	0.000...	Param Intra 1 of 2 De...
Chloride (mg/L)	MW-7	32.23	n/a	2/6/2025	30.9	No	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-8	32.93	n/a	2/6/2025	41.1	Yes	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-1	1.5	n/a	2/6/2025	0.5ND	No	9	0	n/a	0.01809	NP Intra (normality) ...
Fluoride (mg/L)	MW-2	1.094	n/a	2/6/2025	1.09	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-3	1.022	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-4R	1.083	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-5	1.508	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-6	0.8294	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	1.155	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-8	1.068	n/a	2/6/2025	0.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-1	43.94	n/a	2/6/2025	31.3	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-2	33.3	n/a	2/6/2025	30.9	No	8	0	No	0.000...	Param Intra 1 of 2

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 3/17/2025, 10:01 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-3	36.36	n/a	2/6/2025	31.6	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-4R	34.36	n/a	2/6/2025	29.2	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-5	38.44	n/a	2/6/2025	29.95	No	9	0	n/a	0.01809	NP Intra (normality) ...
Lithium (ug/L)	MW-6	42.04	n/a	2/6/2025	27.4	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-7	38.89	n/a	2/6/2025	28.67	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Lithium (ug/L)	MW-8	31.37	n/a	2/6/2025	29.2	No	8	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-1	10.25	n/a	2/6/2025	7.82	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-2	10.9	n/a	2/6/2025	5.64	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-3	15.39	n/a	2/6/2025	8.06	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-4R	10.6	n/a	2/6/2025	4.87	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-5	9.19	n/a	2/6/2025	4.95	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-6	11.86	n/a	2/6/2025	6.15	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-7	11.51	n/a	2/6/2025	5.65	No	9	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-8	10.79	n/a	2/6/2025	4.65	No	8	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-1	8.131	6.269	2/6/2025	7.07	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-2	7.949	6.318	2/6/2025	7.05	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-3	7.941	6.459	2/6/2025	6.96	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-4R	8.026	6.41	2/6/2025	7.224	No	9	0	No	0.000...	Param Intra 1 of 2 De...
pH (Std. Units)	MW-5	7.664	6.856	2/6/2025	7.163	No	9	0	No	0.000...	Param Intra 1 of 2 De...
pH (Std. Units)	MW-6	7.984	6.283	2/6/2025	7.08	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-7	7.937	6.374	2/6/2025	6.98	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-8	7.537	6.755	2/6/2025	7.115	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Selenium (ug/L)	MW-1	20.01	n/a	2/6/2025	2.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-2	21.15	n/a	2/6/2025	8.07	No	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-3	11.67	n/a	2/6/2025	7.3	No	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-4R	10.01	n/a	2/6/2025	6.857	No	8	0	No	0.000...	Param Intra 1 of 2 De...
Selenium (ug/L)	MW-5	10.03	n/a	2/6/2025	2.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-6	19.16	n/a	2/6/2025	2.5ND	No	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-7	14.24	n/a	2/6/2025	15.3	Yes	9	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-8	17.68	n/a	2/6/2025	10.4	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	62.47	n/a	2/6/2025	77.7	Yes	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	61.04	n/a	2/6/2025	52.6	No	8	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	90.13	n/a	2/6/2025	39.6	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-4R	62.25	n/a	2/6/2025	33	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-5	49.47	n/a	2/6/2025	61.5	Yes	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-6	118.5	n/a	2/6/2025	57.2	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	68.72	n/a	2/6/2025	45.8	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-8	67.76	n/a	2/6/2025	36.7	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-1	526.1	n/a	2/6/2025	442	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	484.7	n/a	2/6/2025	374	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	526.5	n/a	2/6/2025	438	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4R	469.5	n/a	2/6/2025	442.2	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-5	543	n/a	2/6/2025	422	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-6	786.8	n/a	2/6/2025	402	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	541.2	n/a	2/6/2025	374	No	9	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	465.2	n/a	2/6/2025	370	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-1	4.754	n/a	2/6/2025	2.43	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-2	3.528	n/a	2/6/2025	1.44	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-3	5.166	n/a	2/6/2025	2.93	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-4R	3.42	n/a	2/6/2025	2.403	No	9	0	No	0.000...	Param Intra 1 of 2 De...

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

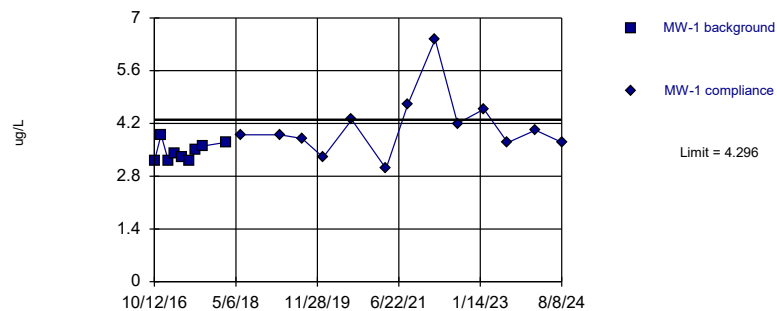
Printed 3/17/2025, 10:01 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Radium (pCi/L)	MW-5	4.016	n/a	2/6/2025	1.95	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-6	4.386	n/a	2/6/2025	1.44	No	9	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-7	3.128	n/a	2/6/2025	1.998	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Total Radium (pCi/L)	MW-8	3.984	n/a	2/6/2025	2.07	No	9	0	No	0.000...	Param Intra 1 of 2

Within Limit

Prediction Limit

Intrawell Parametric



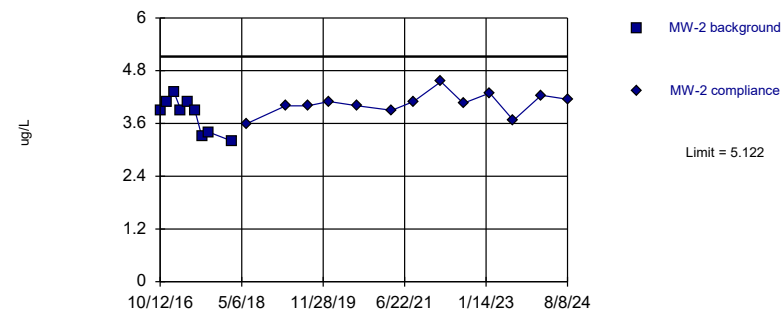
Background Data Summary: Mean=3.444, Std. Dev.=0.2506, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9001, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Arsenic Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



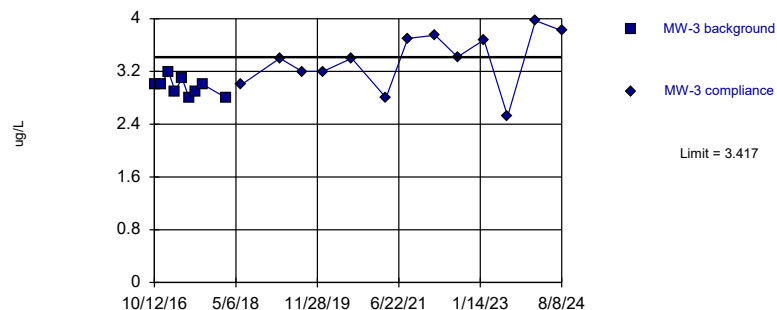
Background Data Summary: Mean=3.789, Std. Dev.=0.3919, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8895, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Arsenic Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit

Intrawell Parametric



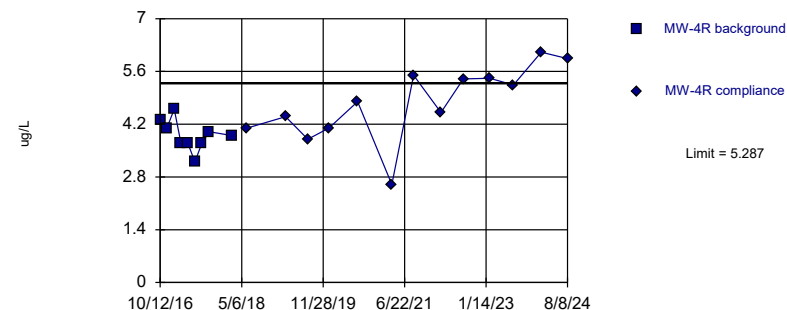
Background Data Summary: Mean=2.967, Std. Dev.=0.1323, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9364, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Arsenic Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit

Intrawell Parametric



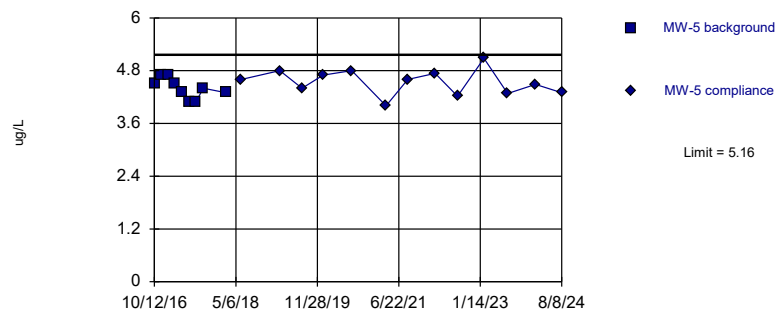
Background Data Summary: Mean=3.911, Std. Dev.=0.4045, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9694, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Arsenic Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

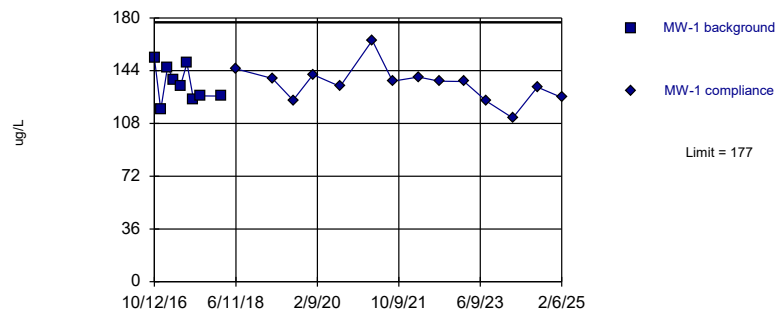
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=135, Std. Dev.=12.36, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9419, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

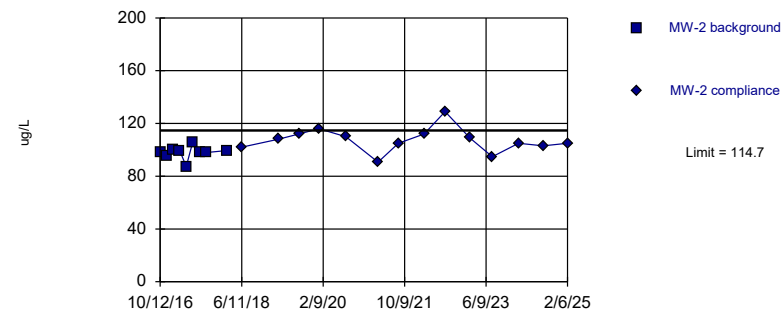
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=98.06, Std. Dev.=4.898, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8635, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

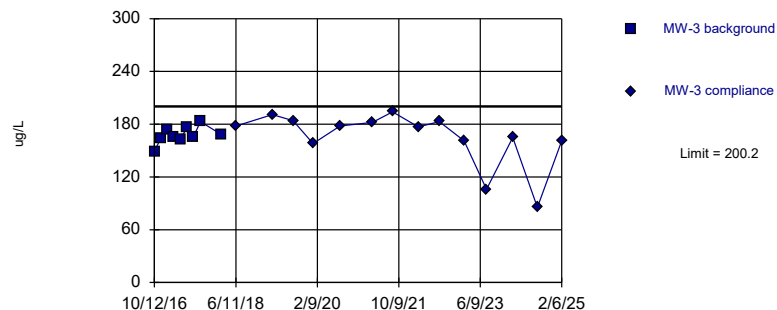
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=167.6, Std. Dev.=9.606, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.951, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

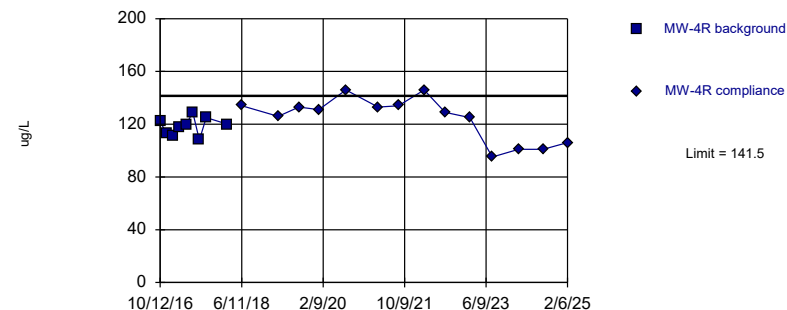
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=118.4, Std. Dev.=6.766, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9727, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

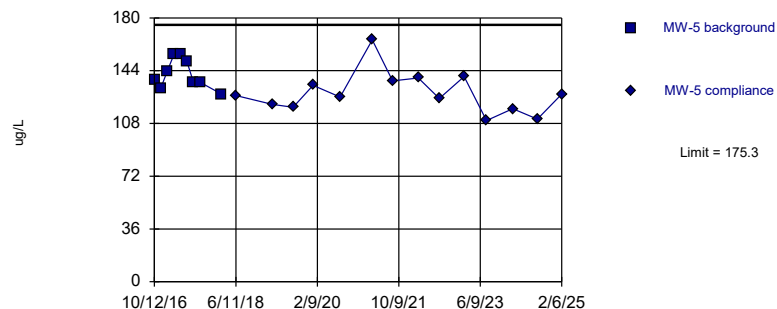
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=141.6, Std. Dev.=9.926, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9169, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

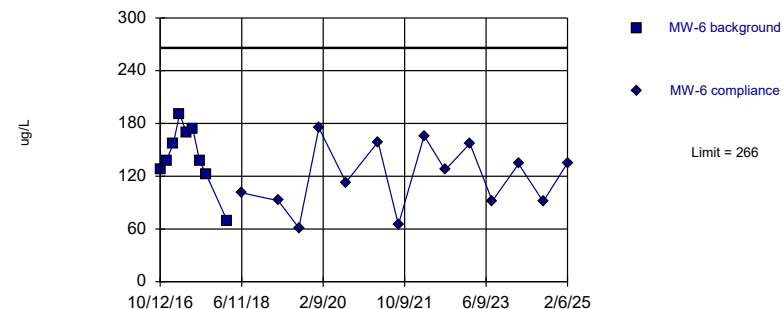
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=142.9, Std. Dev.=36.18, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9389, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

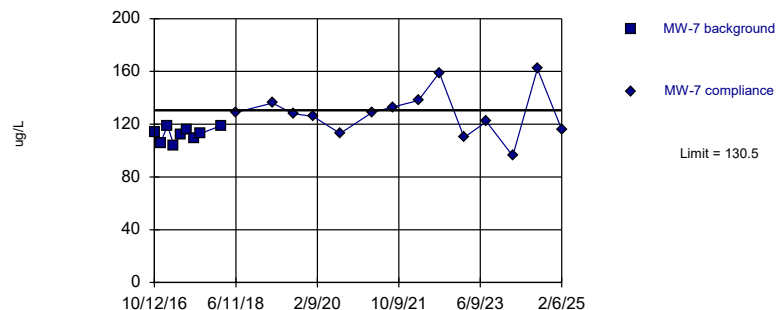
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=112.4, Std. Dev.=5.318, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

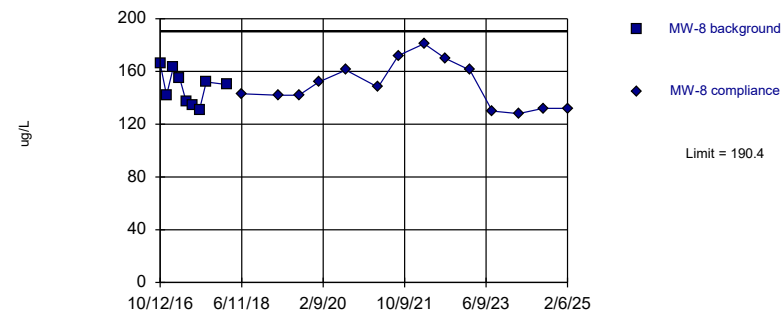
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=147.8, Std. Dev.=12.55, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.946, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

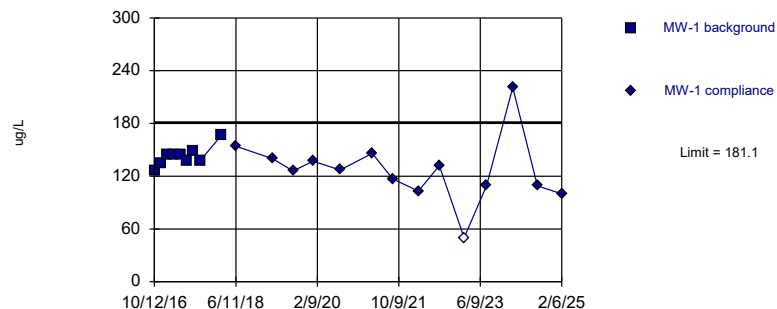
Constituent: Barium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=142.8, Std. Dev.=11.28, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

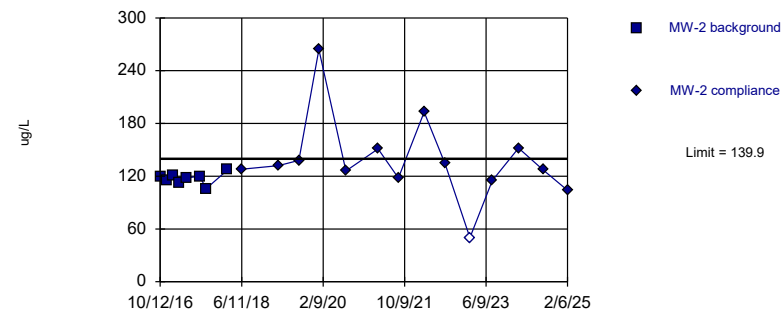
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=117.4, Std. Dev.=6.209, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9686, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

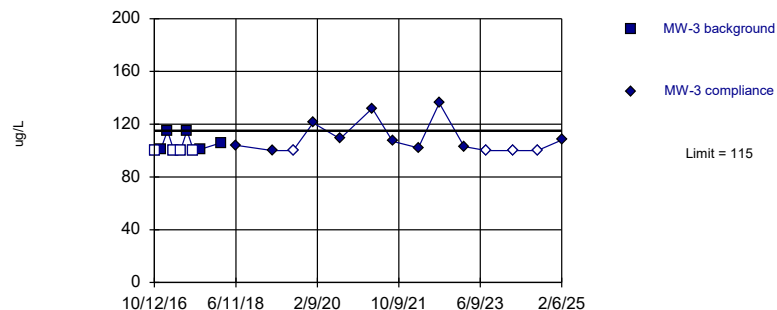
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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 9 background values. 44.44% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

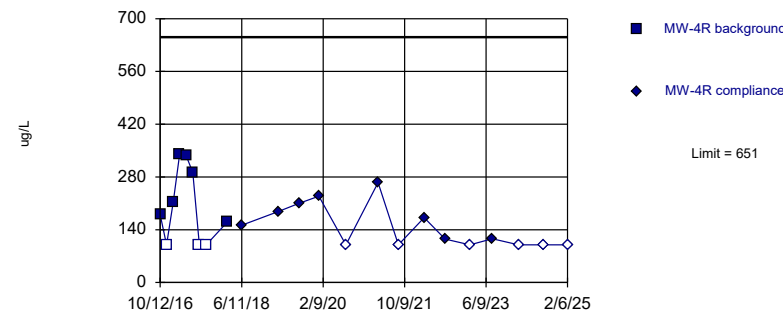
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Aitchison's Adjustment): Mean=169.3, Std. Dev.=141.6, n=9, 33.33% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8662, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

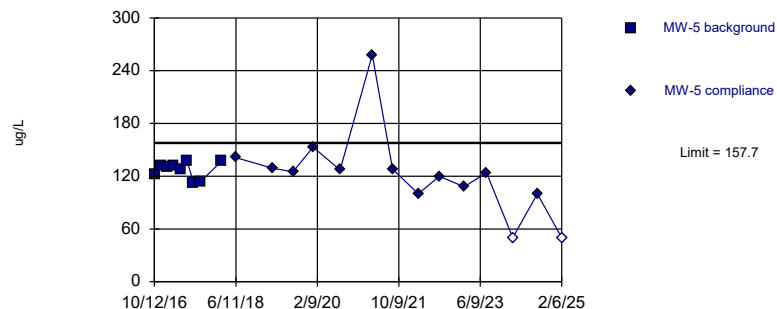
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=127.1, Std. Dev.=9.006, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8908, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

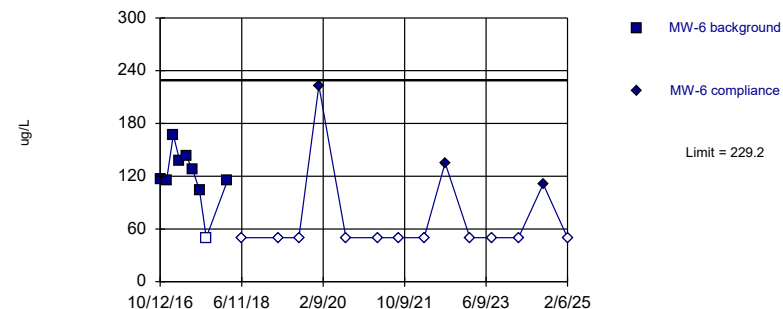
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=119.4, Std. Dev.=32.27, n=9, 11.11% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9133, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

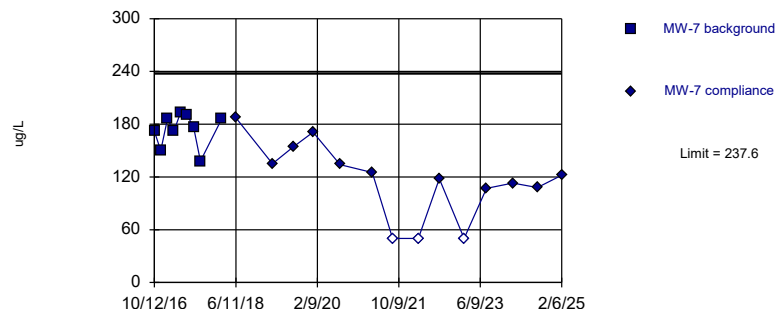
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=173.8, Std. Dev.=18.78, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8781, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

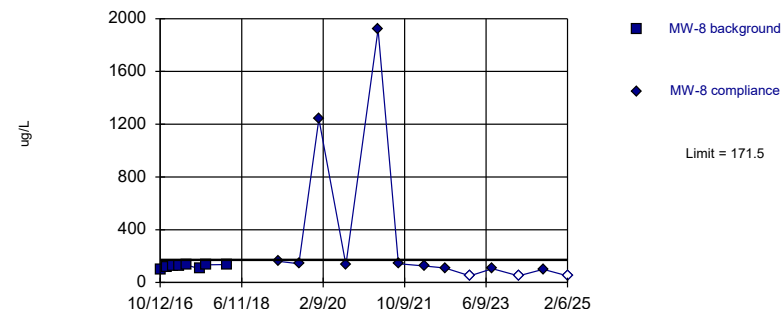
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=122.6, Std. Dev.=13.49, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8556, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

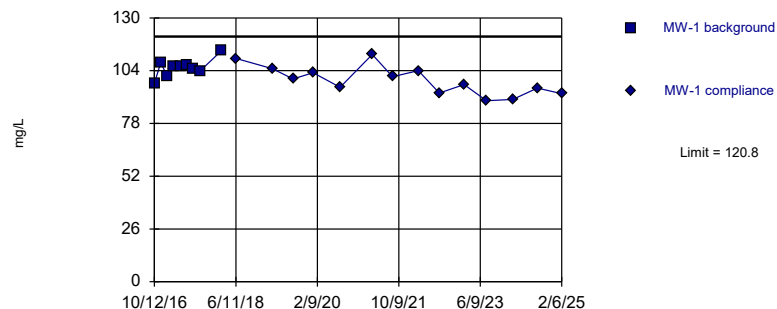
Constituent: Boron Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=105.4, Std. Dev.=4.538, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9568, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

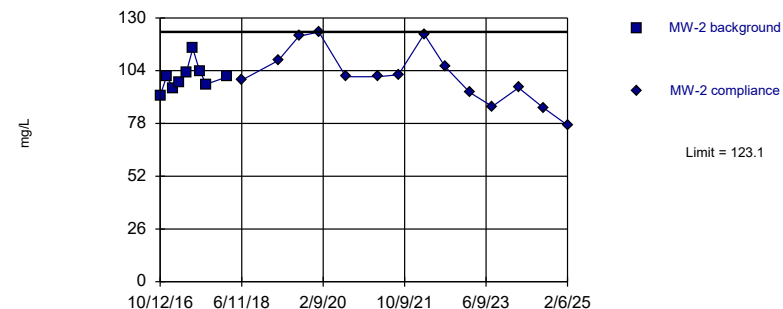
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=100.7, Std. Dev.=6.576, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

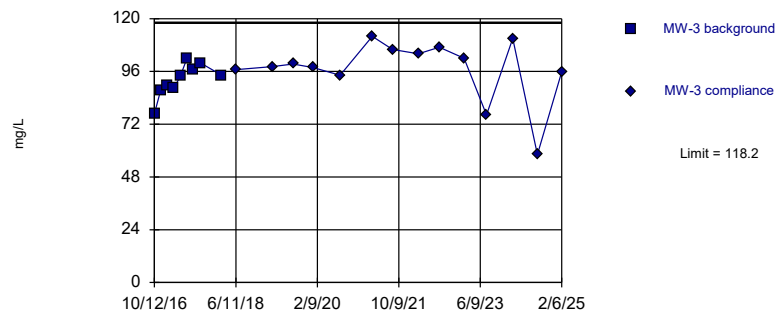
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=92.12, Std. Dev.=7.661, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9438, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

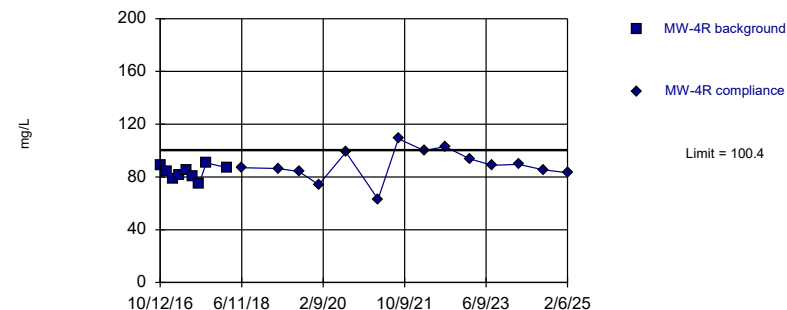
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=83.53, Std. Dev.=4.959, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9832, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

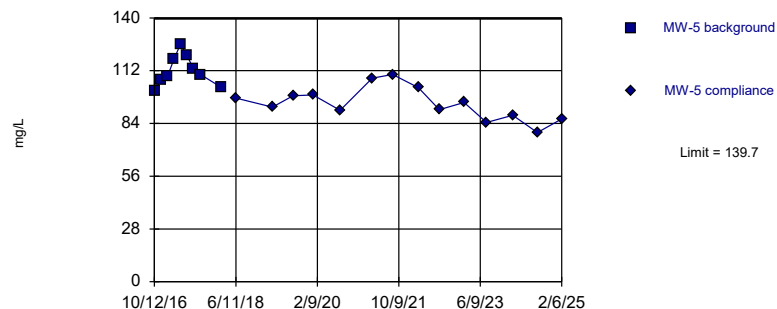
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=111.9, Std. Dev.=8.192, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9672, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

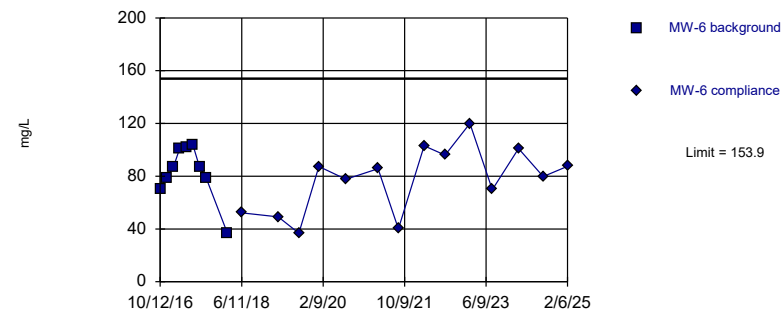
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=82.76, Std. Dev.=20.93, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8684, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

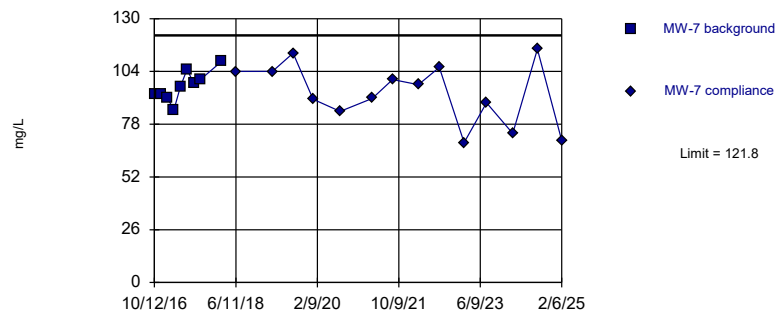
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=96.71, Std. Dev.=7.365, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9836, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

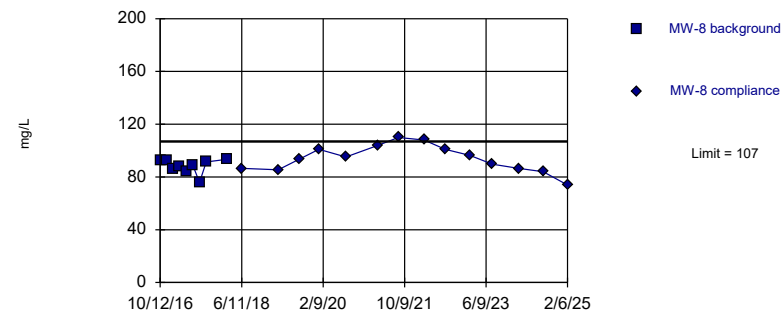
Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric

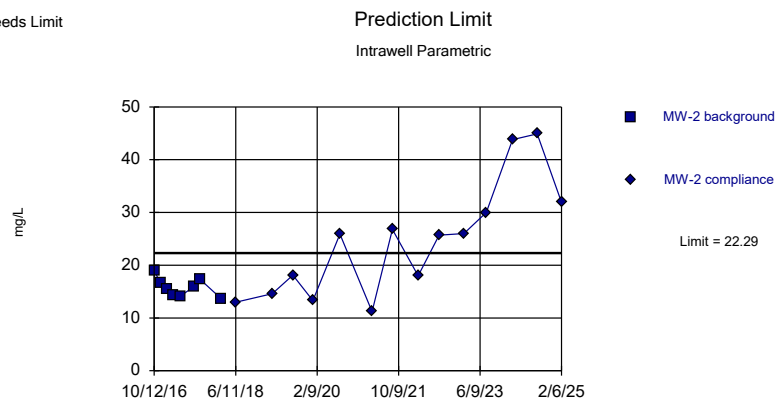


Background Data Summary: Mean=88.16, Std. Dev.=5.529, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8649, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

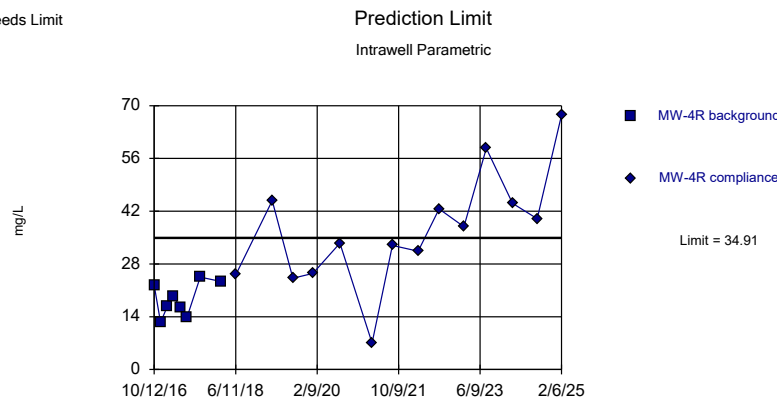
Exceeds Limit



Background Data Summary: Mean=15.8, Std. Dev.=1.791, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.96, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Chloride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit



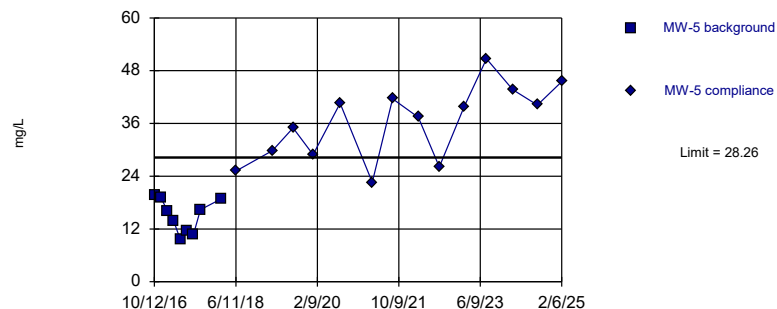
Background Data Summary: Mean=18.61, Std. Dev.=4.498, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9332, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Chloride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

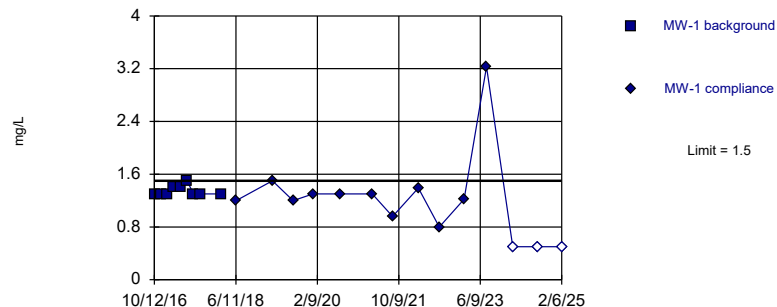
Prediction Limit

Intrawell Parametric



Within Limit

Prediction Limit Intrawell Non-parametric

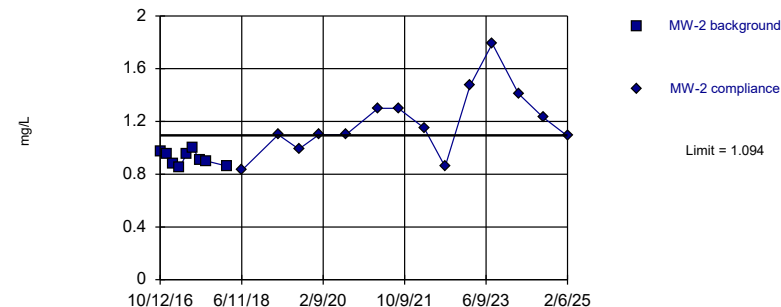


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Intrawell Parametric

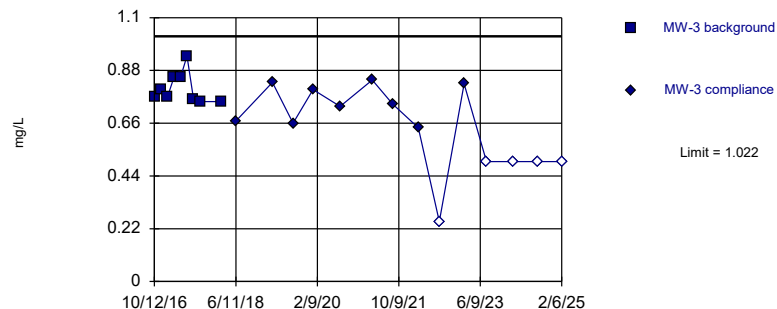


Background Data Summary: Mean=0.9189, Std. Dev.=0.05159, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9548, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Intrawell Parametric

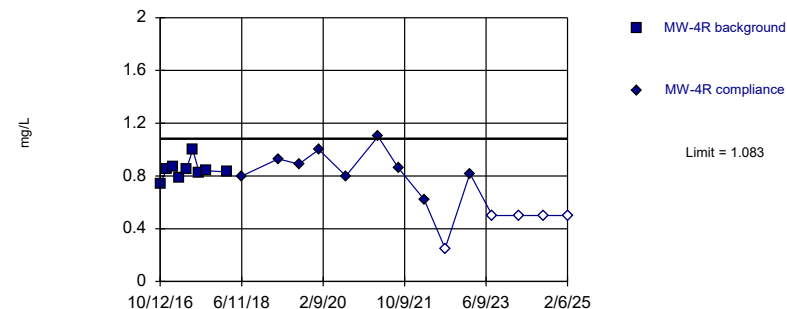


Background Data Summary: Mean=0.8044, Std. Dev.=0.06405, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8288, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Intrawell Parametric



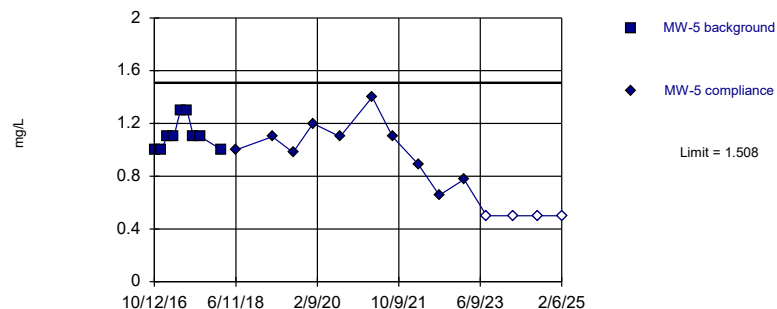
Background Data Summary: Mean=0.8433, Std. Dev.=0.07036, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8818, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



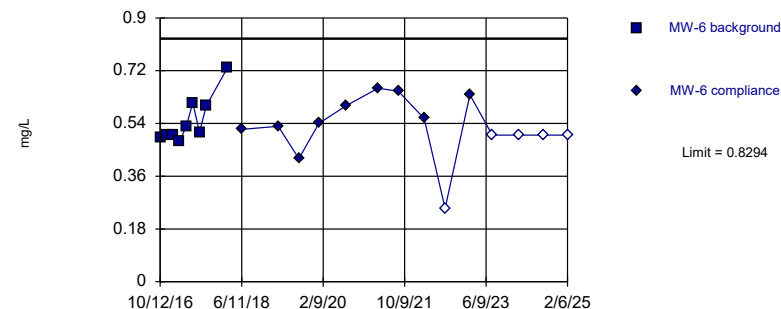
Background Data Summary: Mean=1.111, Std. Dev.=0.1167, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7923, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



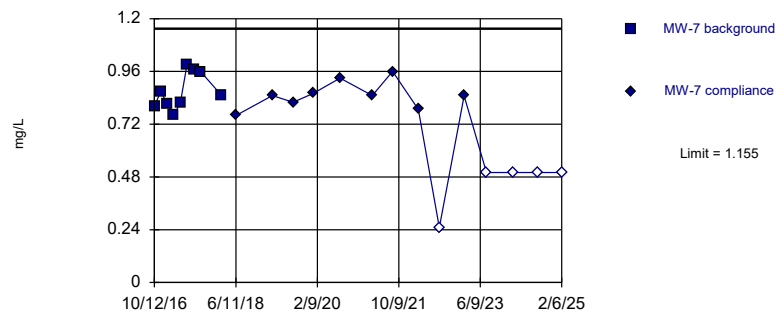
Background Data Summary: Mean=0.55, Std. Dev.=0.08216, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8068, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



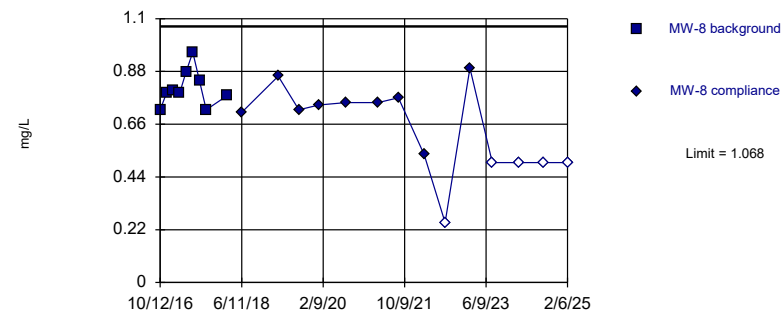
Background Data Summary: Mean=0.87, Std. Dev.=0.08367, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9036, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



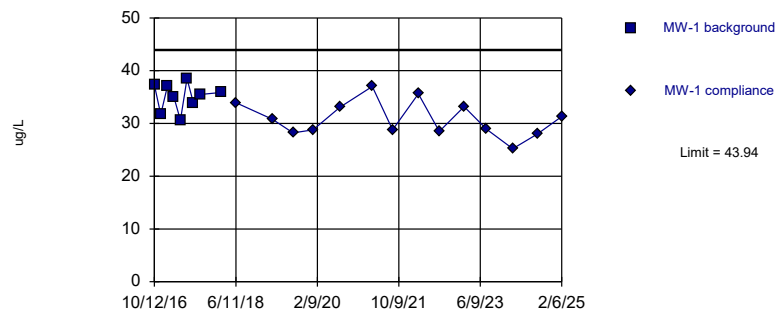
Background Data Summary: Mean=0.8089, Std. Dev.=0.07607, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9169, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Fluoride Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=35.04, Std. Dev.=2.614, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9495, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

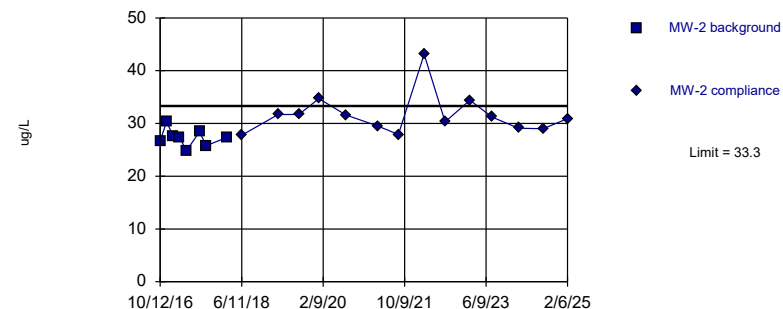
Constituent: Lithium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.3, Std. Dev.=1.655, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9677, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

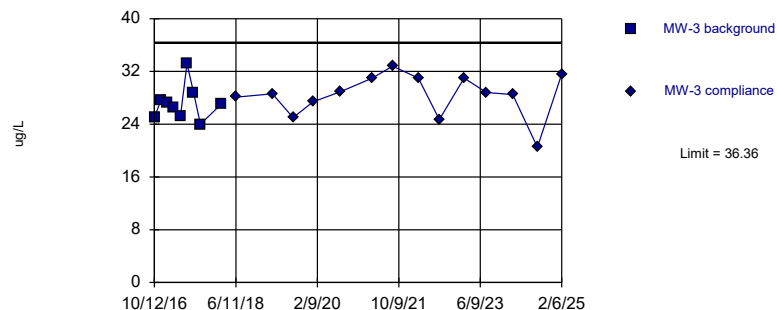
Constituent: Lithium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.18, Std. Dev.=2.699, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8868, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

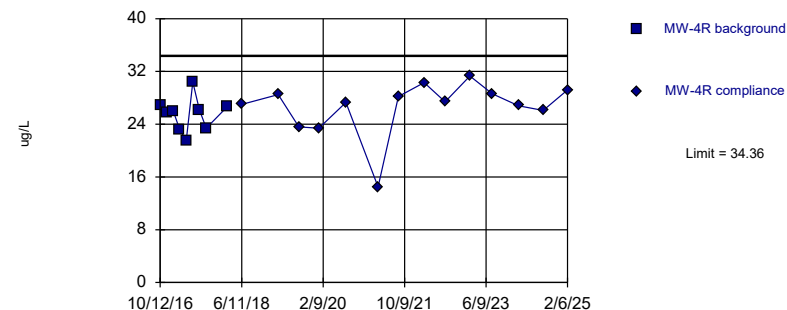
Constituent: Lithium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=25.56, Std. Dev.=2.589, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9392, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

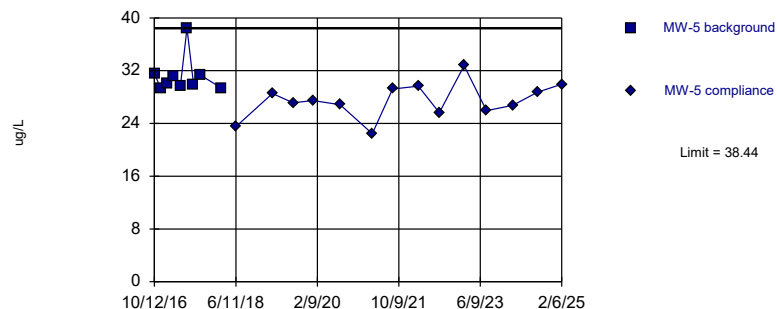
Constituent: Lithium Analysis Run 3/17/2025 9:57 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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 9 background values. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Data were deseasonalized.

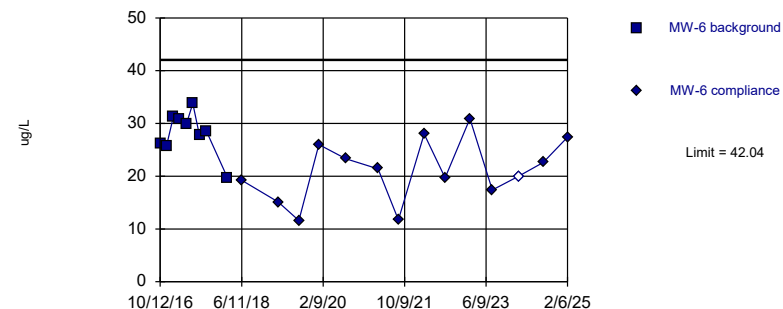
Constituent: Lithium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.19, Std. Dev.=4.072, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9427, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

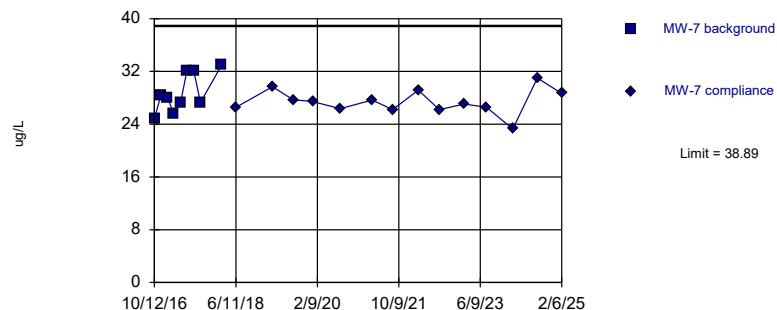
Constituent: Lithium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=28.71, Std. Dev.=2.993, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8959, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

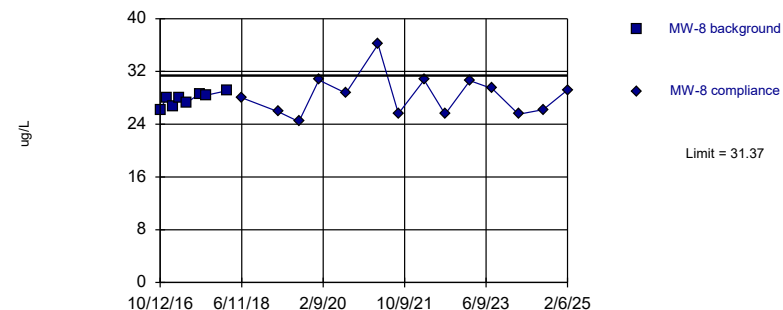
Constituent: Lithium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.78, Std. Dev.=0.9925, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9545, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

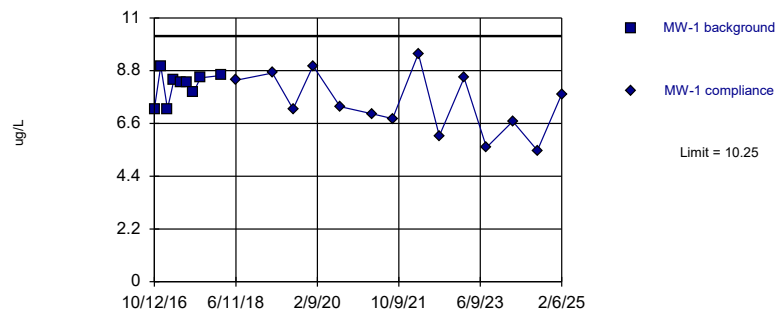
Constituent: Lithium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.156, Std. Dev.=0.6146, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8921, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

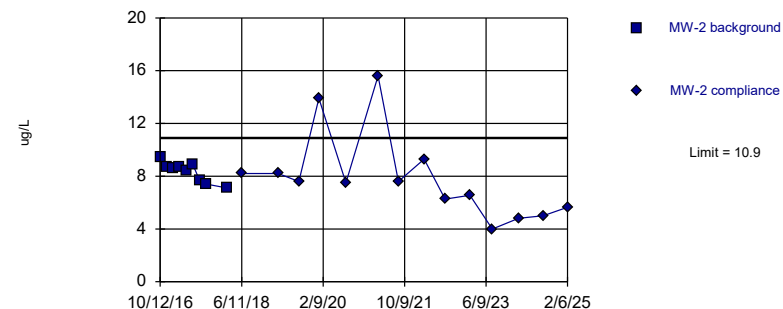
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.322, Std. Dev.=0.7579, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9296, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

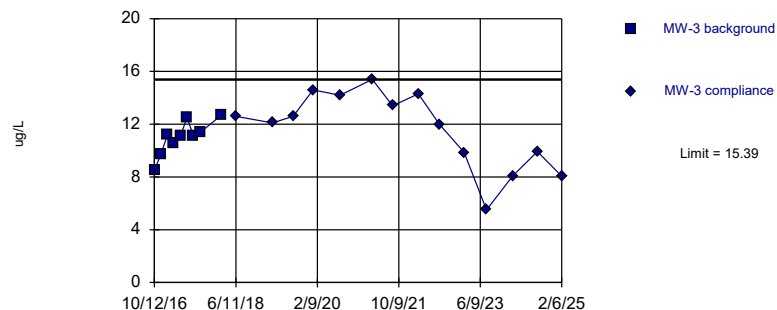
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.98, Std. Dev.=1.297, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.936, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

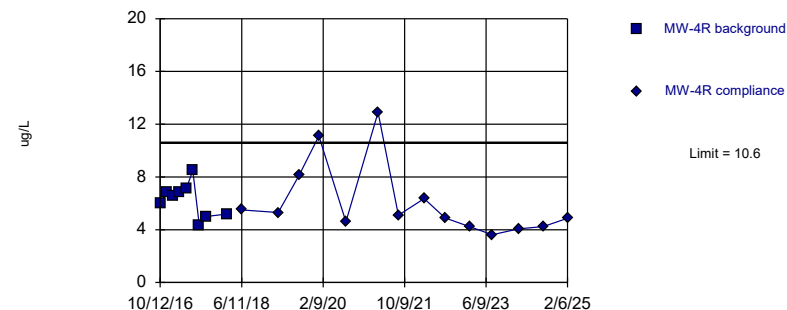
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.256, Std. Dev.=1.277, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9642, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

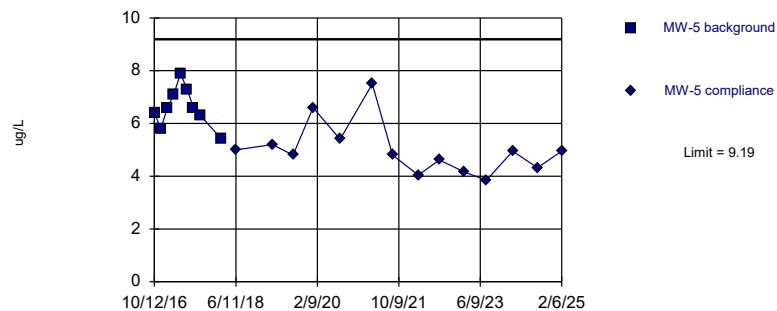
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.6, Std. Dev.=0.7616, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9829, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

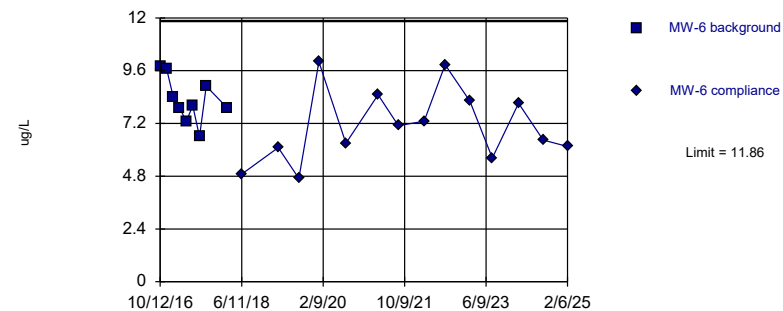
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.278, Std. Dev.=1.053, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9526, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

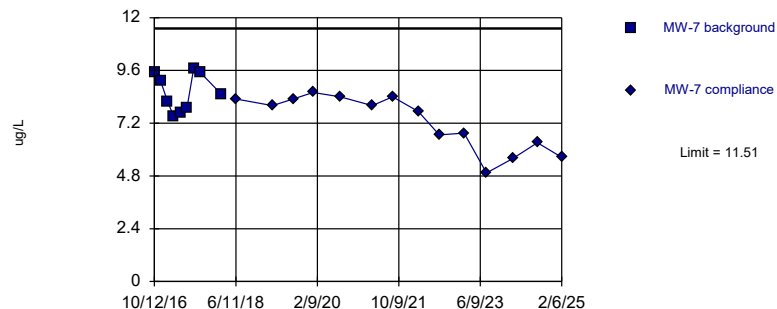
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.622, Std. Dev.=0.8482, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9037, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

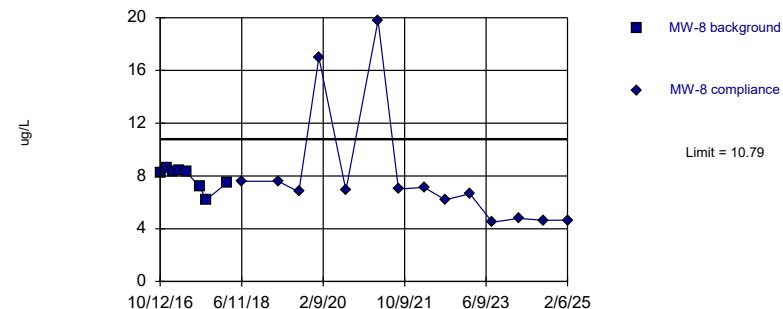
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.838, Std. Dev.=0.8158, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8391, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

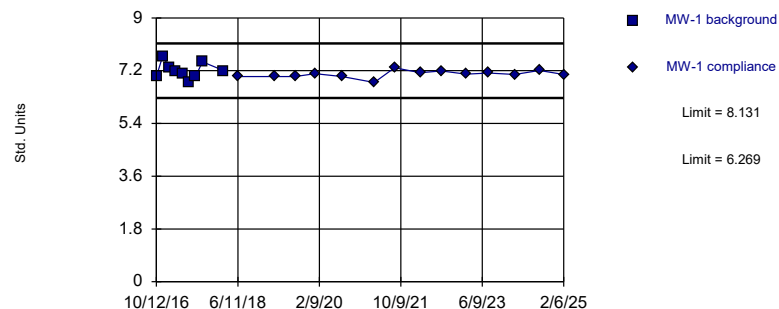
Constituent: Molybdenum Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.2, Std. Dev.=0.2739, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9649, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

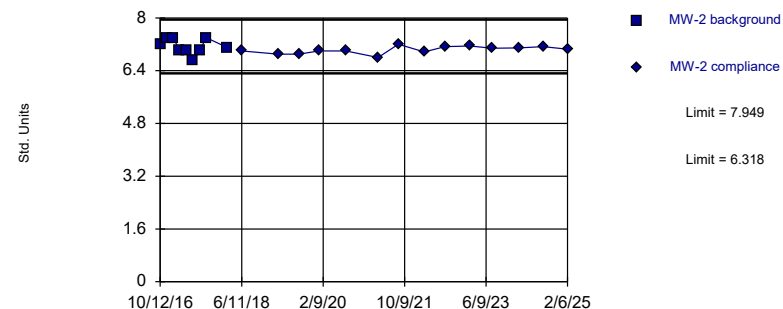
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.133, Std. Dev.=0.2398, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8902, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

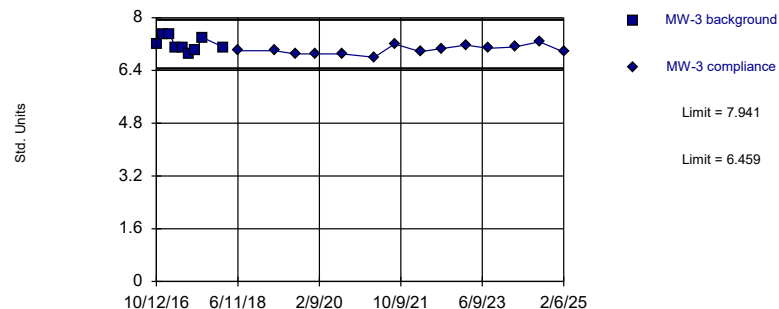
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.2, Std. Dev.=0.2179, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8982, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

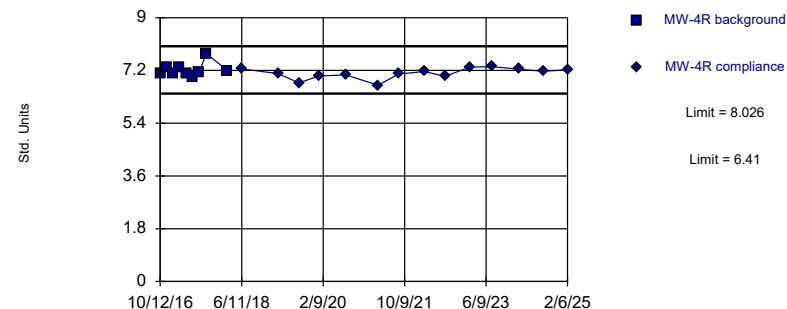
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.218, Std. Dev.=0.2375, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8268, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

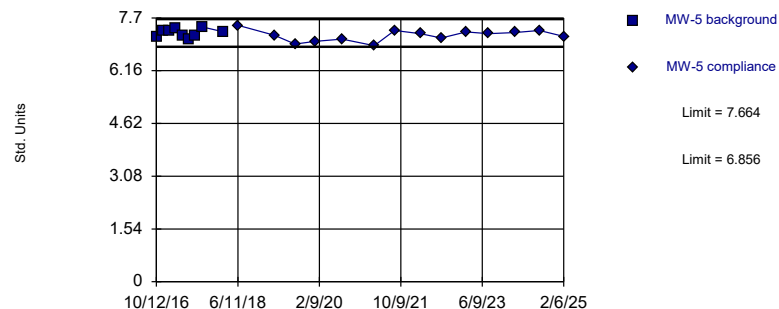
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric

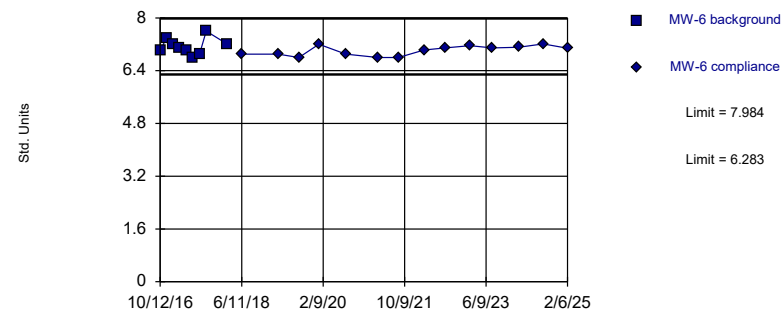


Background Data Summary: Mean=7.26, Std. Dev.=0.1187, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9571, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.133, Std. Dev.=0.25, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

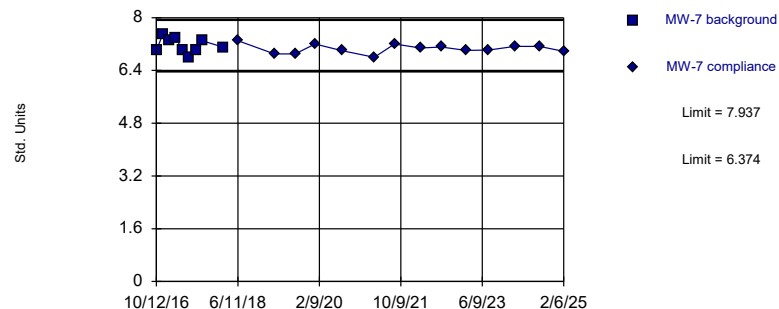
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.156, Std. Dev.=0.2297, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9389, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

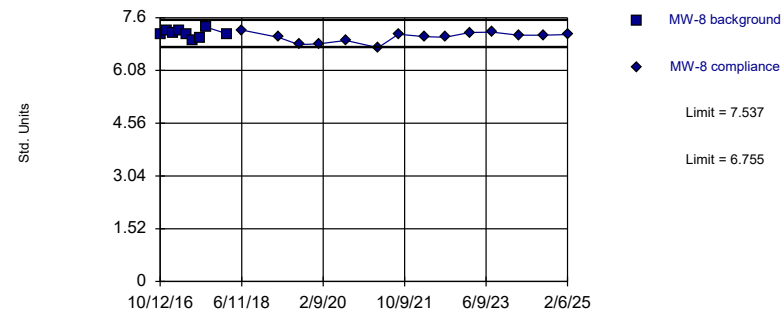
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.146, Std. Dev.=0.1151, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9581, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

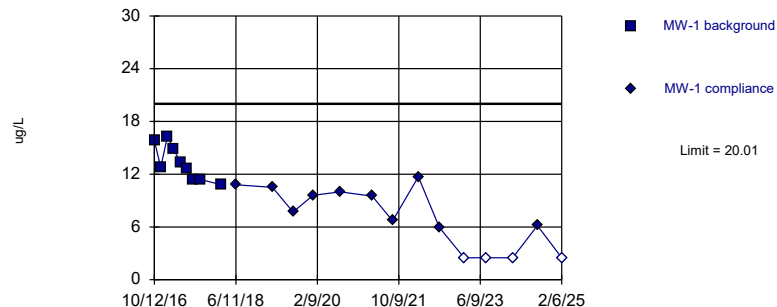
Constituent: pH Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=13.24, Std. Dev.=1.99, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9217, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

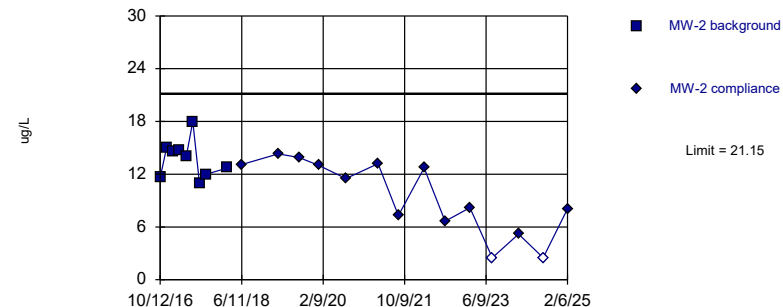
Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=13.72, Std. Dev.=2.186, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.941, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

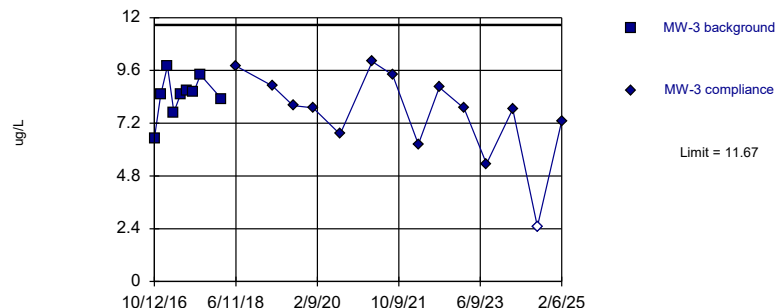
Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.444, Std. Dev.=0.9488, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9264, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

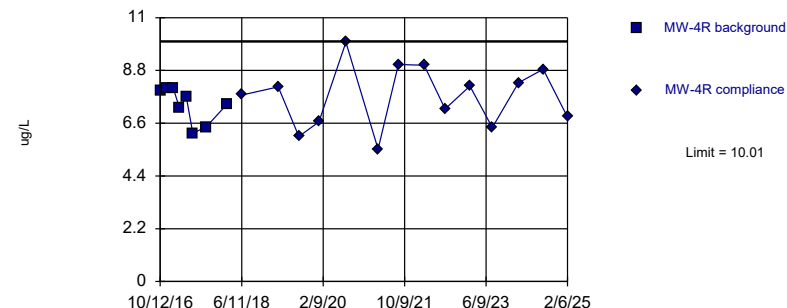
Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.379, Std. Dev.=0.726, n=8. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8672, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

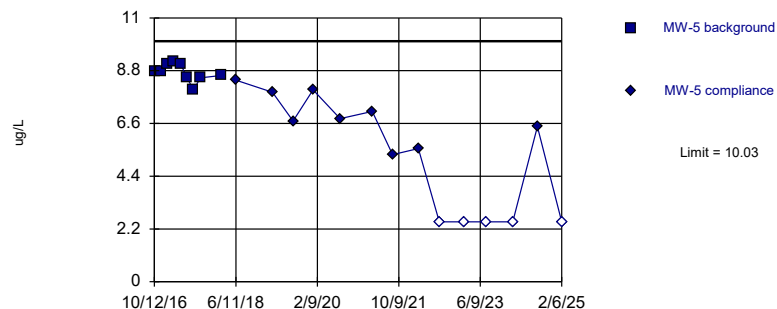
Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



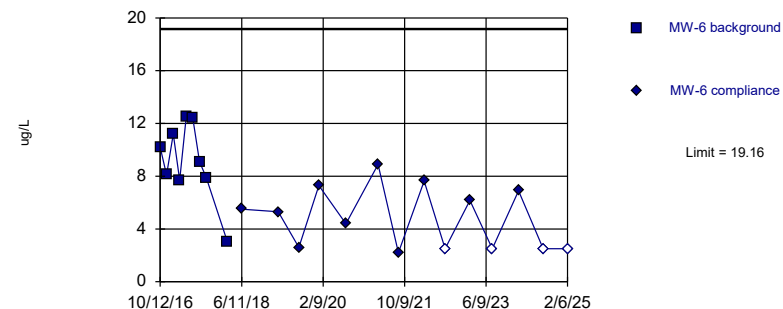
Background Data Summary: Mean=8.733, Std. Dev.=0.3808, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9301, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



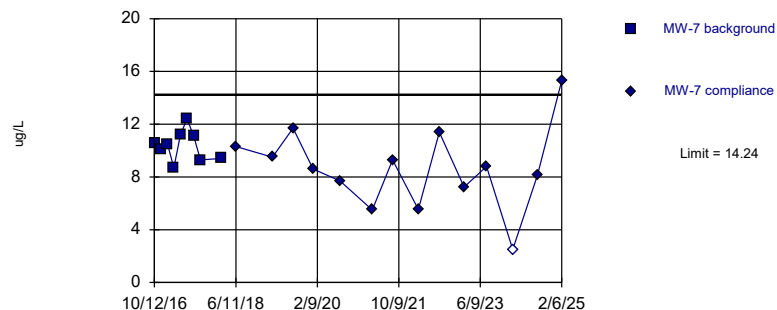
Background Data Summary: Mean=9.122, Std. Dev.=2.951, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9115, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit

Intrawell Parametric



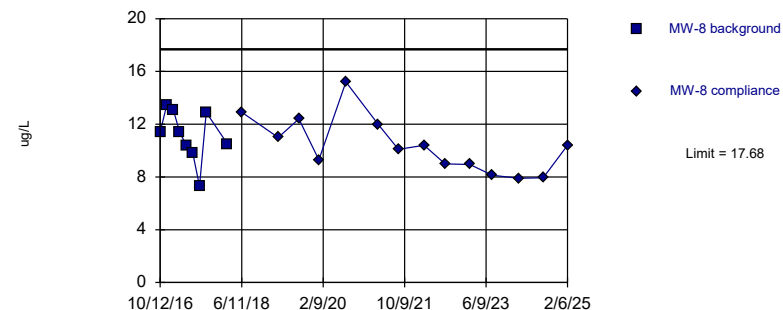
Background Data Summary: Mean=10.37, Std. Dev.=1.138, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.975, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



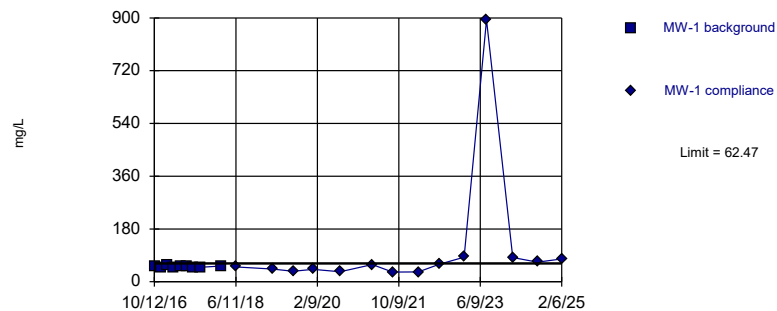
Background Data Summary: Mean=11.13, Std. Dev.=1.926, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9256, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Selenium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=51.77, Std. Dev.=3.148, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

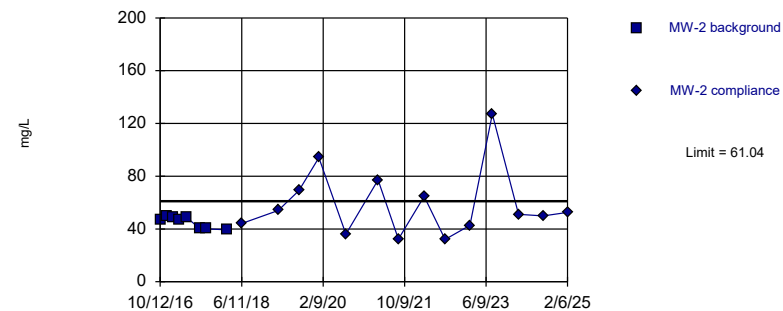
Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=45.11, Std. Dev.=4.394, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8153, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

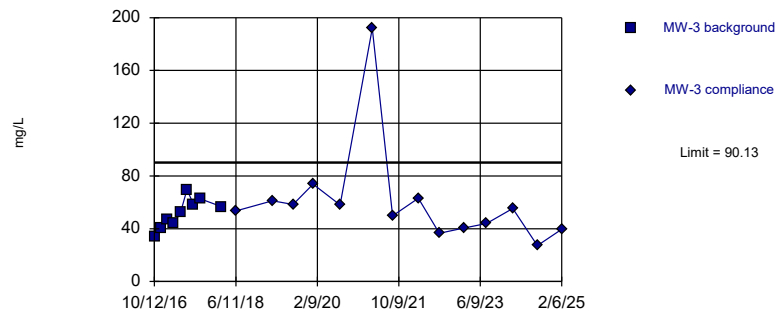
Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=51.7, Std. Dev.=11.3, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9876, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

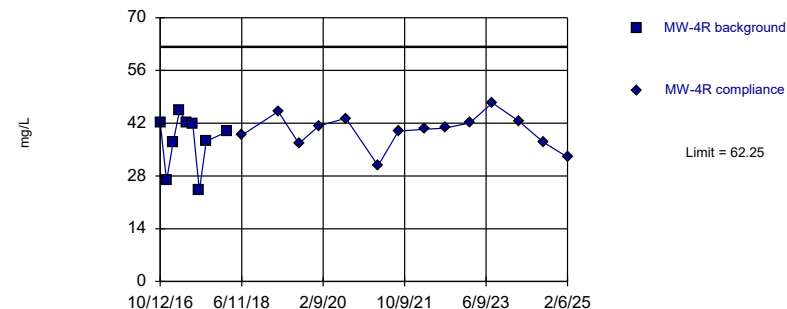
Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



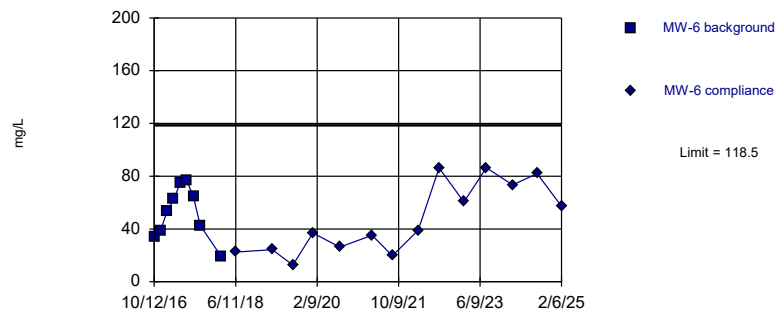
Background Data Summary: Mean=37.39, Std. Dev.=7.31, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8512, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Prediction Limit

Intrawell Parametric

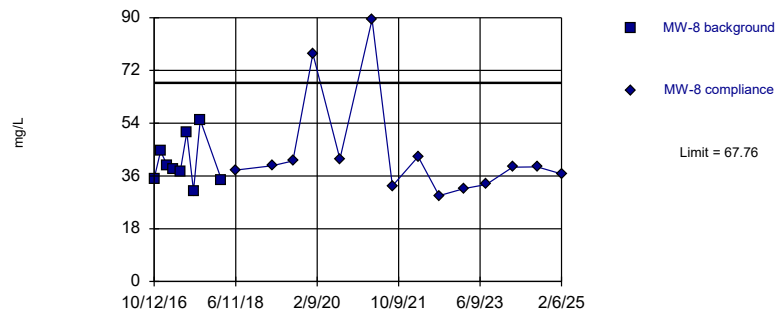


Background Data Summary: Mean=51.77, Std. Dev.=19.63, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Prediction Limit

Intrawell Parametric



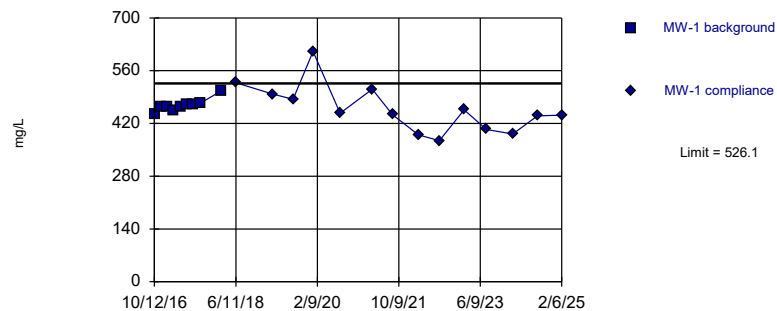
Background Data Summary: Mean=40.76, Std. Dev.=7.942, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9205, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=468, Std. Dev.=17.1, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8517, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

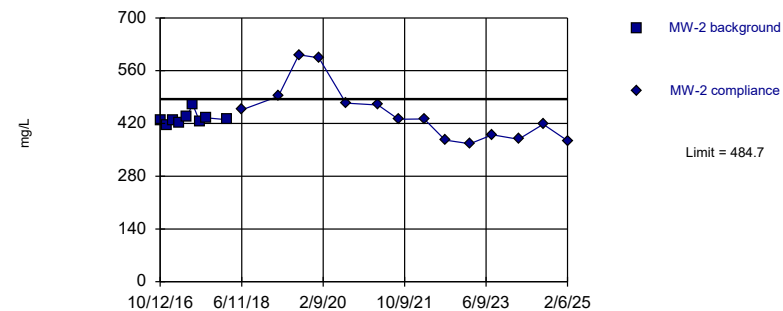
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=432.6, Std. Dev.=15.35, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7787, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

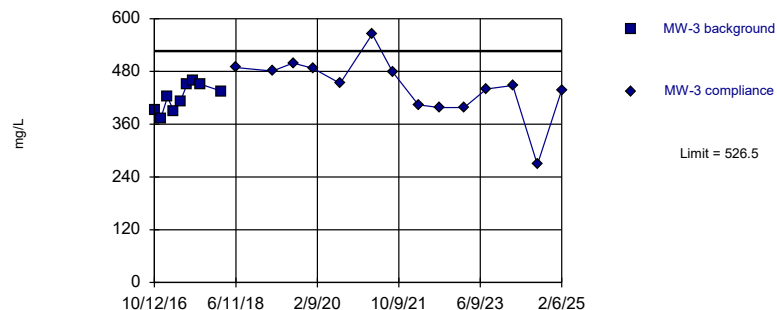
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=420.6, Std. Dev.=31.16, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9341, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

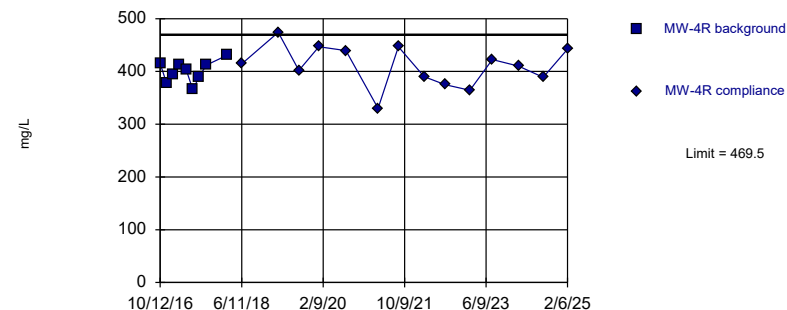
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=400.3, Std. Dev.=20.35, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9725, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

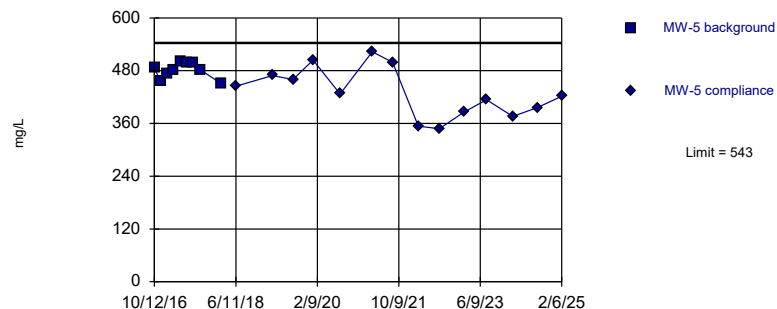
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=480.6, Std. Dev.=18.37, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

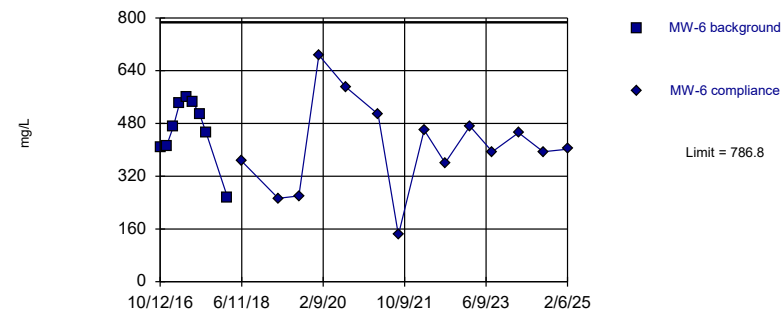
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=461.3, Std. Dev.=95.71, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

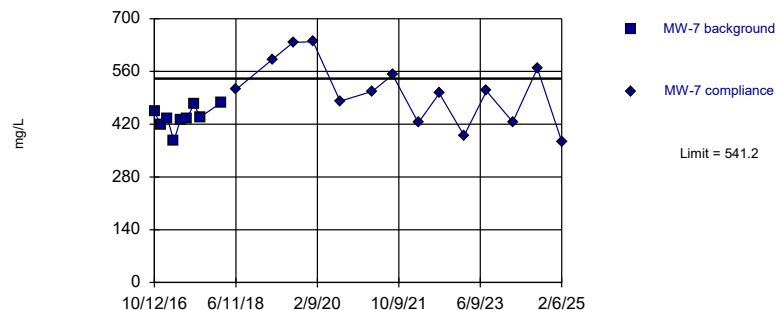
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=437.6, Std. Dev.=30.47, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9287, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

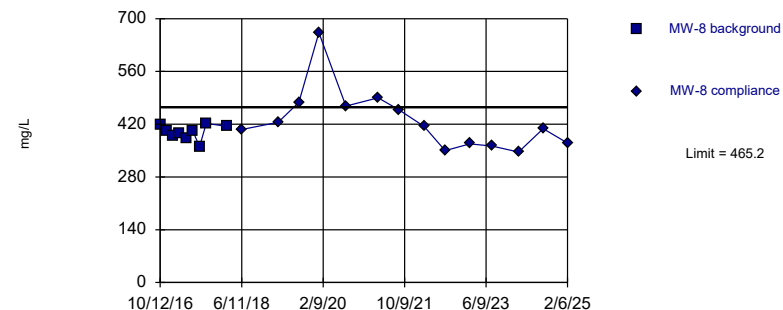
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

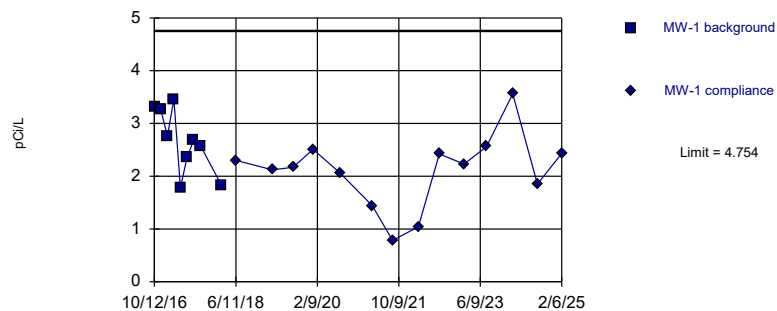
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric



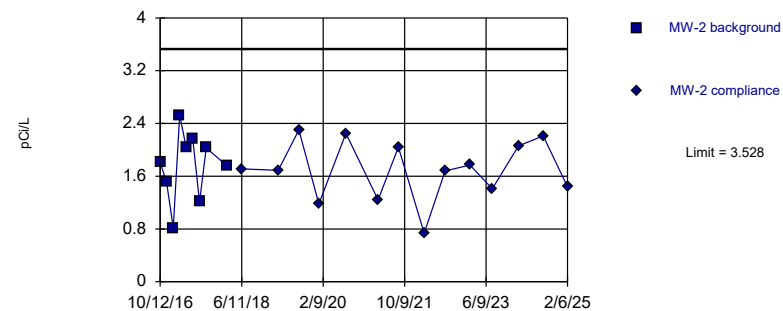
Background Data Summary: Mean=2.667, Std. Dev.=0.6139, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9243, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



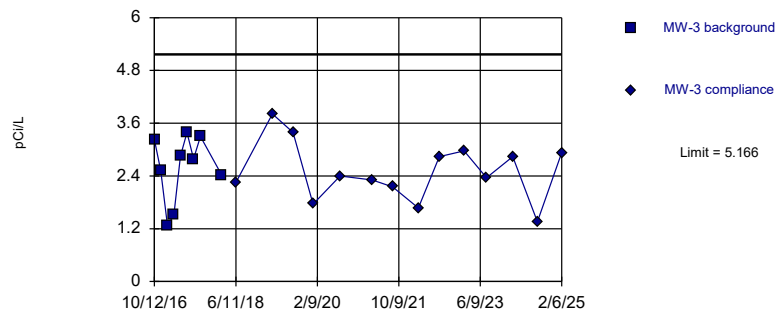
Background Data Summary: Mean=1.76, Std. Dev.=0.5198, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9699, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



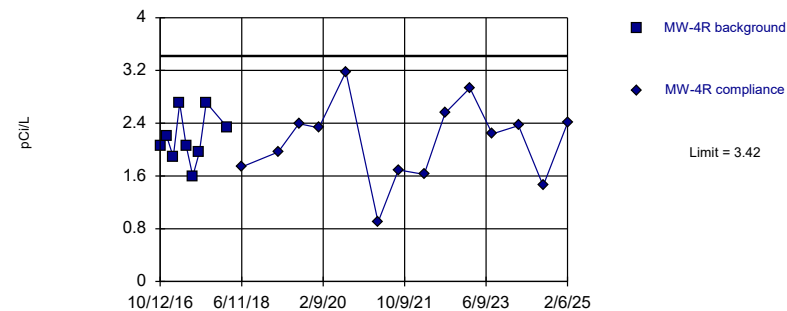
Background Data Summary: Mean=2.587, Std. Dev.=0.7586, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8865, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

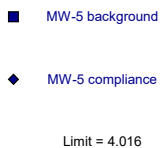
Intrawell Parametric



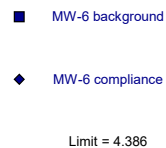
Background Data Summary: Mean=2.168, Std. Dev.=0.3683, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9386, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Intrawell Parametric

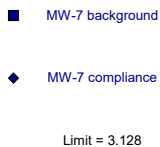


Intrawell Parametric

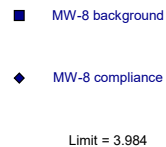


Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Intrawell Parametric



Intrawell Parametric



Constituent: Total Radium Analysis Run 3/17/2025 9:58 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



A.3 Interwell Prediction Limits

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 3/17/2025, 10:06 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-1	6.616	n/a	8/8/2024	3.7	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-2	6.616	n/a	8/8/2024	4.15	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-3	6.616	n/a	8/8/2024	3.82	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-5	6.616	n/a	8/8/2024	4.3	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-6	6.616	n/a	8/8/2024	3.89	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-7	6.616	n/a	8/8/2024	3.37	No	22	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-8	6.616	n/a	8/8/2024	2.8	No	22	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-1	155.8	n/a	2/6/2025	134	No	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-2	155.8	n/a	2/6/2025	105	No	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-3	155.8	n/a	2/6/2025	161	Yes	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-5	155.8	n/a	2/6/2025	128	No	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-6	155.8	n/a	2/6/2025	135	No	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-7	155.8	n/a	2/6/2025	116	No	23	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-8	155.8	n/a	2/6/2025	132	No	23	0	No	0.000...	Param Inter 1 of 2
Boron (ug/L)	MW-1	341	n/a	2/6/2025	100	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-2	341	n/a	2/6/2025	104	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-3	341	n/a	2/6/2025	108	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-5	341	n/a	2/6/2025	100ND	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-6	341	n/a	2/6/2025	100ND	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-7	341	n/a	2/6/2025	122	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Boron (ug/L)	MW-8	341	n/a	2/6/2025	100ND	No	23	39.13	n/a	0.003149	NP Inter (normality) ...
Calcium (mg/L)	MW-1	111.2	n/a	2/6/2025	92.7	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-2	111.2	n/a	2/6/2025	77.1	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-3	111.2	n/a	2/6/2025	95.8	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-5	111.2	n/a	2/6/2025	86.4	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-6	111.2	n/a	2/6/2025	87.5	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-7	111.2	n/a	2/6/2025	70	No	23	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-8	111.2	n/a	2/6/2025	73.9	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-1	67.46	n/a	2/6/2025	35.3	No	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-2	67.46	n/a	2/6/2025	31.9	No	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-3	67.46	n/a	2/6/2025	78.5	Yes	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-5	67.46	n/a	2/6/2025	45.5	No	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-6	67.46	n/a	2/6/2025	34.1	No	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-7	67.46	n/a	2/6/2025	30.9	No	22	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-8	67.46	n/a	2/6/2025	41.1	No	22	0	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-1	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-2	1.584	n/a	2/6/2025	1.09	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-3	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-5	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-6	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-7	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-8	1.584	n/a	2/6/2025	1ND	No	23	21.74	No	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-1	33.37	n/a	2/6/2025	31.3	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-2	33.37	n/a	2/6/2025	30.9	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-3	33.37	n/a	2/6/2025	31.6	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-5	33.37	n/a	2/6/2025	29.9	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-6	33.37	n/a	2/6/2025	27.4	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-7	33.37	n/a	2/6/2025	26.6	No	23	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-8	33.37	n/a	2/6/2025	29.2	No	23	0	x^2	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-1	12.04	n/a	2/6/2025	7.82	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2

Prediction Limit

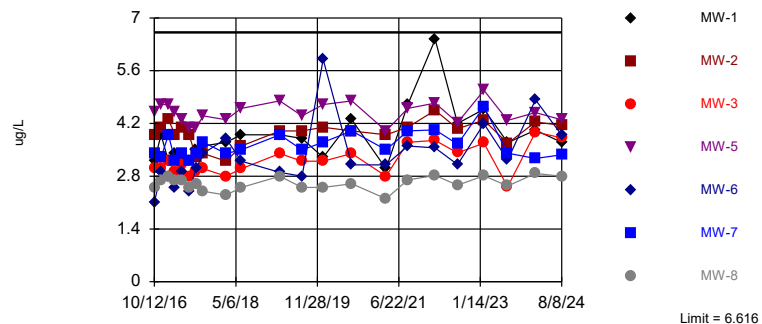
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 3/17/2025, 10:06 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Molybdenum (ug/L)	MW-2	12.04	n/a	2/6/2025	5.64	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-3	12.04	n/a	2/6/2025	8.06	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-5	12.04	n/a	2/6/2025	4.95	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-6	12.04	n/a	2/6/2025	6.15	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-7	12.04	n/a	2/6/2025	5.65	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-8	12.04	n/a	2/6/2025	4.65	No	23	0	sqrt(x)	0.000...	Param Inter 1 of 2
pH (Std. Units)	MW-1	7.8	6.524	2/6/2025	7.127	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-2	7.8	6.524	2/6/2025	7.107	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-3	7.8	6.524	2/6/2025	7.017	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-5	7.8	6.524	2/6/2025	7.127	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-6	7.8	6.524	2/6/2025	7.137	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-7	7.8	6.524	2/6/2025	7.037	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
pH (Std. Units)	MW-8	7.8	6.524	2/6/2025	7.137	No	23	0	x^(1/3)	0.000...	Param Inter 1 of 2 De...
Selenium (ug/L)	MW-1	11.18	n/a	2/6/2025	2.5ND	No	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-2	11.18	n/a	2/6/2025	8.07	No	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-3	11.18	n/a	2/6/2025	7.3	No	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-5	11.18	n/a	2/6/2025	2.5ND	No	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-6	11.18	n/a	2/6/2025	2.5ND	No	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-7	11.18	n/a	2/6/2025	15.3	Yes	22	0	No	0.000...	Param Inter 1 of 2
Selenium (ug/L)	MW-8	11.18	n/a	2/6/2025	10.4	No	22	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-1	53.01	n/a	2/6/2025	77.7	Yes	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-2	53.01	n/a	2/6/2025	52.6	No	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-3	53.01	n/a	2/6/2025	39.6	No	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-5	53.01	n/a	2/6/2025	61.5	Yes	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-6	53.01	n/a	2/6/2025	57.2	Yes	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-7	53.01	n/a	2/6/2025	45.8	No	23	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-8	53.01	n/a	2/6/2025	36.7	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-1	505.6	n/a	2/6/2025	442	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-2	505.6	n/a	2/6/2025	374	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-3	505.6	n/a	2/6/2025	438	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-5	505.6	n/a	2/6/2025	422	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-6	505.6	n/a	2/6/2025	402	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-7	505.6	n/a	2/6/2025	374	No	23	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	MW-8	505.6	n/a	2/6/2025	370	No	23	0	No	0.000...	Param Inter 1 of 2
Total Radium (pCi/L)	MW-1	3.586	n/a	2/6/2025	2.529	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-2	3.586	n/a	2/6/2025	1.539	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-3	3.586	n/a	2/6/2025	3.029	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-5	3.586	n/a	2/6/2025	2.049	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-6	3.586	n/a	2/6/2025	1.539	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-7	3.586	n/a	2/6/2025	1.919	No	23	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-8	3.586	n/a	2/6/2025	2.169	No	23	0	No	0.000...	Param Inter 1 of 2 De...

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=4.415, Std. Dev.=0.8907, n=22. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9642, critical = 0.878. Kappa = 2.472 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

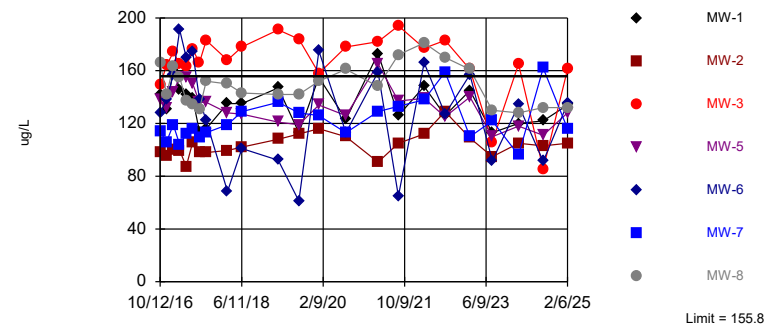
Constituent: Arsenic Analysis Run 3/17/2025 10:03 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit: MW-3

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=122, Std. Dev.=13.78, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9657, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

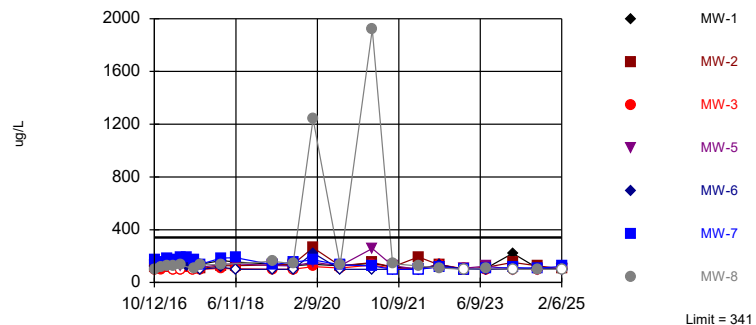
Constituent: Barium Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. 39.13% NDs. Annual per-constituent alpha = 0.0432. Individual comparison alpha = 0.003149 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

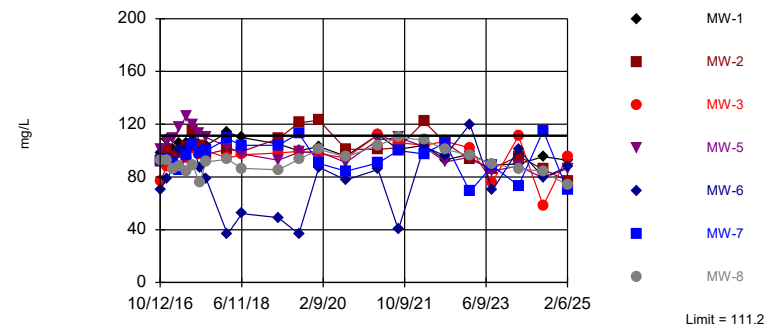
Constituent: Boron Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



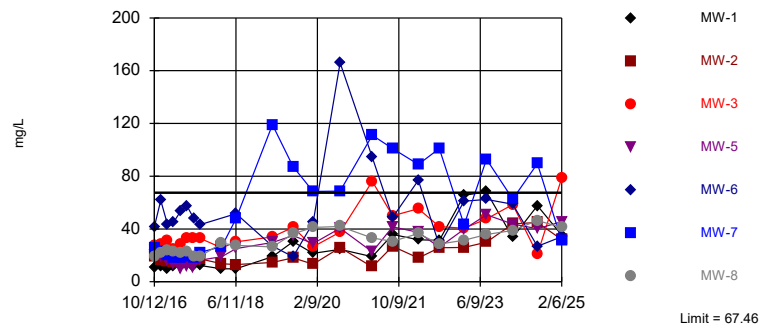
Background Data Summary: Mean=86.87, Std. Dev.=9.932, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9678, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Calcium Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit: MW-3

Prediction Limit Interwell Parametric



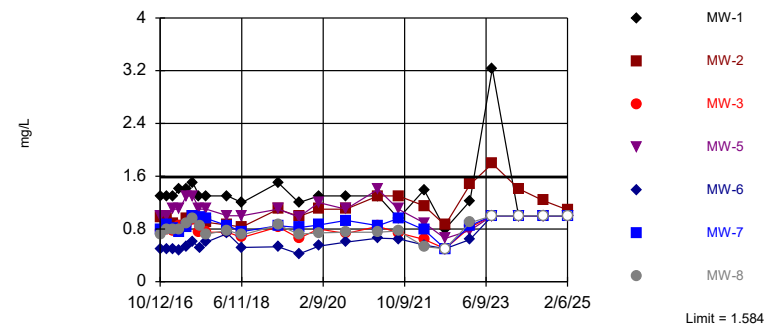
Background Data Summary: Mean=30.19, Std. Dev.=15.08, n=22. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9474, critical = 0.878. Kappa = 2.472 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Chloride Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Interwell Parametric



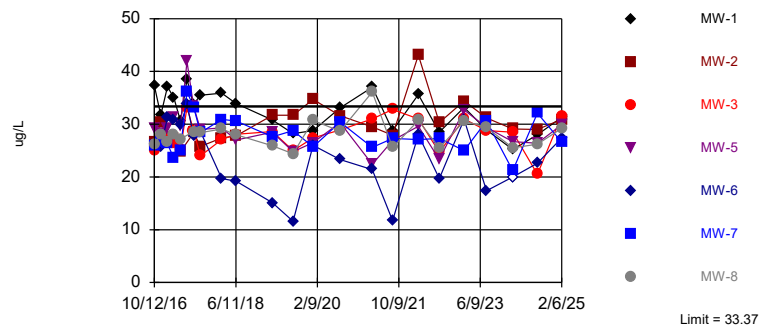
Background Data Summary (after Aitchison's Adjustment): Mean=0.67, Std. Dev.=0.3729, n=23, 21.74% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9213, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Interwell Parametric



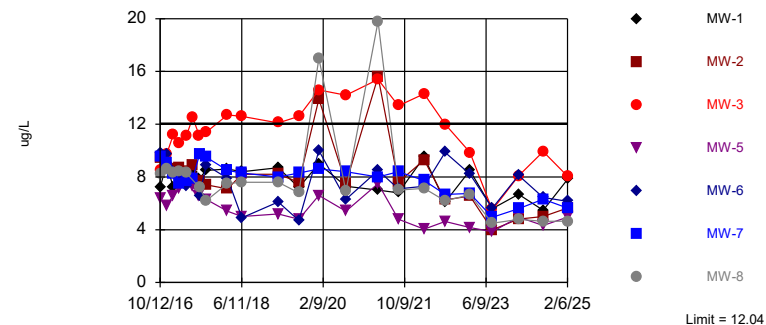
Background Data Summary (based on square transformation): Mean=697.7, Std. Dev.=169.6, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.941, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Lithium Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=2.443, Std. Dev.=0.4187, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8896, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

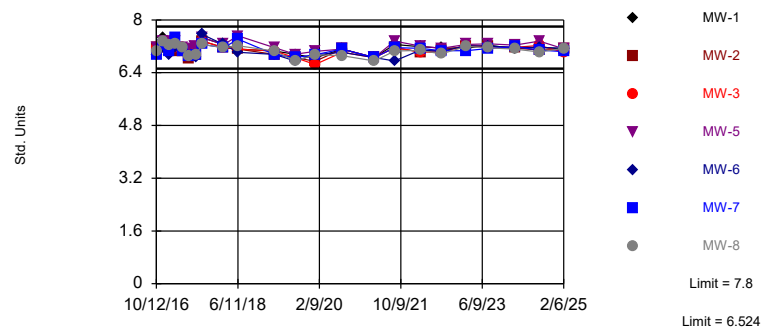
Constituent: Molybdenum Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation): Mean=1.926, Std. Dev.=0.02337, n=23. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.882, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0001792. Comparing 7 points to limit.

Constituent: pH Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

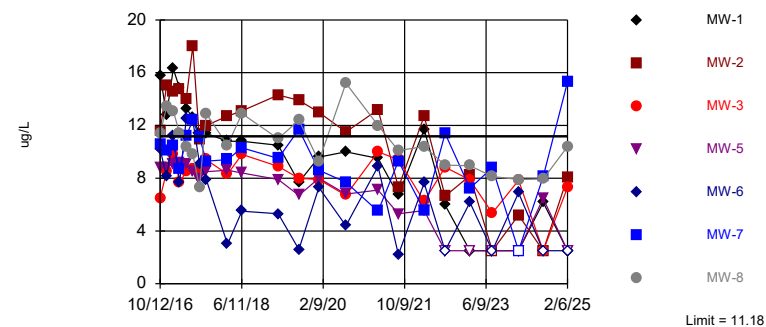
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Hollow symbols indicate censored values.

Exceeds Limit: MW-7

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=7.588, Std. Dev.=1.453, n=22. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9431, critical = 0.878. Kappa = 2.472 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

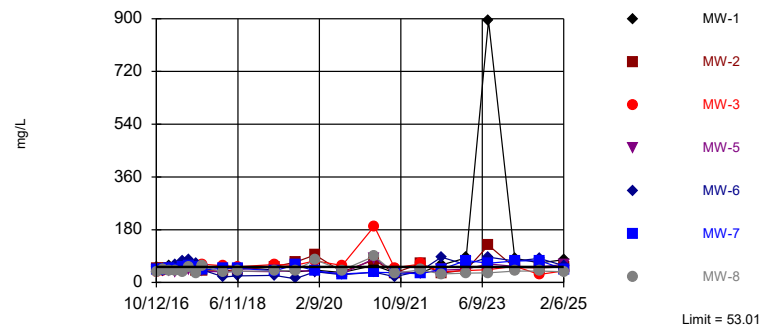
Constituent: Selenium Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit: MW-1, MW-5, MW-6

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=38.93, Std. Dev.=5.741, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9009, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

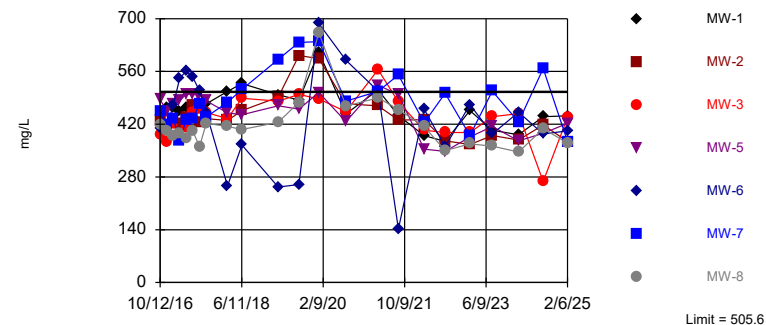
Constituent: Sulfate Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=406.5, Std. Dev.=40.43, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9751, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

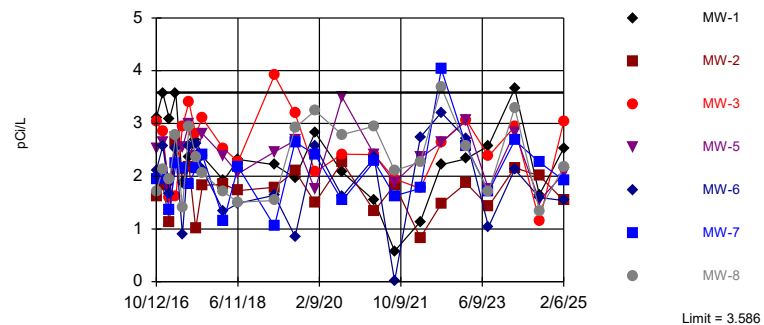
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=2.173, Std. Dev.=0.5764, n=23. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Total Radium Analysis Run 3/17/2025 10:04 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

A.4 Sen's Slope/Mann-Kendall Analysis

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 3/17/2025, 10:35 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-1	0.1338	93	84	Yes	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-2	0.03196	54	84	No	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-3	0.1073	93	84	Yes	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-4R (bg)	0.2475	109	84	Yes	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-5	0	2	84	No	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-6	0.1734	126	84	Yes	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-7	0.04292	60	84	No	22	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-8	0.01012	37	84	No	22	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-1	-1.997	-45	-89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-2	1.278	74	89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-3	0	1	89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-4R (bg)	0.7758	14	89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-5	-2.759	-92	-89	Yes	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-6	-4.185	-51	-89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-7	3.369	81	89	No	23	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-8	-0.7897	-27	-89	No	23	0	n/a	n/a	0.02	NP
Boron (ug/L)	MW-1	-4.264	-81	-89	No	23	4.348	n/a	n/a	0.02	NP
Boron (ug/L)	MW-2	1.884	38	84	No	22	4.545	n/a	n/a	0.02	NP
Boron (ug/L)	MW-3	0	23	89	No	23	34.78	n/a	n/a	0.02	NP
Boron (ug/L)	MW-4R (bg)	-10.41	-79	-89	No	23	39.13	n/a	n/a	0.02	NP
Boron (ug/L)	MW-5	-2.871	-86	-89	No	23	8.696	n/a	n/a	0.02	NP
Boron (ug/L)	MW-6	-1.096	-90	-89	Yes	23	52.17	n/a	n/a	0.02	NP
Boron (ug/L)	MW-7	-9.918	-142	-89	Yes	23	13.04	n/a	n/a	0.02	NP
Boron (ug/L)	MW-8	-2.758	-31	-78	No	21	14.29	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-1	-1.611	-115	-89	Yes	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-2	-0.6723	-25	-89	No	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-3	1.944	79	89	No	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-4R (bg)	0.75	46	89	No	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-5	-3.186	-137	-89	Yes	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-6	0.4646	22	89	No	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-7	-0.5612	-19	-89	No	23	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-8	0.5521	25	89	No	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-1	3.852	175	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-2	2.082	99	84	Yes	22	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-3	3.463	125	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-4R (bg)	3.838	145	84	Yes	22	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-5	3.952	161	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-6	0.1758	5	84	No	22	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-7	8.773	104	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-8	2.45	154	89	Yes	23	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-1	-0.04257	-89	-89	No	23	13.04	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-2	0.05392	112	89	Yes	23	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-3	0.008378	19	89	No	23	21.74	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-4R (bg)	0.01599	54	89	No	23	21.74	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-5	-0.01329	-61	-89	No	23	17.39	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-6	0.03701	136	89	Yes	23	21.74	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-7	0.015	69	89	No	23	21.74	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-8	0.01051	42	89	No	23	21.74	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-1	-0.8407	-104	-89	Yes	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-2	0.509	80	84	No	22	0	n/a	n/a	0.02	NP

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-3	0.3763	54	89	No	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-4R (bg)	0.3763	75	89	No	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-5	-0.3399	-50	-89	No	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-6	-1.071	-65	-89	No	23	4.348	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-7	-0.06738	-10	-89	No	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-8	0.1464	25	84	No	22	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-1	-0.1968	-66	-89	No	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-2	-0.4105	-122	-89	Yes	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-3	0.144	17	89	No	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-4R (bg)	-0.2434	-88	-89	No	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-5	-0.3068	-131	-89	Yes	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-6	-0.2196	-59	-89	No	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-7	-0.37	-121	-89	Yes	23	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-8	-0.4072	-123	-84	Yes	22	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-1	0	-13	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-2	0	-12	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-3	-0.01766	-45	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-4R (bg)	-0.00...	-9	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-5	-0.01685	-42	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-6	0	-2	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-7	-0.01726	-32	-89	No	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-8	-0.01513	-56	-89	No	23	0	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-1	-1.165	-201	-89	Yes	23	17.39	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-2	-1.069	-141	-89	Yes	23	8.696	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-3	-0.1847	-66	-89	No	23	4.348	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-4R (bg)	0.007389	4	84	No	22	0	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-5	-0.5456	-191	-89	Yes	23	21.74	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-6	-0.5816	-109	-89	Yes	23	17.39	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-7	-0.3835	-74	-89	No	23	4.348	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-8	-0.3757	-106	-89	Yes	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-1	1.732	37	89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-2	0.4822	23	84	No	22	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-3	-0.4171	-11	-89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-4R (bg)	0.1352	12	89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-5	1.234	59	89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-6	2.433	43	89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-7	0.528	17	89	No	23	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-8	-0.2955	-21	-89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-1	-3.525	-49	-89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-2	-5.163	-42	-89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-3	2.186	21	89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-4R (bg)	3.491	28	89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-5	-11.5	-97	-89	Yes	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-6	-8.742	-38	-89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-7	9.097	43	89	No	23	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-8	-2.033	-16	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-1	-0.1051	-65	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-2	-0.00...	-10	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-3	-0.03274	-19	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-4R (bg)	0.03941	28	89	No	23	0	n/a	n/a	0.02	NP

Trend Test

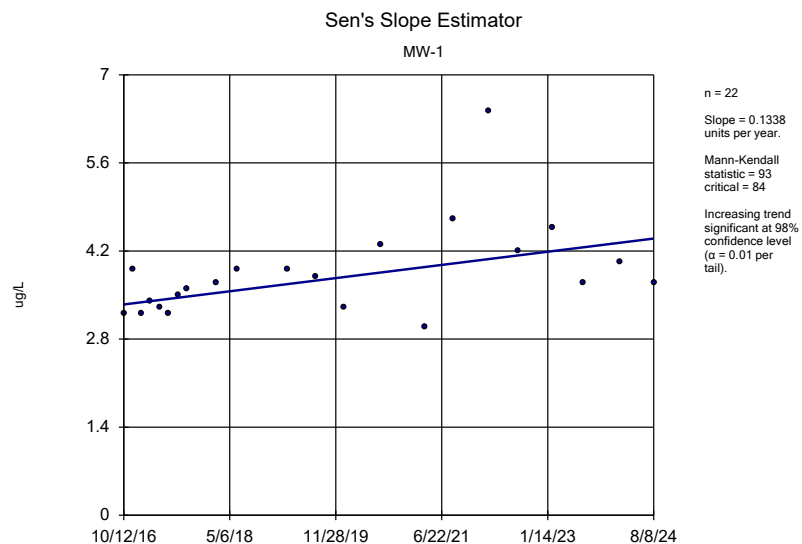
Fremont Dept. of Utilities

Client: SCS Engineers

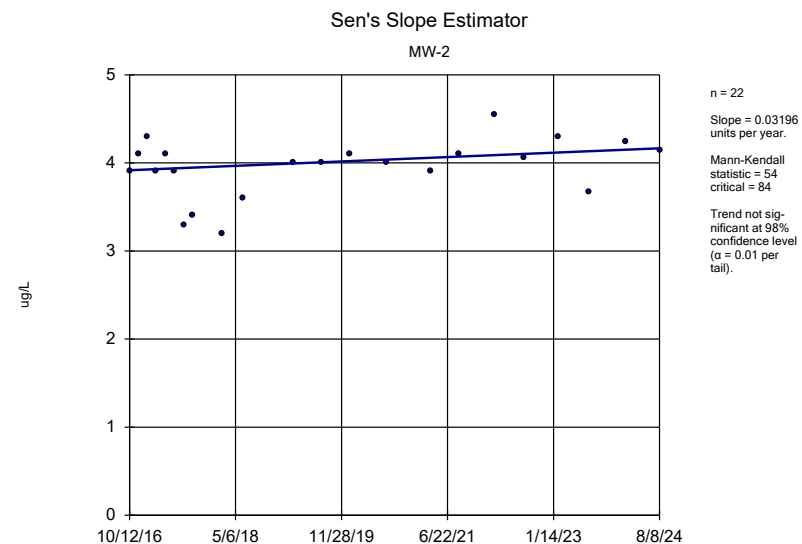
Data: Fremont Department of Utilities Groundwater

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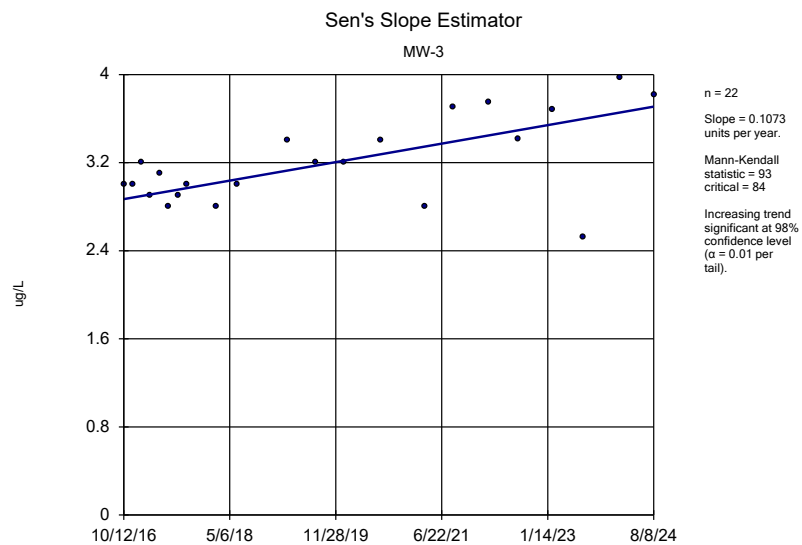
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Total Radium (pCi/L)	MW-5	-0.0376	-37	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-6	-0.0185	-14	-89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-7	0.05117	40	89	No	23	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-8	0.03946	25	89	No	23	0	n/a	n/a	0.02	NP



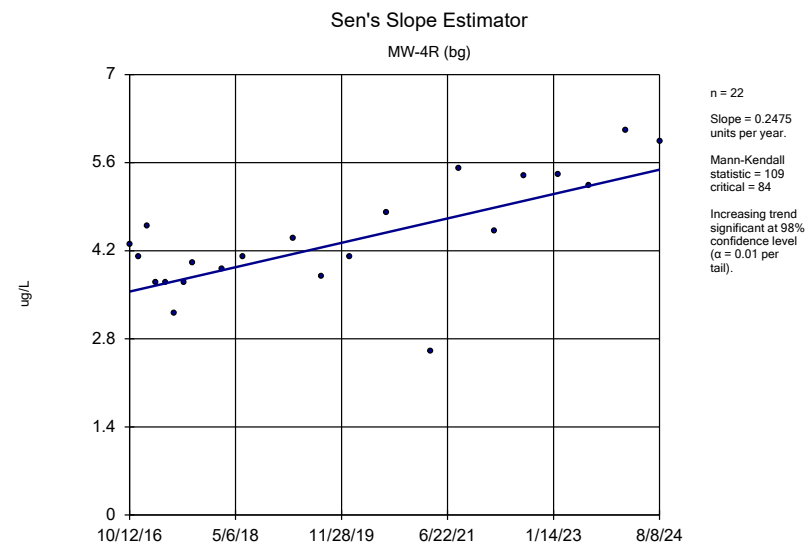
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



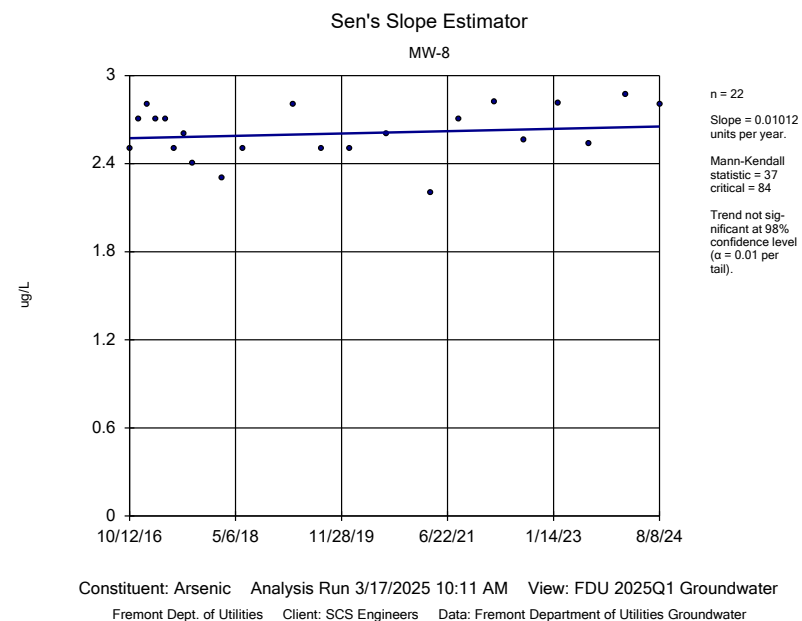
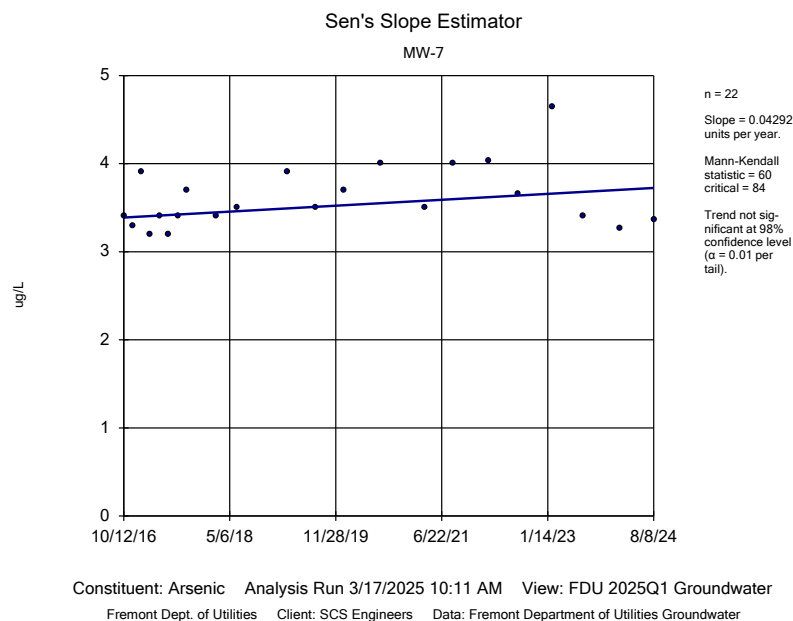
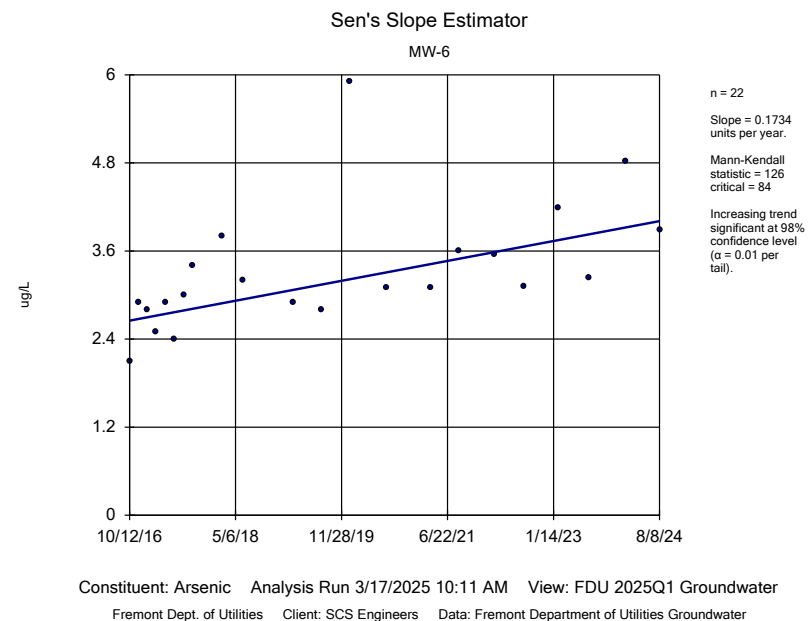
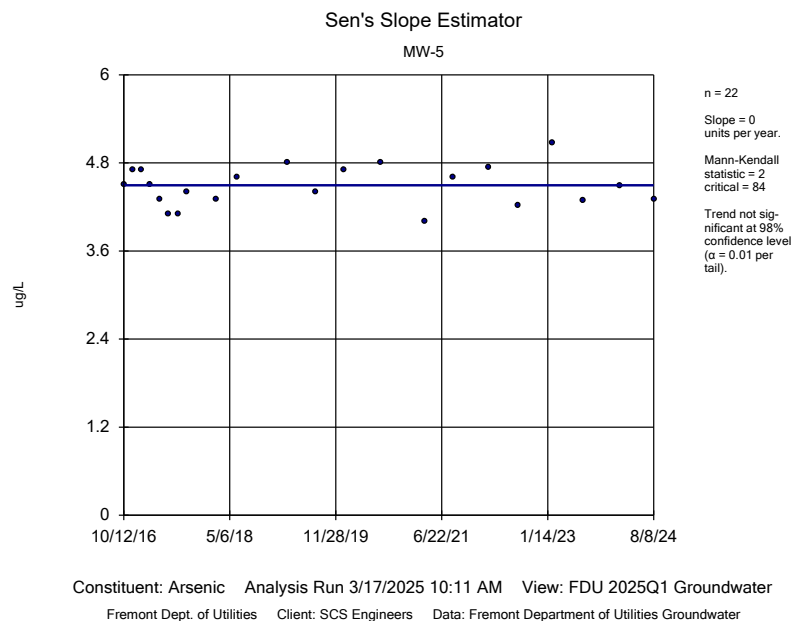
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

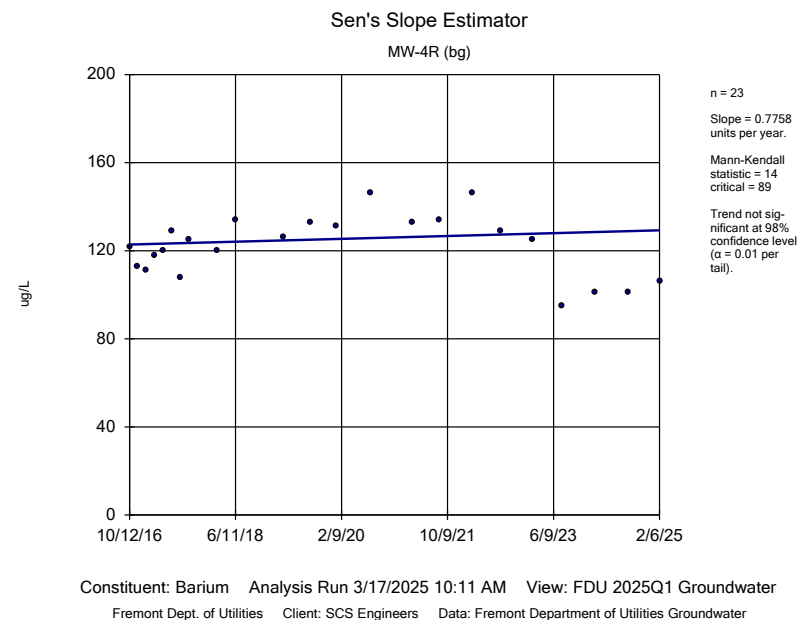
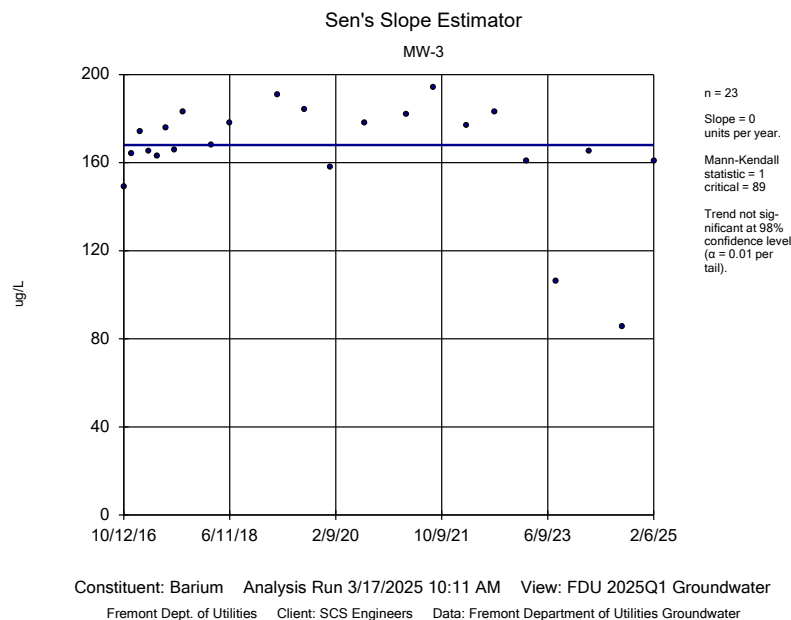
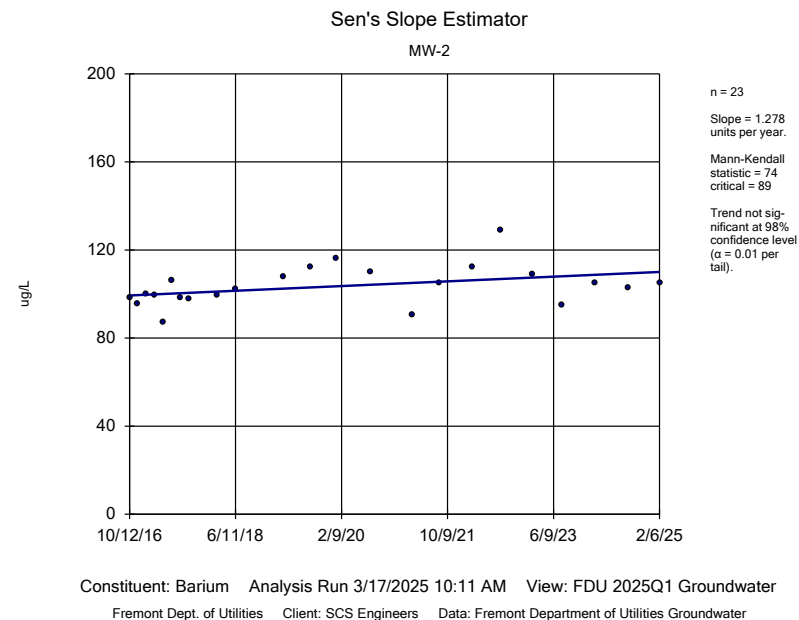
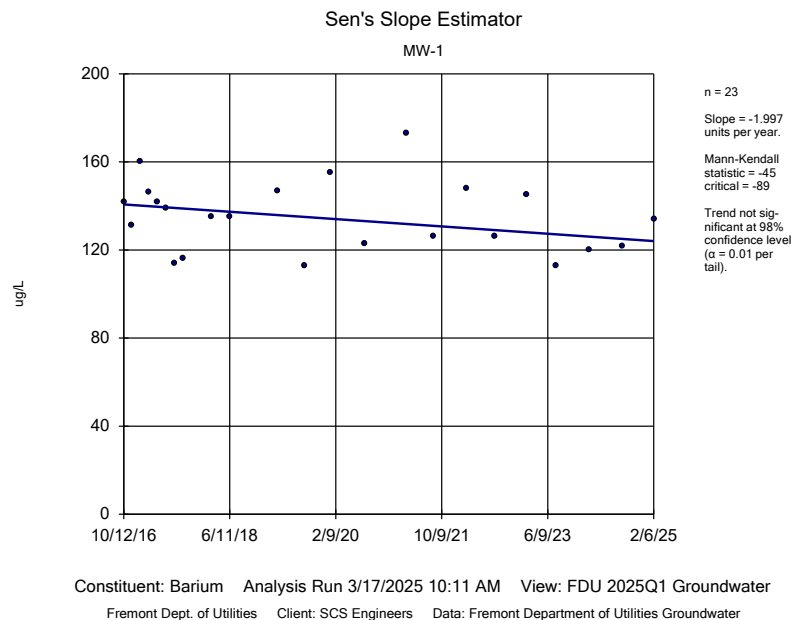


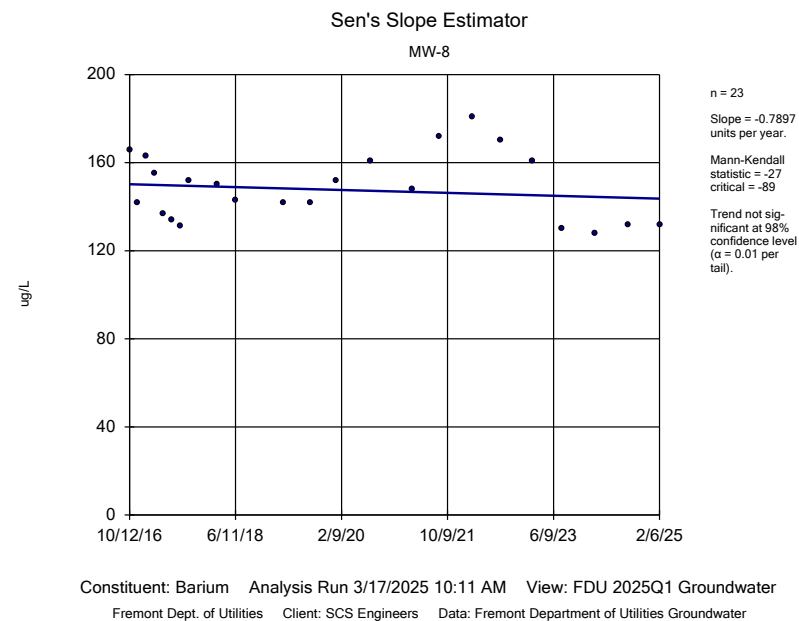
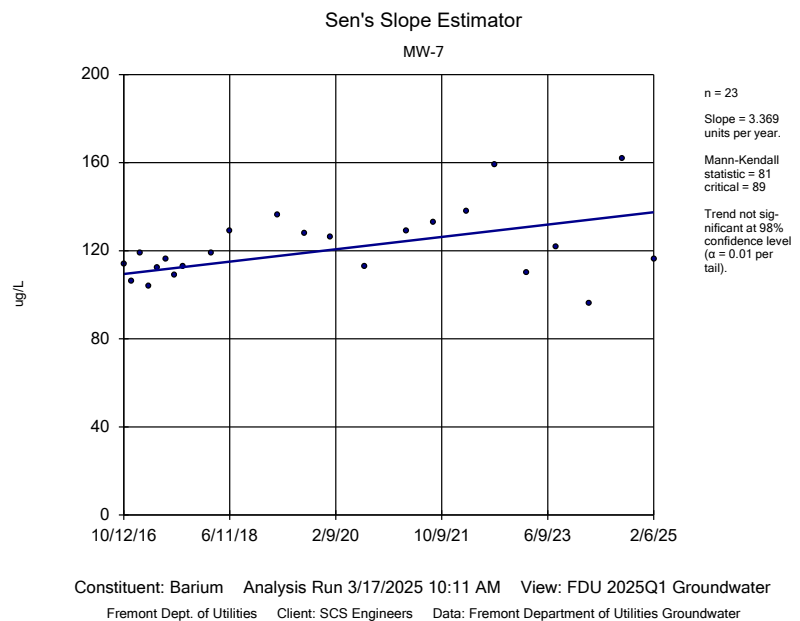
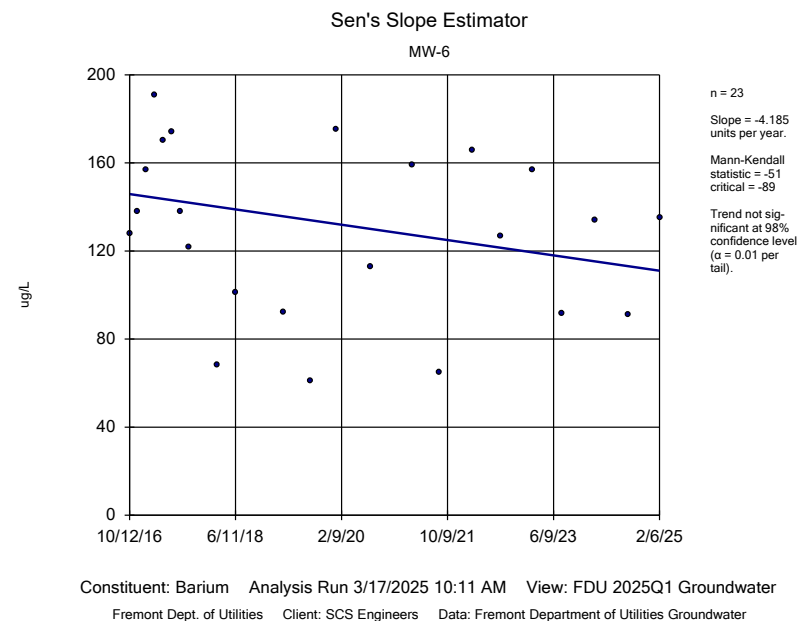
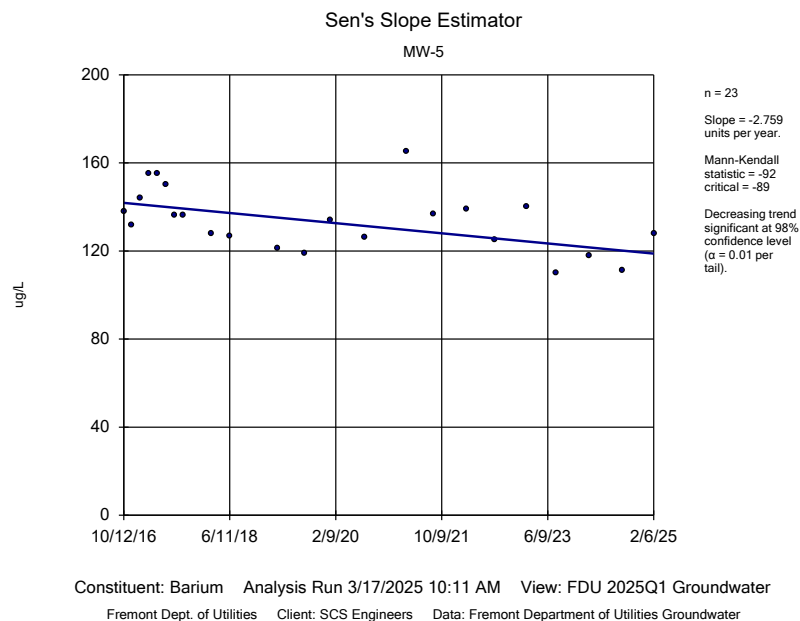
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

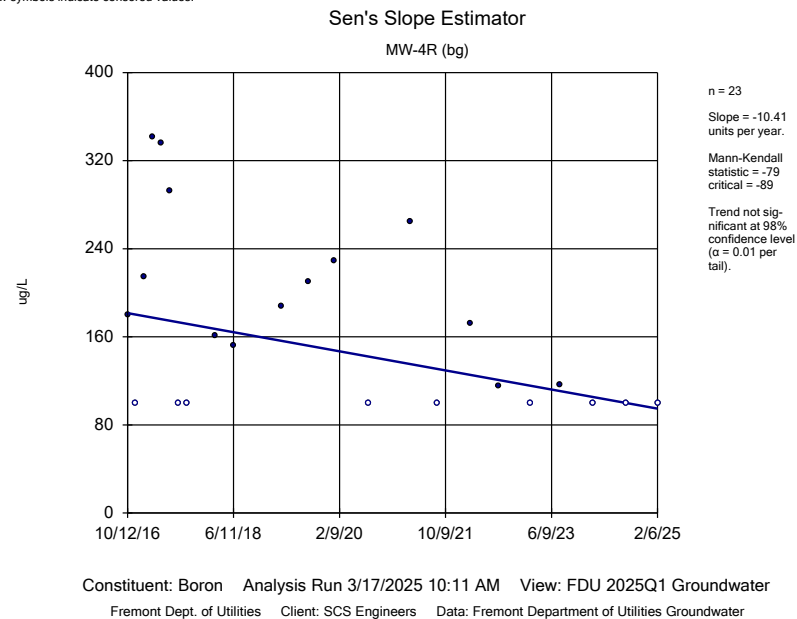
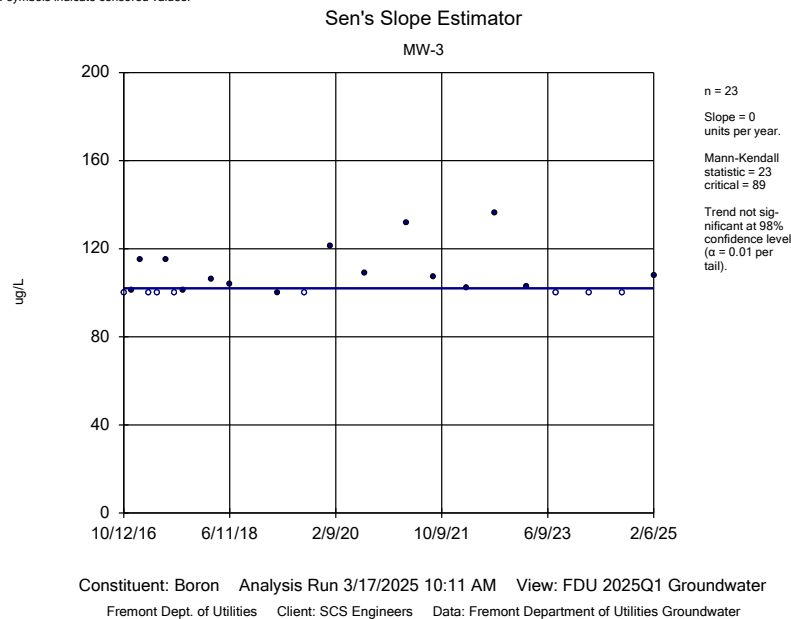
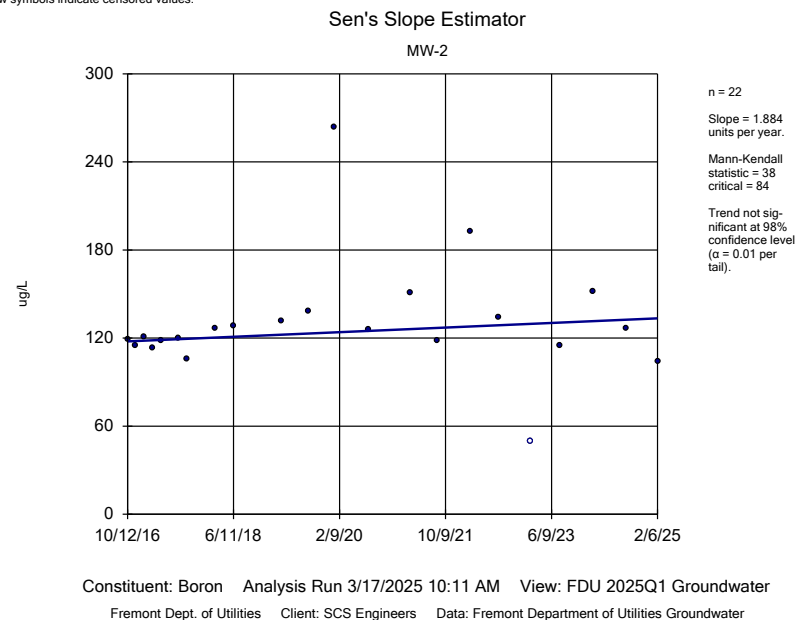
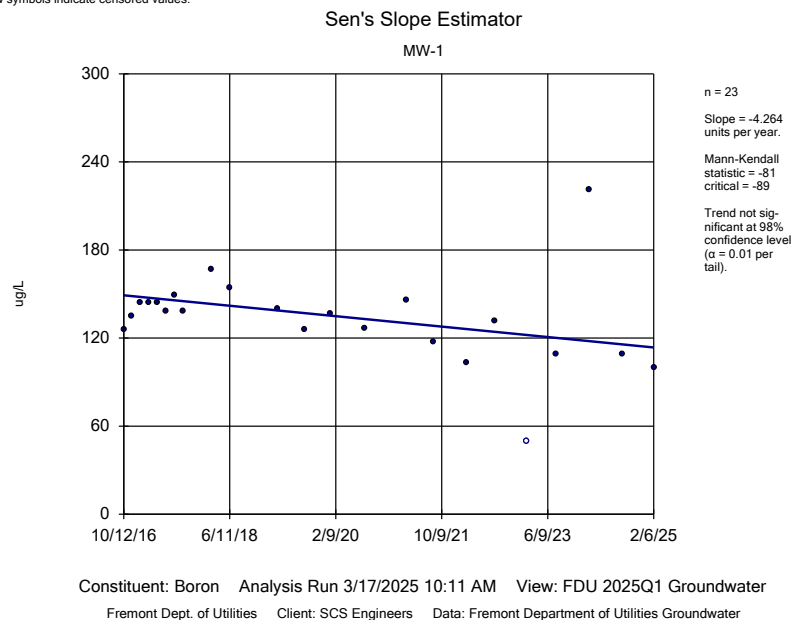


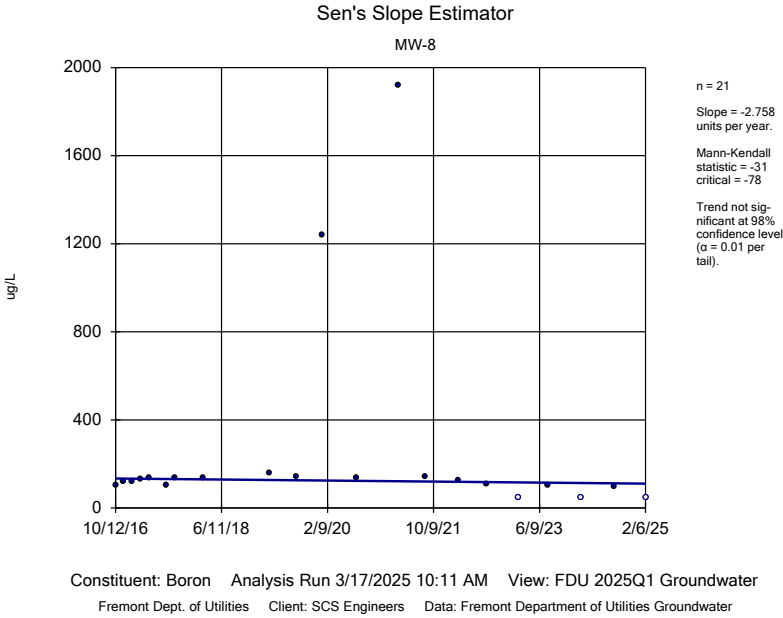
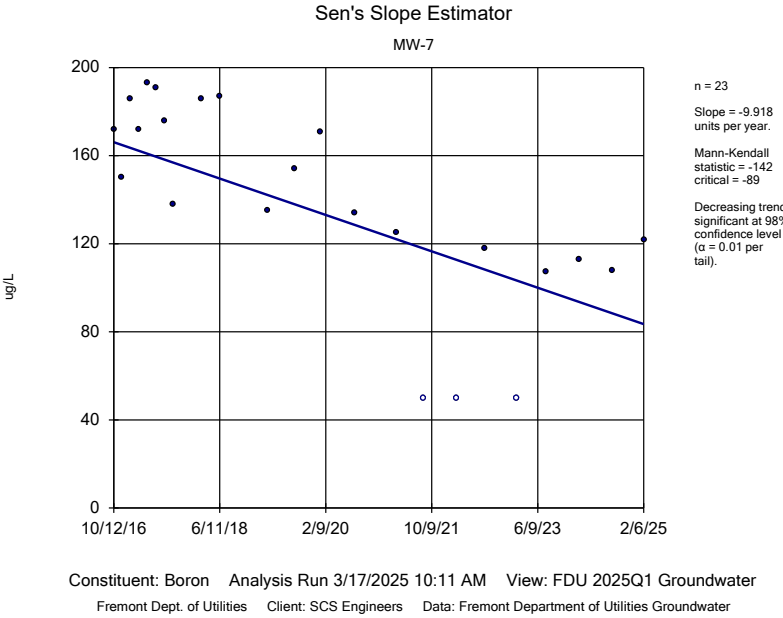
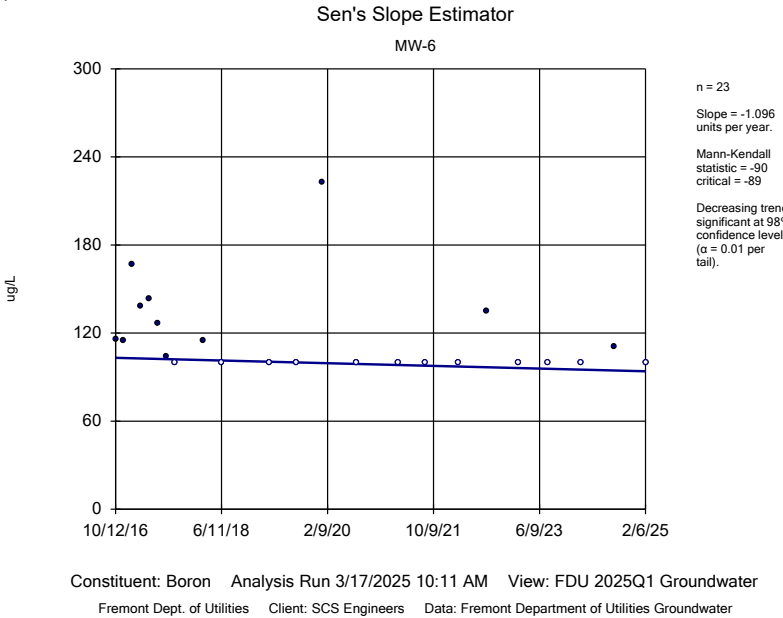
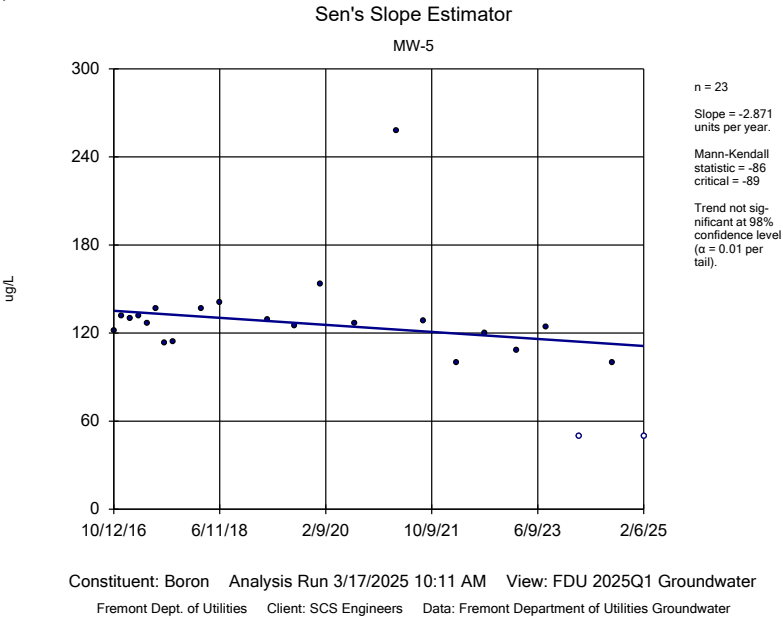
Constituent: Arsenic Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

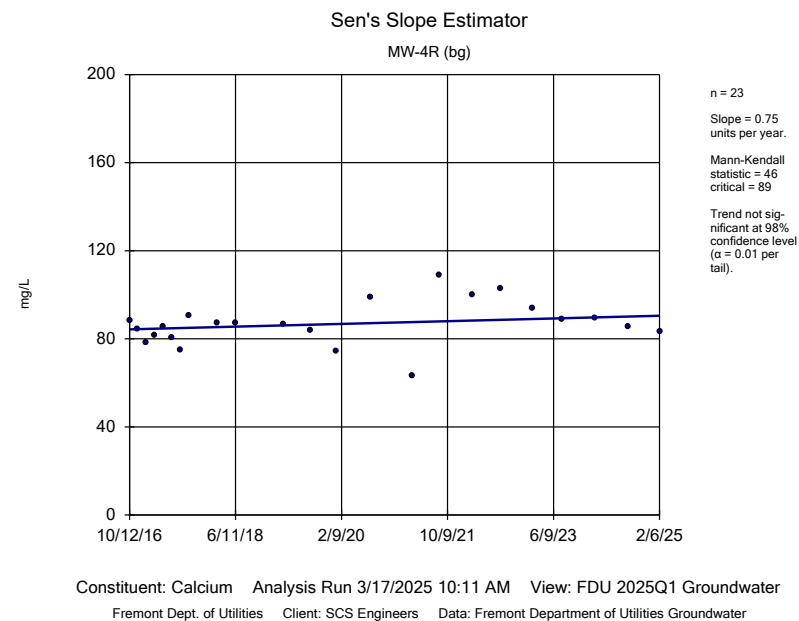
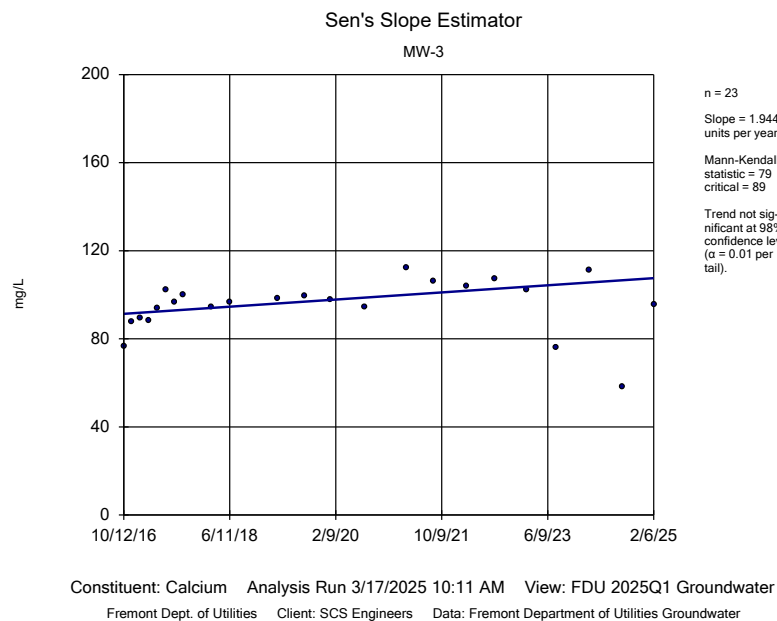
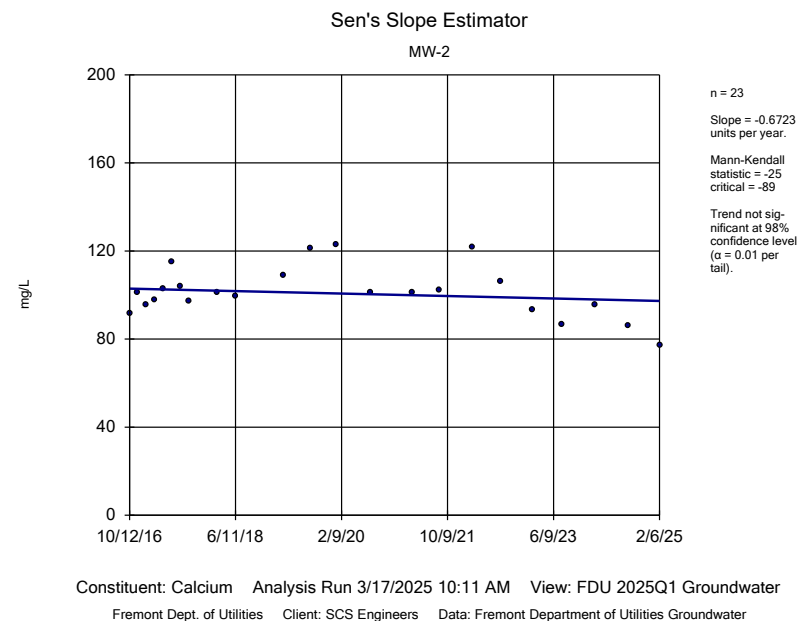
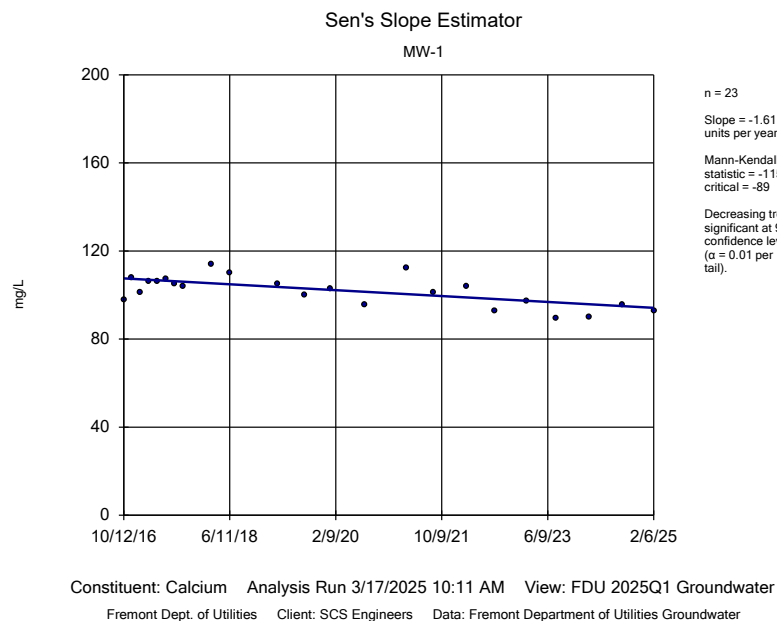


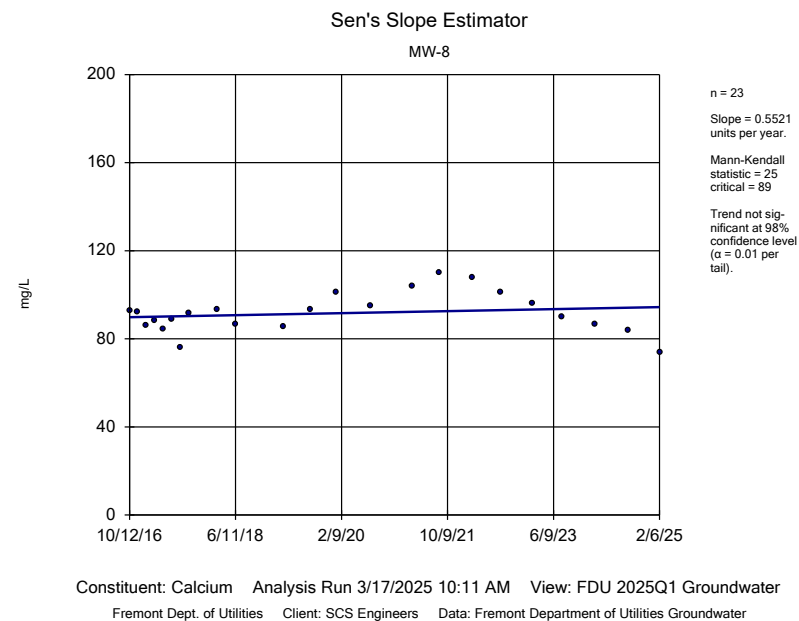
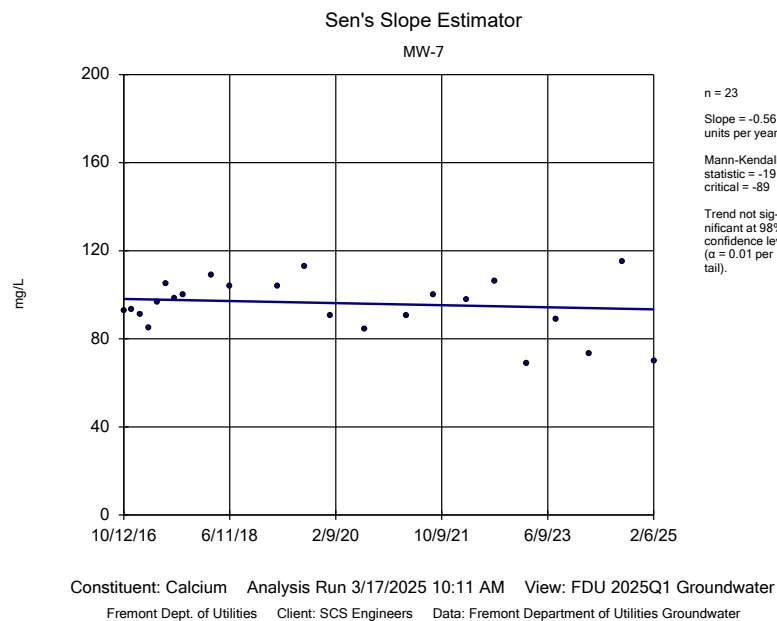
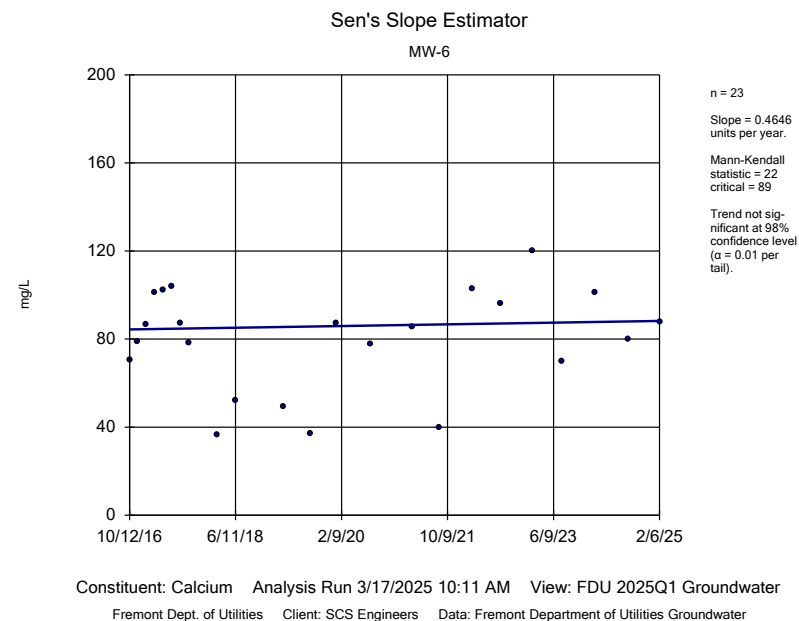
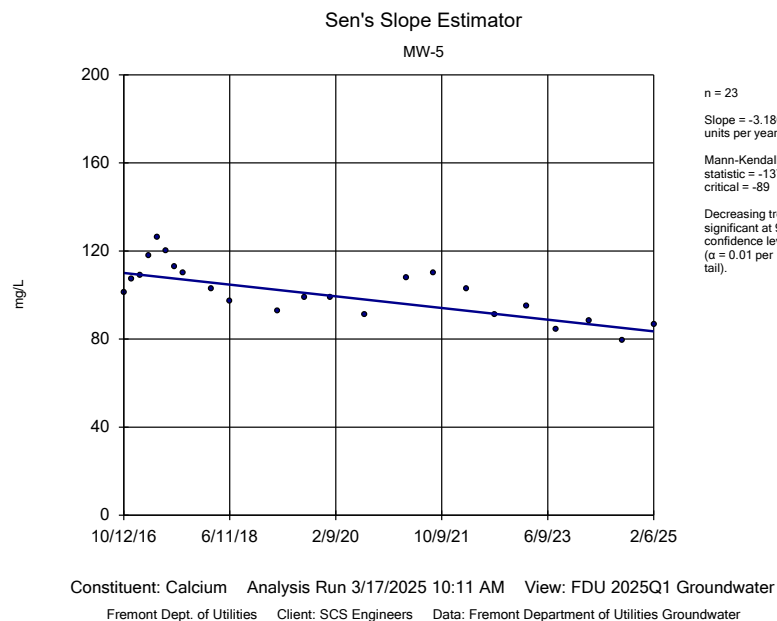






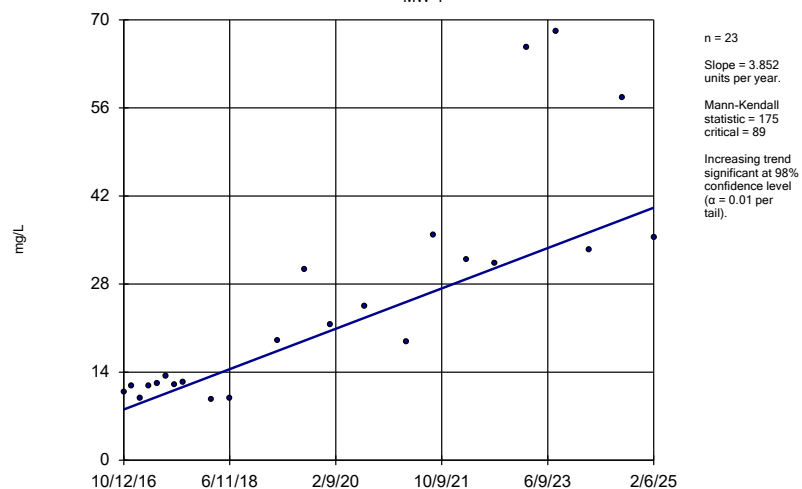






Sen's Slope Estimator

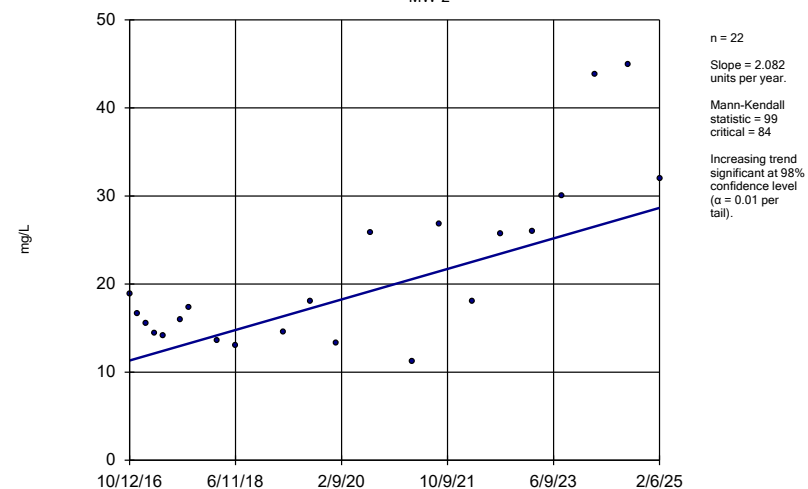
MW-1



Constituent: Chloride Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

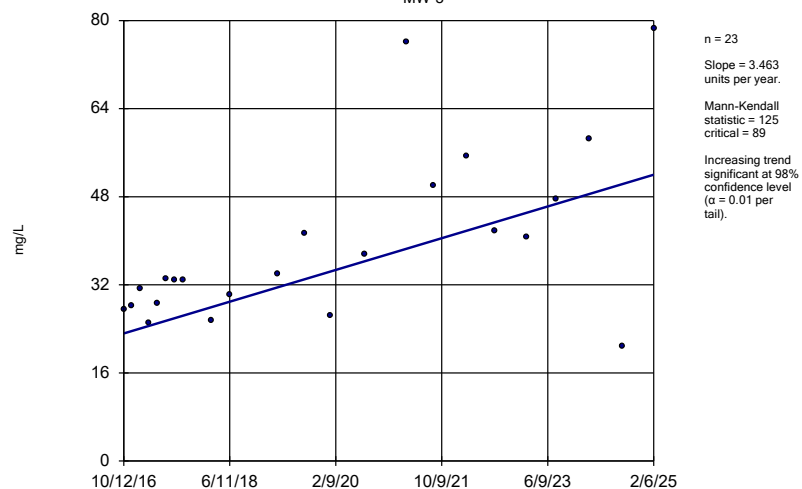
MW-2



Constituent: Chloride Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

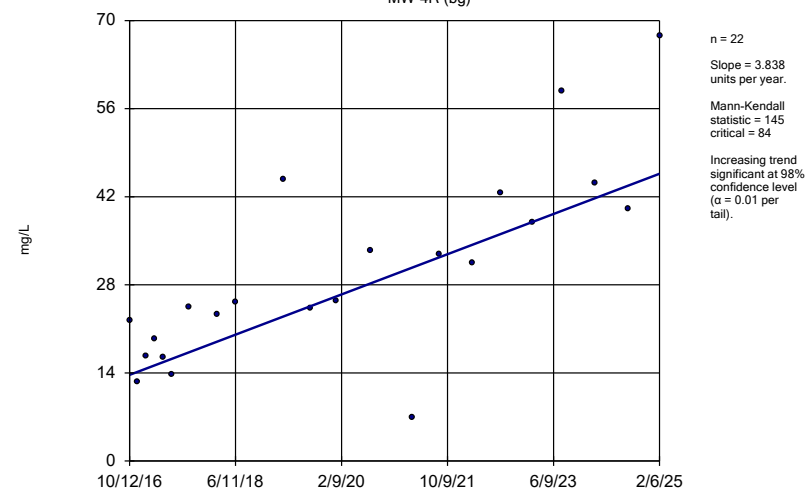
MW-3



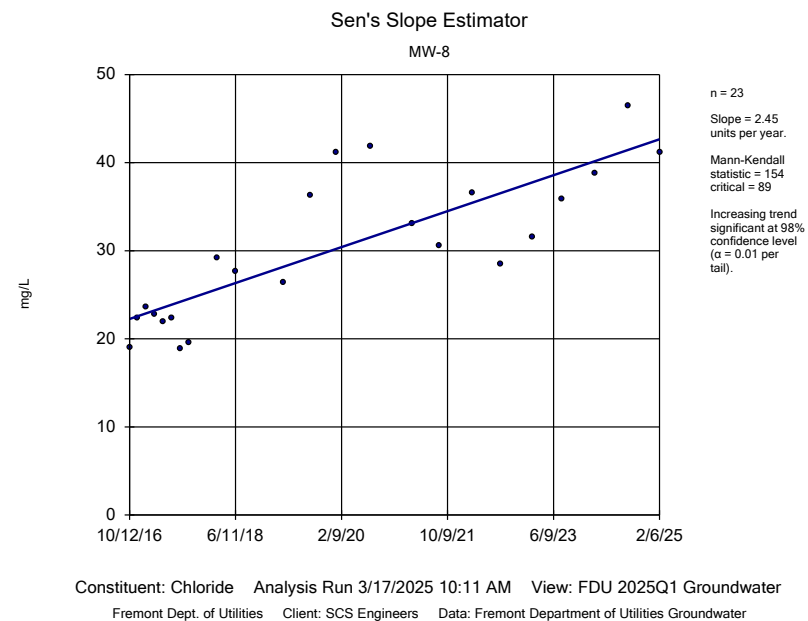
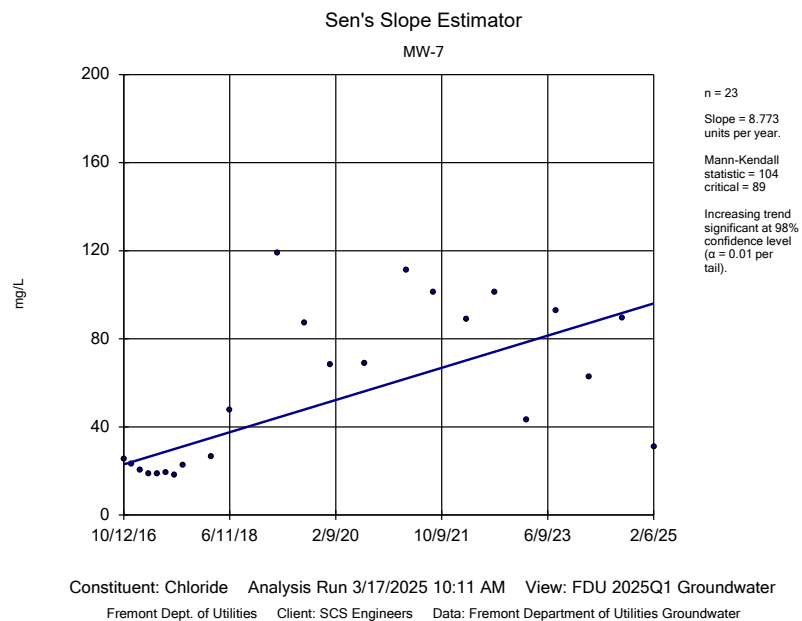
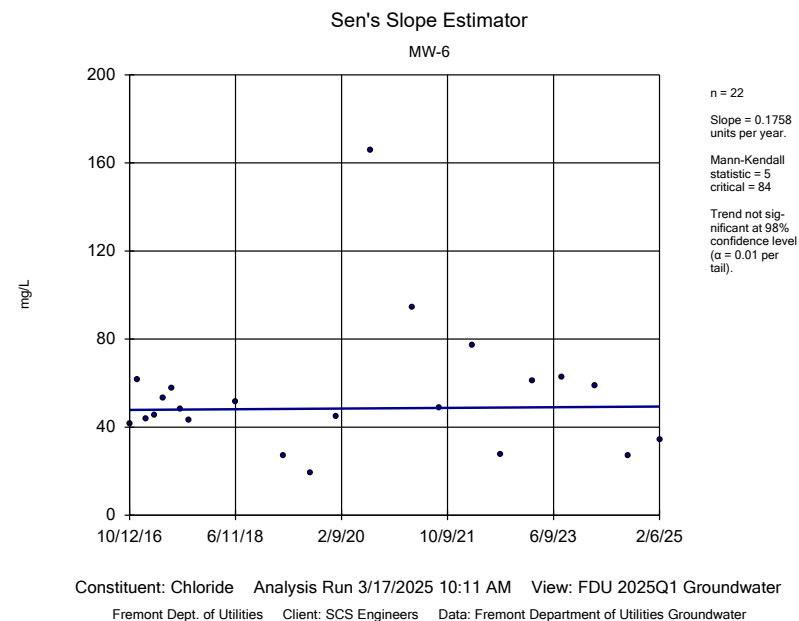
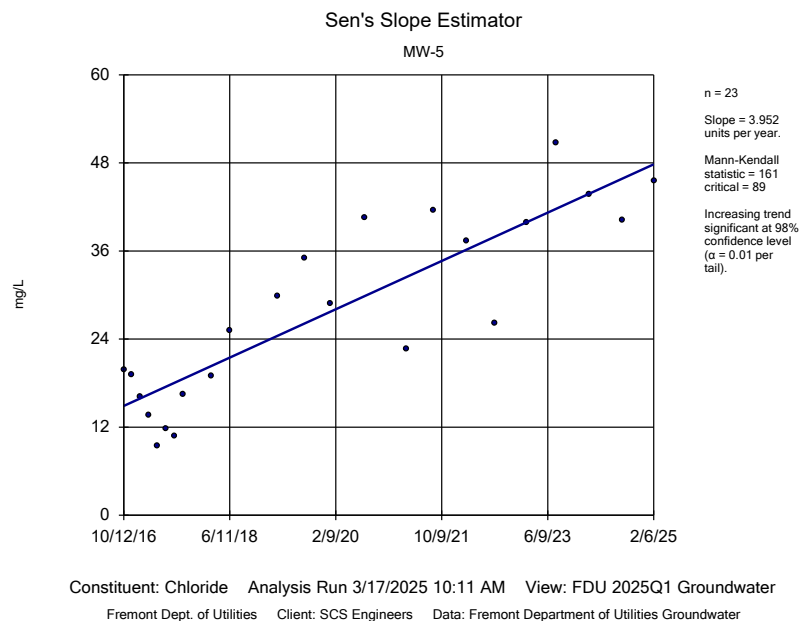
Constituent: Chloride Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

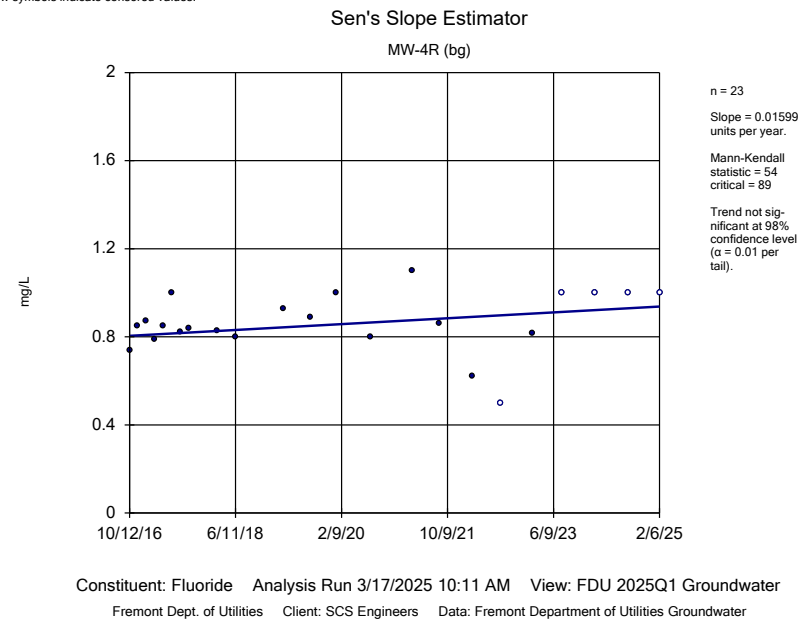
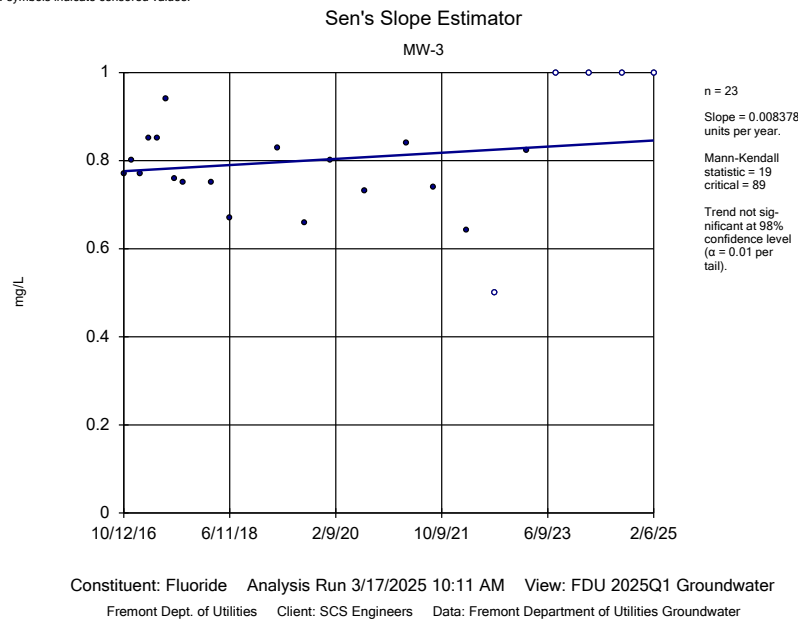
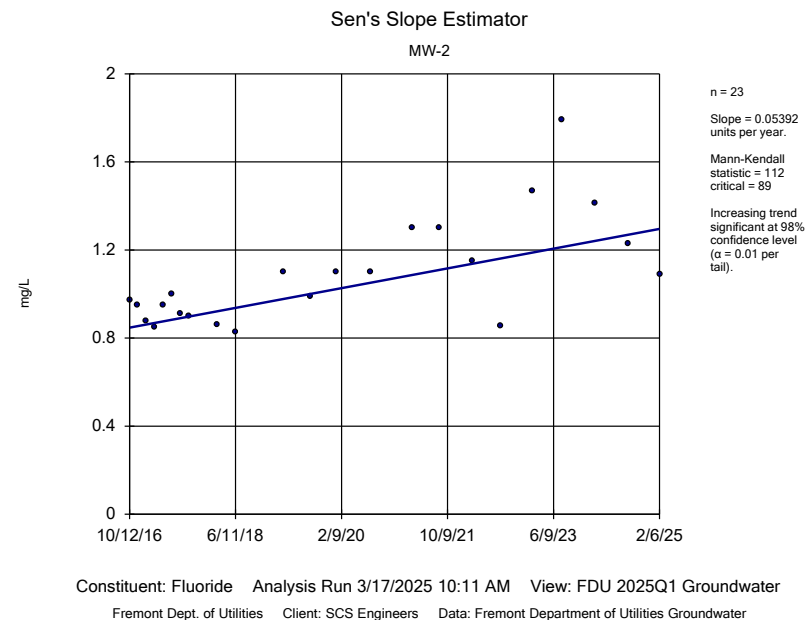
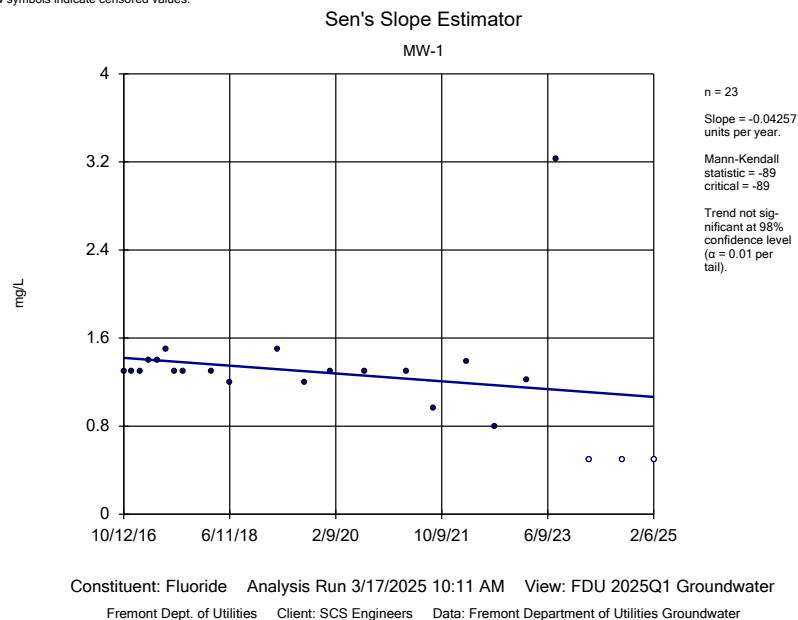
Sen's Slope Estimator

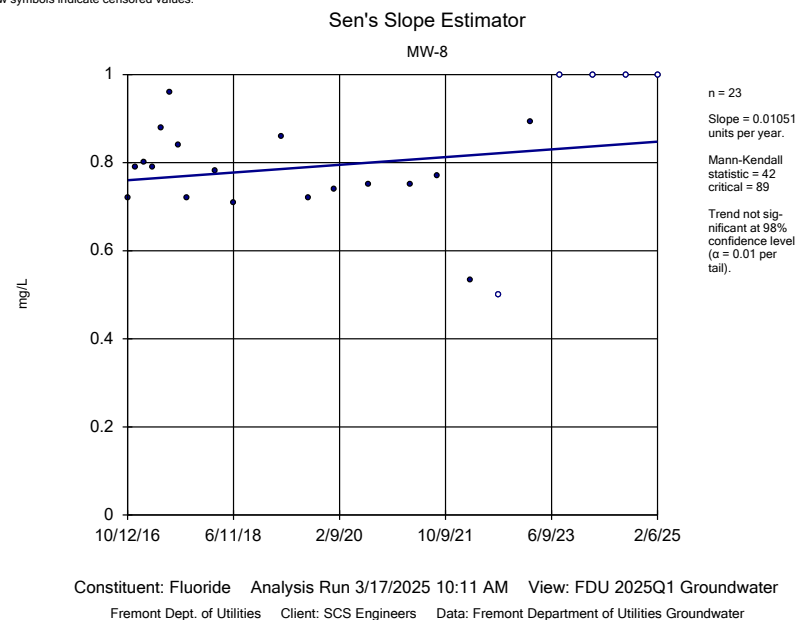
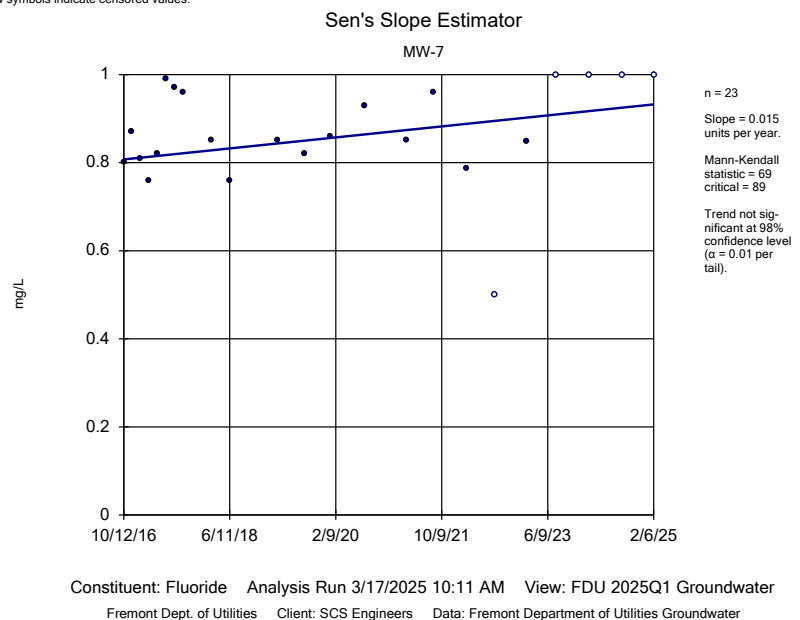
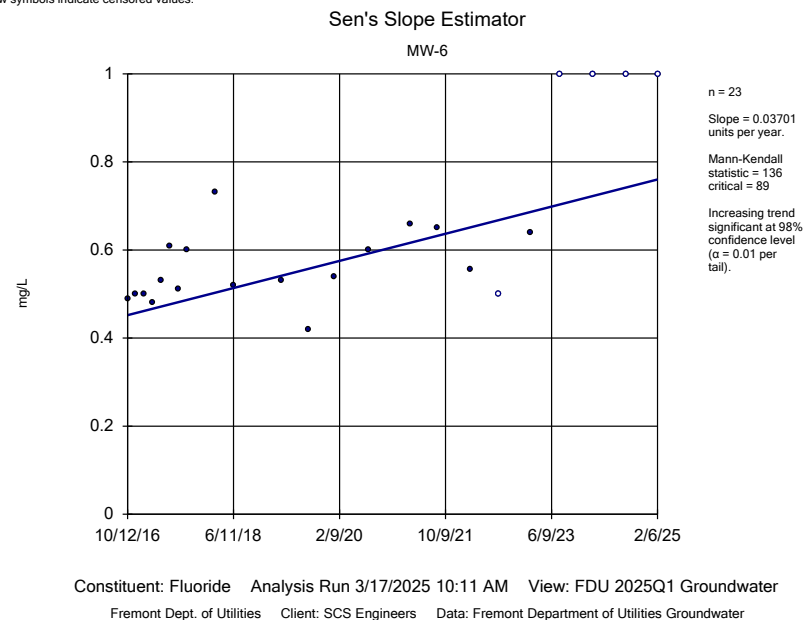
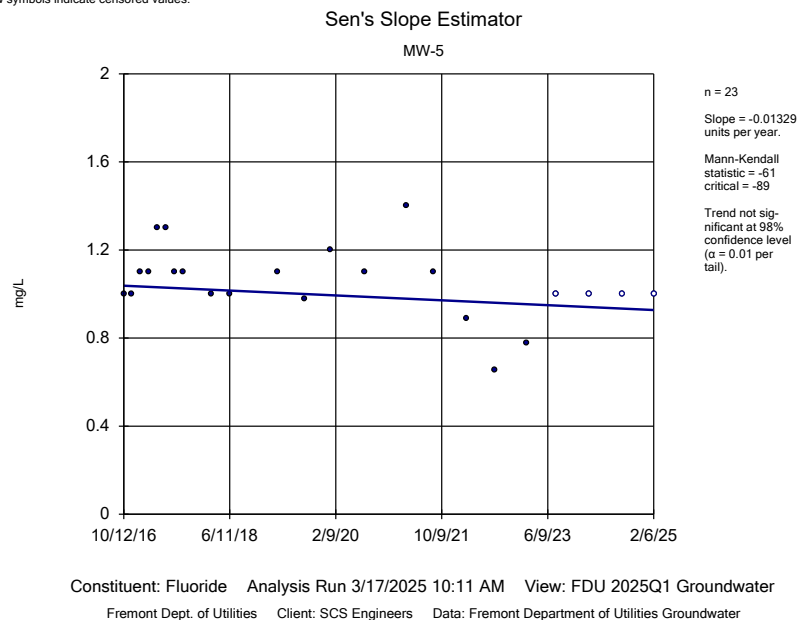
MW-4R (bg)

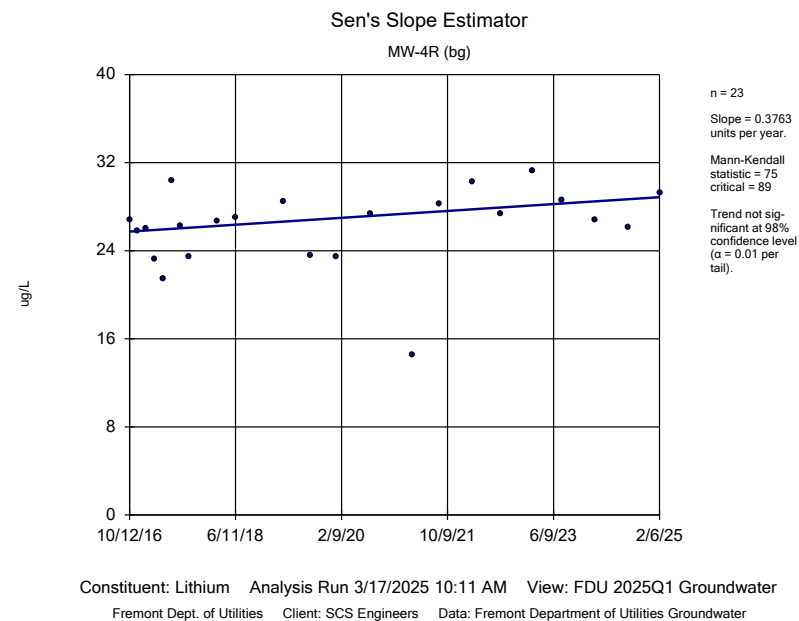
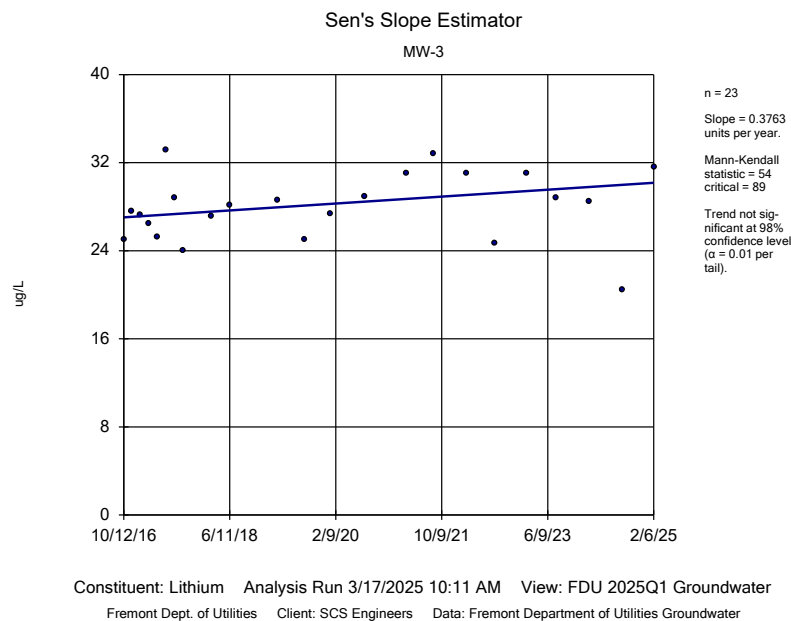
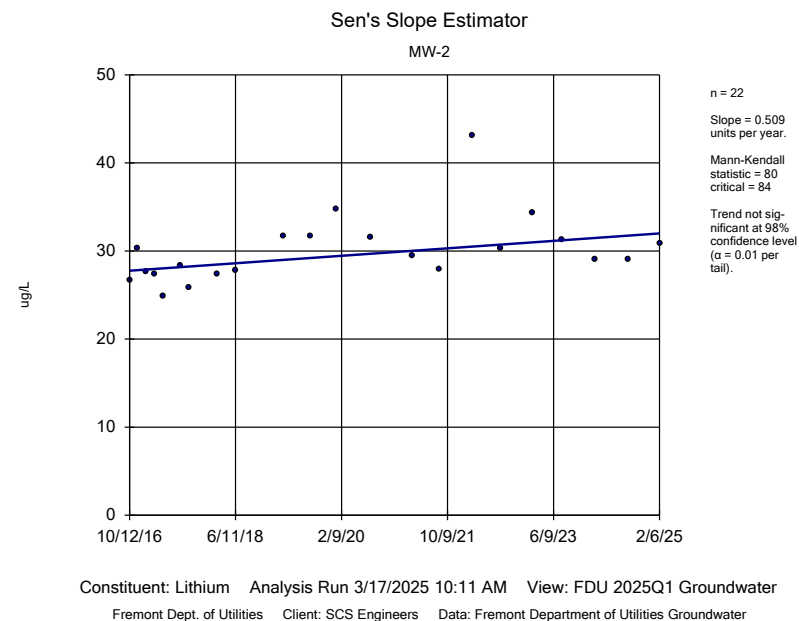
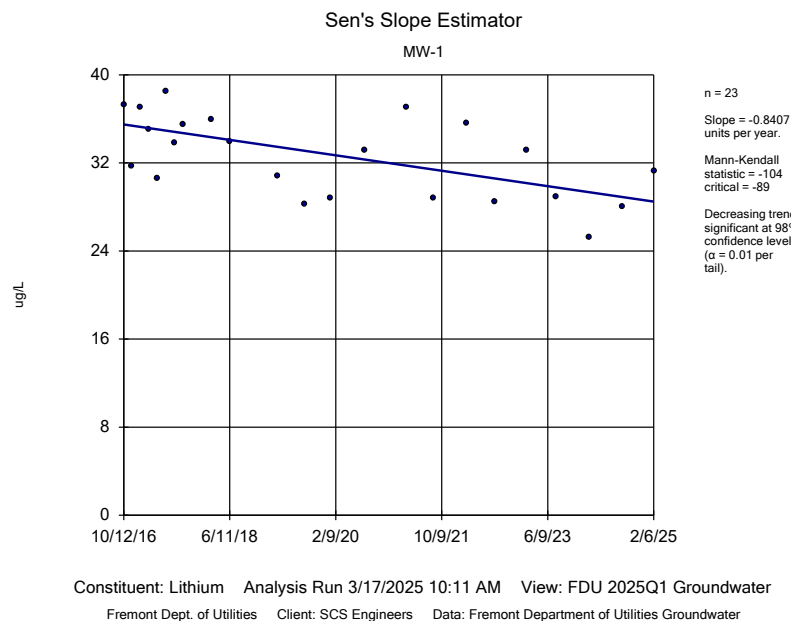


Constituent: Chloride Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



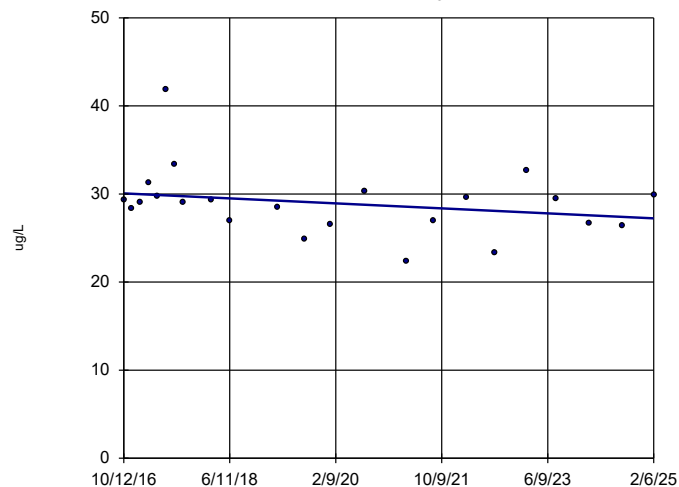






Sen's Slope Estimator

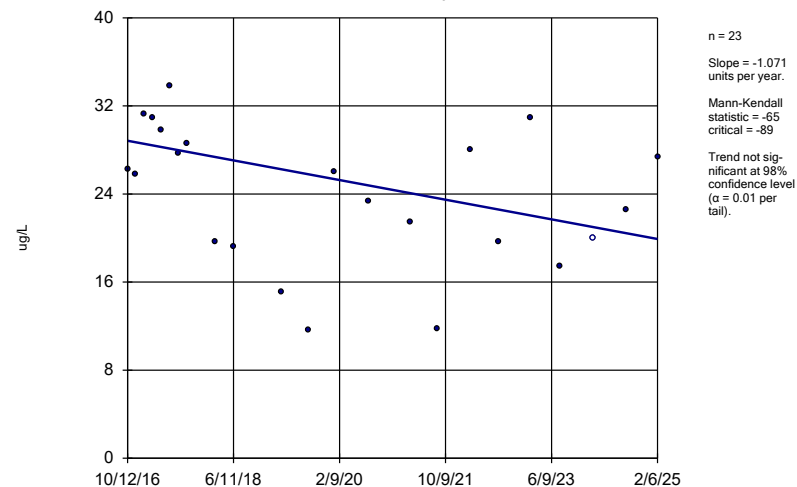
MW-5



Constituent: Lithium Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

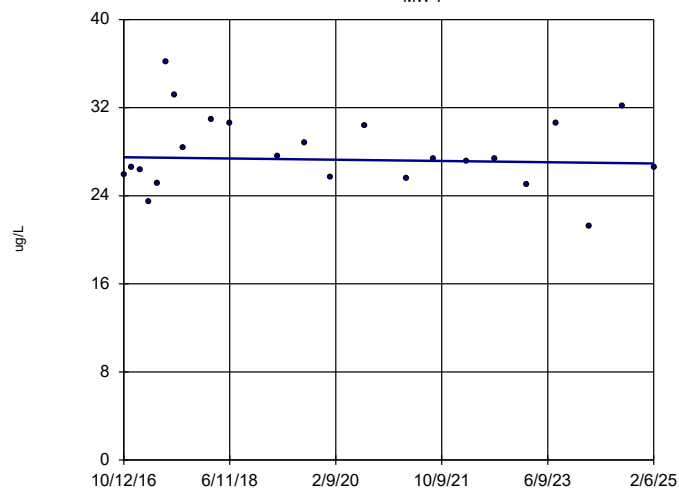
MW-6



Constituent: Lithium Analysis Run 3/17/2025 10:11 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

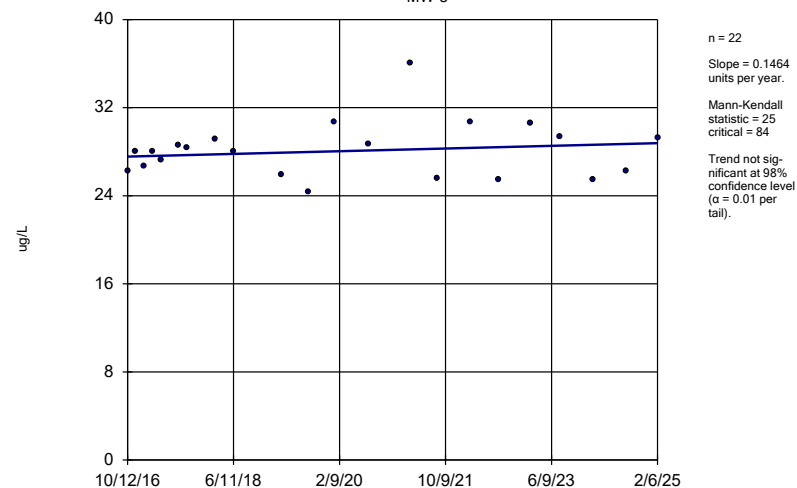
MW-7



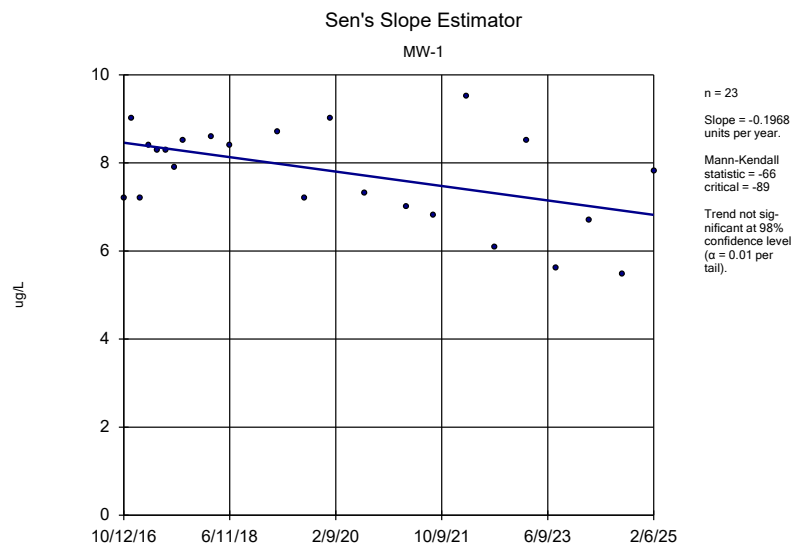
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

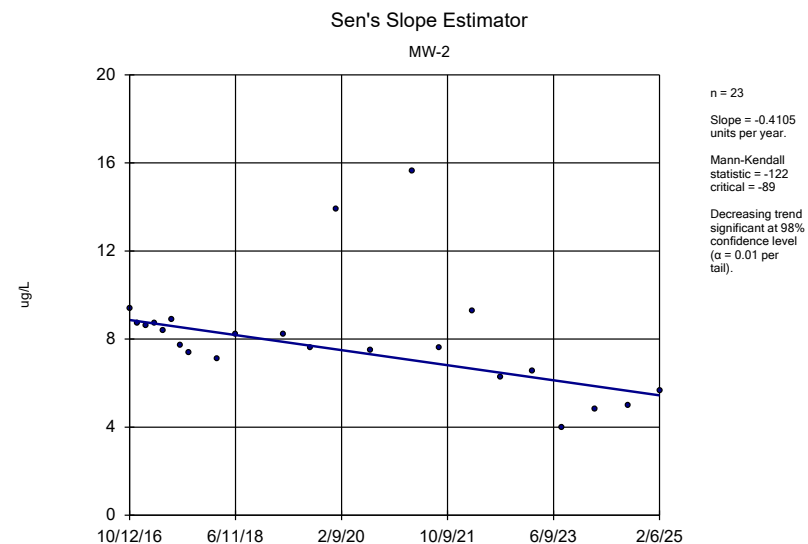
MW-8



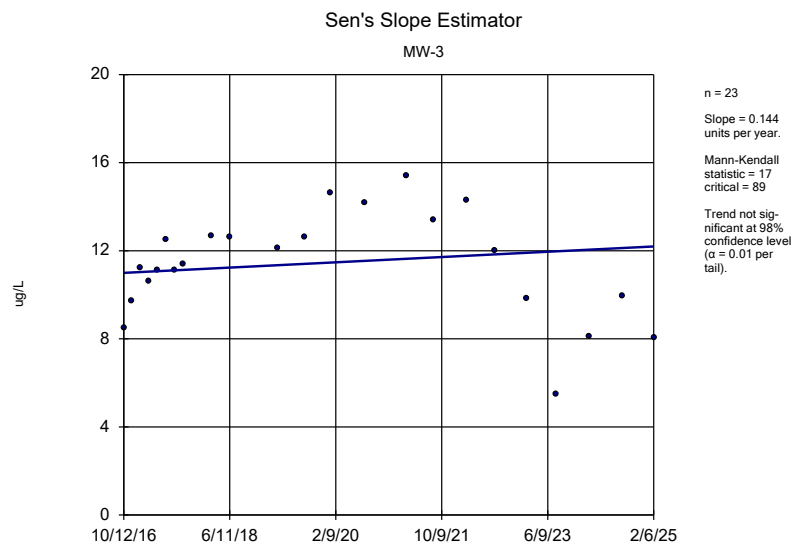
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



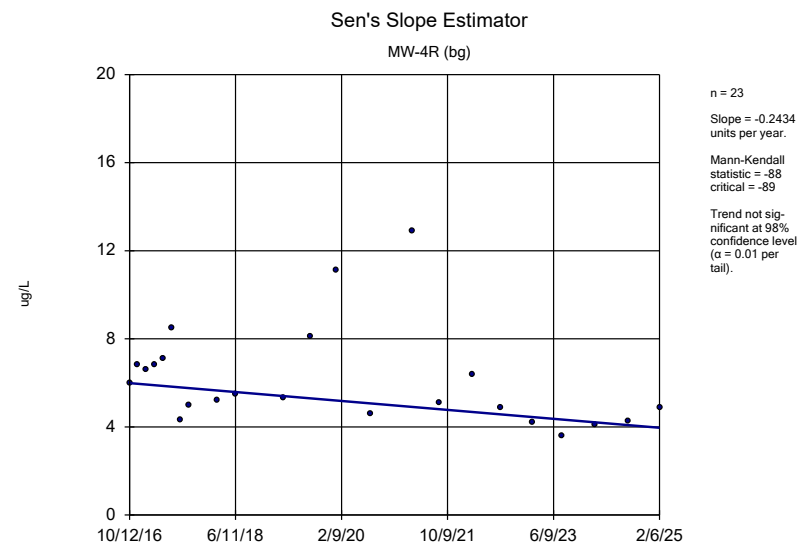
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



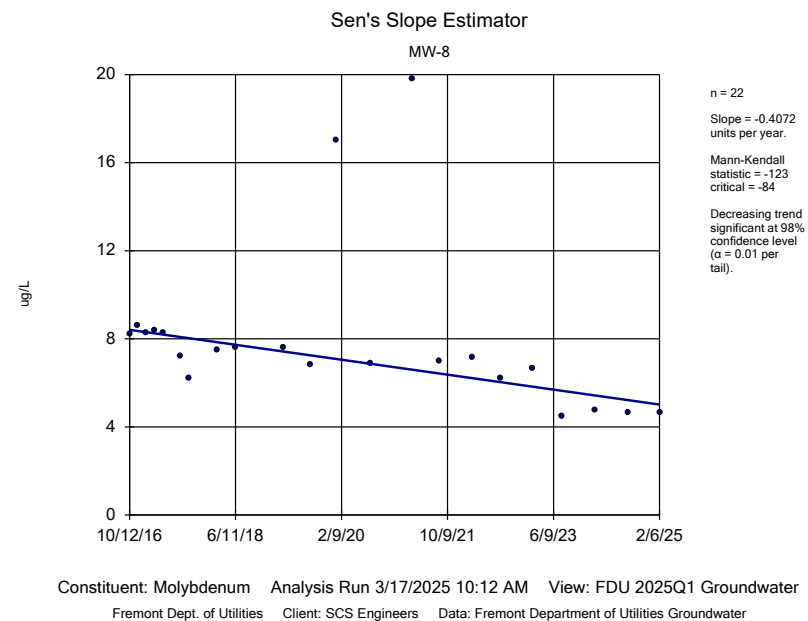
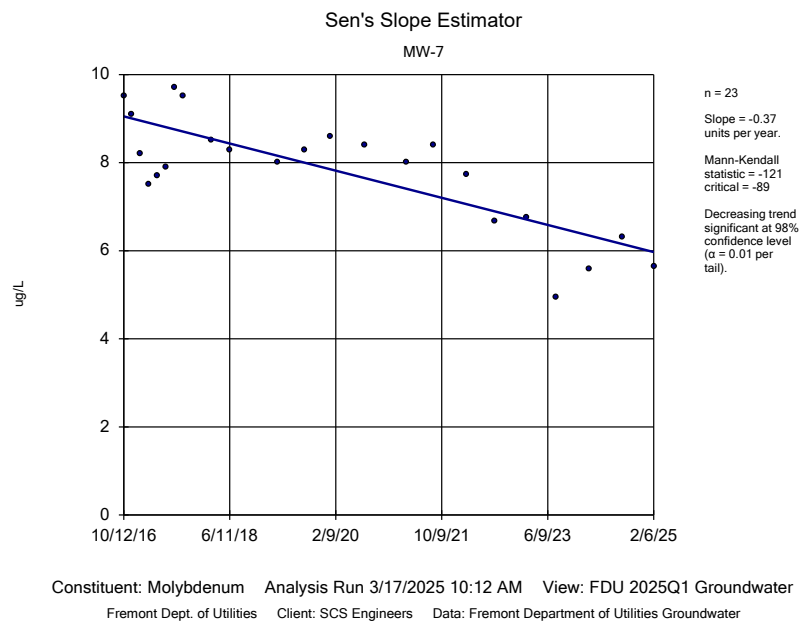
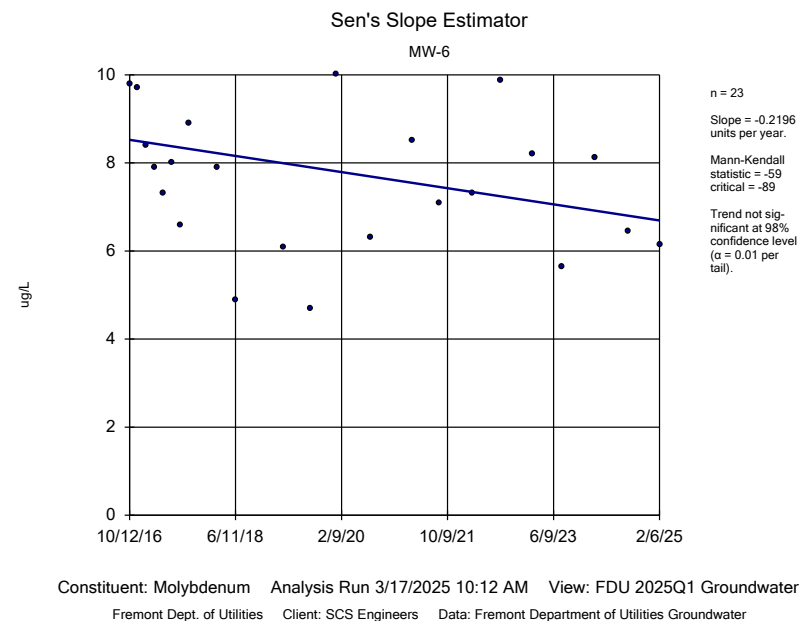
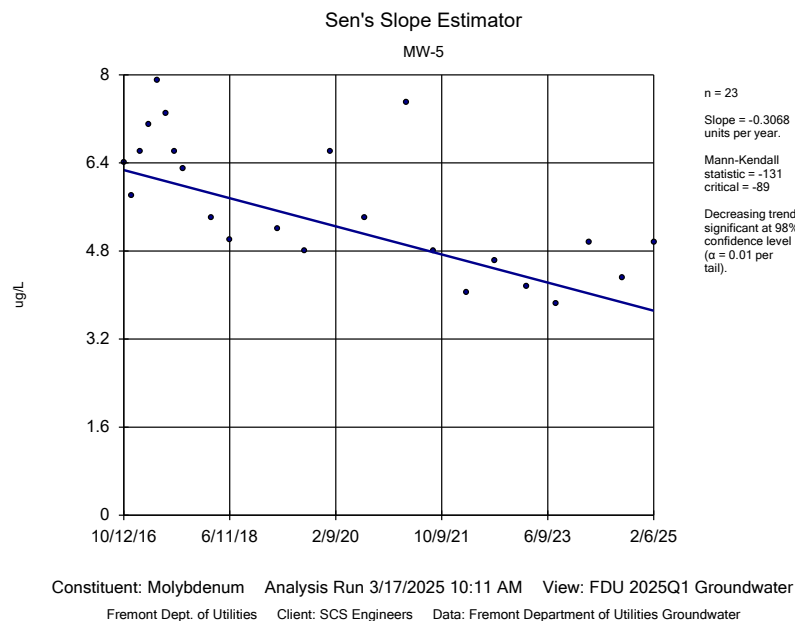
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

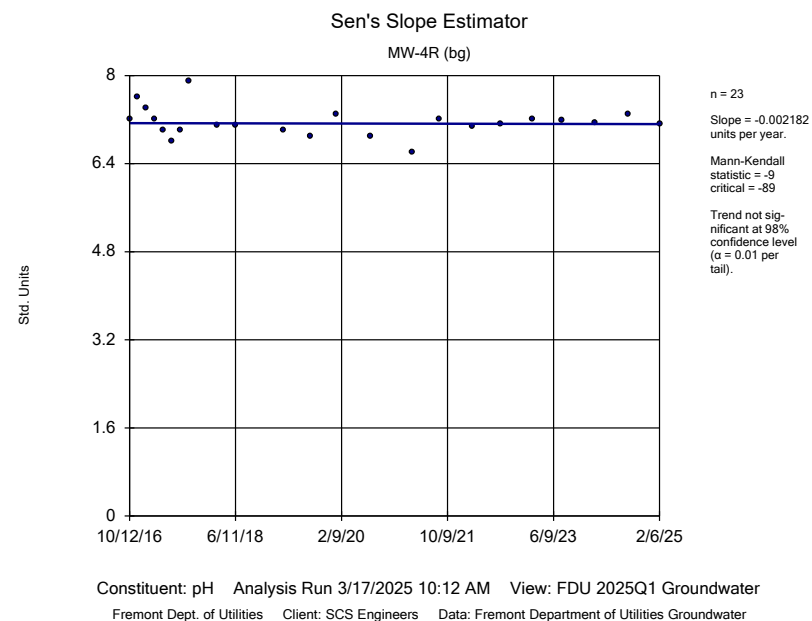
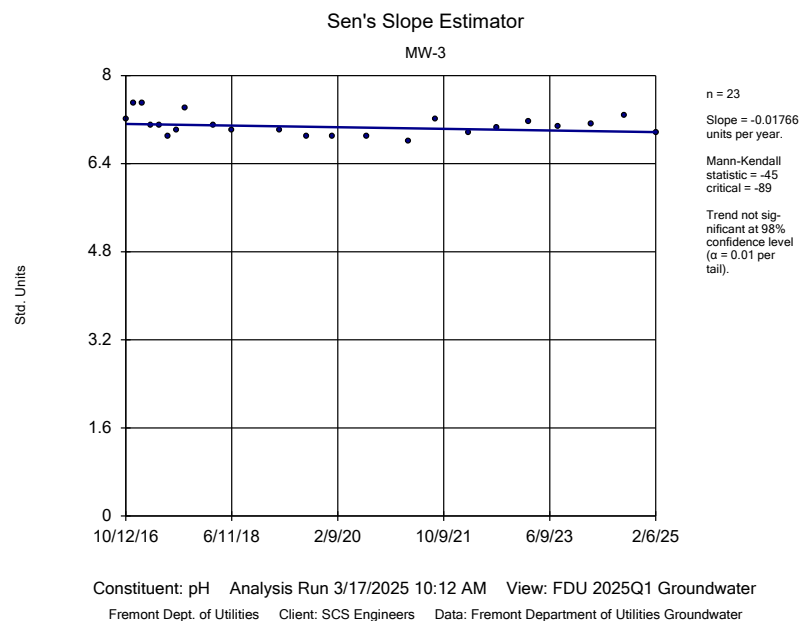
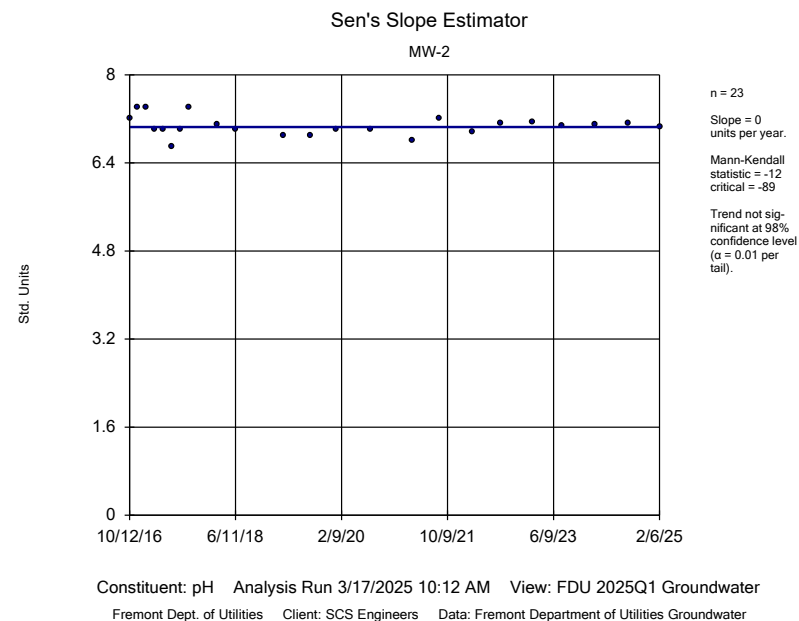
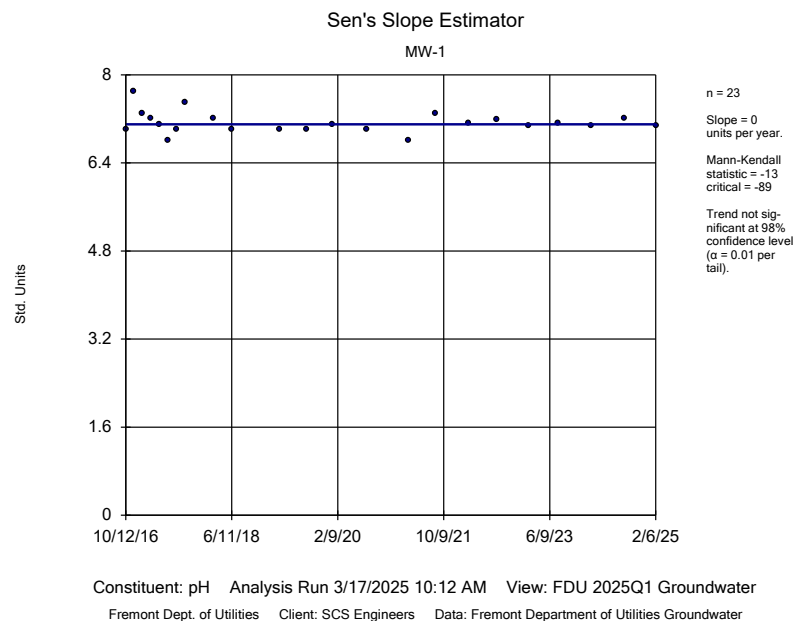


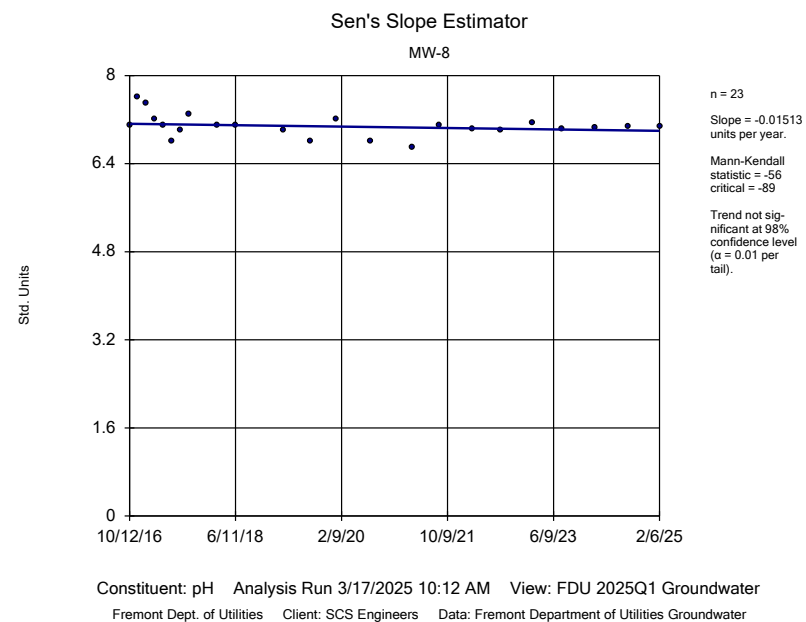
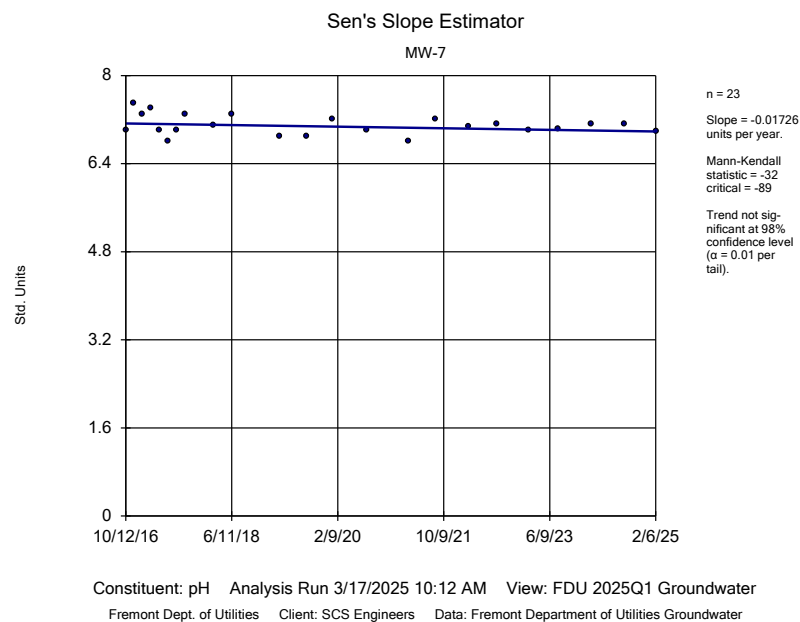
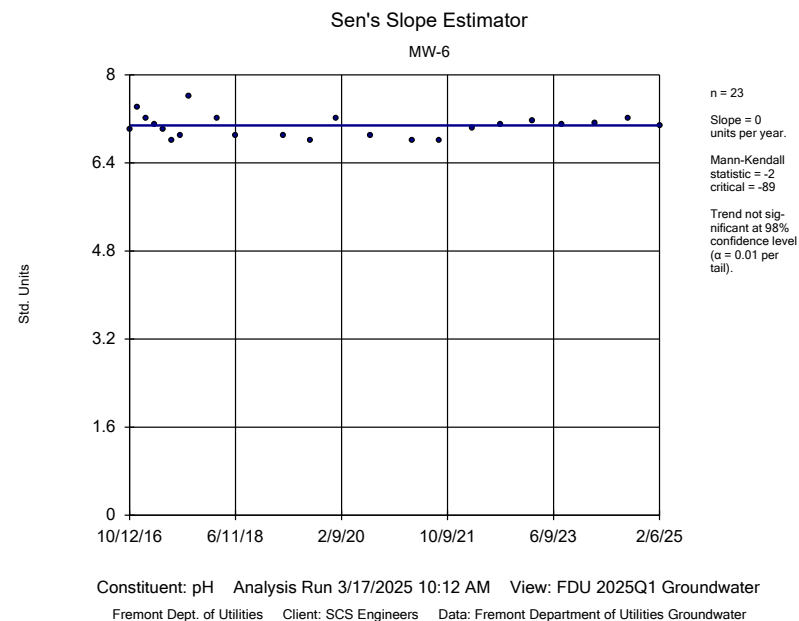
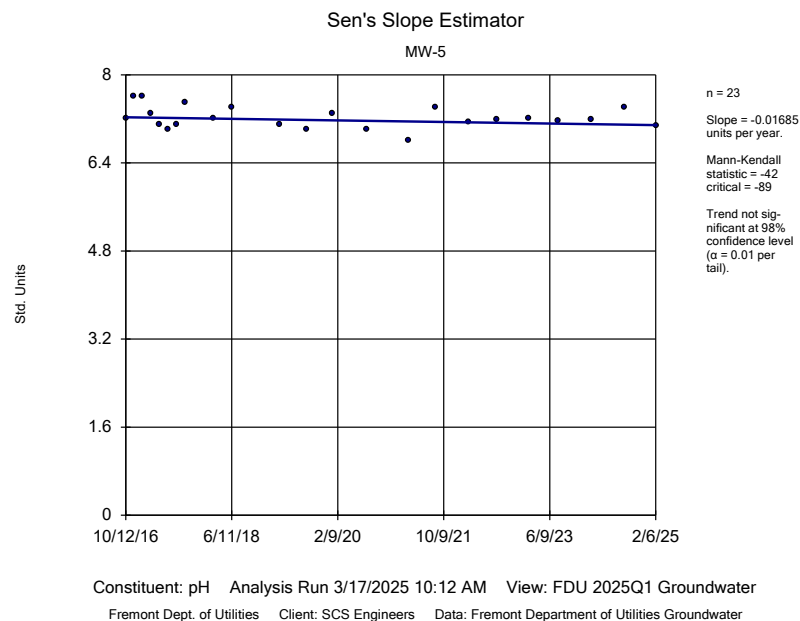
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

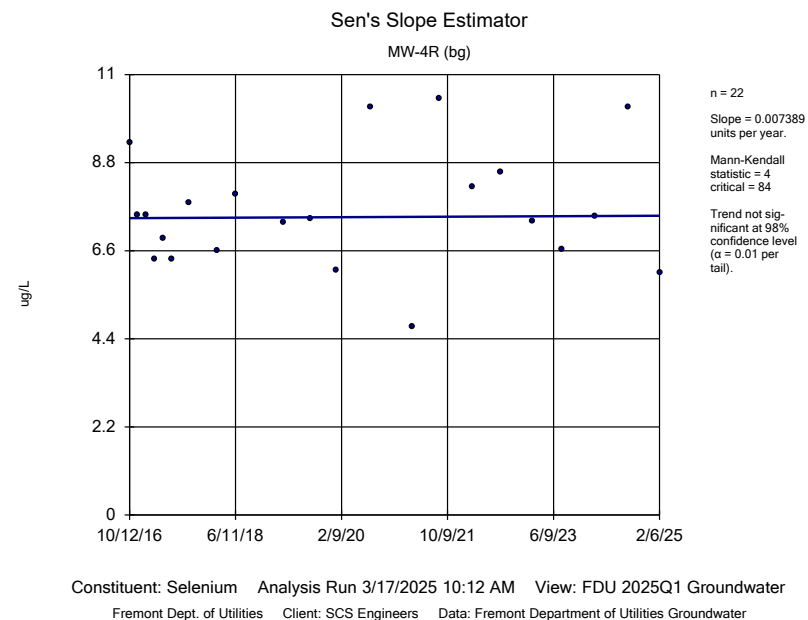
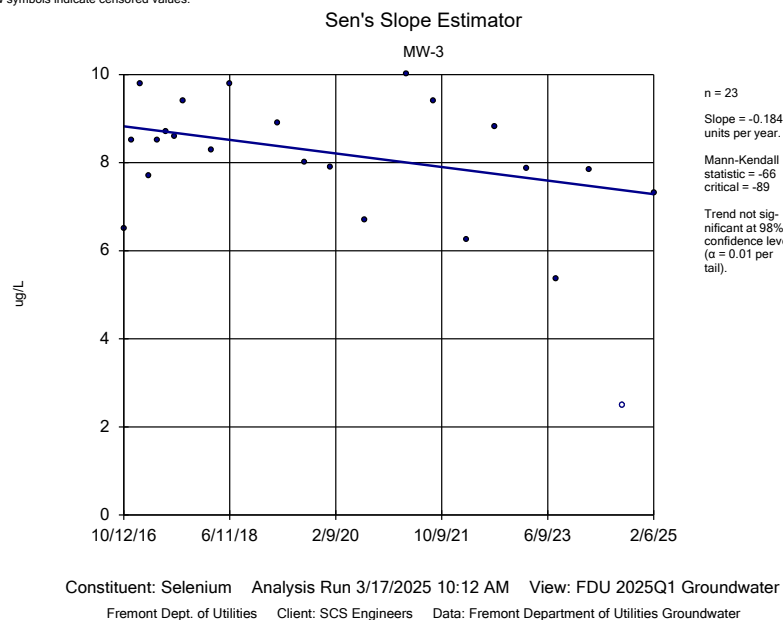
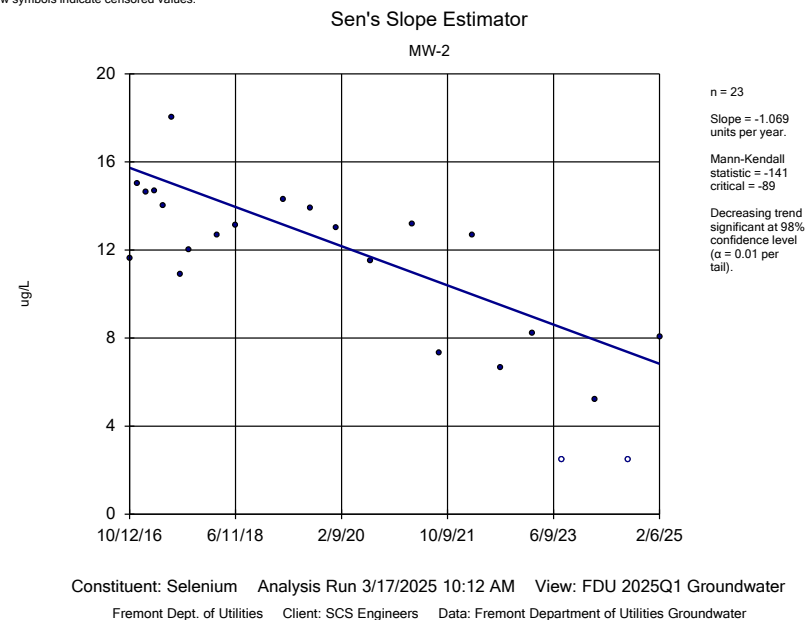
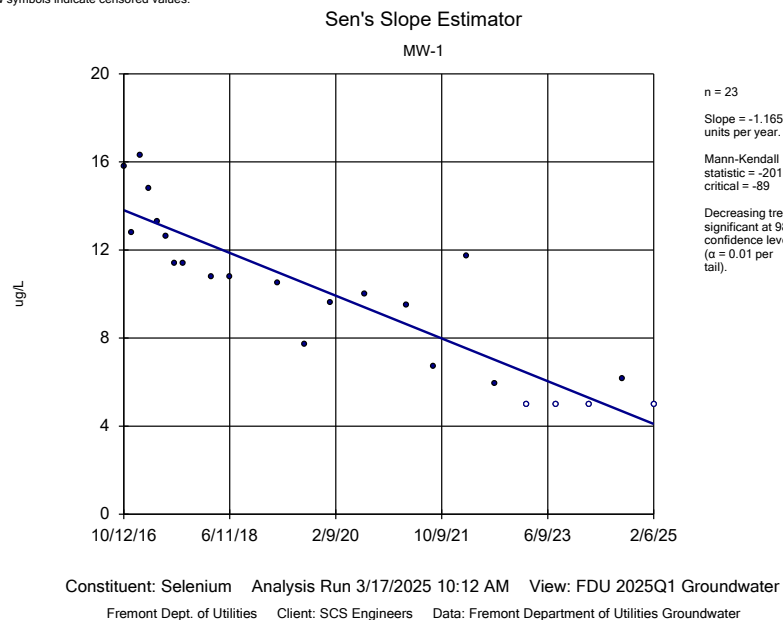


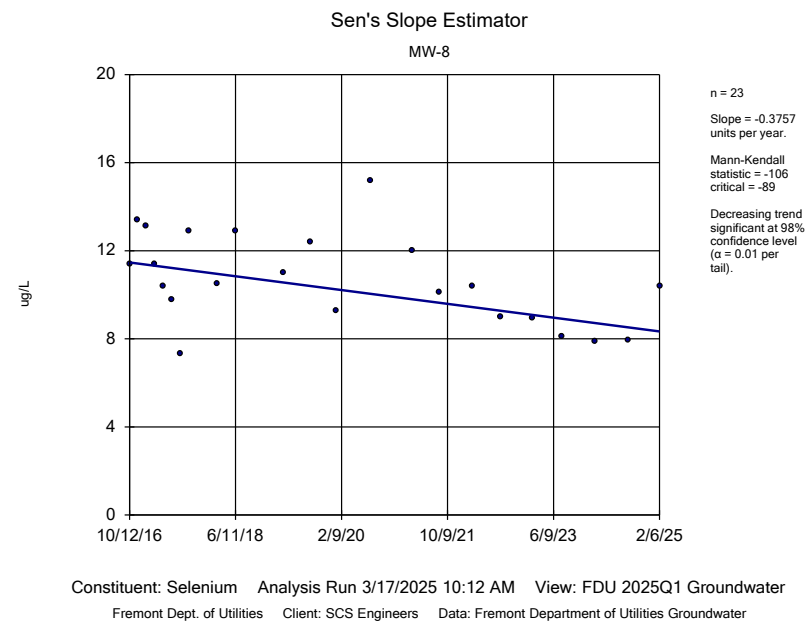
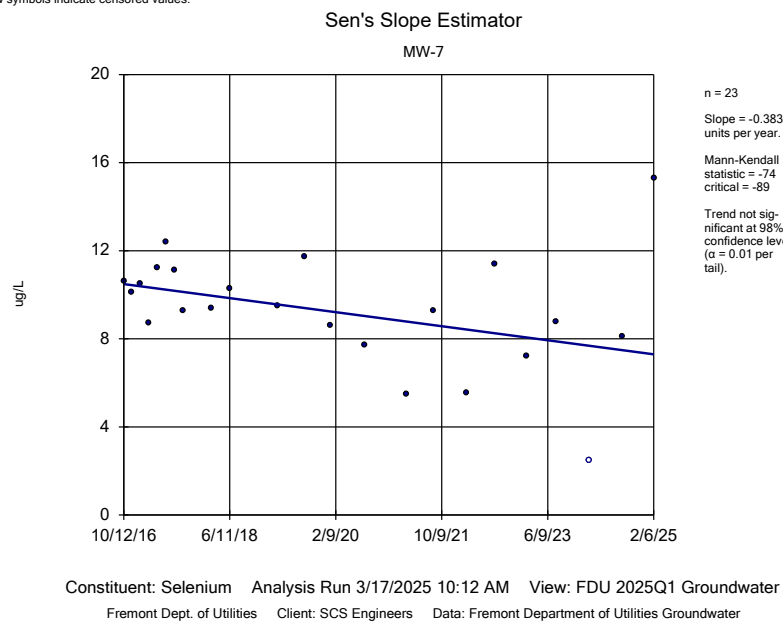
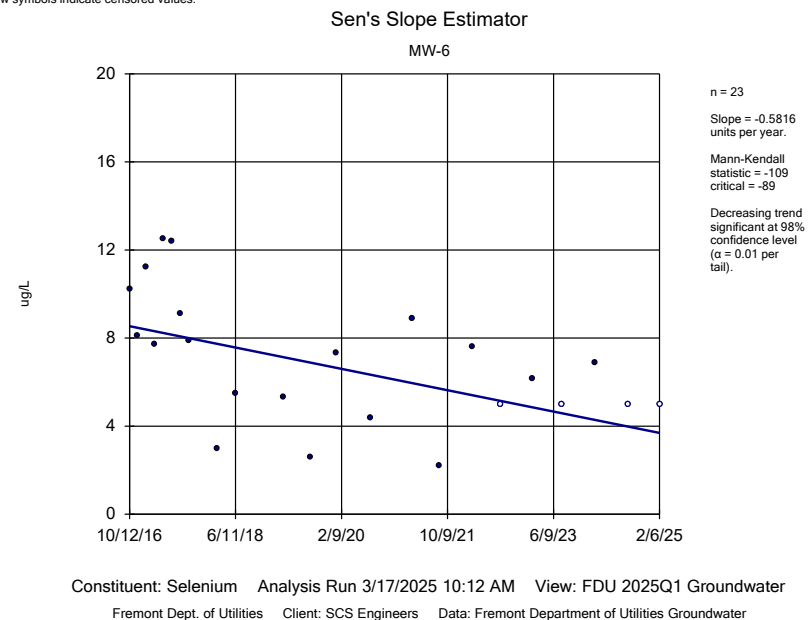
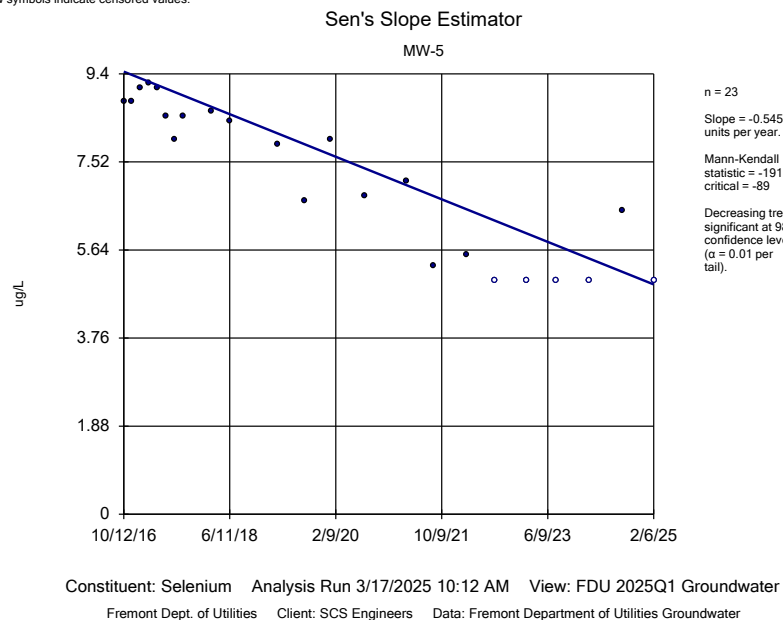
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

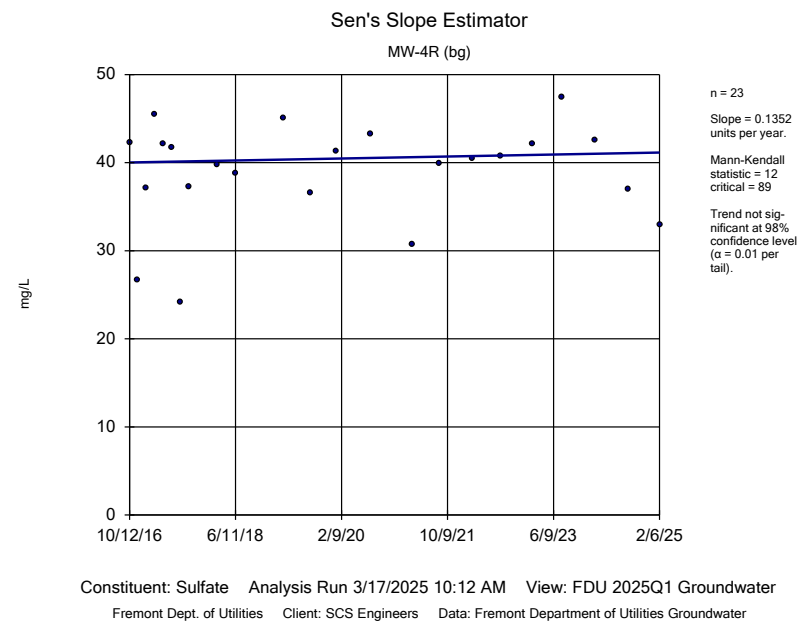
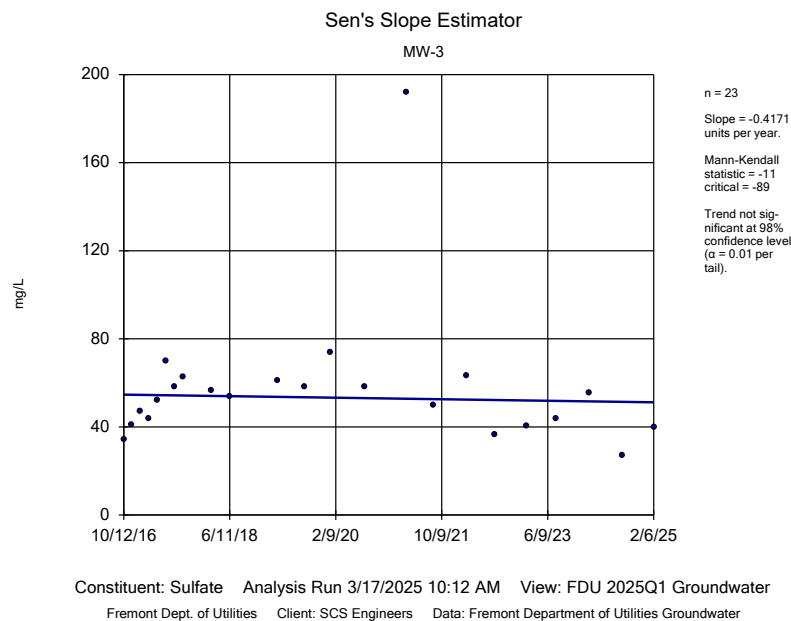
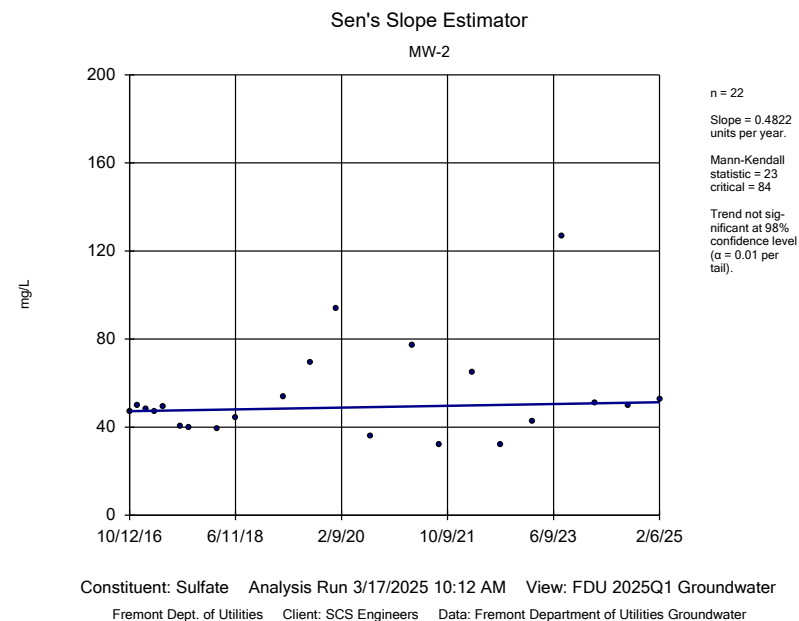
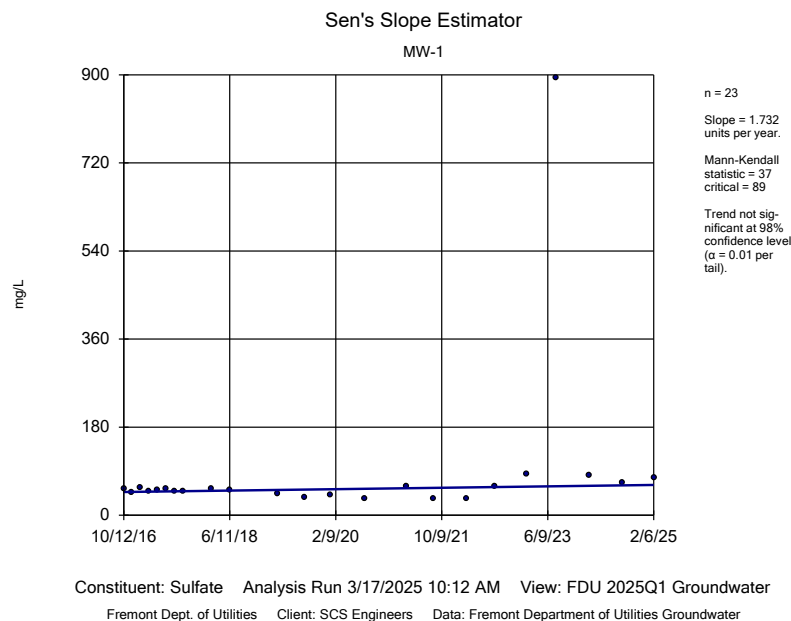


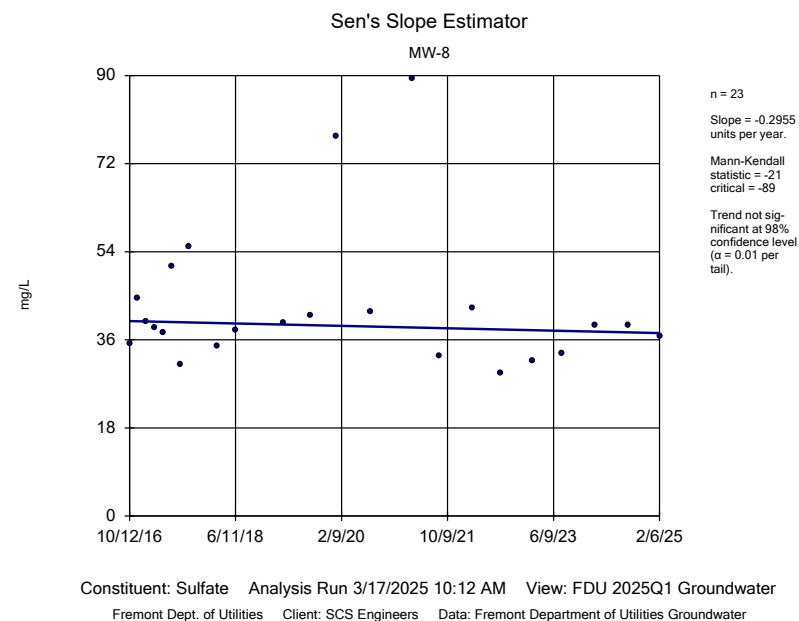
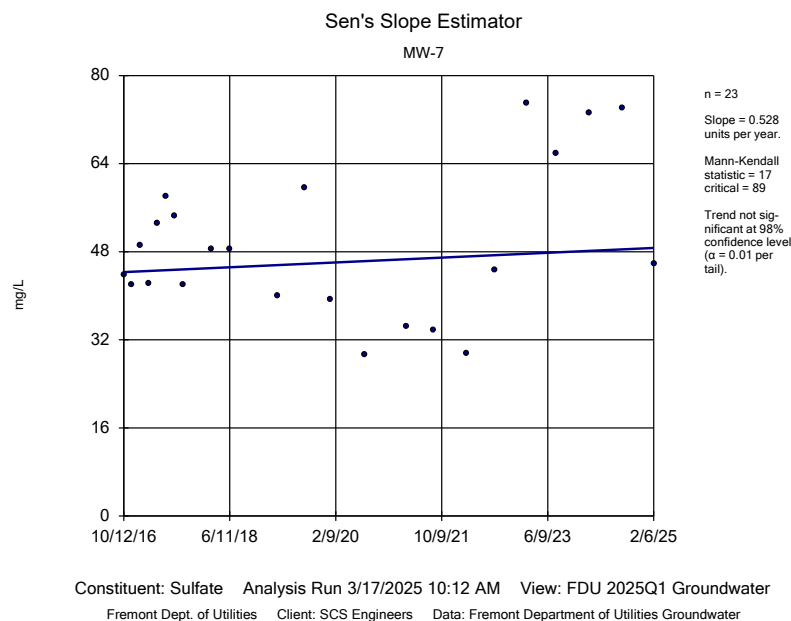
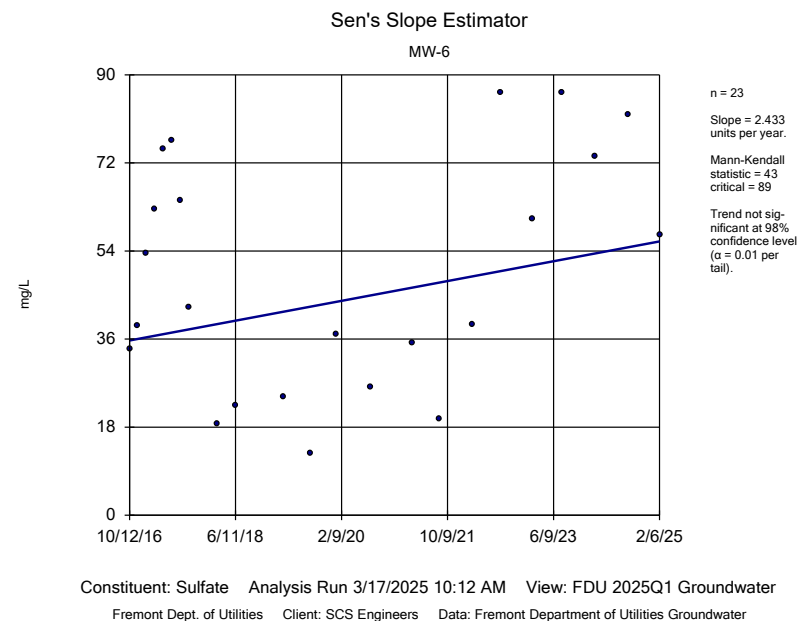
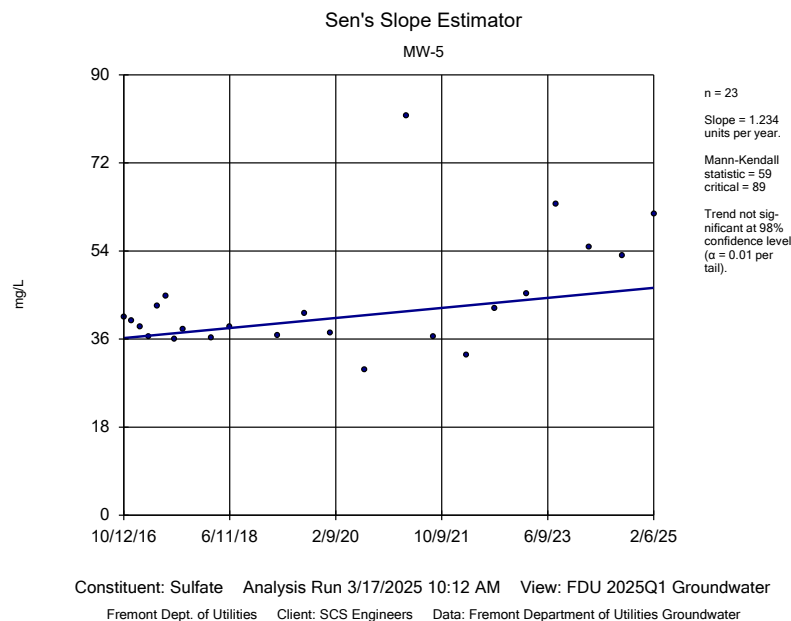


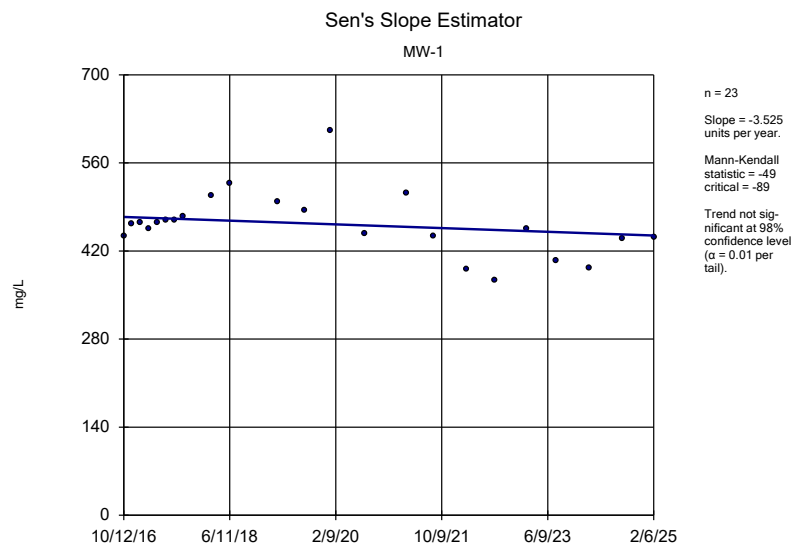




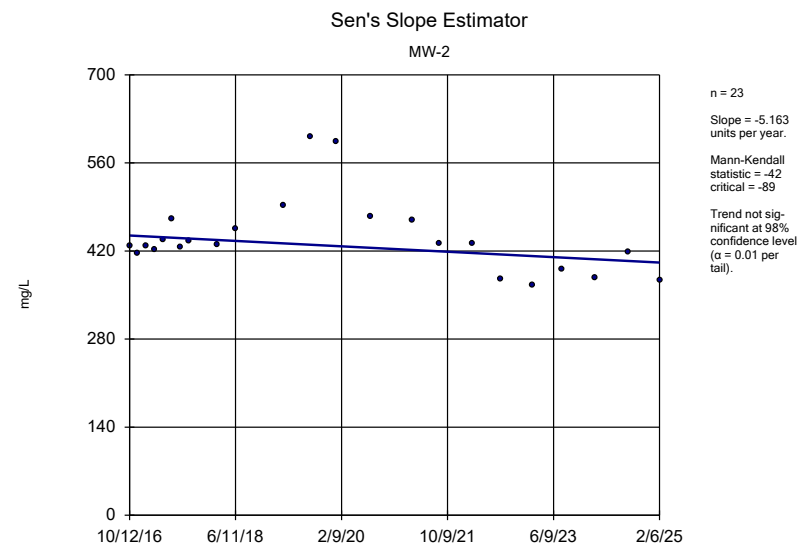




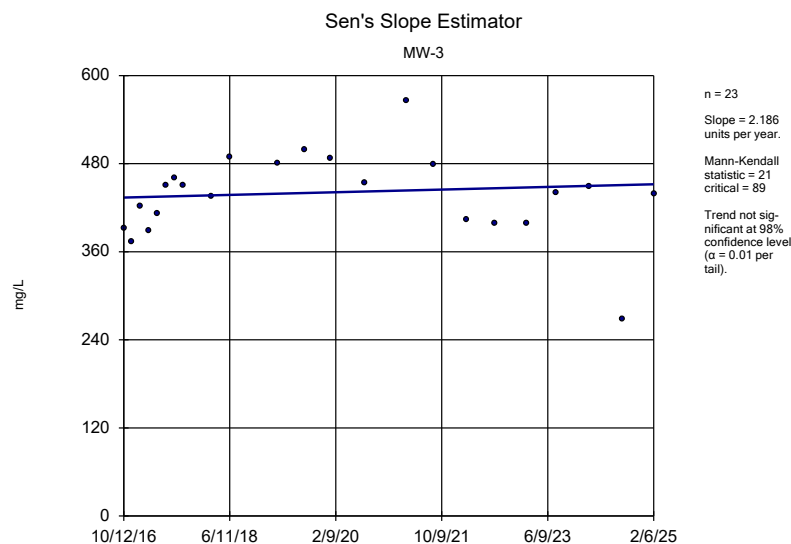




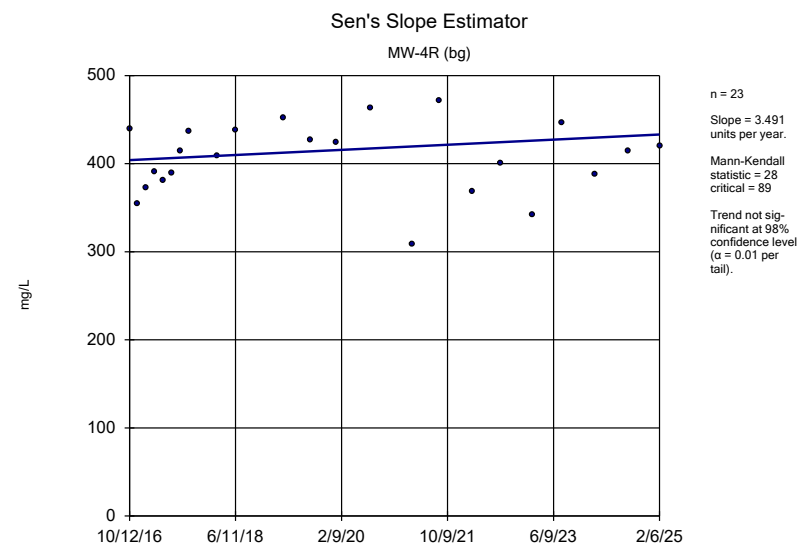
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



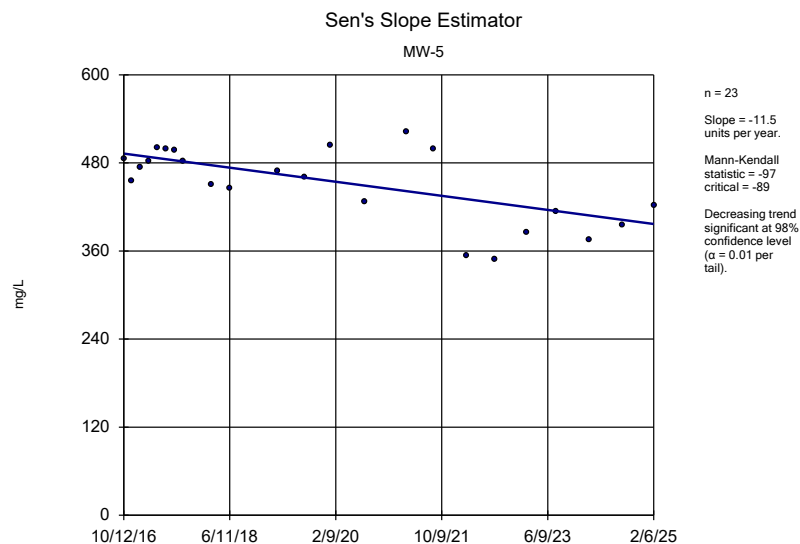
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



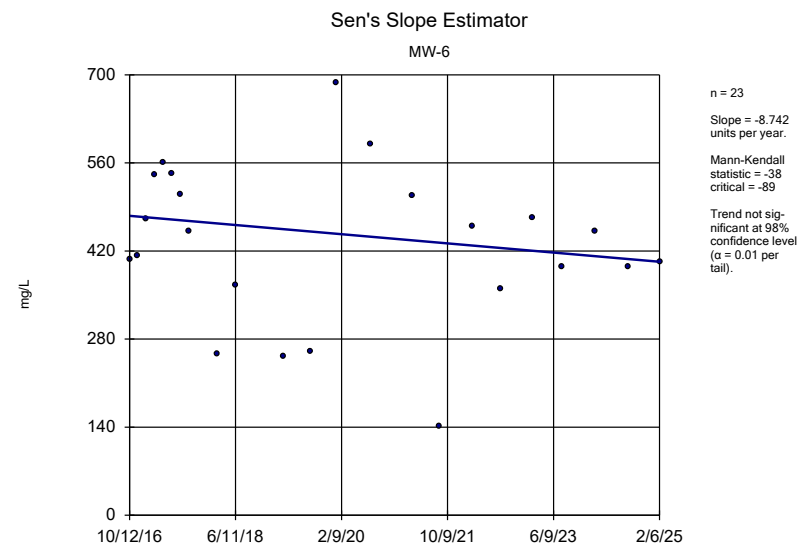
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



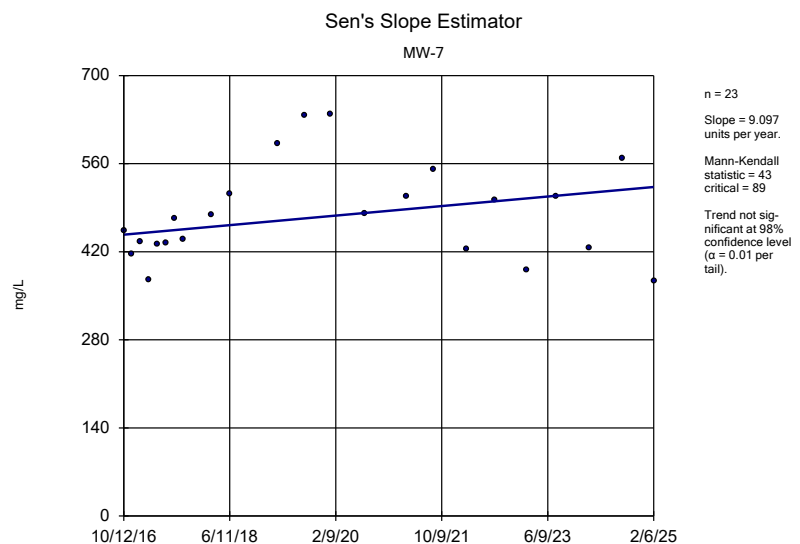
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



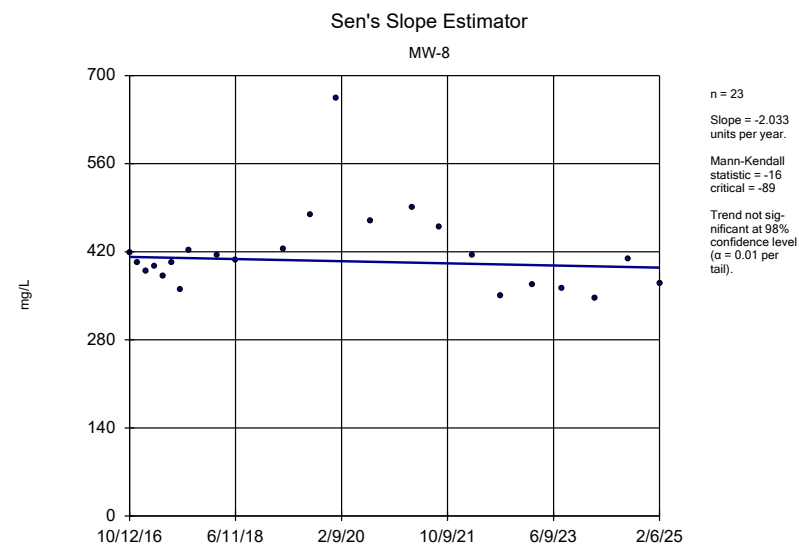
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



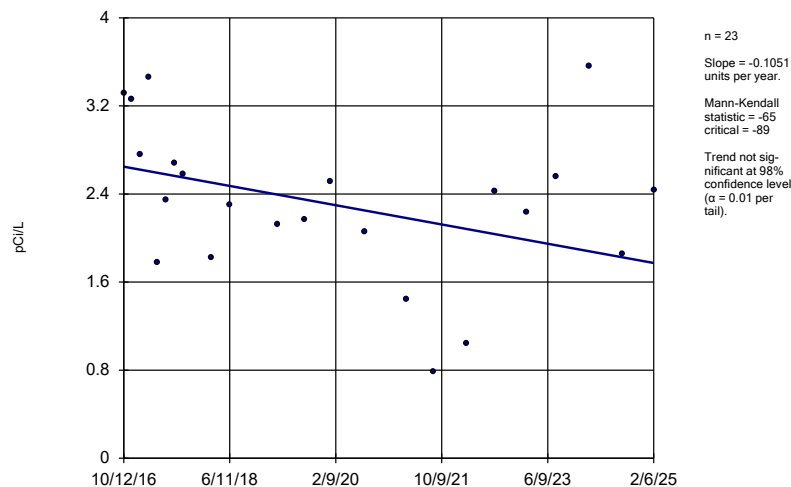
Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

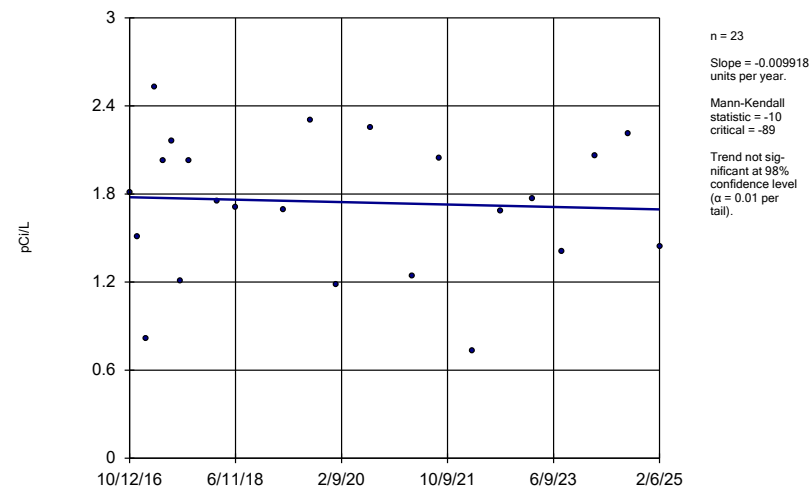
MW-1



Constituent: Total Radium Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

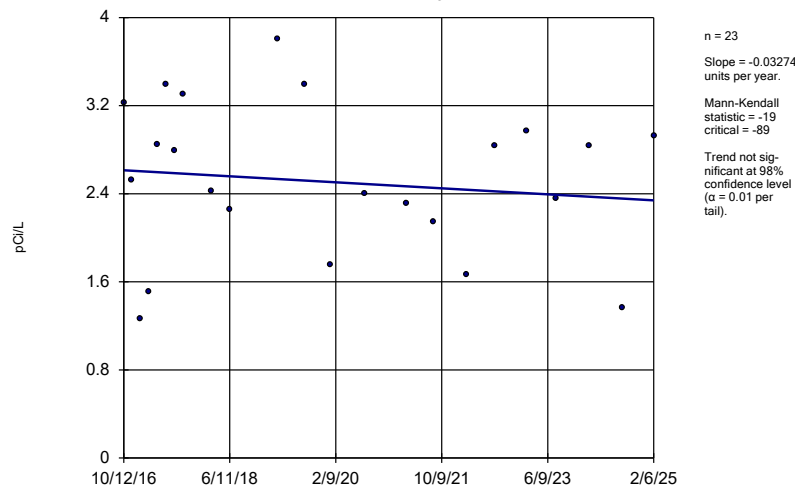
MW-2



Constituent: Total Radium Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

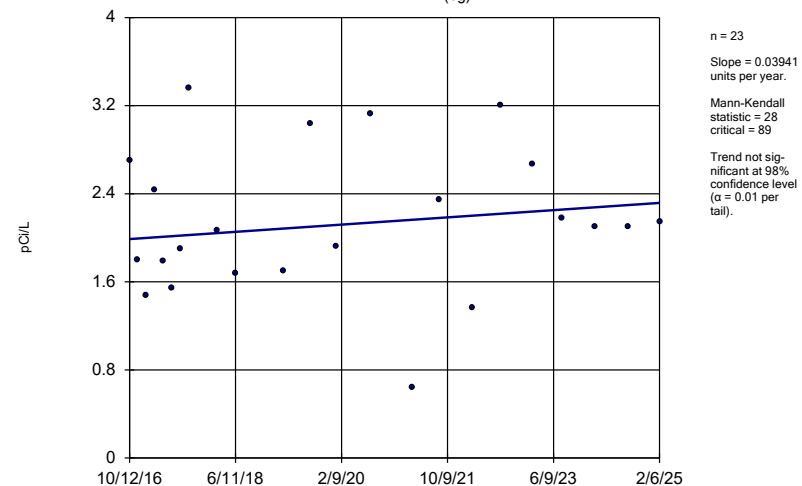
MW-3



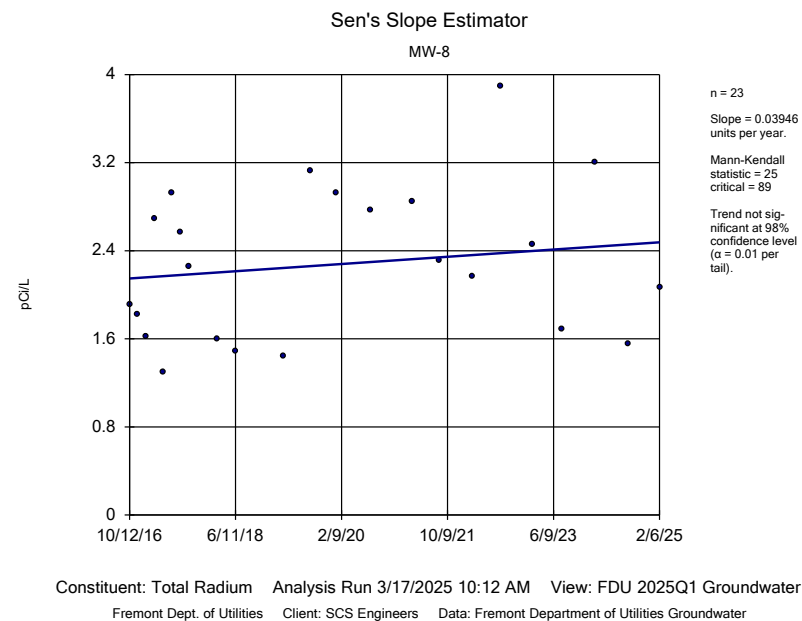
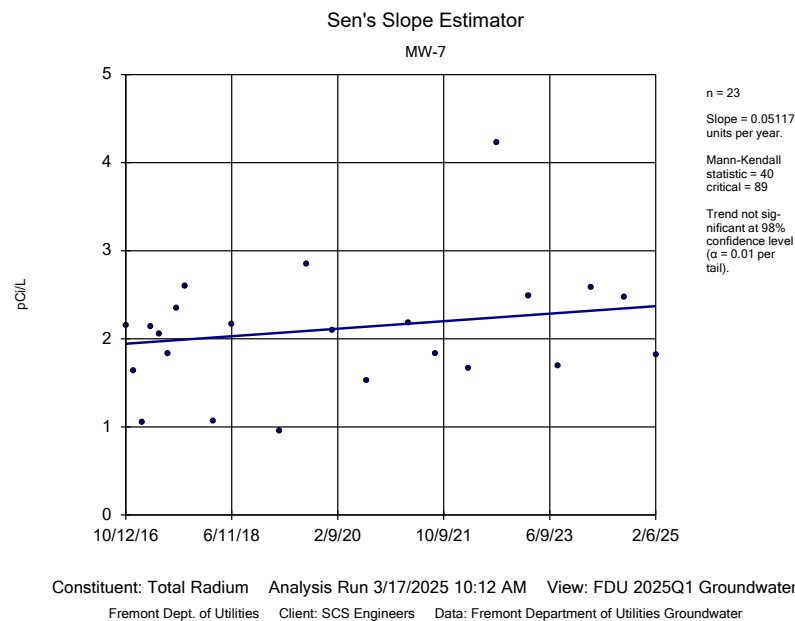
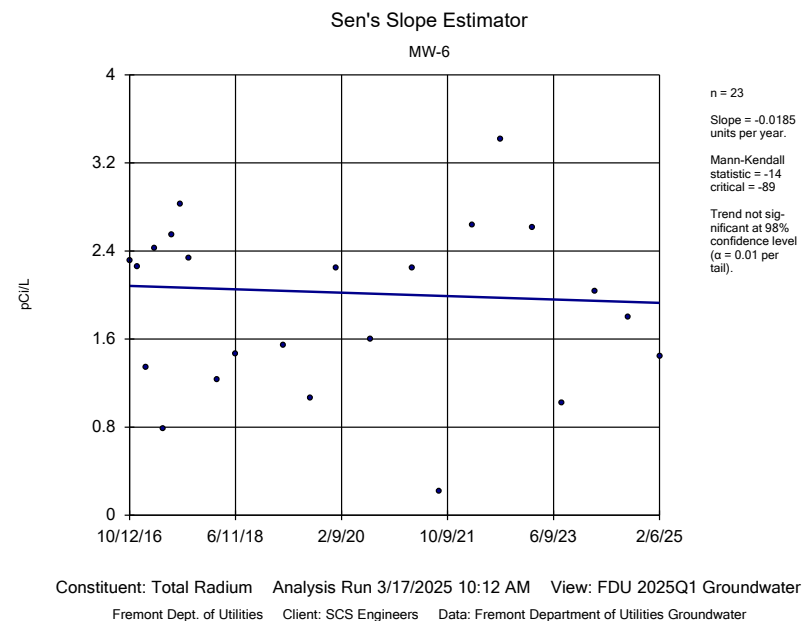
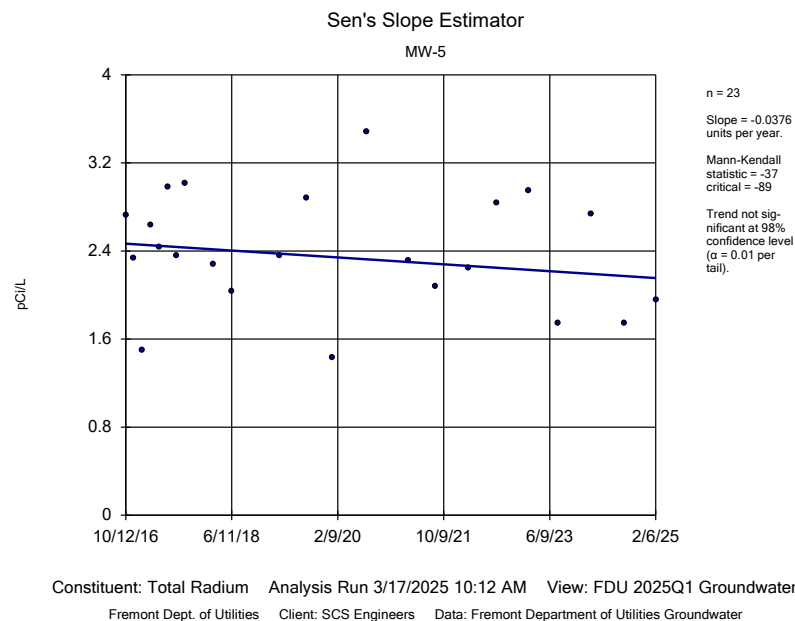
Constituent: Total Radium Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

MW-4R (bg)



Constituent: Total Radium Analysis Run 3/17/2025 10:12 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



A.5 Confidence Interval Analysis

Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 3/17/2025, 10:40 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (ug/L)	MW-1	4.144	3.459	10	No	22	0	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-2	4.122	3.765	10	No	22	0	No	0.01	Param.
Arsenic (ug/L)	MW-3	3.416	2.998	10	No	22	0	No	0.01	Param.
Arsenic (ug/L)	MW-4R (bg)	4.893	3.936	10	No	22	0	No	0.01	Param.
Arsenic (ug/L)	MW-5	4.628	4.337	10	No	22	0	No	0.01	Param.
Arsenic (ug/L)	MW-6	3.717	2.875	10	No	22	0	sqrt(x)	0.01	Param.
Arsenic (ug/L)	MW-7	3.786	3.419	10	No	22	0	sqrt(x)	0.01	Param.
Arsenic (ug/L)	MW-8	2.705	2.513	10	No	22	0	No	0.01	Param.
Barium (ug/L)	MW-1	143.3	126.7	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-2	108.3	98.99	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-3	178.1	158.6	2000	No	23	0	x^3	0.01	Param.
Barium (ug/L)	MW-4R (bg)	129.2	114.8	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-5	141	126.3	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-6	148.2	108.7	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-7	130.5	113.7	2000	No	23	0	No	0.01	Param.
Barium (ug/L)	MW-8	156.8	140.9	2000	No	23	0	No	0.01	Param.
Boron (ug/L)	MW-1	148.9	116.8	153.3	No	23	4.348	No	0.01	Param.
Boron (ug/L)	MW-2	134	115	153.3	No	22	4.545	No	0.01	NP (normality)
Boron (ug/L)	MW-3	109	100	153.3	No	23	34.78	No	0.01	NP (normality)
Boron (ug/L)	MW-4R (bg)	214	100	153.3	No	23	39.13	No	0.01	NP (normality)
Boron (ug/L)	MW-5	132	113	153.3	No	23	8.696	No	0.01	NP (normality)
Boron (ug/L)	MW-6	127	100	153.3	No	23	52.17	No	0.01	NP (normality)
Boron (ug/L)	MW-7	162.2	115	153.3	No	23	13.04	No	0.01	Param.
Boron (ug/L)	MW-8	142	102	153.3	No	21	14.29	No	0.01	NP (normality)
Calcium (mg/L)	MW-1	105.2	98.01	87.04	Yes	23	0	No	0.01	Param.
Calcium (mg/L)	MW-2	107.2	95.29	87.04	Yes	23	0	No	0.01	Param.
Calcium (mg/L)	MW-3	101.5	88.78	87.04	Yes	23	0	No	0.01	Param.
Calcium (mg/L)	MW-4R (bg)	92.07	81.68	87.04	No	23	0	No	0.01	Param.
Calcium (mg/L)	MW-5	107.7	95.09	87.04	Yes	23	0	No	0.01	Param.
Calcium (mg/L)	MW-6	91.73	67.48	87.04	No	23	0	No	0.01	Param.
Calcium (mg/L)	MW-7	101.2	88.05	87.04	Yes	23	0	No	0.01	Param.
Calcium (mg/L)	MW-8	96.38	86.94	87.04	No	23	0	No	0.01	Param.
Chloride (mg/L)	MW-1	30.9	15.41	250	No	23	0	x^(1/3)	0.01	Param.
Chloride (mg/L)	MW-2	25.37	16.1	250	No	22	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-3	45.81	30.98	250	No	23	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-4R (bg)	38.29	22.1	250	No	22	0	No	0.01	Param.
Chloride (mg/L)	MW-5	34.56	21.37	250	No	23	0	No	0.01	Param.
Chloride (mg/L)	MW-6	65.8	38.47	250	No	22	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-7	89.5	22.3	250	No	23	0	No	0.01	NP (normality)
Chloride (mg/L)	MW-8	34.57	25.9	250	No	23	0	No	0.01	Param.
Fluoride (mg/L)	MW-1	1.39	1.2	4	No	23	13.04	No	0.01	NP (normality)
Fluoride (mg/L)	MW-2	1.197	0.9595	4	No	23	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MW-3	0.9145	0.7665	4	No	23	21.74	No	0.01	Param.
Fluoride (mg/L)	MW-4R (bg)	0.9754	0.8341	4	No	23	21.74	No	0.01	Param.
Fluoride (mg/L)	MW-5	1.136	0.9681	4	No	23	17.39	No	0.01	Param.
Fluoride (mg/L)	MW-6	0.66	0.5	4	No	23	21.74	No	0.01	NP (normality)
Fluoride (mg/L)	MW-7	0.97	0.81	4	No	23	21.74	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	MW-8	0.9233	0.7642	4	No	23	21.74	No	0.01	Param.
Lithium (ug/L)	MW-1	34.39	30.54	40	No	23	0	No	0.01	Param.
Lithium (ug/L)	MW-2	31.96	28.01	40	No	22	0	sqrt(x)	0.01	Param.

Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 3/17/2025, 10:40 AM

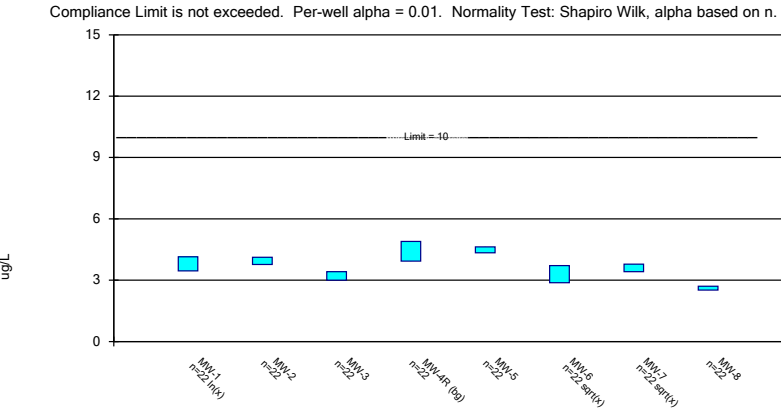
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (ug/L)	MW-3	29.53	26.33	40	No	23	0	No	0.01	Param.
Lithium (ug/L)	MW-4R (bg)	28.04	24.68	40	No	23	0	x^2	0.01	Param.
Lithium (ug/L)	MW-5	30.81	26.9	40	No	23	0	sqrt(x)	0.01	Param.
Lithium (ug/L)	MW-6	27.1	20.55	40	No	23	4.348	No	0.01	Param.
Lithium (ug/L)	MW-7	29.67	26.16	40	No	23	0	No	0.01	Param.
Lithium (ug/L)	MW-8	29.49	26.75	40	No	22	0	No	0.01	Param.
Molybdenum (ug/L)	MW-1	8.293	7.14	100	No	23	0	No	0.01	Param.
Molybdenum (ug/L)	MW-2	9.188	6.649	100	No	23	0	sqrt(x)	0.01	Param.
Molybdenum (ug/L)	MW-3	12.62	10.11	100	No	23	0	No	0.01	Param.
Molybdenum (ug/L)	MW-4R (bg)	7.089	4.948	100	No	23	0	sqrt(x)	0.01	Param.
Molybdenum (ug/L)	MW-5	6.256	5.013	100	No	23	0	No	0.01	Param.
Molybdenum (ug/L)	MW-6	8.366	6.748	100	No	23	0	No	0.01	Param.
Molybdenum (ug/L)	MW-7	8.463	7.123	100	No	23	0	No	0.01	Param.
Molybdenum (ug/L)	MW-8	8.3	6.2	100	No	22	0	No	0.01	NP (normality)
pH (Std. Units)	MW-1	7.242	7.008	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-2	7.173	6.966	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-3	7.203	6.981	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-4R (bg)	7.3	6.992	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-5	7.332	7.097	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-6	7.173	6.937	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-7	7.2	6.988	8.5	No	23	0	No	0.005	Param.
pH (Std. Units)	MW-8	7.2	6.958	8.5	No	23	0	No	0.005	Param.
Selenium (ug/L)	MW-1	11.71	7.359	50	No	23	17.39	No	0.01	Param.
Selenium (ug/L)	MW-2	13.25	8.974	50	No	23	8.696	No	0.01	Param.
Selenium (ug/L)	MW-3	8.816	7.335	50	No	23	4.348	x^2	0.01	Param.
Selenium (ug/L)	MW-4R (bg)	8.368	6.808	50	No	22	0	No	0.01	Param.
Selenium (ug/L)	MW-5	8.6	5.3	50	No	23	21.74	No	0.01	NP (Cohens/xfrm)
Selenium (ug/L)	MW-6	8.276	4.789	50	No	23	17.39	No	0.01	Param.
Selenium (ug/L)	MW-7	10.71	7.966	50	No	23	4.348	No	0.01	Param.
Selenium (ug/L)	MW-8	11.75	9.619	50	No	23	0	No	0.01	Param.
Sulfate (mg/L)	MW-1	59.5	43.1	250	No	23	0	No	0.01	NP (normality)
Sulfate (mg/L)	MW-2	60.83	42.55	250	No	22	0	ln(x)	0.01	Param.
Sulfate (mg/L)	MW-3	61.2	40.8	250	No	23	0	No	0.01	NP (normality)
Sulfate (mg/L)	MW-4R (bg)	41.93	35.93	250	No	23	0	No	0.01	Param.
Sulfate (mg/L)	MW-5	48.13	37.63	250	No	23	0	ln(x)	0.01	Param.
Sulfate (mg/L)	MW-6	61.4	36.7	250	No	23	0	No	0.01	Param.
Sulfate (mg/L)	MW-7	56.01	41.89	250	No	23	0	No	0.01	Param.
Sulfate (mg/L)	MW-8	42.6	34.7	250	No	23	0	No	0.01	NP (normality)
Total Dissolved Solids (mg/L)	MW-1	488.7	435.9	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-2	469	416	500	No	23	0	No	0.01	NP (normality)
Total Dissolved Solids (mg/L)	MW-3	466.2	406.2	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-4R (bg)	427.7	385.4	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-5	476.5	423.3	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-6	494.9	365.2	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-7	520.2	440.6	500	No	23	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-8	425	370	500	No	23	0	No	0.01	NP (normality)
Total Radium (pCi/L)	MW-1	2.693	1.957	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-2	1.967	1.473	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-3	2.899	2.174	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-4R (bg)	2.486	1.798	5	No	23	0	No	0.01	Param.

Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 3/17/2025, 10:40 AM

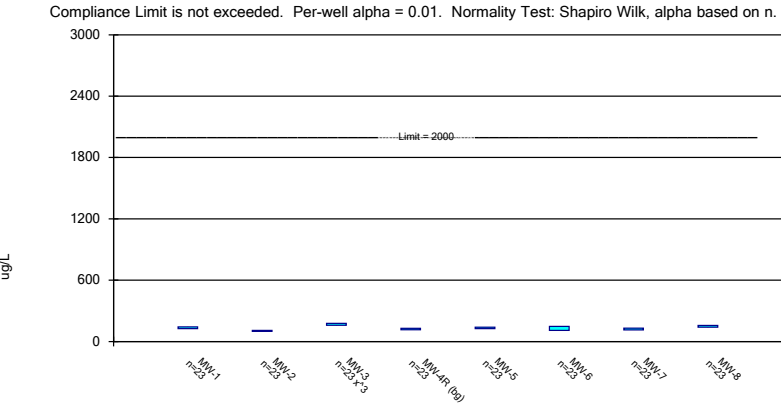
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Total Radium (pCi/L)	MW-5	2.665	2.119	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-6	2.281	1.491	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-7	2.423	1.699	5	No	23	0	No	0.01	Param.
Total Radium (pCi/L)	MW-8	2.646	1.93	5	No	23	0	No	0.01	Param.

Parametric Confidence Interval



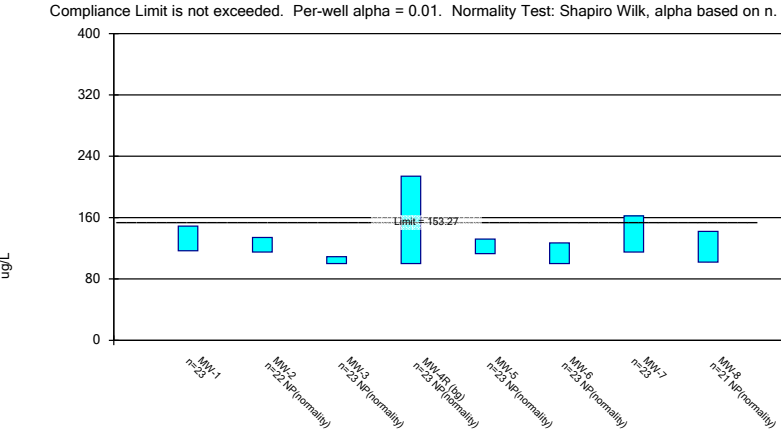
Constituent: Arsenic Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric Confidence Interval



Constituent: Barium Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval



Constituent: Boron Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

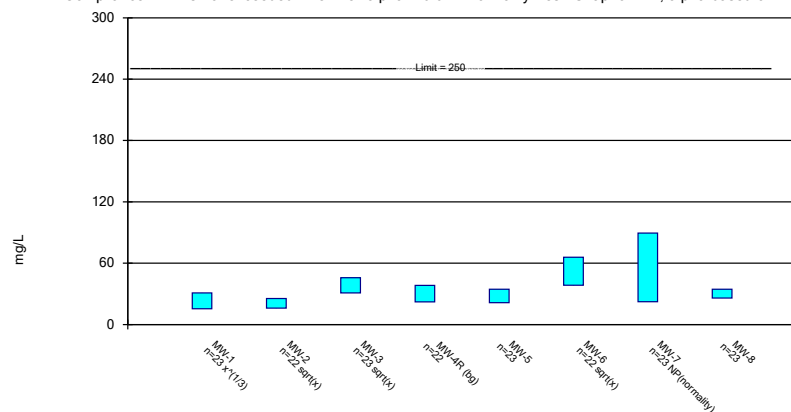
Parametric Confidence Interval



Constituent: Calcium Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

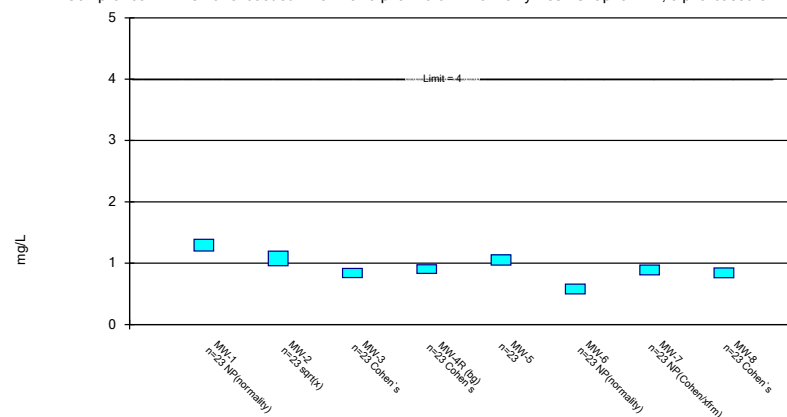
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chloride Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

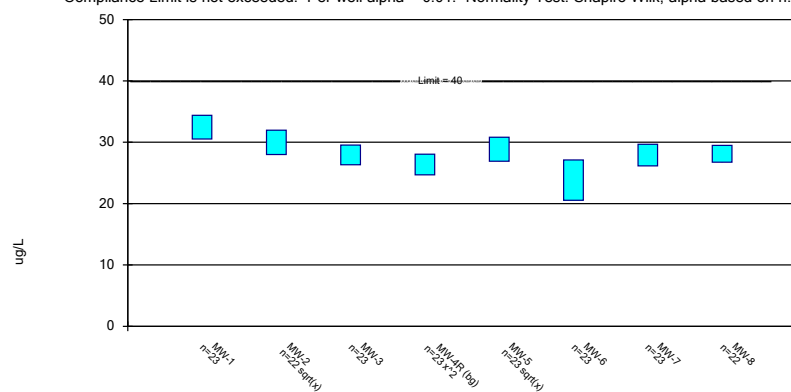
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric Confidence Interval

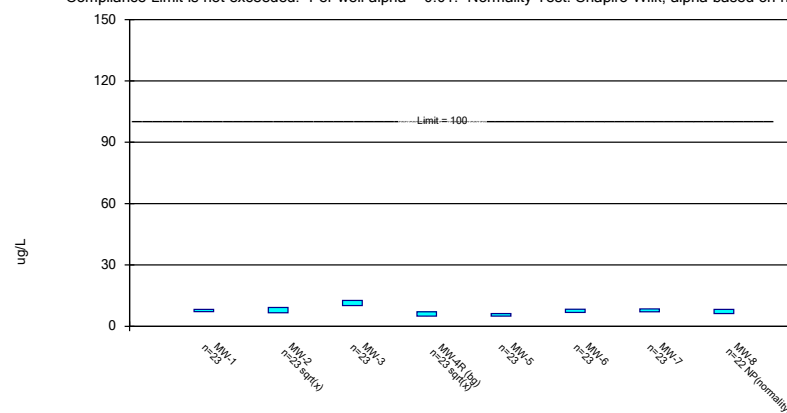
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

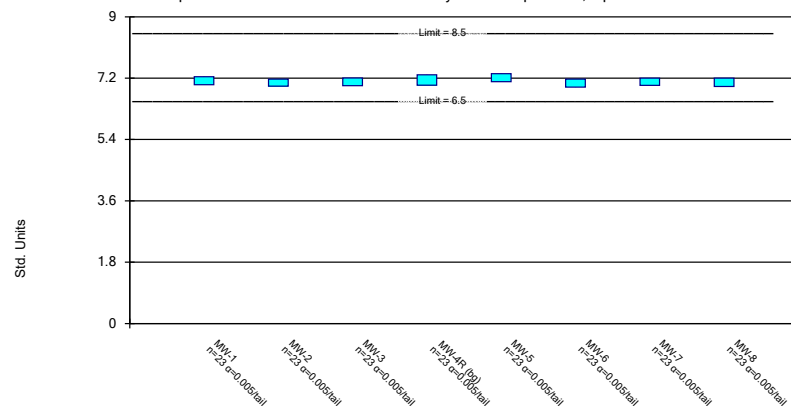
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric Confidence Interval

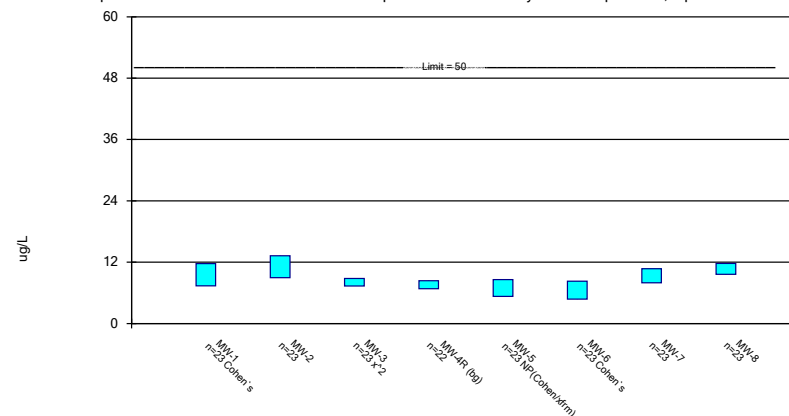
Compliance Limit is not exceeded. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: pH Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

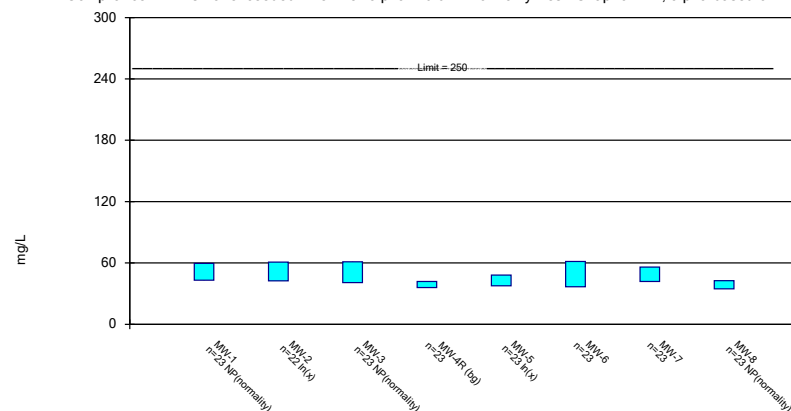
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

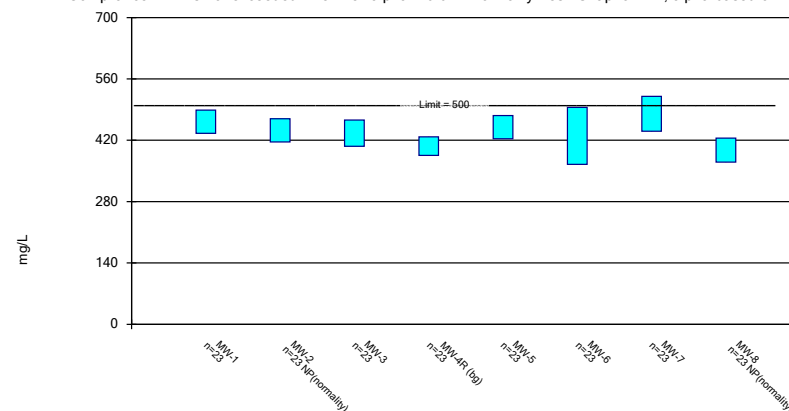
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



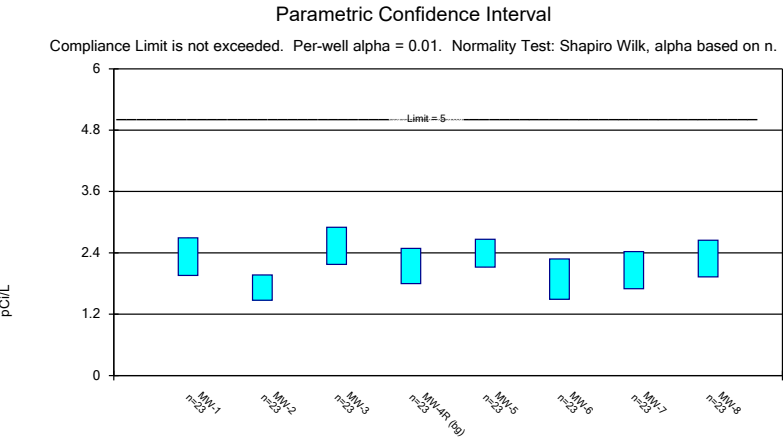
Constituent: Sulfate Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Total Dissolved Solids Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Radium Analysis Run 3/17/2025 10:38 AM View: FDU 2025Q1 Groundwater

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

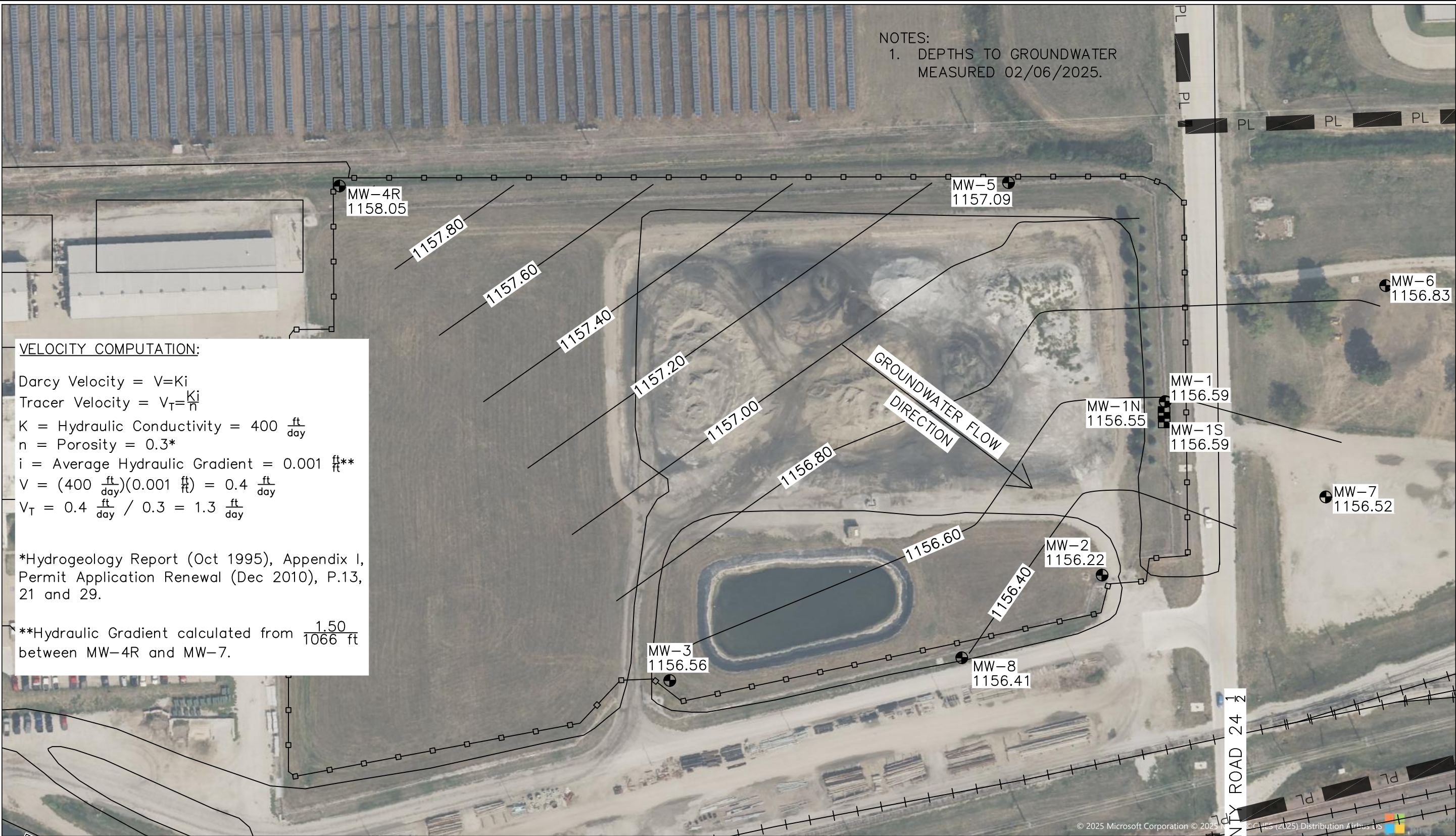
B Figures

T:\27224080.01\AUTOCAD\EX-01 SITE VICINITY MAP.DWG



CLIENT	FREMONT DEPARTMENT OF UTILITIES		SHEET TITLE		REV	DATE	CK	BY
	LON D. WRIGHT POWER PLANT		ANNUAL GROUNDWATER MONITORING		Δ			
	FREMONT, NEBRASKA		CORRECTIVE ACTION REPORT		Δ			
					Δ			
					Δ			
SCS ENGINEERS	14755 Grover Street		DRAWN BY		DATE			
	Omaha, NE 68144		MBS					
	PH: (402) 884-6202 FAX: (413) 881-0012		CHK BY					
	27224080.00		MBS					
CADD FILE:		DATE:		DRAWING NO.				
202 SITE VICINITY MAP.DWG		03/31/2025		F-01				

T:\27224080.01\AutoCAD\EX-02 Potentiometric Contour Map.dwg Mar 31, 2025 - 10:20am Layout Name: 11x17 By: 5192mbs



LEGEND

+	RAILROAD TRACKS	—	ESTIMATED POTENTIOMETRIC CONTOUR
□	FENCE	—	POTENTIOMETRIC CONTOUR
●	MONITORING WELL	1162.50	FEET ABOVE MEAN SEA LEVEL
■	PIEZOMETER		



SCS ENGINEERS 14755 GROVER STREET OMAHA, NEBRASKA 68144 PH. (402) 884-6202 FAX. (402) 884-6203 PROJ. NO. 27224080.00 TICK. BY: MBS DWN. BY: BSG CHK. BY: MBS PROJ. MGR. MJM	CLIENT FREMONT DEPARTMENT OF UTILITIES LON D. WRIGHT POWER PLANT FREMONT, NEBRASKA	SHEET TITLE POTENTIOMETRIC CONTOUR MAP		REV.	DATE	CK. BY
		PROJECT TITLE ANNUAL GROUNDWATER MONITORING CORRECTIVE ACTION REPORT		△	—	—
				△	—	—
				△	—	—
CADD FILE: EX-02 POTENTIOMETRIC CONTOUR MAP.DWG		DATE: 03/31/2025		DRAWING NO. F-02		



C Supporting information

C.1 Field Data Sheets

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-4R
 Date(s): 2/6/2025

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodie Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 20 °F (Mean) Wind Direction: N S E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing ↓
 Protective Casing ↓
 Reference Mark/Identification ↓

Locks
 Protective Casing

Yes	No
<u>X</u>	

 Well

	<u>X</u>

Groundwater Level Measurements

Date/Time Measured: 921 2/6/25
 Total Depth: 28.00 feet below TOC
 Static Water Level: 20.24 feet below TOC
 TD - SWL: 7.76 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other (circle one)
 Purge Volume Calculation: (7.76)(10) = 77.6 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 12.41 pH 9.55 ORP 44
 Sp. Cond. 0.752 Turbidity 0.1 DO 6.12
 Physical appearance of purge water: clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
1009	200	200	10.57	7.67	111	0.752	0.1	5.50	20.26
1012	800	200	10.80	7.46	122	0.767	0.1	4.91	20.25
1015	1400	200	11.15	7.38	125	0.768	0.1	4.74	20.21
1018	2000	200	10.59	7.39	124	0.775	0.1	5.18	20.25

Sampling Activities

Sampled By: Susi Phung Sample Date/Time: 2/6/25 1018
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump Hand (circle one)
 Sample Parameters: Temp (°C) 10.59 pH 7.39 ORP 124
 Sp. Cond. 0.775 Turbidity 0.1 DO 5.18
 Water Level 20.25 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-3

Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodie Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 20 °F (Mean) Wind Direction: N E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK Locks

Yes	No
<u>X</u>	<u>X</u>

 Casing ↓ Protective Casing Well
 Protective Casing
 Reference Mark/Identification

Groundwater Level Measurements

Date/Time Measured: 2/6/25 1043 Total Depth: 28.00 feet below TOC
 Static Water Level: 21.93 feet below TOC
 TD - SWL: 6.07 water column (ft.)

Purging Activities

Purged By: Susi P. Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
 Purge Volume Calculation: 6.07 x 10 Min Purge Volume: 60.7 / 100 mL
 Initial Parameter Readings: Temp (°C) 9.67 pH 7.20 ORP 140
 Sp. Cond. 0.821 Turbidity 0.3 DO 7.09
 Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
		<u>200</u>	<u>9.67</u>	<u>7.20</u>	<u>140</u>	<u>0.821</u>	<u>0.3</u>	<u>7.09</u>	
<u>1055</u>	<u>700</u>	<u>200</u>	<u>10.26</u>	<u>7.19</u>	<u>140</u>	<u>0.826</u>	<u>0.2</u>	<u>6.31</u>	<u>21.99</u>
<u>1058</u>	<u>800</u>	<u>200</u>	<u>11.04</u>	<u>7.15</u>	<u>141</u>	<u>0.843</u>	<u>0.1</u>	<u>6.14</u>	<u>21.99</u>
<u>1101</u>	<u>1400</u>	<u>200</u>	<u>11.13</u>	<u>7.15</u>	<u>141</u>	<u>0.843</u>	<u>0.1</u>	<u>6.31</u>	<u>21.99</u>

Sampling Activities

Sampled By: Bodie Wilson Sample Date/Time: 2/6/25 1101
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 11.13 pH 7.15 ORP 141
 Sp. Cond. 0.843 Turbidity 0.1 DO 6.31
 Water Level 21.99 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-5
 Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Rodan Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 20 °F (Mean) Wind Direction: N S E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing ↓
 Protective Casing ↓
 Reference Mark/Identification ↓

Locks	Yes	No
Protective Casing	<u>X</u>	
Well		<u>X</u>

Groundwater Level Measurements

Date/Time Measured: 2/6/25 1138
 Total Depth: 28.00 feet below TOC
 Static Water Level: 20.23 feet below TOC
 TD - SWL: 7.77 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other (circle one)
 Purge Volume Calculation: 7.77 x 10 = 77.7 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 9.43 pH 7.25 ORP 142
 Sp. Cond. 0.738 Turbidity 0.3 DO 11.81
 Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
<u>1141</u>	<u>200</u>	<u>200</u>	<u>10.60</u>	<u>7.23</u>	<u>143</u>	<u>.740</u>	<u>0.2</u>	<u>11.69</u>	<u>20.48</u>
<u>1144</u>	<u>800</u>	<u>200</u>	<u>11.30</u>	<u>7.20</u>	<u>143</u>	<u>.762</u>	<u>0.4</u>	<u>11.20</u>	<u>20.46</u>
<u>1147</u>	<u>1400</u>	<u>200</u>	<u>11.71</u>	<u>7.16</u>	<u>142</u>	<u>.775</u>	<u>0.2</u>	<u>11.83</u>	<u>20.46</u>
<u>1150</u>	<u>2000</u>	<u>200</u>	<u>12.00</u>	<u>7.09</u>	<u>144</u>	<u>.783</u>	<u>0.1</u>	<u>11.42</u>	<u>20.47</u>

Sampling Activities

Sampled By: Rodan Wilson Sample Date/Time: 1150 2/6/25
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 12.00 pH 7.09 ORP 144
 Sp. Cond. .783 Turbidity 0.1 DO 11.42
 Water Level 20.47 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

SCS - Cjoyce
PW: SCS - Omaha 1!

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27219045.02

Monitoring Point: MW-1

Date(s): 2/6/25

Field Team Members

Name: Susi Phong Affiliation: SCS Engineers
Name: Bodin Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 20 °F (Mean) Wind Direction: N (S) E (W) (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
Casing ↓
Protective Casing ↓
Reference Mark/Identification ↓

Locks	Yes	No
Protective Casing	<u>X</u>	
Well		<u>X</u>

Groundwater Level Measurements

Date/Time Measured: 2/6/25 1219

Total Depth:	<u>29.00</u>	feet below TOC
Static Water Level:	<u>24.11</u>	feet below TOC
TD - SWL:	<u>4.89</u>	water column (ft.)

Purging Activities

Purged By: Susi Phong Purge Date: 2/6/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other (circle one)
Purge Volume Calculation: (4.89)(10) = 48.9 Min Purge Volume: 100 mL
Initial Parameter Readings: Temp (°C) 9.92 pH 7.26 ORP 146
Sp. Cond. 0.802 Turbidity 0.1 DO 5.20
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
1229	250	250	11.46	7.23	145	.794	0.1	4.88	24.09
1232	1000	250	12.15	7.18	145	.792	0.1	5.03	24.10
1235	1750	250	12.00	7.18	144	.798	0.1	5.14	24.11

Sampling Activities

Sampled By: Bodin Wilson Sample Date/Time: 2/6/25 1235
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 12.00 pH 7.14 ORP 144
Sp. Cond. .798 Turbidity 0.1 DO 5.14
Water Level 24.11 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27219045.02

Monitoring Point: MW-1N

Date(s): _____

Field Team Members

Name: _____ Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: _____ °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	
Casing	
Protective Casing	
Reference Mark/Identification	

Locks
Protective Casing
Well

Yes	No

Groundwater Level Measurements

Total Depth:	<u>62.24</u>	feet below TOC
Static Water Level:	<u>24.92</u>	feet below TOC
TD - SWL:		water column (ft.)

Date/Time Measured: _____

Purging Activities

Purged By: _____ Purge Date: _____
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
 Purge Volume Calculation: _____ Min Purge Volume: _____ mL
 Initial Parameter Readings: Temp (°C) _____ pH _____ ORP _____
 Sp. Cond. _____ Turbidity _____ DO _____
 Physical appearance of purge water: _____

Physical appearance of purge water:

[illegible]

Sampling Activities

Sampled By: _____ Sample Date/Time: _____
 Sample Method: ☐ Bail ☐ Dedicated Pump ☐ Non-Dedicated Pump ☐ Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) _____ pH _____ ORP _____
 Sp. Cond. _____ Turbidity _____ DO _____
 Water Level _____ (feet below TOC)

Water Level _____ (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Water level only

Electronic Form Completed By:

Date:

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27219045.02

Monitoring Point: MW-1S

Date(s): _____

Field Team Members

Name: _____ Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: _____ °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	
Casing	
Protective Casing	
Reference Mark/Identification	

Locks
Protective Casing
Well

Yes	No

Groundwater Level Measurements

<u>Water Level Measurements</u>		Total Depth:	92.19	feet below TOC
		Static Water Level:	24.88	feet below TOC
Date/Time Measured: _____		TD - SWL:	_____	water column (ft.)

Date/Time Measured: _____ TD - SWL: _____ water column (ft.)

Purging Activities

Purged By: _____ Purge Date: _____

Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump _____ (circle one)

Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)

Purge Volume Calculation: _____ Min Purge Volume: _____ mL

Initial Parameter Readings: Temp (°C) _____ pH _____ ORP _____

 Sp. Cond. _____ Turbidity _____ DO _____

Physical appearance of purge water: _____

Physical appearance of purge water: _____

[illegible]

Sampling Activities

Sampled By: _____ Sample Date/Time: _____
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) _____ pH _____ ORP _____
 Sp. Cond. _____ Turbidity _____ DO _____
 Water Level _____ (feet below TOC)

Water Level _____ (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Water level only

Electronic Form Completed By: _____ Date: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-2

Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodin Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 25 °F (Mean) Wind Direction: N S E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing OK
 Protective Casing OK
 Reference Mark/Identification OK

Locks

	Yes	No
Protective Casing	<u>X</u>	
Well		<u>X</u>

Groundwater Level Measurements

Date/Time Measured: 1250 2/6/25

Total Depth: 28.00 feet below TOC
 Static Water Level: 20.74 feet below TOC
 TD - SWL: 7.26 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
 Purge Volume Calculation: (7.26)(10) = 72.6 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 11.66 pH 7.29 ORP 147
 Sp. Cond. 0.700 Turbidity 0.1 DO 6.51
 Physical appearance of purge water: clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	10%			0.2 SU			10%			Water Level (ft below TOC)
			Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	pH	ORP (mV)	
1300	500	250	12.04	7.18	149	.696	0.1	6.33				20.73
1303	1250	250	12.55	7.18	148	.688	0.2	5.65				20.74
1306	2000	250	12.68	7.14	149	.688	0.1	5.42				20.74

Sampling Activities

Sampled By: S Bodin Wilson Sample Date/Time: 2/6/25 1306
 Sample Method: Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 12.68 pH 7.14 ORP 149
 Sp. Cond. .688 Turbidity 0.1 DO 5.42
 Water Level 20.74 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27219045.02

Monitoring Point: MW-8

Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodin Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 25 °F (Mean) Wind Direction: N S E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing ↓
 Protective Casing ↓
 Reference Mark/Identification ↓

Locks

Yes	No
☒	☐

 Protective Casing Well

☐	☒

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
 Static Water Level: 20.95 feet below TOC
 Date/Time Measured: 1325 2/6/25 TD - SWL: 7.05 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other (circle one)
 Purge Volume Calculation: (7.05)(10) = 70.5 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 12.92 pH 6.98 ORP 160
 Sp. Cond. .513 Turbidity 3.7 DO 11.19
 Physical appearance of purge water: clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
1358	300	300	13.90	7.09	152	.688	0.1	4.59	21.00
1401	1200	300	13.66	7.10	151	.689	0.1	4.48	21.00
1404	2100	300	13.61	7.07	152	.691	0.1	4.31	21.00

Sampling Activities

Sampled By: Bodin Wilson Sample Date/Time: 2/6/25 1404
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 13.61 pH 7.07 ORP 152
 Sp. Cond. .691 Turbidity 0.1 DO 4.31
 Water Level 21.00 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-7
 Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodin Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 30 °F (Mean) Wind Direction: N S E W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing ↓
 Protective Casing ↓
 Reference Mark/Identification ↓

Locks
 Protective Casing X
 Well X

Yes	No
<u>X</u>	
	<u>X</u>

Groundwater Level Measurements

Date/Time Measured: 2/6/25 1417

Total Depth: 28.00 feet below TOC
 Static Water Level: 20.60 feet below TOC
 TD - SWL: 7.40 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other (circle one)
 Purge Volume Calculation: (7.40)(10) = 74.0 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 12.22 pH 6.60 ORP 176
 Sp. Cond. 563 Turbidity 3.7 DO 11.14
 Physical appearance of purge water: clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
1423	500	250 300	11.77	7.10	154	857	0	6.58	20.59
1426	1250	250 300	12.61	7.07	154	758	0.7	9.47	20.60
1429	2000	250 300	12.85	7.02	155	727	0	10.26	20.60
1432	2750	250 300	12.92	7.01	155	718	0.1	10.22	20.59
	1400								
	2300								
	3200								

Sampling Activities

Sampled By: Bodin Wilson Sample Date/Time: 2/6/25 1432
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 12.92 pH 7.01 ORP 155
 Sp. Cond. 718 Turbidity 0.1 DO 10.22
 Water Level 20.59 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
 Project Location: Fremont, NE
 Project Number: 27219045.02

Monitoring Point: MW-6

Date(s): 2/6/25

Field Team Members

Name: Susi Phung Affiliation: SCS Engineers
 Name: Bodin Wilson Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 30 °F (Mean) Wind Direction: W (circle two if needed)
 Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad OK
 Casing ↓
 Protective Casing ↓
 Reference Mark/Identification ↓

Locks
 Protective Casing X
 Well X

Yes	No
<u>X</u>	
	<u>X</u>

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
 Static Water Level: 20.71 feet below TOC
 Date/Time Measured: 245 1445 2/6/25 TD - SWL: 7.29 water column (ft.)

Purging Activities

Purged By: Susi Phung Purge Date: 2/6/25
 Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
 Purge Volume Calculation: (7.29)(10) = 72.9 Min Purge Volume: 100 mL
 Initial Parameter Readings: Temp (°C) 13.05 pH 7.11 ORP 152
 Sp. Cond. 752 Turbidity 0.3 DO 6.05
 Physical appearance of purge water: clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (ml/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
1452	600	360	13.54	7.08	153	.751	0.2	5.96	20.72
1455	1500	300	15.53	7.03	153	.746	0.1	3.75	20.70
1458	2400	300	15.87	6.96	154	.746	0.1	3.61	20.71
1501	3300	300	16.00	6.97	154	.747	0.1	3.50	20.72

Sampling Activities

Sampled By: Bodin Wilson Sample Date/Time: 2/6/25 1501
 Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
 Sample Parameters: Temp (°C) 16.00 pH 6.97 ORP 154
 Sp. Cond. 747 Turbidity 0.1 DO 3.50
 Water Level 20.72 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Duplicate taken at 23:59

Electronic Form Completed By: _____

Date: _____

C.2 Chain of Custody

Cedar Falls, IA 50613
phone 319.277.2401 fax 319.277.2425

TestAmerica eurofins
Orlando, SC
268

Environment Testing
America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

[illegible]

C.3 Testing Results



ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Michael Miller
SCS Engineers
14755 Grover St
Omaha, Nebraska 68144

Generated 2/17/2025 11:28:46 AM

JOB DESCRIPTION

City of Fremont Dept of Utilities

JOB NUMBER

310-300056-1

Eurofins Cedar Falls

Job Notes

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Authorization



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2/17/2025 11:28:46 AM

Authorized for release by
Samuel Miller, Project Management Assistant I
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(319)277-2401

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	9
Definitions	18
QC Sample Results	19
QC Association	23
Chronicle	26
Certification Summary	29
Method Summary	30
Chain of Custody	31
Receipt Checklists	34



Case Narrative

Client: SCS Engineers
Project: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Job ID: 310-300056-1

Eurofins Cedar Falls

Job Narrative 310-300056-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/7/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.1°C and 4.6°C.

HPLC/IC

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW-1 (310-300056-1), MW-3 (310-300056-3), MW-4R (310-300056-4), MW-5 (310-300056-5), MW-6 (310-300056-6), MW-7 (310-300056-7), MW-8 (310-300056-8) and Duplicate (310-300056-9). Elevated reporting limits (RLs) are provided.

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

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers

Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-300056-1	MW-1	Water	02/06/25 12:35	02/07/25 16:00
310-300056-2	MW-2	Water	02/06/25 13:06	02/07/25 16:00
310-300056-3	MW-3	Water	02/06/25 11:01	02/07/25 16:00
310-300056-4	MW-4R	Water	02/06/25 10:18	02/07/25 16:00
310-300056-5	MW-5	Water	02/06/25 11:50	02/07/25 16:00
310-300056-6	MW-6	Water	02/06/25 15:01	02/07/25 16:00
310-300056-7	MW-7	Water	02/06/25 14:32	02/07/25 16:00
310-300056-8	MW-8	Water	02/06/25 14:04	02/07/25 16:00
310-300056-9	Duplicate	Water	02/06/25 23:59	02/07/25 16:00

Detection Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-1

Lab Sample ID: 310-300056-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	77.7		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00386		0.00200		mg/L	1		6020B	Total/NA
Barium	0.134		0.00200		mg/L	1		6020B	Total/NA
Boron	0.100		0.100		mg/L	1		6020B	Total/NA
Calcium	92.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0313		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00782		0.00200		mg/L	1		6020B	Total/NA
pH	7.07	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	442		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 310-300056-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31.9		5.00		mg/L	5		9056A	Total/NA
Fluoride	1.09		1.00		mg/L	5		9056A	Total/NA
Sulfate	52.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00412		0.00200		mg/L	1		6020B	Total/NA
Barium	0.105		0.00200		mg/L	1		6020B	Total/NA
Boron	0.104		0.100		mg/L	1		6020B	Total/NA
Calcium	77.1		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0309		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00564		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00807		0.00500		mg/L	1		6020B	Total/NA
pH	7.05	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	374		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 310-300056-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	78.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	39.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00339		0.00200		mg/L	1		6020B	Total/NA
Barium	0.161		0.00200		mg/L	1		6020B	Total/NA
Boron	0.108		0.100		mg/L	1		6020B	Total/NA
Calcium	95.8		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0316		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00806		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00730		0.00500		mg/L	1		6020B	Total/NA
pH	6.96	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	438		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	67.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	33.0		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00587		0.00200		mg/L	1		6020B	Total/NA
Barium	0.106		0.00200		mg/L	1		6020B	Total/NA
Calcium	83.3		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0292		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00487		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-4R (Continued)

Lab Sample ID: 310-300056-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00604		0.00500		mg/L	1		6020B	Total/NA
pH	7.13	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	420		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	45.5		5.00		mg/L	5		9056A	Total/NA
Sulfate	61.5		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00396		0.00200		mg/L	1		6020B	Total/NA
Barium	0.128		0.00200		mg/L	1		6020B	Total/NA
Calcium	86.4		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0299		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00495		0.00200		mg/L	1		6020B	Total/NA
pH	7.07	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	422		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	57.2		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00498		0.00200		mg/L	1		6020B	Total/NA
Barium	0.135		0.00200		mg/L	1		6020B	Total/NA
Calcium	87.5		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0274		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00615		0.00200		mg/L	1		6020B	Total/NA
pH	7.08	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	402		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	30.9		5.00		mg/L	5		9056A	Total/NA
Sulfate	45.8		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00347		0.00200		mg/L	1		6020B	Total/NA
Barium	0.116		0.00200		mg/L	1		6020B	Total/NA
Boron	0.122		0.100		mg/L	1		6020B	Total/NA
Calcium	70.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0266		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00565		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0153		0.00500		mg/L	1		6020B	Total/NA
pH	6.98	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	374		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	41.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	36.7		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00302		0.00200		mg/L	1		6020B	Total/NA
Barium	0.132		0.00200		mg/L	1		6020B	Total/NA
Calcium	73.9		0.500		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-8 (Continued)

Lab Sample ID: 310-300056-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0292		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00465		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0104		0.00500		mg/L	1		6020B	Total/NA
pH	7.08	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	370		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34.6		5.00		mg/L	5		9056A	Total/NA
Sulfate	57.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00490		0.00200		mg/L	1		6020B	Total/NA
Barium	0.136		0.00200		mg/L	1		6020B	Total/NA
Calcium	87.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0275		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00617		0.00200		mg/L	1		6020B	Total/NA
pH	7.00	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	418		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-1

Lab Sample ID: 310-300056-1

Date Collected: 02/06/25 12:35

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.3		5.00		mg/L			02/12/25 12:46	5
Fluoride	<1.00		1.00		mg/L			02/12/25 12:46	5
Sulfate	77.7		5.00		mg/L			02/12/25 12:46	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:47	1
Arsenic	0.00386		0.00200		mg/L		02/11/25 08:45	02/14/25 15:47	1
Barium	0.134		0.00200		mg/L		02/11/25 08:45	02/14/25 15:47	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 15:47	1
Boron	0.100		0.100		mg/L		02/11/25 08:45	02/14/25 15:47	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 15:47	1
Calcium	92.7		0.500		mg/L		02/11/25 08:45	02/14/25 15:47	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 15:47	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 15:47	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 15:47	1
Lithium	0.0313		0.0100		mg/L		02/11/25 08:45	02/14/25 15:47	1
Molybdenum	0.00782		0.00200		mg/L		02/11/25 08:45	02/14/25 15:47	1
Selenium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 15:47	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 15:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	442		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.07	HF	1.00		SU			02/07/25 16:37	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-2

Lab Sample ID: 310-300056-2

Date Collected: 02/06/25 13:06

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31.9		5.00		mg/L			02/12/25 13:19	5
Fluoride	1.09		1.00		mg/L			02/12/25 13:19	5
Sulfate	52.6		5.00		mg/L			02/12/25 13:19	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:01	1
Arsenic	0.00412		0.00200		mg/L		02/11/25 08:45	02/14/25 16:01	1
Barium	0.105		0.00200		mg/L		02/11/25 08:45	02/14/25 16:01	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:01	1
Boron	0.104		0.100		mg/L		02/11/25 08:45	02/14/25 16:01	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:01	1
Calcium	77.1		0.500		mg/L		02/11/25 08:45	02/14/25 16:01	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:01	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:01	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:01	1
Lithium	0.0309		0.0100		mg/L		02/11/25 08:45	02/14/25 16:01	1
Molybdenum	0.00564		0.00200		mg/L		02/11/25 08:45	02/14/25 16:01	1
Selenium	0.00807		0.00500		mg/L		02/11/25 08:45	02/14/25 16:01	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	374		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.05	HF	1.00		SU			02/07/25 16:38	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-3

Lab Sample ID: 310-300056-3

Date Collected: 02/06/25 11:01

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	78.5		5.00		mg/L			02/12/25 13:31	5
Fluoride	<1.00		1.00		mg/L			02/12/25 13:31	5
Sulfate	39.6		5.00		mg/L			02/12/25 13:31	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:04	1
Arsenic	0.00339		0.00200		mg/L		02/11/25 08:45	02/14/25 16:04	1
Barium	0.161		0.00200		mg/L		02/11/25 08:45	02/14/25 16:04	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:04	1
Boron	0.108		0.100		mg/L		02/11/25 08:45	02/14/25 16:04	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:04	1
Calcium	95.8		0.500		mg/L		02/11/25 08:45	02/14/25 16:04	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:04	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:04	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:04	1
Lithium	0.0316		0.0100		mg/L		02/11/25 08:45	02/14/25 16:04	1
Molybdenum	0.00806		0.00200		mg/L		02/11/25 08:45	02/14/25 16:04	1
Selenium	0.00730		0.00500		mg/L		02/11/25 08:45	02/14/25 16:04	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	438		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	6.96	HF	1.00		SU			02/07/25 16:43	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	67.5		5.00		mg/L			02/12/25 13:42	5
Fluoride	<1.00		1.00		mg/L			02/12/25 13:42	5
Sulfate	33.0		5.00		mg/L			02/12/25 13:42	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:18	1
Arsenic	0.00587		0.00200		mg/L		02/11/25 08:45	02/14/25 16:18	1
Barium	0.106		0.00200		mg/L		02/11/25 08:45	02/14/25 16:18	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:18	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 16:18	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:18	1
Calcium	83.3		0.500		mg/L		02/11/25 08:45	02/14/25 16:18	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:18	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:18	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:18	1
Lithium	0.0292		0.0100		mg/L		02/11/25 08:45	02/14/25 16:18	1
Molybdenum	0.00487		0.00200		mg/L		02/11/25 08:45	02/14/25 16:18	1
Selenium	0.00604		0.00500		mg/L		02/11/25 08:45	02/14/25 16:18	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	420		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.13	HF	1.00		SU			02/07/25 16:41	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

Date Collected: 02/06/25 11:50

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45.5		5.00		mg/L			02/12/25 13:53	5
Fluoride	<1.00		1.00		mg/L			02/12/25 13:53	5
Sulfate	61.5		5.00		mg/L			02/12/25 13:53	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:21	1
Arsenic	0.00396		0.00200		mg/L		02/11/25 08:45	02/14/25 16:21	1
Barium	0.128		0.00200		mg/L		02/11/25 08:45	02/14/25 16:21	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:21	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 16:21	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:21	1
Calcium	86.4		0.500		mg/L		02/11/25 08:45	02/14/25 16:21	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:21	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:21	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:21	1
Lithium	0.0299		0.0100		mg/L		02/11/25 08:45	02/14/25 16:21	1
Molybdenum	0.00495		0.00200		mg/L		02/11/25 08:45	02/14/25 16:21	1
Selenium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:21	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:21	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	422		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.07	HF	1.00		SU			02/07/25 16:46	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

Date Collected: 02/06/25 15:01

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.1		5.00		mg/L			02/12/25 14:04	5
Fluoride	<1.00		1.00		mg/L			02/12/25 14:04	5
Sulfate	57.2		5.00		mg/L			02/12/25 14:04	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:24	1
Arsenic	0.00498		0.00200		mg/L		02/11/25 08:45	02/14/25 16:24	1
Barium	0.135		0.00200		mg/L		02/11/25 08:45	02/14/25 16:24	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:24	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 16:24	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:24	1
Calcium	87.5		0.500		mg/L		02/11/25 08:45	02/14/25 16:24	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:24	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:24	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:24	1
Lithium	0.0274		0.0100		mg/L		02/11/25 08:45	02/14/25 16:24	1
Molybdenum	0.00615		0.00200		mg/L		02/11/25 08:45	02/14/25 16:24	1
Selenium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:24	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	402		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.08	HF	1.00		SU			02/07/25 16:40	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

Date Collected: 02/06/25 14:32

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.9		5.00		mg/L			02/12/25 14:15	5
Fluoride	<1.00		1.00		mg/L			02/12/25 14:15	5
Sulfate	45.8		5.00		mg/L			02/12/25 14:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:27	1
Arsenic	0.00347		0.00200		mg/L		02/11/25 08:45	02/14/25 16:27	1
Barium	0.116		0.00200		mg/L		02/11/25 08:45	02/14/25 16:27	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:27	1
Boron	0.122		0.100		mg/L		02/11/25 08:45	02/14/25 16:27	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:27	1
Calcium	70.0		0.500		mg/L		02/11/25 08:45	02/14/25 16:27	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:27	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:27	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:27	1
Lithium	0.0266		0.0100		mg/L		02/11/25 08:45	02/14/25 16:27	1
Molybdenum	0.00565		0.00200		mg/L		02/11/25 08:45	02/14/25 16:27	1
Selenium	0.0153		0.00500		mg/L		02/11/25 08:45	02/14/25 16:27	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 16:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	374		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	6.98	HF	1.00		SU			02/07/25 16:44	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

Date Collected: 02/06/25 14:04

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	41.1		5.00		mg/L			02/12/25 14:26	5
Fluoride	<1.00		1.00		mg/L			02/12/25 14:26	5
Sulfate	36.7		5.00		mg/L			02/12/25 14:26	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:29	1
Arsenic	0.00302		0.00200		mg/L		02/11/25 08:45	02/14/25 16:29	1
Barium	0.132		0.00200		mg/L		02/11/25 08:45	02/14/25 16:29	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:29	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 16:29	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:29	1
Calcium	73.9		0.500		mg/L		02/11/25 08:45	02/14/25 16:29	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:29	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:29	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:29	1
Lithium	0.0292		0.0100		mg/L		02/11/25 08:45	02/14/25 16:29	1
Molybdenum	0.00465		0.00200		mg/L		02/11/25 08:45	02/14/25 16:29	1
Selenium	0.0104		0.00500		mg/L		02/11/25 08:45	02/14/25 16:29	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 16:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	370		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.08	HF	1.00		SU			02/07/25 16:45	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

Date Collected: 02/06/25 23:59

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.6		5.00		mg/L			02/12/25 14:59	5
Fluoride	<1.00		1.00		mg/L			02/12/25 14:59	5
Sulfate	57.6		5.00		mg/L			02/12/25 14:59	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 16:32	1
Arsenic	0.00490		0.00200		mg/L		02/11/25 08:45	02/14/25 16:32	1
Barium	0.136		0.00200		mg/L		02/11/25 08:45	02/14/25 16:32	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:32	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 16:32	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 16:32	1
Calcium	87.0		0.500		mg/L		02/11/25 08:45	02/14/25 16:32	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:32	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:32	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 16:32	1
Lithium	0.0275		0.0100		mg/L		02/11/25 08:45	02/14/25 16:32	1
Molybdenum	0.00617		0.00200		mg/L		02/11/25 08:45	02/14/25 16:32	1
Selenium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 16:32	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 16:32	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	418		50.0		mg/L			02/10/25 16:40	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.00	HF	1.00		SU			02/07/25 16:47	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Qualifiers

Metals

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

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-446753/3

Matrix: Water

Analysis Batch: 446753

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			02/12/25 11:51	1
Fluoride	<0.200		0.200		mg/L			02/12/25 11:51	1
Sulfate	<1.00		1.00		mg/L			02/12/25 11:51	1

Lab Sample ID: LCS 310-446753/4

Matrix: Water

Analysis Batch: 446753

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.705		mg/L		97	90 - 110
Fluoride	2.00	2.117		mg/L		106	90 - 110
Sulfate	10.0	9.509		mg/L		95	90 - 110

Lab Sample ID: 310-300056-1 MS

Matrix: Water

Analysis Batch: 446753

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	35.3		25.0	55.97		mg/L		83	80 - 120
Fluoride	<1.00		5.00	5.824		mg/L		107	80 - 120
Sulfate	77.7		25.0	100.0		mg/L		89	80 - 120

Lab Sample ID: 310-300056-1 MSD

Matrix: Water

Analysis Batch: 446753

Client Sample ID: MW-1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	35.3		25.0	55.68		mg/L		82	80 - 120	1	15
Fluoride	<1.00		5.00	5.844		mg/L		108	80 - 120	0	15
Sulfate	77.7		25.0	99.69		mg/L		88	80 - 120	0	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-446622/1-A

Matrix: Water

Analysis Batch: 446979

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 446622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Arsenic	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Barium	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Beryllium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 15:41	1
Boron	<0.100		0.100		mg/L		02/11/25 08:45	02/14/25 15:41	1
Cadmium	<0.000200		0.000200		mg/L		02/11/25 08:45	02/14/25 15:41	1
Calcium	<0.500		0.500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Chromium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Cobalt	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Lead	<0.000500		0.000500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Lithium	<0.0100		0.0100		mg/L		02/11/25 08:45	02/14/25 15:41	1
Molybdenum	<0.00200		0.00200		mg/L		02/11/25 08:45	02/14/25 15:41	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

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

Lab Sample ID: MB 310-446622/1-A

Matrix: Water

Analysis Batch: 446979

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 446622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.00500		0.00500		mg/L		02/11/25 08:45	02/14/25 15:41	1
Thallium	<0.00100		0.00100		mg/L		02/11/25 08:45	02/14/25 15:41	1

Lab Sample ID: LCS 310-446622/2-A

Matrix: Water

Analysis Batch: 446979

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 446622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2068		mg/L		103	80 - 120
Arsenic	0.200	0.1913		mg/L		96	80 - 120
Barium	0.100	0.1062		mg/L		106	80 - 120
Beryllium	0.100	0.1052		mg/L		105	80 - 120
Boron	0.200	0.1938		mg/L		97	80 - 120
Cadmium	0.100	0.09965		mg/L		100	80 - 120
Calcium	2.00	2.092		mg/L		105	80 - 120
Chromium	0.100	0.1036		mg/L		104	80 - 120
Cobalt	0.100	0.1020		mg/L		102	80 - 120
Lead	0.200	0.2087		mg/L		104	80 - 120
Lithium	0.200	0.2265		mg/L		113	80 - 120
Molybdenum	0.200	0.2000		mg/L		100	80 - 120
Selenium	0.400	0.4000		mg/L		100	80 - 120
Thallium	0.100	0.1087		mg/L		109	80 - 120

Lab Sample ID: 310-300056-1 MS

Matrix: Water

Analysis Batch: 446979

Client Sample ID: MW-1

Prep Type: Total/NA

Prep Batch: 446622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2143		mg/L		107	75 - 125
Arsenic	0.00386		0.200	0.2048		mg/L		100	75 - 125
Barium	0.134		0.100	0.2414		mg/L		108	75 - 125
Beryllium	<0.00100		0.100	0.1054		mg/L		105	75 - 125
Boron	0.100		0.200	0.3052		mg/L		102	75 - 125
Cadmium	<0.000200		0.100	0.1021		mg/L		102	75 - 125
Calcium	92.7		2.00	94.75	4	mg/L		103	75 - 125
Chromium	<0.00500		0.100	0.1022		mg/L		102	75 - 125
Cobalt	<0.000500		0.100	0.09950		mg/L		100	75 - 125
Lead	<0.000500		0.200	0.2082		mg/L		104	75 - 125
Lithium	0.0313		0.200	0.2539		mg/L		111	75 - 125
Molybdenum	0.00782		0.200	0.2112		mg/L		102	75 - 125
Selenium	<0.00500		0.400	0.4198		mg/L		104	75 - 125
Thallium	<0.00100		0.100	0.09487		mg/L		95	75 - 125

Lab Sample ID: 310-300056-1 MSD

Matrix: Water

Analysis Batch: 446979

Client Sample ID: MW-1

Prep Type: Total/NA

Prep Batch: 446622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2208		mg/L		110	75 - 125	3	20

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QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

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

Lab Sample ID: 310-300056-1 MSD

Matrix: Water

Analysis Batch: 446979

Client Sample ID: MW-1

Prep Type: Total/NA

Prep Batch: 446622

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.00386		0.200	0.2101		mg/L		103	75 - 125	3	20
Barium	0.134		0.100	0.2445		mg/L		111	75 - 125	1	20
Beryllium	<0.00100		0.100	0.1066		mg/L		107	75 - 125	1	20
Boron	0.100		0.200	0.3124		mg/L		106	75 - 125	2	20
Cadmium	<0.000200		0.100	0.1040		mg/L		104	75 - 125	2	20
Calcium	92.7		2.00	92.38	4	mg/L		-15	75 - 125	3	20
Chromium	<0.00500		0.100	0.1032		mg/L		103	75 - 125	1	20
Cobalt	<0.000500		0.100	0.09998		mg/L		100	75 - 125	0	20
Lead	<0.000500		0.200	0.2117		mg/L		106	75 - 125	2	20
Lithium	0.0313		0.200	0.2560		mg/L		112	75 - 125	1	20
Molybdenum	0.00782		0.200	0.2163		mg/L		104	75 - 125	2	20
Selenium	<0.00500		0.400	0.4191		mg/L		104	75 - 125	0	20
Thallium	<0.00100		0.100	0.09366		mg/L		94	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-446756/1-A

Matrix: Water

Analysis Batch: 446925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 446756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		02/13/25 11:27	02/14/25 15:22	1

Lab Sample ID: LCS 310-446756/2-A

Matrix: Water

Analysis Batch: 446925

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 446756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001340		mg/L		80	80 - 120

Method: 9040C - pH

Lab Sample ID: LCS 310-446498/1

Matrix: Water

Analysis Batch: 446498

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	6.930		SU		99	98 - 102

Lab Sample ID: 310-300056-4 DU

Matrix: Water

Analysis Batch: 446498

Client Sample ID: MW-4R

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.13	HF	7.130		SU		0	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

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

Lab Sample ID: MB 310-446626/1

Matrix: Water

Analysis Batch: 446626

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	<50.0		50.0		mg/L			02/10/25 16:40	1

Lab Sample ID: LCS 310-446626/2

Matrix: Water

Analysis Batch: 446626

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	1000	996.0		mg/L		100	88 - 110

Lab Sample ID: 310-300056-3 DU

Matrix: Water

Analysis Batch: 446626

Client Sample ID: MW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	438		448.0		mg/L		2	16

QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

HPLC/IC

Analysis Batch: 446753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	9056A	
310-300056-2	MW-2	Total/NA	Water	9056A	
310-300056-3	MW-3	Total/NA	Water	9056A	
310-300056-4	MW-4R	Total/NA	Water	9056A	
310-300056-5	MW-5	Total/NA	Water	9056A	
310-300056-6	MW-6	Total/NA	Water	9056A	
310-300056-7	MW-7	Total/NA	Water	9056A	
310-300056-8	MW-8	Total/NA	Water	9056A	
310-300056-9	Duplicate	Total/NA	Water	9056A	
MB 310-446753/3	Method Blank	Total/NA	Water	9056A	
LCS 310-446753/4	Lab Control Sample	Total/NA	Water	9056A	
310-300056-1 MS	MW-1	Total/NA	Water	9056A	
310-300056-1 MSD	MW-1	Total/NA	Water	9056A	

Metals

Prep Batch: 446622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	3005A	
310-300056-2	MW-2	Total/NA	Water	3005A	
310-300056-3	MW-3	Total/NA	Water	3005A	
310-300056-4	MW-4R	Total/NA	Water	3005A	
310-300056-5	MW-5	Total/NA	Water	3005A	
310-300056-6	MW-6	Total/NA	Water	3005A	
310-300056-7	MW-7	Total/NA	Water	3005A	
310-300056-8	MW-8	Total/NA	Water	3005A	
310-300056-9	Duplicate	Total/NA	Water	3005A	
MB 310-446622/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-446622/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-300056-1 MS	MW-1	Total/NA	Water	3005A	
310-300056-1 MSD	MW-1	Total/NA	Water	3005A	

Prep Batch: 446756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	7470A	
310-300056-2	MW-2	Total/NA	Water	7470A	
310-300056-3	MW-3	Total/NA	Water	7470A	
310-300056-4	MW-4R	Total/NA	Water	7470A	
310-300056-5	MW-5	Total/NA	Water	7470A	
310-300056-6	MW-6	Total/NA	Water	7470A	
310-300056-7	MW-7	Total/NA	Water	7470A	
310-300056-8	MW-8	Total/NA	Water	7470A	
310-300056-9	Duplicate	Total/NA	Water	7470A	
MB 310-446756/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-446756/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 446925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	7470A	446756
310-300056-2	MW-2	Total/NA	Water	7470A	446756
310-300056-3	MW-3	Total/NA	Water	7470A	446756

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QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Metals (Continued)

Analysis Batch: 446925 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-4	MW-4R	Total/NA	Water	7470A	446756
310-300056-5	MW-5	Total/NA	Water	7470A	446756
310-300056-6	MW-6	Total/NA	Water	7470A	446756
310-300056-7	MW-7	Total/NA	Water	7470A	446756
310-300056-8	MW-8	Total/NA	Water	7470A	446756
310-300056-9	Duplicate	Total/NA	Water	7470A	446756
MB 310-446756/1-A	Method Blank	Total/NA	Water	7470A	446756
LCS 310-446756/2-A	Lab Control Sample	Total/NA	Water	7470A	446756

Analysis Batch: 446979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	6020B	446622
310-300056-2	MW-2	Total/NA	Water	6020B	446622
310-300056-3	MW-3	Total/NA	Water	6020B	446622
310-300056-4	MW-4R	Total/NA	Water	6020B	446622
310-300056-5	MW-5	Total/NA	Water	6020B	446622
310-300056-6	MW-6	Total/NA	Water	6020B	446622
310-300056-7	MW-7	Total/NA	Water	6020B	446622
310-300056-8	MW-8	Total/NA	Water	6020B	446622
310-300056-9	Duplicate	Total/NA	Water	6020B	446622
MB 310-446622/1-A	Method Blank	Total/NA	Water	6020B	446622
LCS 310-446622/2-A	Lab Control Sample	Total/NA	Water	6020B	446622
310-300056-1 MS	MW-1	Total/NA	Water	6020B	446622
310-300056-1 MSD	MW-1	Total/NA	Water	6020B	446622

General Chemistry

Analysis Batch: 446498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	9040C	
310-300056-2	MW-2	Total/NA	Water	9040C	
310-300056-3	MW-3	Total/NA	Water	9040C	
310-300056-4	MW-4R	Total/NA	Water	9040C	
310-300056-5	MW-5	Total/NA	Water	9040C	
310-300056-6	MW-6	Total/NA	Water	9040C	
310-300056-7	MW-7	Total/NA	Water	9040C	
310-300056-8	MW-8	Total/NA	Water	9040C	
310-300056-9	Duplicate	Total/NA	Water	9040C	
LCS 310-446498/1	Lab Control Sample	Total/NA	Water	9040C	
310-300056-4 DU	MW-4R	Total/NA	Water	9040C	

Analysis Batch: 446626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	SM 2540C	
310-300056-2	MW-2	Total/NA	Water	SM 2540C	
310-300056-3	MW-3	Total/NA	Water	SM 2540C	
310-300056-4	MW-4R	Total/NA	Water	SM 2540C	
310-300056-5	MW-5	Total/NA	Water	SM 2540C	
310-300056-6	MW-6	Total/NA	Water	SM 2540C	
310-300056-7	MW-7	Total/NA	Water	SM 2540C	
310-300056-8	MW-8	Total/NA	Water	SM 2540C	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

General Chemistry (Continued)

Analysis Batch: 446626 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-9	Duplicate	Total/NA	Water	SM 2540C	
MB 310-446626/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-446626/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-300056-3 DU	MW-3	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-1

Date Collected: 02/06/25 12:35

Date Received: 02/07/25 16:00

Lab Sample ID: 310-300056-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 12:46
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 15:47
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:47
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:37
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-2

Date Collected: 02/06/25 13:06

Date Received: 02/07/25 16:00

Lab Sample ID: 310-300056-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 13:19
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:01
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:50
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:38
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-3

Date Collected: 02/06/25 11:01

Date Received: 02/07/25 16:00

Lab Sample ID: 310-300056-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 13:31
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:04
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:52
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:43
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-4R

Date Collected: 02/06/25 10:18

Date Received: 02/07/25 16:00

Lab Sample ID: 310-300056-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 13:42
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:18
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:54

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:41
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

Date Collected: 02/06/25 11:50

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 13:53
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:21
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:56
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:46
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

Date Collected: 02/06/25 15:01

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 14:04
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:24
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 15:58
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:40
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

Date Collected: 02/06/25 14:32

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 14:15
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:27
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 16:00
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:44
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

Date Collected: 02/06/25 14:04

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 14:26
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:29
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 16:02
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:45
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

Date Collected: 02/06/25 23:59

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	446753	QTZ5	EET CF	02/12/25 14:59
Total/NA	Prep	3005A			446622	QTZ5	EET CF	02/11/25 08:45
Total/NA	Analysis	6020B		1	446979	ZRI4	EET CF	02/14/25 16:32
Total/NA	Prep	7470A			446756	F5MW	EET CF	02/13/25 11:27
Total/NA	Analysis	7470A		1	446925	F5MW	EET CF	02/14/25 16:04
Total/NA	Analysis	9040C		1	446498	A3GU	EET CF	02/07/25 16:47
Total/NA	Analysis	SM 2540C		1	446626	MDU9	EET CF	02/10/25 16:40

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

1
2
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14

Method Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-1

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9040C	pH	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

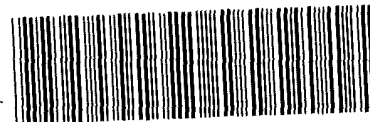
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Environment Testing
America



310-300056 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Omaha</u>	STATE <u>NE</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>2/7/25</u>	TIME <u>1600</u>	Received By:
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>1</u> of <u>2</u>			
Cooler Custody Seals Present? ☐ Yes ☒ No If yes: Cooler custody seals intact? ☐ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>D</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.1</u>		Corrected Temp (°C): <u>0.1</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	<u>Orlando</u>	STATE: <u>NE</u>	Project:
Receipt Information			
Date/Time Received:	DATE: <u>2/7/23</u>	TIME: <u>1600</u>	Received By:
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>1</u> of <u>2</u>			
Cooler Custody Seals Present? ☐ Yes ☒ No If yes: Cooler custody seals intact? ☐ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>D</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>4.6</u>		Corrected Temp (°C): <u>4.6</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Cedar Falls, IA 50613
phone 319.277.2401 fax 319.277.2425

[illegible]

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-300056-1

SDG Number:

Login Number: 300056

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Michael Miller
SCS Engineers
14755 Grover St
Omaha, Nebraska 68144

Generated 3/11/2025 9:58:36 AM

JOB DESCRIPTION

City of Fremont Dept of Utilities

JOB NUMBER

310-300056-2

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



Generated
3/11/2025 9:58:36 AM

Authorized for release by
Samuel Miller, Project Management Assistant I
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(319)277-2401

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	16
QC Sample Results	17
QC Association	18
Chronicle	19
Certification Summary	22
Method Summary	23
Chain of Custody	24
Receipt Checklists	28
Tracer Carrier Summary	30



Case Narrative

Client: SCS Engineers
Project: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Job ID: 310-300056-2

Eurofins Cedar Falls

Job Narrative 310-300056-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 2/7/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.1°C and 4.6°C.

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers

Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-300056-1	MW-1	Water	02/06/25 12:35	02/07/25 16:00
310-300056-2	MW-2	Water	02/06/25 13:06	02/07/25 16:00
310-300056-3	MW-3	Water	02/06/25 11:01	02/07/25 16:00
310-300056-4	MW-4R	Water	02/06/25 10:18	02/07/25 16:00
310-300056-5	MW-5	Water	02/06/25 11:50	02/07/25 16:00
310-300056-6	MW-6	Water	02/06/25 15:01	02/07/25 16:00
310-300056-7	MW-7	Water	02/06/25 14:32	02/07/25 16:00
310-300056-8	MW-8	Water	02/06/25 14:04	02/07/25 16:00
310-300056-9	Duplicate	Water	02/06/25 23:59	02/07/25 16:00

Detection Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-1

Lab Sample ID: 310-300056-1

No Detections.

Client Sample ID: MW-2

Lab Sample ID: 310-300056-2

No Detections.

Client Sample ID: MW-3

Lab Sample ID: 310-300056-3

No Detections.

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

No Detections.

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

No Detections.

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

No Detections.

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-1

Lab Sample ID: 310-300056-1

Date Collected: 02/06/25 12:35

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.320		0.156	0.159	1.00	0.178	pCi/L	02/14/25 07:46	03/10/25 09:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					02/14/25 07:46	03/10/25 09:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.11		0.531	0.565	1.00	0.544	pCi/L	02/14/25 07:49	03/08/25 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.8		30 - 110					02/14/25 07:49	03/08/25 11:30	1
Y Carrier	78.1		30 - 110					02/14/25 07:49	03/08/25 11:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.43		0.553	0.587	5.00	0.544	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-2

Lab Sample ID: 310-300056-2

Date Collected: 02/06/25 13:06

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.338		0.153	0.156	1.00	0.147	pCi/L	02/14/25 07:46	03/10/25 09:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					02/14/25 07:46	03/10/25 09:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.10		0.466	0.477	1.00	0.604	pCi/L	02/14/25 07:49	03/08/25 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.8		30 - 110					02/14/25 07:49	03/08/25 11:30	1
Y Carrier	76.3		30 - 110					02/14/25 07:49	03/08/25 11:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.44		0.490	0.502	5.00	0.604	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-3

Lab Sample ID: 310-300056-3

Date Collected: 02/06/25 11:01

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.02		0.263	0.278	1.00	0.206	pCi/L	02/14/25 07:46	03/10/25 10:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					02/14/25 07:46	03/10/25 10:05	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.92		0.584	0.610	1.00	0.689	pCi/L	02/14/25 07:49	03/08/25 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					02/14/25 07:49	03/08/25 11:30	1
Y Carrier	75.1		30 - 110					02/14/25 07:49	03/08/25 11:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.93		0.640	0.670	5.00	0.689	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.408		0.193	0.196	1.00	0.225	pCi/L	02/14/25 07:46	03/10/25 10:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.4		30 - 110					02/14/25 07:46	03/10/25 10:05	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.73		0.589	0.611	1.00	0.686	pCi/L	02/14/25 07:49	03/08/25 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.4		30 - 110					02/14/25 07:49	03/08/25 11:30	1
Y Carrier	71.0		30 - 110					02/14/25 07:49	03/08/25 11:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.14		0.620	0.642	5.00	0.686	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

Date Collected: 02/06/25 11:50

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.387		0.190	0.193	1.00	0.236	pCi/L	02/14/25 07:46	03/10/25 10:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		30 - 110					02/14/25 07:46	03/10/25 10:05	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.56		0.575	0.592	1.00	0.749	pCi/L	02/14/25 07:49	03/08/25 11:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	86.3		30 - 110					02/14/25 07:49	03/08/25 11:30	1
Y Carrier	74.0		30 - 110					02/14/25 07:49	03/08/25 11:30	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.95		0.606	0.623	5.00	0.749	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

Date Collected: 02/06/25 15:01

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.333		0.178	0.181	1.00	0.227	pCi/L	02/14/25 07:46	03/10/25 10:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					02/14/25 07:46	03/10/25 10:05	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.11		0.484	0.494	1.00	0.651	pCi/L	02/14/25 07:49	03/08/25 11:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.3		30 - 110					02/14/25 07:49	03/08/25 11:28	1
Y Carrier	76.3		30 - 110					02/14/25 07:49	03/08/25 11:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.44		0.516	0.526	5.00	0.651	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

Date Collected: 02/06/25 14:32

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.273		0.168	0.170	1.00	0.229	pCi/L	02/14/25 07:46	03/10/25 10:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					02/14/25 07:46	03/10/25 10:06	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.54		0.514	0.533	1.00	0.632	pCi/L	02/14/25 07:49	03/08/25 11:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		30 - 110					02/14/25 07:49	03/08/25 11:28	1
Y Carrier	77.8		30 - 110					02/14/25 07:49	03/08/25 11:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.82		0.541	0.559	5.00	0.632	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

Date Collected: 02/06/25 14:04

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.268		0.162	0.164	1.00	0.218	pCi/L	02/14/25 07:46	03/10/25 10:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		30 - 110					02/14/25 07:46	03/10/25 10:06	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.81		0.506	0.533	1.00	0.563	pCi/L	02/14/25 07:49	03/08/25 11:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.5		30 - 110					02/14/25 07:49	03/08/25 11:28	1
Y Carrier	76.6		30 - 110					02/14/25 07:49	03/08/25 11:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.07		0.531	0.558	5.00	0.563	pCi/L		03/11/25 09:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

Date Collected: 02/06/25 23:59

Matrix: Water

Date Received: 02/07/25 16:00

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.326		0.164	0.167	1.00	0.191	pCi/L	02/14/25 07:46	03/10/25 10:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					02/14/25 07:46	03/10/25 10:06	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.24		0.517	0.530	1.00	0.685	pCi/L	02/14/25 07:49	03/08/25 11:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.1		30 - 110					02/14/25 07:49	03/08/25 11:28	1
Y Carrier	74.4		30 - 110					02/14/25 07:49	03/08/25 11:28	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.57		0.542	0.556	5.00	0.685	pCi/L		03/11/25 09:52	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Qualifiers

Rad

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-703029/1-A

Matrix: Water

Analysis Batch: 706931

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 703029

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.02435	U	0.0759	0.0760	1.00	0.179	pCi/L	02/14/25 07:46	03/10/25 09:54	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					02/14/25 07:46	03/10/25 09:54	1

Lab Sample ID: LCS 160-703029/2-A

Matrix: Water

Analysis Batch: 706931

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 703029

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	8.075		0.972	1.00	0.179	pCi/L	84	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	92.8		30 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-703030/1-A

Matrix: Water

Analysis Batch: 706627

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 703030

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.03856	U	0.335	0.335	1.00	0.614	pCi/L	02/14/25 07:49	03/08/25 11:29	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.3		30 - 110					02/14/25 07:49	03/08/25 11:29	1
Y Carrier	79.6		30 - 110					02/14/25 07:49	03/08/25 11:29	1

Lab Sample ID: LCS 160-703030/2-A

Matrix: Water

Analysis Batch: 706627

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 703030

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228		8.04	9.160		1.27	1.00	0.539	pCi/L	114	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	92.8		30 - 110							
Y Carrier	79.6		30 - 110							

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Rad

Prep Batch: 703029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	PrecSep-21	
310-300056-2	MW-2	Total/NA	Water	PrecSep-21	
310-300056-3	MW-3	Total/NA	Water	PrecSep-21	
310-300056-4	MW-4R	Total/NA	Water	PrecSep-21	
310-300056-5	MW-5	Total/NA	Water	PrecSep-21	
310-300056-6	MW-6	Total/NA	Water	PrecSep-21	
310-300056-7	MW-7	Total/NA	Water	PrecSep-21	
310-300056-8	MW-8	Total/NA	Water	PrecSep-21	
310-300056-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-703029/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-703029/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 703030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-300056-1	MW-1	Total/NA	Water	PrecSep_0	
310-300056-2	MW-2	Total/NA	Water	PrecSep_0	
310-300056-3	MW-3	Total/NA	Water	PrecSep_0	
310-300056-4	MW-4R	Total/NA	Water	PrecSep_0	
310-300056-5	MW-5	Total/NA	Water	PrecSep_0	
310-300056-6	MW-6	Total/NA	Water	PrecSep_0	
310-300056-7	MW-7	Total/NA	Water	PrecSep_0	
310-300056-8	MW-8	Total/NA	Water	PrecSep_0	
310-300056-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-703030/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-703030/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-1

Lab Sample ID: 310-300056-1

Date Collected: 02/06/25 12:35

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706931	SWS	EET SL	03/10/25 09:56
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706627	SWS	EET SL	03/08/25 11:30
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-2

Lab Sample ID: 310-300056-2

Date Collected: 02/06/25 13:06

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706931	SWS	EET SL	03/10/25 09:56
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706627	SWS	EET SL	03/08/25 11:30
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-3

Lab Sample ID: 310-300056-3

Date Collected: 02/06/25 11:01

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:05
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706627	SWS	EET SL	03/08/25 11:30
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-4R

Lab Sample ID: 310-300056-4

Date Collected: 02/06/25 10:18

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:05
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706627	SWS	EET SL	03/08/25 11:30
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: MW-5

Lab Sample ID: 310-300056-5

Date Collected: 02/06/25 11:50

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:05
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706627	SWS	EET SL	03/08/25 11:30
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-6

Lab Sample ID: 310-300056-6

Date Collected: 02/06/25 15:01

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:05
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706628	SWS	EET SL	03/08/25 11:28
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-7

Lab Sample ID: 310-300056-7

Date Collected: 02/06/25 14:32

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:06
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706628	SWS	EET SL	03/08/25 11:28
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Client Sample ID: MW-8

Lab Sample ID: 310-300056-8

Date Collected: 02/06/25 14:04

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:06
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706628	SWS	EET SL	03/08/25 11:28
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Lab Chronicle

Client: SCS Engineers

Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Client Sample ID: Duplicate

Lab Sample ID: 310-300056-9

Date Collected: 02/06/25 23:59

Matrix: Water

Date Received: 02/07/25 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			703029	OGC	EET SL	02/14/25 07:46
Total/NA	Analysis	9315		1	706933	SWS	EET SL	03/10/25 10:06
Total/NA	Prep	PrecSep_0			703030	OGC	EET SL	02/14/25 07:49
Total/NA	Analysis	9320		1	706628	SWS	EET SL	03/08/25 11:28
Total/NA	Analysis	Ra226_Ra228		1	707168	SCB	EET SL	03/11/25 09:52

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	04-08-25
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana (All)	NELAP	106151	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-25
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-26
South Carolina	State	85002	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	525-23-138-94730	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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

Eurofins Cedar Falls

Method Summary

Client: SCS Engineers

Job ID: 310-300056-2

Project/Site: City of Fremont Dept of Utilities

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Environment Testing
America



310-300056 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY <u>Omaha</u>	STATE <u>NE</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>2/7/25</u>	TIME <u>1600</u>	Received By:
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>1</u> of <u>2</u>			
Cooler Custody Seals Present? ☐ Yes ☒ No If yes: Cooler custody seals intact? ☐ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>D</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.1</u>		Corrected Temp (°C): <u>0.1</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	<u>Orlando</u>	STATE: <u>NE</u>	Project:
Receipt Information			
Date/Time Received:	DATE: <u>2/7/23</u>	TIME: <u>1600</u>	Received By:
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>1</u> of <u>2</u>			
Cooler Custody Seals Present? ☐ Yes ☒ No If yes: Cooler custody seals intact? ☐ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>D</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>4.6</u>		Corrected Temp (°C): <u>4.6</u>	
• Sample Container Temperature			
Container(s) used:	<u>CONTAINER 1</u>		<u>CONTAINER 2</u>
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Cedar Falls, IA 50613
phone 319.277.2401 fax 319.277.2425

[illegible]

3/11/2025

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Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record



eurofins

Client Information (Sub Contract Lab)				Lab PM: Miller, Samuel		Carrier Tracking No(s): N/A		COC No. 310-80454.1
Client Contact:				E-Mail: Samuel.Miller@eurofinsus.com		State of Origin: Nebraska		Page Page 1 of 1
Shipping/Receiving Company TestAmerica Laboratories, Inc.						Job # 310-300056-2		Preservation Codes: NELAP - Oregon
Address 13715 Rider Trail North, City Earth City State Zip MO, 63045 Phone 314-298-8566(Tel) 314-298-8757(Fax) Email N/A Project Name City of Fremont Dept of Utilities City of Fremont Dept of Utilities Site N/A SSOW# N/A				Due Date Requested: 3/12/2025		Analysis Requested		Total Number of containers Other: N/A
TAT Requested (days): N/A				PO # N/A		Radium-228		Special Instructions/Note:
WO # N/A				Performs MS/MSD (Yes or No)		920_Ra228/PrecSep_0 Radium-228 (GFPc)		
Sample ID (Lab ID)				Field Filtered Sample (Yes or No)		9315_Ra226/PrecSep_21 Radium-226 (GFPc)		
Sample Date		Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=other)	Preservation Code:			
MW-1 (310-300056-1)	2/6/25	12:35 Central	G	Water	X	X	2	
MW-2 (310-300056-2)	2/6/25	13:06 Central	G	Water	X	X	2	
MW-3 (310-300056-3)	2/6/25	11:01 Central	G	Water	X	X	2	
MW-4R (310-300056-4)	2/6/25	10:18 Central	G	Water	X	X	2	
MW-5 (310-300056-5)	2/6/25	11:50 Central	G	Water	X	X	2	
MW-6 (310-300056-6)	2/6/25	15:01 Central	G	Water	X	X	2	
MW-7 (310-300056-7)	2/6/25	14:32 Central	G	Water	X	X	2	
MW-8 (310-300056-8)	2/6/25	14:04 Central	G	Water	X	X	2	
Duplicate (310-300056-9)	2/6/25	23:59 Central	G	Water	X	X	2	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.								
Possible Hazard Identification								
Unconfirmed								
Deliverable Requested: I, II, III, IV, Other (specify)				Primary Deliverable Rank: 2				
Empty Kit Relinquished by:				Date:				
Relinquished by				Company				
Relinquished by				Date/Time				
Relinquished by				Date/Time				
Custody Seals Intact				Custody Seal No.:				
Δ Yes Δ No								

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-300056-2

SDG Number:

Login Number: 300056

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-300056-2

SDG Number:

Login Number: 300056

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 02/11/25 02:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Tracer/Carrier Summary

Client: SCS Engineers
Project/Site: City of Fremont Dept of Utilities

Job ID: 310-300056-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)								
		Ba								
Lab Sample ID	Client Sample ID	(30-110)								
310-300056-1	MW-1	88.8								
310-300056-2	MW-2	84.8								
310-300056-3	MW-3	82.1								
310-300056-4	MW-4R	75.4								
310-300056-5	MW-5	86.3								
310-300056-6	MW-6	83.3								
310-300056-7	MW-7	85.6								
310-300056-8	MW-8	90.5								
310-300056-9	Duplicate	82.1								
LCS 160-703029/2-A	Lab Control Sample	92.8								
MB 160-703029/1-A	Method Blank	87.3								
Tracer/Carrier Legend										
Ba = Ba Carrier										

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba			Y		
Lab Sample ID	Client Sample ID	(30-110)			(30-110)		
310-300056-1	MW-1	88.8	78.1				
310-300056-2	MW-2	84.8	76.3				
310-300056-3	MW-3	82.1	75.1				
310-300056-4	MW-4R	75.4	71.0				
310-300056-5	MW-5	86.3	74.0				
310-300056-6	MW-6	83.3	76.3				
310-300056-7	MW-7	85.6	77.8				
310-300056-8	MW-8	90.5	76.6				
310-300056-9	Duplicate	82.1	74.4				
LCS 160-703030/2-A	Lab Control Sample	92.8	79.6				
MB 160-703030/1-A	Method Blank	87.3	79.6				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							

A2 3rd Quarter Groundwater Monitoring Program Report



Lon D. Wright Power Plant Statistical Summary of July 2025 Data

City of Fremont Department of Utilities
2701 E 1st Street
Fremont, Nebraska 68025

SCS ENGINEERS

27224080.01 | October 10, 2025

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14755 Grover Street
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Table of Contents

Section	Page
1 EVALUATION OF ANALYTICAL RESULTS.....	1
1.1 Site-Specific Statistical Program	1
1.2 Compliance Statistical Analysis.....	1
1.2.1 Time Series Plots.....	1
1.2.2 Intrawell Prediction Limits.....	1
1.2.3 Interwell Prediction Limits.....	2
1.2.4 Sen's Slope/Mann-Kendall Trend Analysis.....	2
1.2.5 Confidence Interval Analysis.....	2
1.2.6 Statistical Summary	3
2 GENERAL COMMENTS	6
3 REFERENCES	7

Tables

Table 1.	Previously identified to Current identified exceedances	3
Table 2.	Summary of Statistical Analysis	5

Attachments

A	Compliance Statistical Analysis
A.1	Time Series Plots
A.2	Intrawell Prediction Limits
A.3	Interwell Prediction Limits
A.4	Sen's Slope/Mann-Kendall Analysis
A.5	Confidence Interval Analysis
B	Figures
B.1	Groundwater Contours Map
C	Supporting information
C.1	Field Data Sheets
C.2	Chain of Custody
C.3	Testing Results

1 EVALUATION OF ANALYTICAL RESULTS

1.1 SITE-SPECIFIC STATISTICAL PROGRAM

Statistical analysis consisted of methods outlined in the Groundwater Monitoring Plan (GMP) (revised April 2021), 40 CFR Part 257, Subpart D (CCR rule) and EPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (Unified Guidance) dated March 2009 using Sanitas™ Statistical Software version 10.0. An intrawell statistical approach is the primary statistical method and interwell comparisons are supplementary statistical analyses used to give context to intrawell statistical results. If no intrawell statistical exceedance is noted, the additional statistical analysis is not used to make assessment monitoring determinations. Constituent/well pairs exceeding inter-and intrawell prediction limits but not displaying significant increasing trends are not entered into the assessment monitoring program. Additionally, in an assessment monitoring program, if one or more constituent/well pair statistically exceeds the intrawell prediction limit but does not exceed the Confidence Interval (ie GWPS) then assessment monitoring procedures for the site will continue and no changes to the sampling schedule are implemented. Based on current understanding of the Federal CCR rule, when assessment monitoring is required at one well then, all wells must be in assessment monitoring. This understanding does not conflict with GMP requirements.

Because the site remains in assessment monitoring, each well at the site was sampled and analyzed following assessment monitoring procedures. During the July 2025 sampling event, samples from each well were analyzed for Appendix III and IV constituents. Appendix III and Appendix IV constituent results were analyzed using time series plots, intrawell prediction limit analysis, interwell prediction limit analysis, Sen's slope trend analyses, and confidence interval analysis. The statistical results have been summarized in **Table 2** at the end of this Section.

Statistical output charts and tables are included in **Attachment A**.

1.2 COMPLIANCE STATISTICAL ANALYSIS

Compliance statistical analysis was performed on data collected from the July 2025 sampling event. Pertinent statistical results are summarized in **Table 2** at the end of this Section.

1.2.1 Time Series Plots

Time series plots were prepared for Appendix III and Appendix IV constituents to show the concentration variations over time. Time series graphs are included in **Attachment A.1**.

1.2.2 Intrawell Prediction Limits

An intrawell prediction limit analysis compares the historical data of a well to its own compliance data. The historical data is used to calculate the prediction limit that is compared to the compliance data point. If a compliance data point exceeds the calculated prediction limit, then an initial exceedance is noted; however, this may not indicate a statistically significant increase (SSI). The distribution of the data was calculated by applying the Shapiro-Wilk test for normality or the Ladder of Powers (Helsel & Hirsh, 1992) for transformed data. A parametric prediction limit was constructed for data determined to have a normal or transformed normal distribution. A non-parametric prediction limit was calculated for data not transformed normal or containing 51 percent to 90 percent non-detect results.

Intrawell prediction limits were used to statistically evaluate the detected constituents in each monitoring well using an established background dataset from October 2016 through June 2018 except for Boron where the background dataset is from October 2016 to February 2018. Outliers, if any, are removed from the background dataset.

Intrawell prediction limit analysis results are included in **Attachment A.2** and summarized in **Table 2**.

1.2.3 Interwell Prediction Limits

An interwell prediction limit analysis compares data collected from compliance (downgradient) monitoring wells with data collected from the background (upgradient) monitoring wells. Available upgradient monitoring well data (MW-4R) was used to calculate the interwell prediction limit and was used to determine if a single data point is statistically representative of a group of data points. The distribution of the data was calculated by applying the Shapiro-Wilk test for normality, or the Ladder of Powers (Helsel & Hirsh, 1992) for transformed data. A parametric prediction limit was constructed for data determined to have a normal or transformed normal distribution. A non-parametric prediction limit was calculated for data not transformed normal or containing 51 percent to 90 percent of observations less than the laboratory reporting limit (non-detects) results. A Poisson based prediction limit was calculated for data with greater than 90 percent non-detect results.

Interwell prediction limits were used as a supplementary statistical analysis to provide additional context and evaluation to the statistical evaluation of the detected constituents from the July 2025 sampling event data. There were no exceedances to the interwell prediction limits for the July 2025 sampling event. Interwell prediction limits analysis results are included in **Attachment A.3** and summarized in **Table 2**.

1.2.4 Sen's Slope/Mann-Kendall Trend Analysis

A Sen's Slope/Mann-Kendall statistical analysis was performed on the detected constituent/well pairs using the background dataset and the July 2025 sampling event to determine trends in the concentration of these constituents. A trend is the general increase or decrease in observed values over time. A trend analysis can be used to determine the significance of an apparent trend and to estimate the magnitude of that trend. The Mann-Kendall test is nonparametric, meaning that it does not depend on an assumption of a particular underlying distribution. The test uses only the relative magnitude of data rather than actual values. Therefore, missing values are allowed, and values that are recorded as non-detects by the laboratory can still be used in the statistical analysis by assigning values equal to half their reporting limits. Sen's Slope is a simple nonparametric procedure developed to estimate the true slope. The advantage of this method over linear regression is that it is not greatly affected by gross data errors or outliers, and can be computed when data is missing or non-detect. Significant trends should be identified as either increasing or decreasing and whether these trends are occurring in more than one well. Trends can result from naturally occurring changes to the groundwater, seasonal fluctuations, and disturbances from new well installations or facility activities. Sen's Slope/Mann-Kendall analysis results are included in **Attachment A.4** and summarized in **Table 2**.

1.2.5 Confidence Interval Analysis

Confidence Interval analysis was performed on the detected constituent/well pairs from the July 2025 sampling event. Confidence interval analysis is an intrawell test used to compare the compliance data to a fixed numerical limit (compliance limit). Since the wells are in assessment monitoring, the compliance limit is represented by the groundwater protection standard (GWPS). Based on the Unified Guidance, the confidence interval is bound by an upper and lower limit which

defines the most probable range where either the average or median concentration is expected. A potential statistical exceedance is indicated by confidence interval analysis when the lower limit of the confidence interval is above the compliance limit.

The GWPS for lithium and molybdenum were identified in the July 17, 2018 *Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Amendments to the National Minimum Criteria (Phase One, Part One); Final Rule* (July 2018 EPA CCR Amendment) and were utilized as the compliance limits. The average upgradient concentrations, derived from MW-4R, were used as the compliance limit for boron, calcium, and cobalt because no GWPS exists for these constituents. MW-4R is sampled in the first and third quarters of each year. The average upgradient concentrations are reviewed and calculated after each sampling event to ensure consistent data. The confidence interval analysis results are included in **Attachment A.5** and summarized in **Table 2**.

1.2.6 Statistical Summary

The following table lists a summary of constituents having exceedances for the previous monitoring period, February 2025, and the current monitoring period, July 2025.

Table 1. Previously Identified and Currently Identified Exceedances

Well	Previously identified exceedances Feb-25		Currently identified exceedances July-25	
	Intrawell	Interwell	Intrawell	Interwell
MW-1	Chloride Sulfate	Sulfate	Chloride Sulfate	
MW-2	Chloride		Chloride Fluoride	
MW-3	Arsenic Chloride	Barium Chloride	Arsenic Chloride	
MW-4R (upgradient)	Arsenic Chloride		Arsenic Chloride	
MW-5	Chloride Sulfate	Sulfate	Chloride Sulfate	
MW-6		Sulfate	Arsenic	
MW-7	Selenium	Selenium	Chloride Sulfate	
MW-8	Chloride		Arsenic Chloride	

Intrawell exceedances were noted for arsenic (MW-3, MW-4R, MW-6, and MW-8), chloride (MW-1, MW-2, MW-3, MW-4R, MW-5, MW-7 and MW-8), fluoride (MW-2), and sulfate (MW-1, MW-5, and MW-7). No interwell exceedances were noted for the July 2025 sampling event. No constituent/well pairs statistically exceeded the GWPS. Chloride and Arsenic at upgradient well MW-4R were identified as intrawell exceedances and may indicate a natural change in the groundwater quality. This change in the groundwater quality may be the reason for similar exceedances identified in the downgradient wells.

Statistical exceedances above background are still present at some wells; however no Appendix IV detects statistically exceeded the GWPS. Based on the current understanding of the Federal CCR rule, when assessment monitoring is required at one well then, all wells must be in assessment monitoring. Therefore, the site will remain in assessment monitoring during the next scheduled sampling event. The statistical analysis results from the July 2025 sampling event are summarized in **Table 2** below.

Table 2. Summary of Statistical Analysis

Well	Detected Constituents	Analytical Result	Intrawell Exceedance?	Interwell Exceedance?	Significant Increasing Trend?	Confidence Interval Exceedance?	GWPS ¹ MCL or Background Average
MW-1	Arsenic (ug/L)	4.11	No	No	Yes	No	<10
	Calcium (mg/L)	94.9	No	No	No	Yes	87 ³
	Chloride (mg/L)	44.0	Yes	No	Yes	No	<250
	pH (S.U.)	7.50	No	No	Yes	No	6.5 – 8.5
	Sulfate (mg/L)	77.7	Yes	No	No	No	<250
MW-2	Barium (ug /L)	93.6	No	No	Yes	No	<2000
	Calcium (mg/L)	78.8	No	No	No	Yes	87 ³
	Chloride (mg/L)	30.3	Yes	No	Yes	No	<250
	Fluoride (mg/L)	1.16	Yes	No	Yes	No	<4.0
	pH (S.U.)	7.55	No	No	Yes	No	6.5 – 8.5
MW-3	Arsenic (ug/L)	3.69	Yes	No	Yes	No	<10
	Barium (ug/L)	116	No	No	Yes	No	<2000
	Calcium (mg/L)	78.7	No	No	No	Yes	87 ³
	Chloride (mg/L)	43.3	Yes	No	Yes	No	<250
MW-4R	Arsenic (ug/L)	6.16	Yes	See Note 2	Yes	No	<10
	Chloride (mg/L)	62.7	Yes		Yes	No	<250
MW-5	Calcium (mg/L)	96.6	No	No	No	Yes	87 ³
	Chloride (mg/L)	58.4	Yes	No	Yes	No	<250
	Sulfate (mg/L)	64.9	Yes	No	No	No	<250
MW-6	Arsenic (ug/L)	4.59	Yes	No	Yes	No	<10
MW-7	Calcium (mg/L)	84.7	No	No	No	Yes	87 ³
	Chloride (mg/L)	58.2	Yes	No	Yes	No	<250
	Sulfate (mg/L)	70.2	Yes	No	No	No	<250
MW-8	Arsenic (ug/L)	3.23	Yes	No	No	Yes	<10
	Chloride (mg/L)	35.0	Yes	No	Yes	No	<250

¹ - GWPS were established by the NDEE Title 118 Groundwater Quality Standards or the July 2018 EPA CCR Amendment.

² - No interwell statistical comparison was performed on the upgradient well MW-4R.

³ - No GWPS has been established. MCL shown is based on the average background level established by upstream monitoring.

2 GENERAL COMMENTS

The sampling event was conducted by Charles Joyce who holds a Nebraska Drilling and pump installation contractor's license (WD-PIC #39502). SCS Engineers does not warrant the work of third parties supplying information used in the assimilation of this document. This document has been prepared using the level of care and skill ordinarily exercised, under similar circumstances, by environmental professionals currently practicing in this locality. No other representation, express or implied, and no warranty or guarantee is included or intended.

3 REFERENCES

HDR, Appendix D Groundwater Monitoring Plan for Fremont Department of Utilities Fossil Fuel Combustion Ash Disposal Site, March 2016; Revised December 2018.

Layne GeoSciences, Inc. 1995. Hydrogeology of Proposed Fossil Fuel Combustion Ash Disposal Site. Prepared for Fremont Department of Utilities and HDR Engineering, Inc.

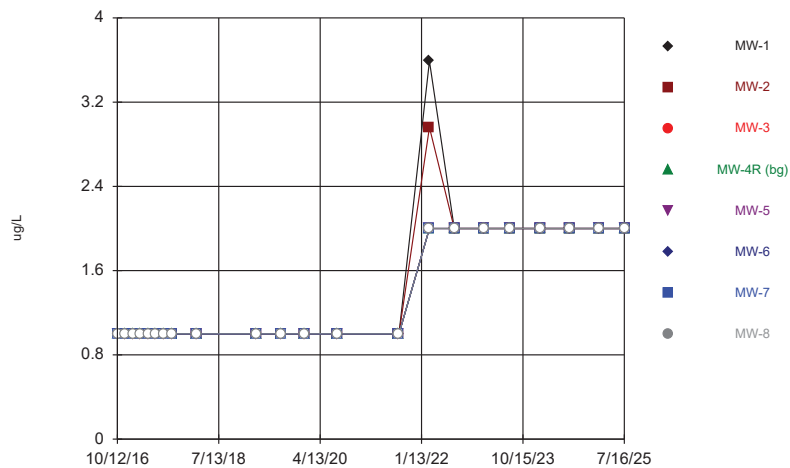
Sanitas Technologies, Sanitas Statistical Software v 10.0 and User Guide



Attachment A. Compliance Statistical Analysis

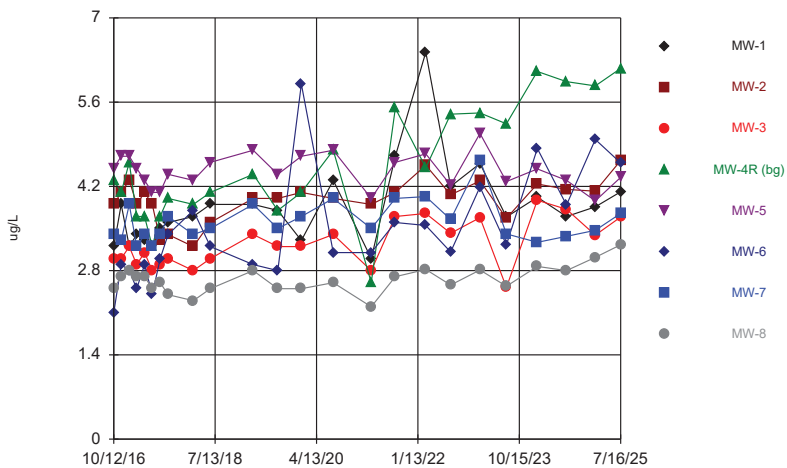
A.1 Time Series Plots

Time Series



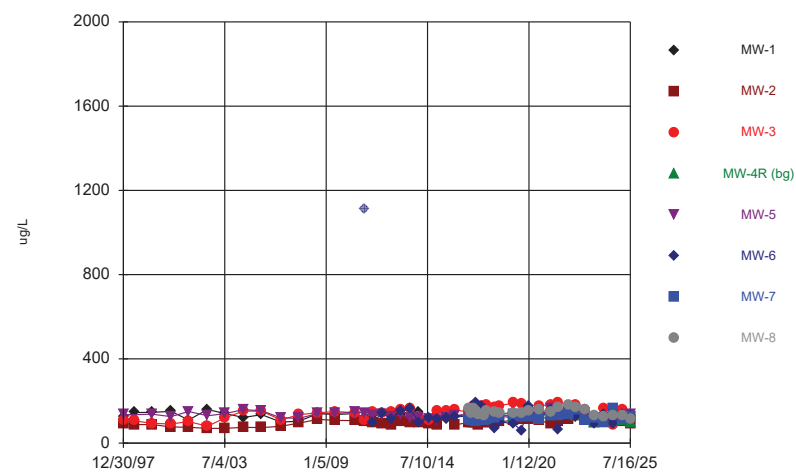
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



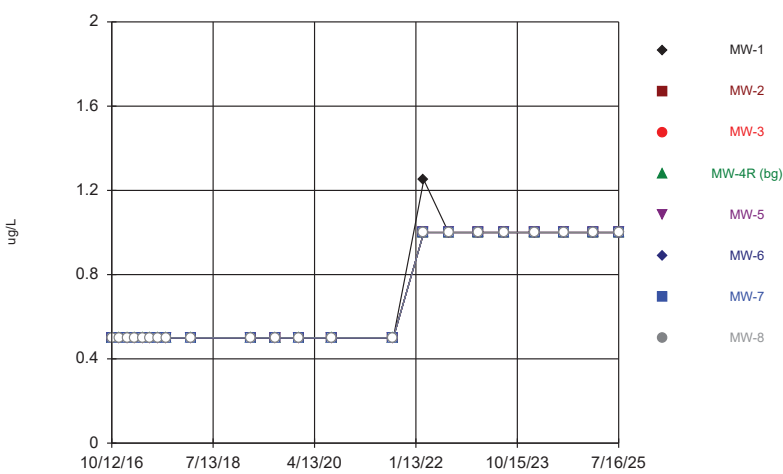
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Time Series



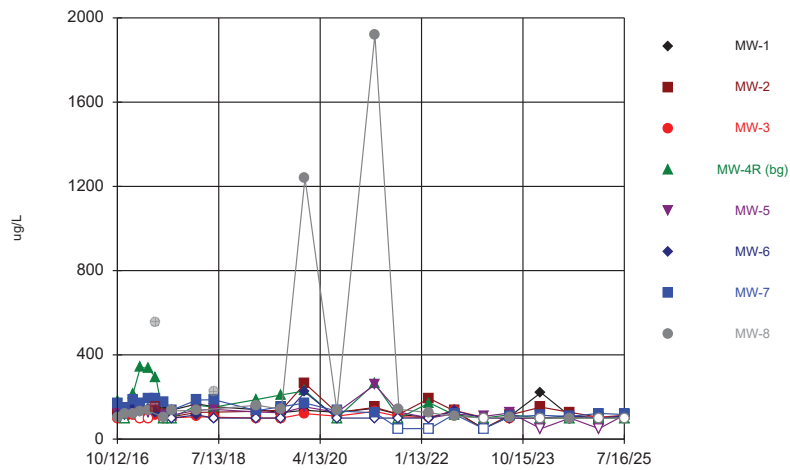
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Time Series



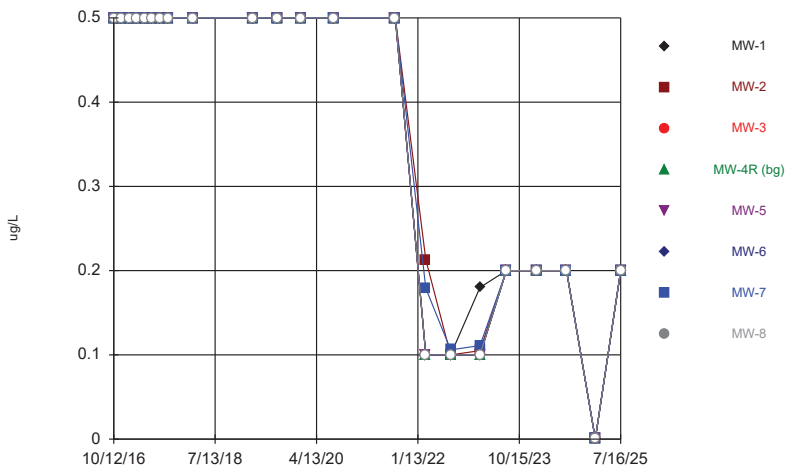
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Time Series



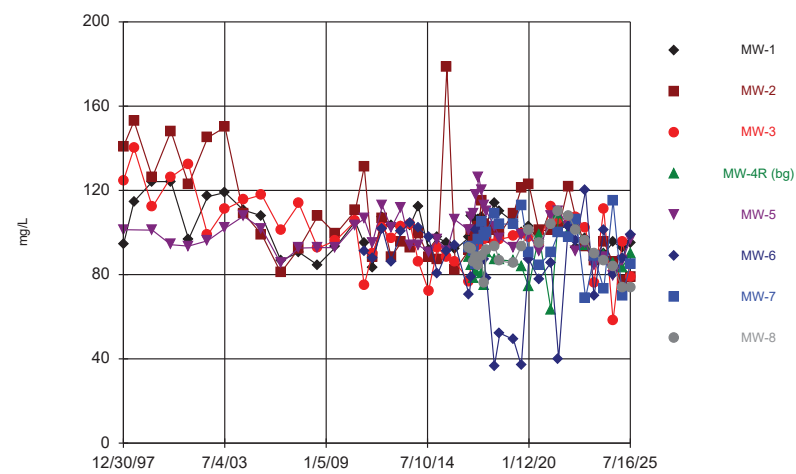
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Time Series

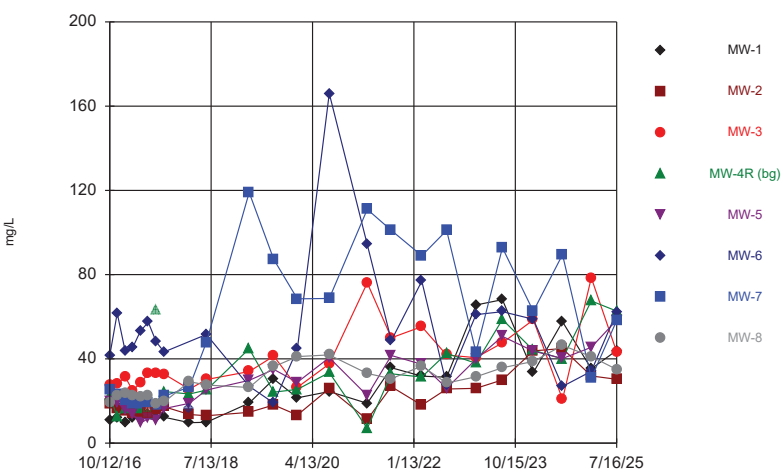


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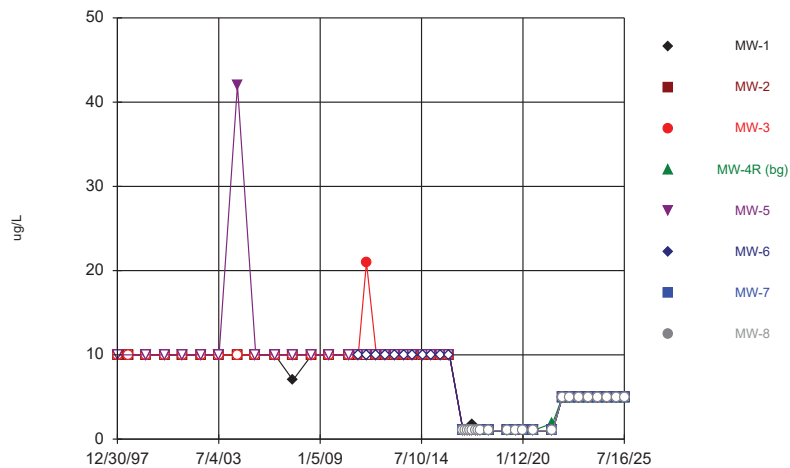
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Time Series

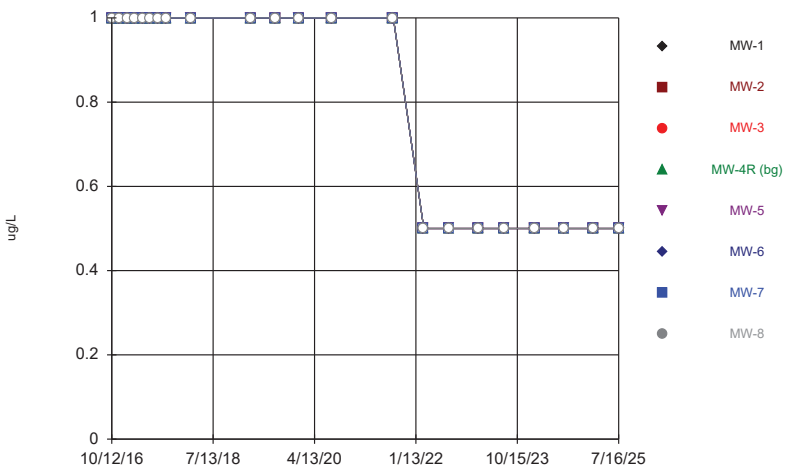


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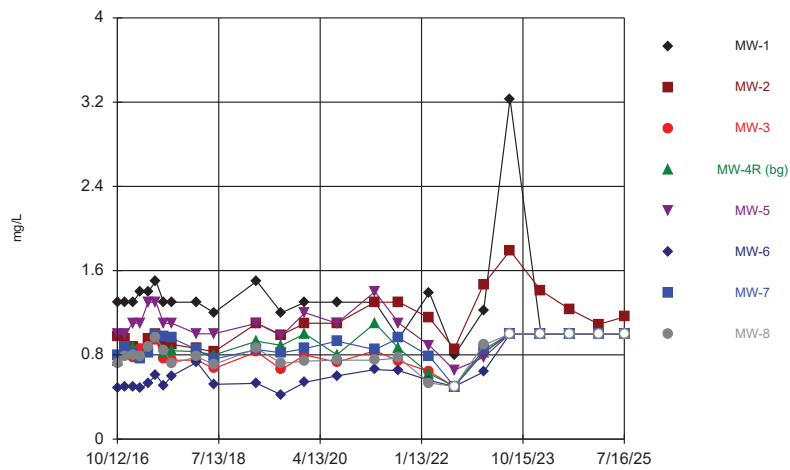
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Time Series



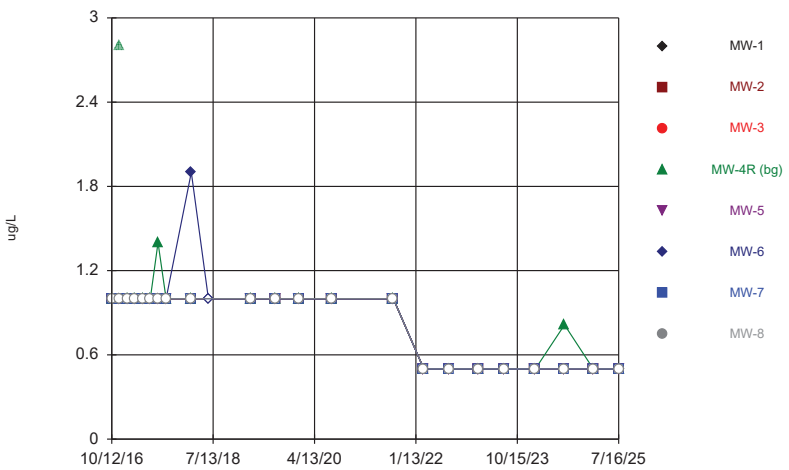
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Time Series



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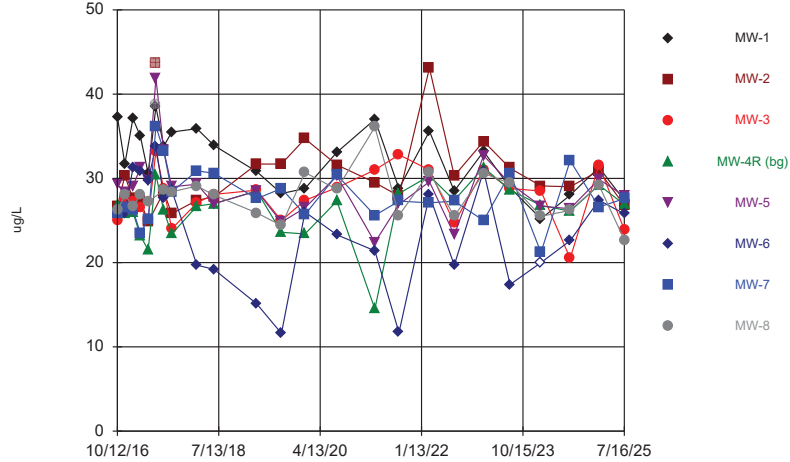
Time Series



Constituent: Lead Analysis Run 8/18/2025 10:49 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

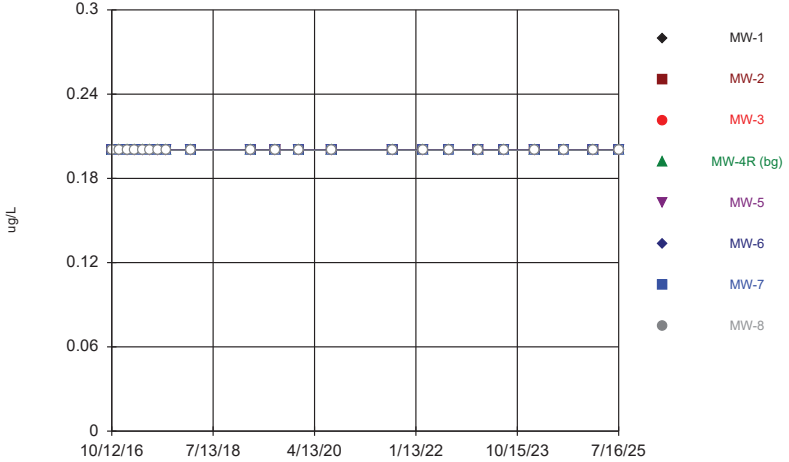
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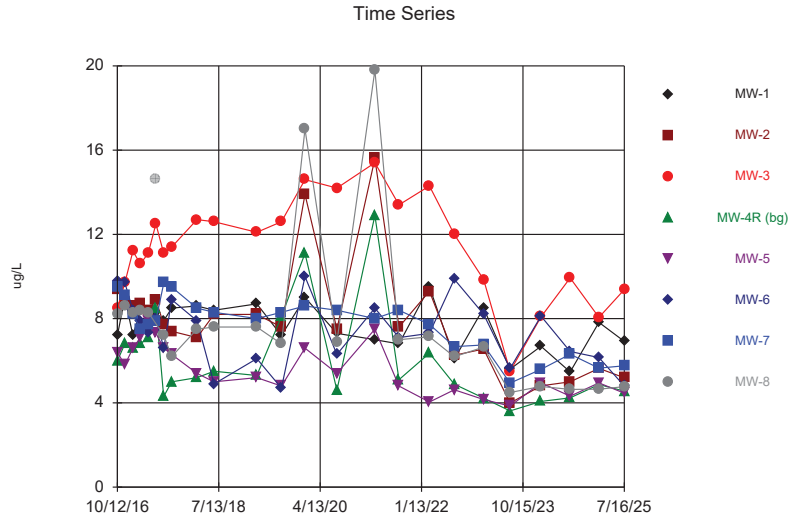
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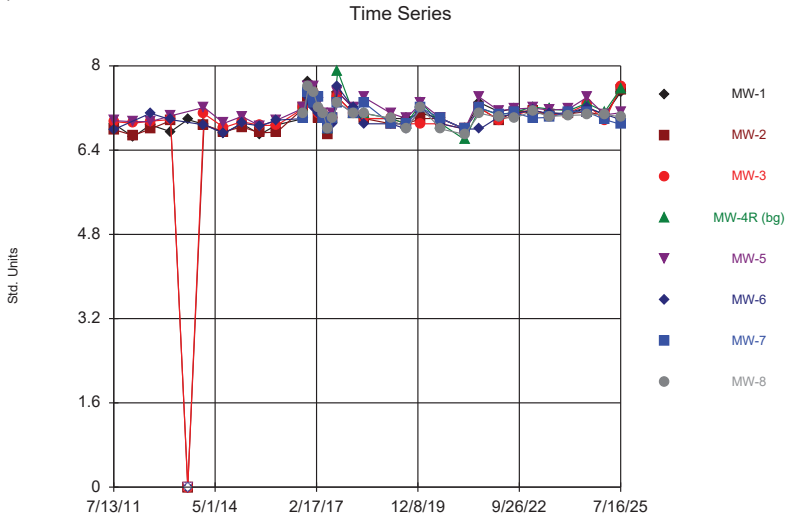
Time Series



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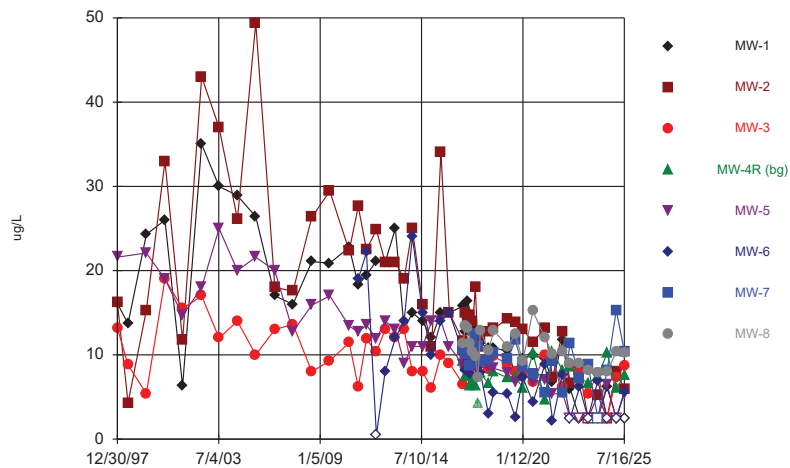


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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



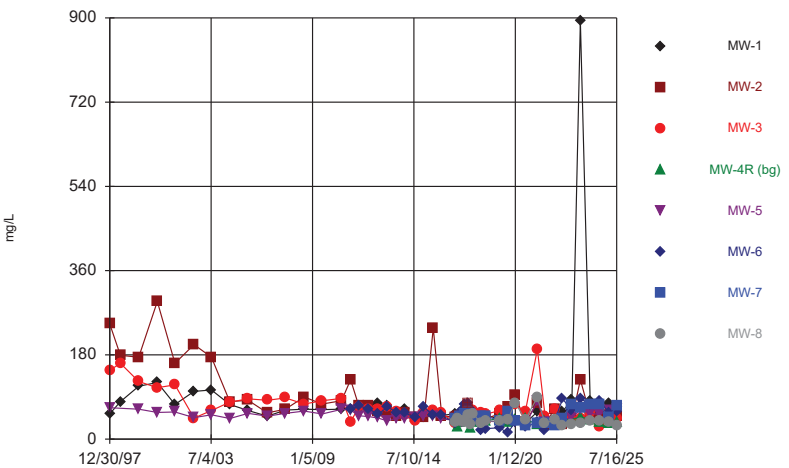
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series



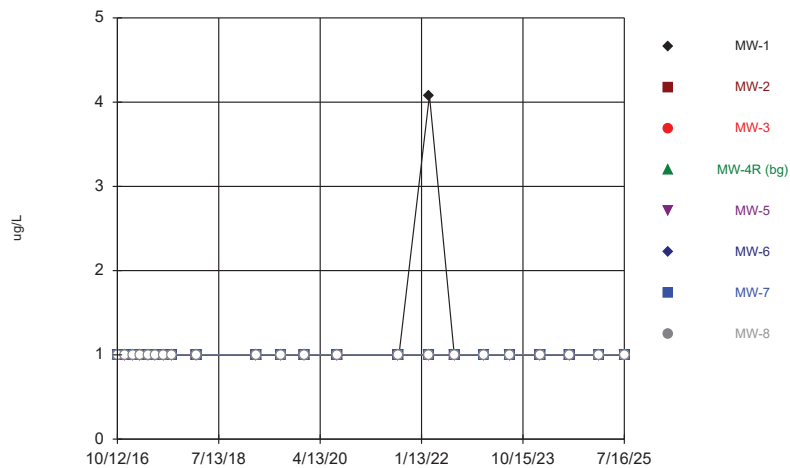
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Time Series

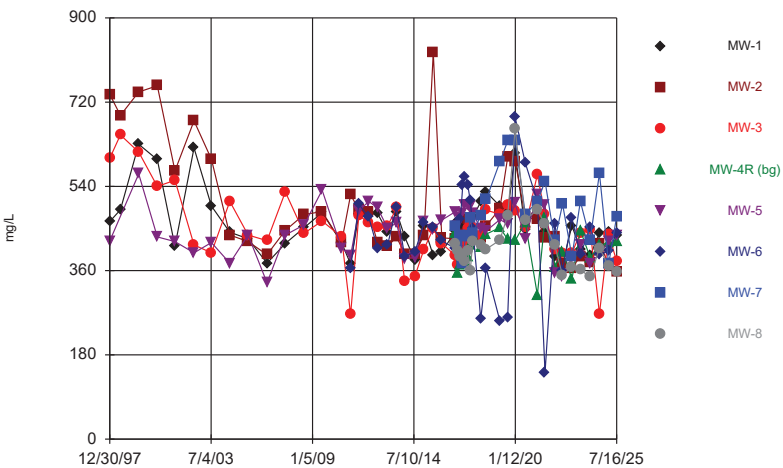


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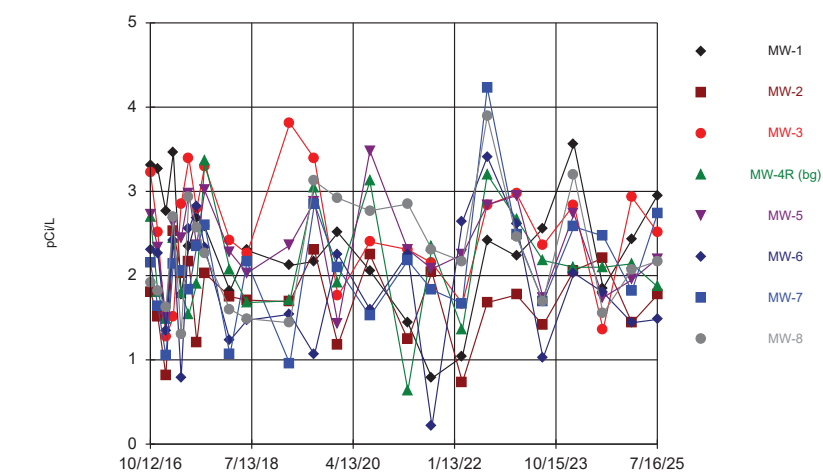
Time Series



Time Series



Time Series



Constituent: Total Radium Analysis Run 8/18/2025 10:49 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

A.2 Intrawell Prediction Limits

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 8/18/2025, 11:39 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (ug/L)	MW-1	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-2	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-3	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-4R	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-5	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-6	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-7	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Antimony (ug/L)	MW-8	1	n/a	7/16/2025	2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Arsenic (ug/L)	MW-1	4.369	n/a	7/16/2025	4.11	No	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-2	4.96	n/a	7/16/2025	4.63	No	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-3	3.368	n/a	7/16/2025	3.69	Yes	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-4R	5.157	n/a	7/16/2025	6.16	Yes	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-5	5.119	n/a	7/16/2025	4.35	No	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-6	4.478	n/a	7/16/2025	4.59	Yes	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-7	4.13	n/a	7/16/2025	3.75	No	10	0	No	0.000...	Param Intra 1 of 2
Arsenic (ug/L)	MW-8	3.068	n/a	7/16/2025	3.23	Yes	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-1	174	n/a	7/16/2025	133.9	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Barium (ug/L)	MW-2	113.7	n/a	7/16/2025	93.6	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-3	199.2	n/a	7/16/2025	116	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-4R	145.6	n/a	7/16/2025	100	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-5	173.2	n/a	7/16/2025	136	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-6	255	n/a	7/16/2025	131	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-7	137.1	n/a	7/16/2025	124	No	10	0	No	0.000...	Param Intra 1 of 2
Barium (ug/L)	MW-8	185.2	n/a	7/16/2025	116	No	10	0	No	0.000...	Param Intra 1 of 2
Beryllium (ug/L)	MW-1	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-2	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-3	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-4R	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-5	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-6	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-7	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Beryllium (ug/L)	MW-8	0.5	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Boron (ug/L)	MW-1	179.5	n/a	7/16/2025	107	No	10	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-2	141.7	n/a	7/16/2025	113	No	9	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-3	115	n/a	7/16/2025	100	No	10	40	n/a	0.01476	NP Intra (normality) ...
Boron (ug/L)	MW-4R	592.3	n/a	7/16/2025	100ND	No	10	30	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-5	158.9	n/a	7/16/2025	114	No	10	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-6	283.4	n/a	7/16/2025	110	No	10	20	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-7	232.9	n/a	7/16/2025	117	No	10	0	No	0.000...	Param Intra 1 of 2
Boron (ug/L)	MW-8	171.5	n/a	7/16/2025	50ND	No	8	0	No	0.000...	Param Intra 1 of 2
Cadmium (ug/L)	MW-1	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-2	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-3	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-4R	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-5	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-6	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-7	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cadmium (ug/L)	MW-8	0.5	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Calcium (mg/L)	MW-1	120.2	n/a	7/16/2025	94.9	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-2	120.3	n/a	7/16/2025	78.8	No	10	0	No	0.000...	Param Intra 1 of 2

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Calcium (mg/L)	MW-3	116	n/a	7/16/2025	78.7	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-4R	99.14	n/a	7/16/2025	90.1	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-5	139	n/a	7/16/2025	96.6	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-6	149.5	n/a	7/16/2025	98.7	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-7	120.7	n/a	7/16/2025	84.7	No	10	0	No	0.000...	Param Intra 1 of 2
Calcium (mg/L)	MW-8	104.6	n/a	7/16/2025	74	No	10	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-1	15.29	n/a	7/16/2025	44	Yes	10	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-2	22.01	n/a	7/16/2025	30.3	Yes	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-3	39	n/a	7/16/2025	43.3	Yes	10	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-4R	35.49	n/a	7/16/2025	62.7	Yes	9	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-5	31.51	n/a	7/16/2025	58.4	Yes	10	0	No	0.000...	Param Intra 1 of 2
Chloride (mg/L)	MW-6	99.94	n/a	7/16/2025	36.95	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Chloride (mg/L)	MW-7	47.9	n/a	7/16/2025	58.2	Yes	10	0	n/a	0.01476	NP Intra (normality) ...
Chloride (mg/L)	MW-8	33.65	n/a	7/16/2025	35	Yes	10	0	No	0.000...	Param Intra 1 of 2
Chromium (ug/L)	MW-1	1.7	n/a	7/16/2025	5ND	No	9	88.89	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-2	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-3	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-4R	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-5	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-6	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-7	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Chromium (ug/L)	MW-8	1	n/a	7/16/2025	5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-1	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-2	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-3	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-4R	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-5	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-6	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-7	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Cobalt (ug/L)	MW-8	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	MW-1	1.592	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-2	1.089	n/a	7/16/2025	1.16	Yes	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-3	1.026	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-4R	1.054	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-5	1.493	n/a	7/16/2025	0.5ND	No	10	0	x^(1/3)	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-6	0.795	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-7	1.133	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Fluoride (mg/L)	MW-8	1.048	n/a	7/16/2025	0.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Lead (ug/L)	MW-1	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-2	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-3	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-4R	1.4	n/a	7/16/2025	0.5ND	No	8	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-5	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-6	1.9	n/a	7/16/2025	0.5ND	No	10	90	n/a	0.01476	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-7	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lead (ug/L)	MW-8	1	n/a	7/16/2025	0.5ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Lithium (ug/L)	MW-1	42.85	n/a	7/16/2025	27.4	No	10	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-2	32.65	n/a	7/16/2025	26.8	No	9	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-3	35.41	n/a	7/16/2025	23.9	No	10	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-4R	33.59	n/a	7/16/2025	26.9	No	10	0	No	0.000...	Param Intra 1 of 2

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-5	41.9	n/a	7/16/2025	27.9	No	10	0	n/a	0.01476	NP Intra (normality) ...
Lithium (ug/L)	MW-6	42.47	n/a	7/16/2025	25.8	No	10	0	No	0.000...	Param Intra 1 of 2
Lithium (ug/L)	MW-7	38.14	n/a	7/16/2025	24.42	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Lithium (ug/L)	MW-8	30.97	n/a	7/16/2025	22.7	No	9	0	No	0.000...	Param Intra 1 of 2
Mercury (ug/L)	MW-1	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-2	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-3	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-4R	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-5	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-6	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-7	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Mercury (ug/L)	MW-8	0.2	n/a	7/16/2025	0.2ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Molybdenum (ug/L)	MW-1	10.04	n/a	7/16/2025	6.92	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-2	10.58	n/a	7/16/2025	5.19	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-3	15.35	n/a	7/16/2025	9.38	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-4R	10.08	n/a	7/16/2025	4.56	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-5	9.231	n/a	7/16/2025	4.46	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-6	11.6	n/a	7/16/2025	6.317	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Molybdenum (ug/L)	MW-7	11.15	n/a	7/16/2025	5.76	No	10	0	No	0.000...	Param Intra 1 of 2
Molybdenum (ug/L)	MW-8	10.42	n/a	7/16/2025	4.77	No	9	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-1	8.025	6.335	7/16/2025	7.5	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-2	7.851	6.389	7/16/2025	7.55	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-3	7.863	6.497	7/16/2025	7.61	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-4R	8.258	6.202	7/16/2025	7.57	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-5	7.698	6.86	7/16/2025	7.192	No	10	0	No	0.000...	Param Intra 1 of 2 De...
pH (Std. Units)	MW-6	7.895	6.325	7/16/2025	6.98	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-7	7.873	6.467	7/16/2025	6.89	No	10	0	No	0.000...	Param Intra 1 of 2
pH (Std. Units)	MW-8	7.517	6.783	7/16/2025	7.153	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Selenium (ug/L)	MW-1	19.45	n/a	7/16/2025	2.5ND	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-2	20.24	n/a	7/16/2025	5.97	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-3	11.73	n/a	7/16/2025	8.64	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-4R	9.758	n/a	7/16/2025	7.37	No	9	0	No	0.000...	Param Intra 1 of 2 De...
Selenium (ug/L)	MW-5	9.889	n/a	7/16/2025	5.42	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-6	18.32	n/a	7/16/2025	5.63	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-7	13.77	n/a	7/16/2025	10.4	No	10	0	No	0.000...	Param Intra 1 of 2
Selenium (ug/L)	MW-8	17.35	n/a	7/16/2025	10.3	No	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-1	61.16	n/a	7/16/2025	67.8	Yes	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-2	59.03	n/a	7/16/2025	48.1	No	9	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-3	85.79	n/a	7/16/2025	44.6	No	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-4R	59.48	n/a	7/16/2025	36.9	No	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-5	48.2	n/a	7/16/2025	64.9	Yes	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-6	114.6	n/a	7/16/2025	60	No	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-7	66.3	n/a	7/16/2025	70.2	Yes	10	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	MW-8	64.43	n/a	7/16/2025	28.9	No	10	0	No	0.000...	Param Intra 1 of 2
Thallium (ug/L)	MW-1	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-2	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-3	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-4R	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-5	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-6	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2

Prediction Limit

Fremont Dept. of Utilities

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Data: Fremont Department of Utilities Groundwater

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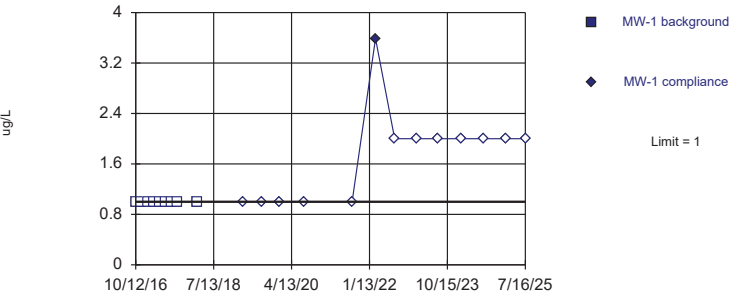
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (ug/L)	MW-7	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Thallium (ug/L)	MW-8	1	n/a	7/16/2025	1ND	No	9	100	n/a	0.01809	NP Intra (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	553.1	n/a	7/16/2025	434	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-2	486.6	n/a	7/16/2025	356	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-3	543.4	n/a	7/16/2025	380	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-4R	464.6	n/a	7/16/2025	400.5	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-5	542.6	n/a	7/16/2025	436	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-6	754.3	n/a	7/16/2025	440	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-7	563	n/a	7/16/2025	476	No	10	0	No	0.000...	Param Intra 1 of 2
Total Dissolved Solids (mg/L)	MW-8	458.5	n/a	7/16/2025	358	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-1	4.506	n/a	7/16/2025	2.95	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-2	3.313	n/a	7/16/2025	1.77	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-3	4.85	n/a	7/16/2025	2.52	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-4R	3.273	n/a	7/16/2025	1.952	No	10	0	No	0.000...	Param Intra 1 of 2 De...
Total Radium (pCi/L)	MW-5	3.859	n/a	7/16/2025	2.2	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-6	4.117	n/a	7/16/2025	1.48	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-7	3.547	n/a	7/16/2025	2.73	No	10	0	No	0.000...	Param Intra 1 of 2
Total Radium (pCi/L)	MW-8	3.799	n/a	7/16/2025	2.17	No	10	0	No	0.000...	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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

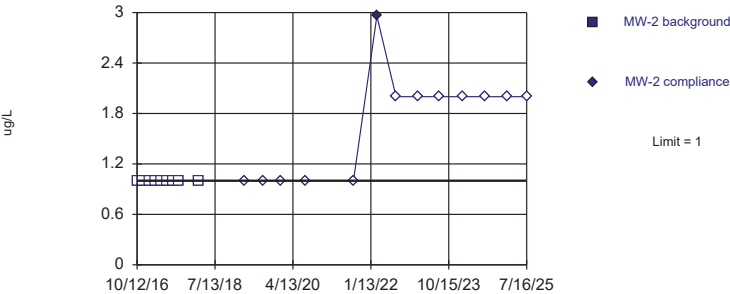
Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

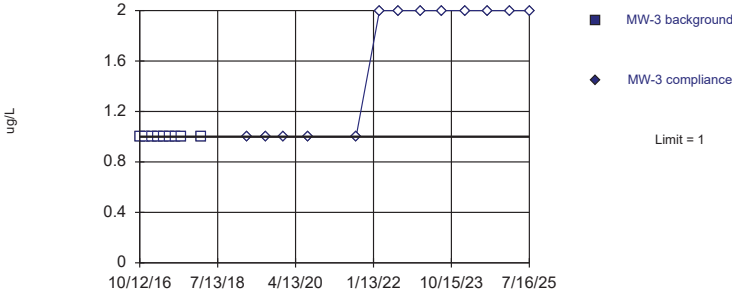
Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



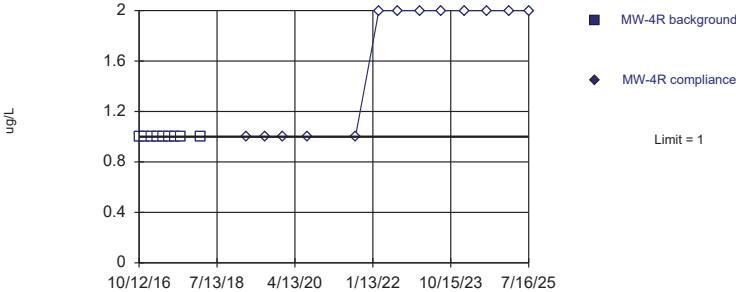
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



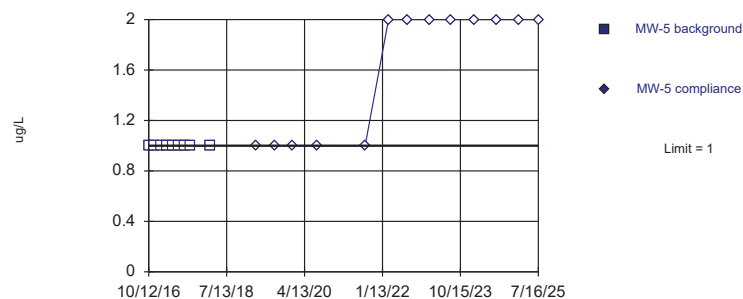
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

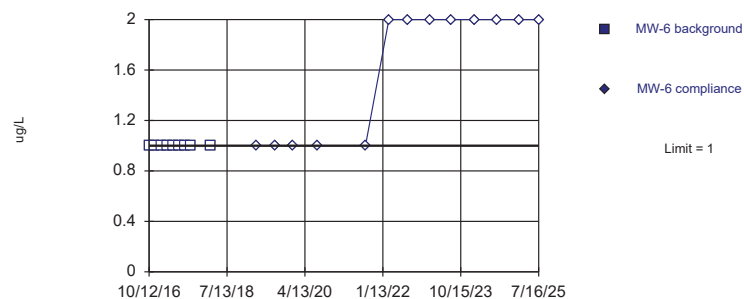
Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

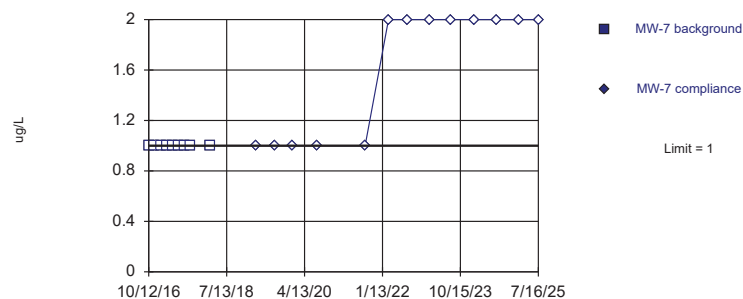
Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

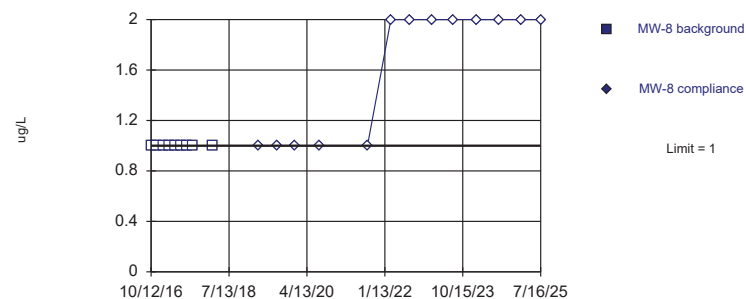
Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



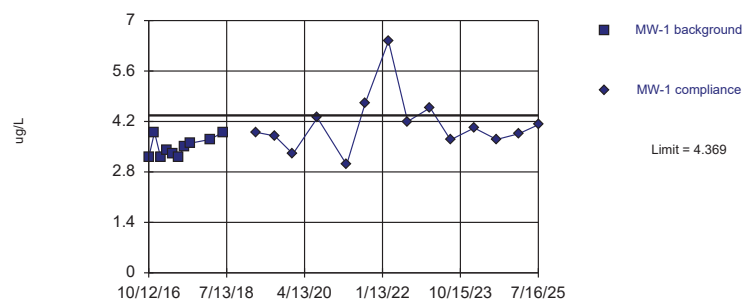
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Antimony Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

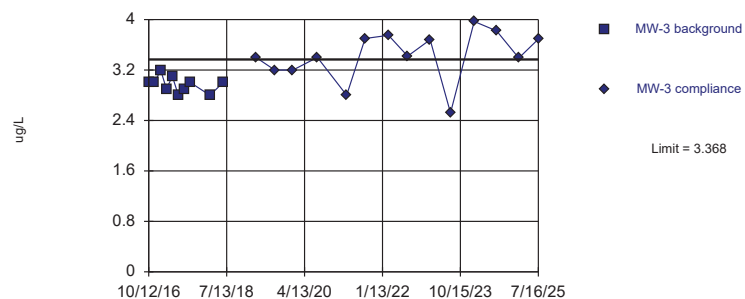
Intrawell Parametric



Exceeds Limit

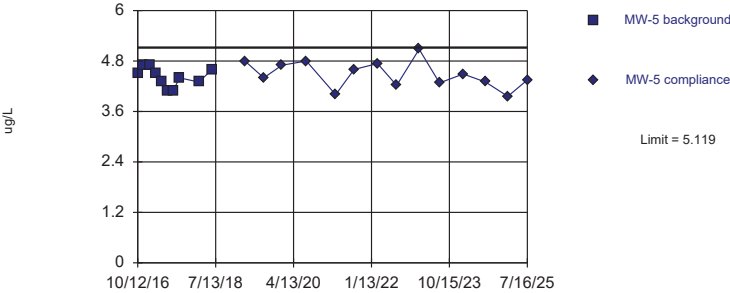
Prediction Limit

Intrawell Parametric



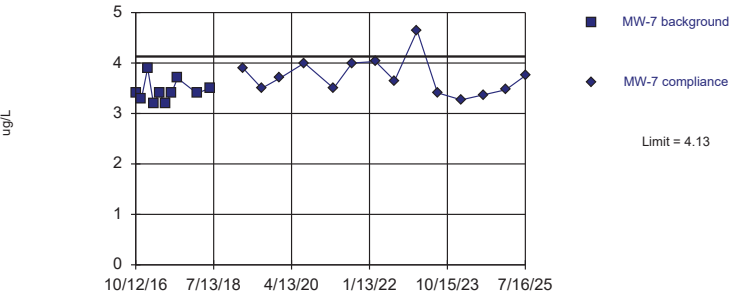
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

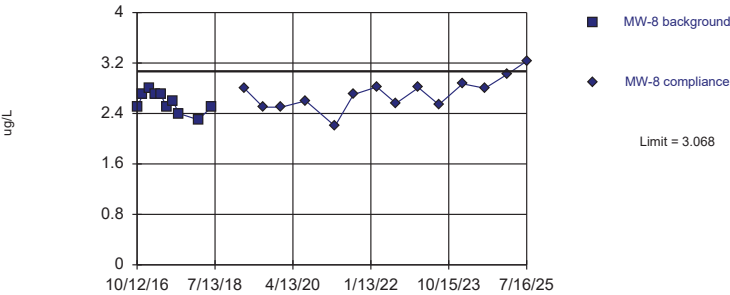
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=3.44, Std. Dev.=0.2171, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.875, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Exceeds Limit

Prediction Limit
Intrawell Parametric

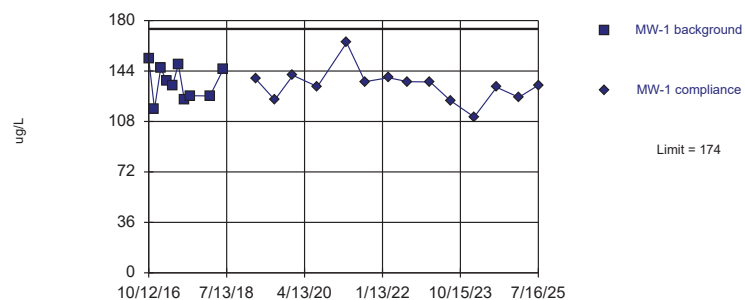


Background Data Summary: Mean=2.57, Std. Dev.=0.1567, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit

Intrawell Parametric



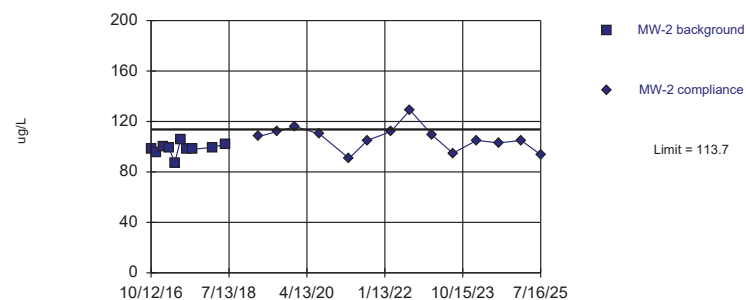
Background Data Summary: Mean=135.6, Std. Dev.=12.11, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9413, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Barium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



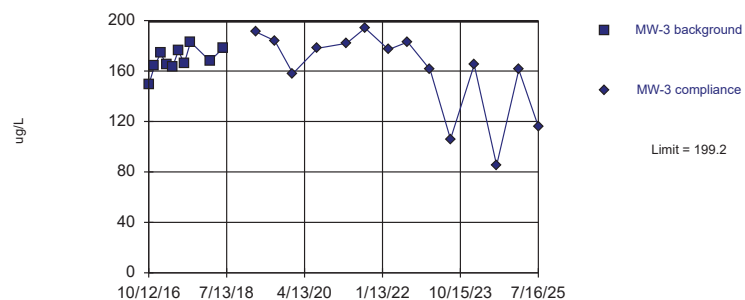
Background Data Summary: Mean=98.45, Std. Dev.=4.784, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8827, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Barium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

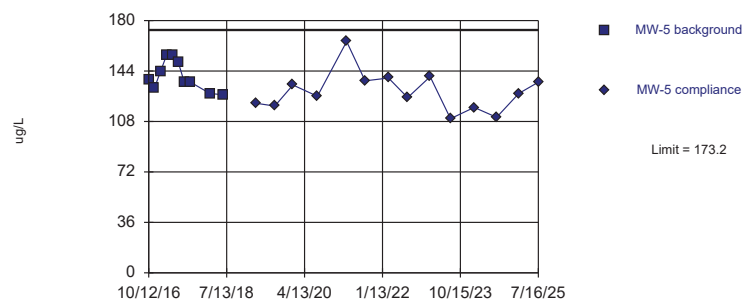
Intrawell Parametric



Within Limit

Prediction Limit

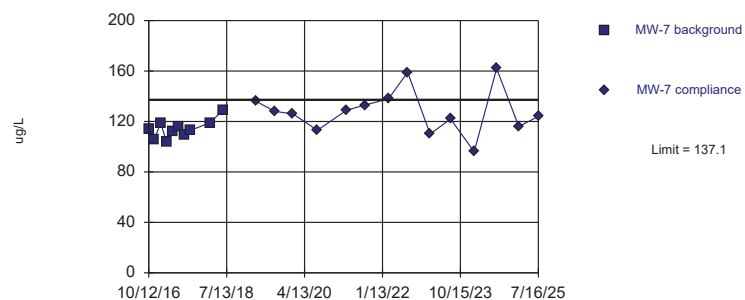
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric



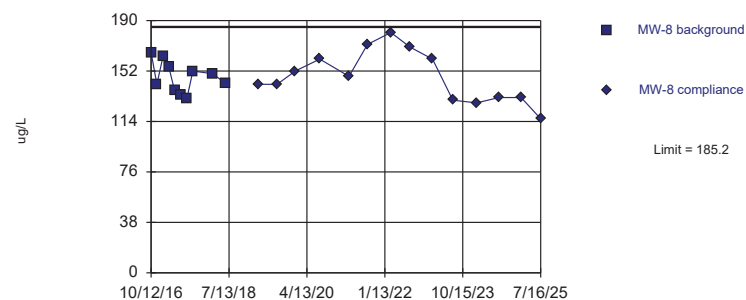
Background Data Summary: Mean=114.1, Std. Dev.=7.249, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.959, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Barium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=147.3, Std. Dev.=11.93, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9563, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

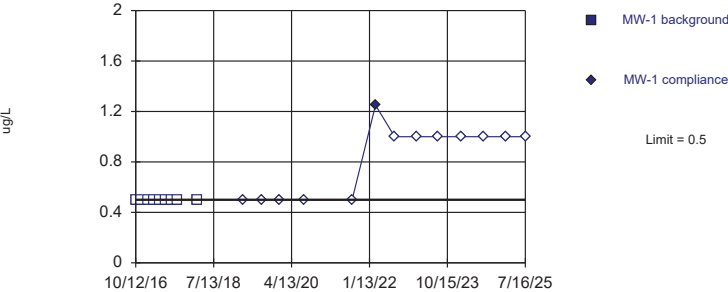
Constituent: Barium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

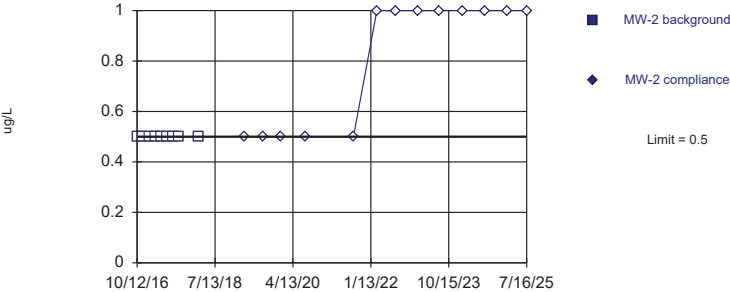
Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

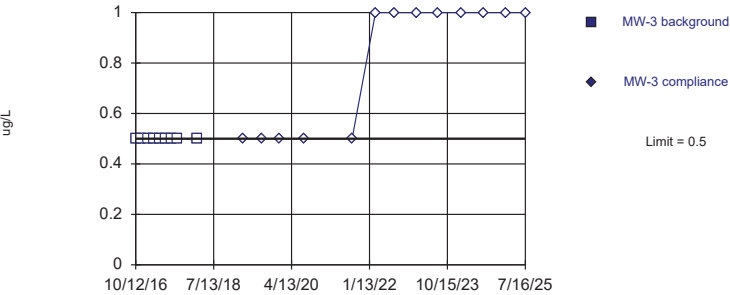
Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



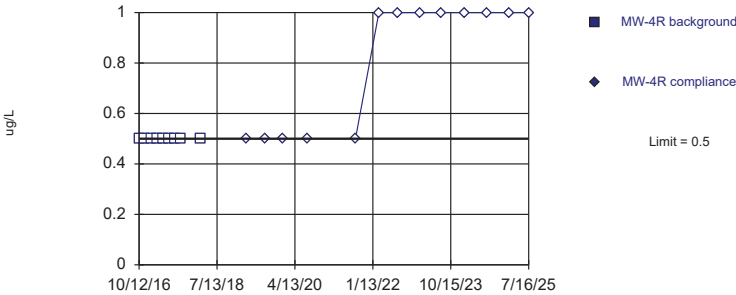
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

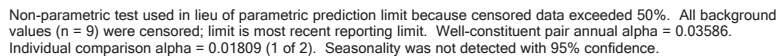
Prediction Limit

Intrawell Non-parametric



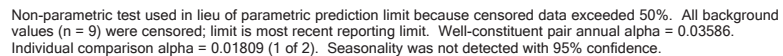
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Within Limit



Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit



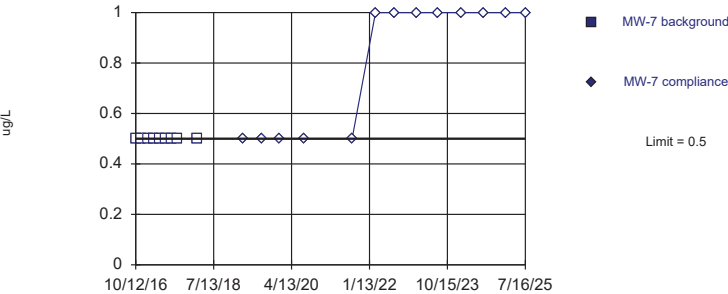
Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

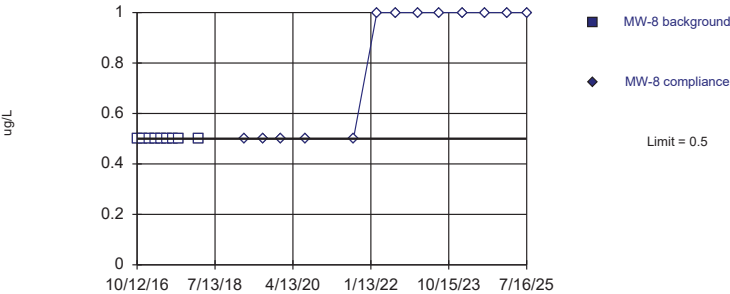
Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric

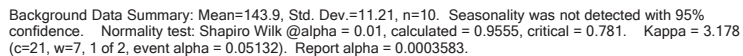


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Beryllium Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

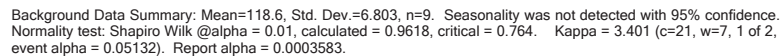
Intrawell Parametric



Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Intrawell Parametric



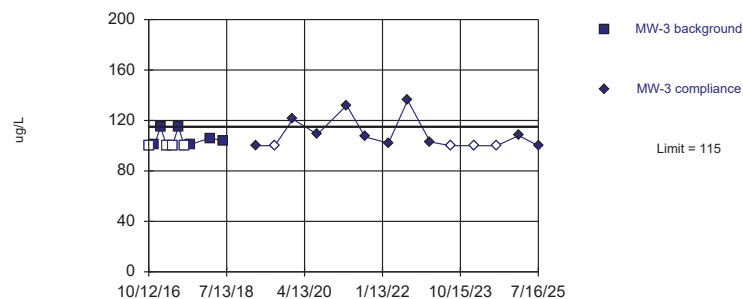
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 10 background values. 40% NDs. Well-constituent pair annual alpha = 0.0293. Individual comparison alpha = 0.01476 (1 of 2). Seasonality was not detected with 95% confidence.

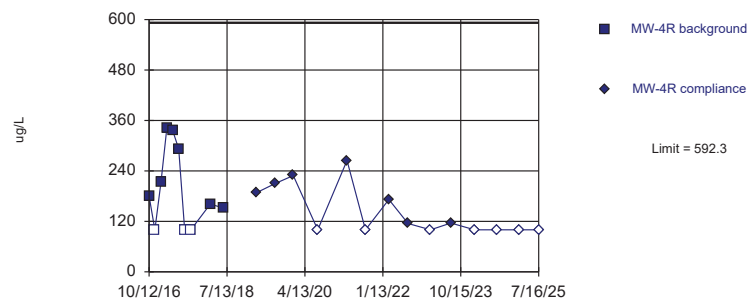
Constituent: Boron Analysis Run 8/18/2025 11:32 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Aitchison's Adjustment): Mean=167.6, Std. Dev.=133.7, n=10, 30% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8676, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

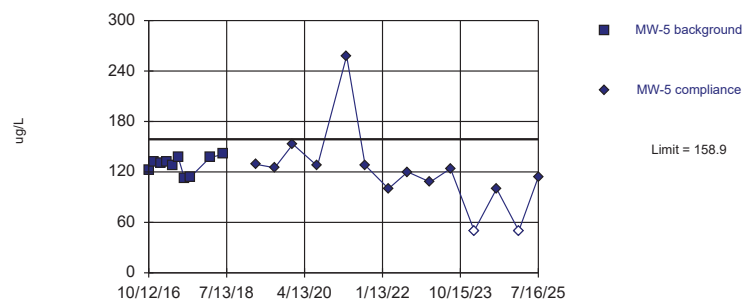
Constituent: Boron Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric

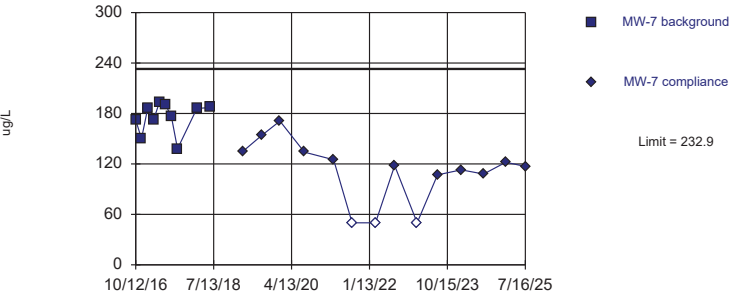


Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=175.1, Std. Dev.=18.19, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8521, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

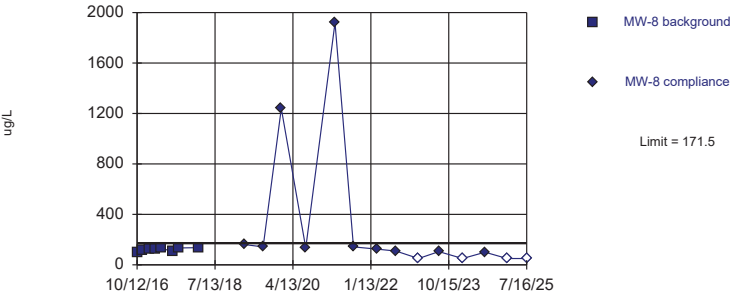
Constituent: Boron Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=122.6, Std. Dev.=13.49, n=8. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8556, critical = 0.749. Kappa = 3.624 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

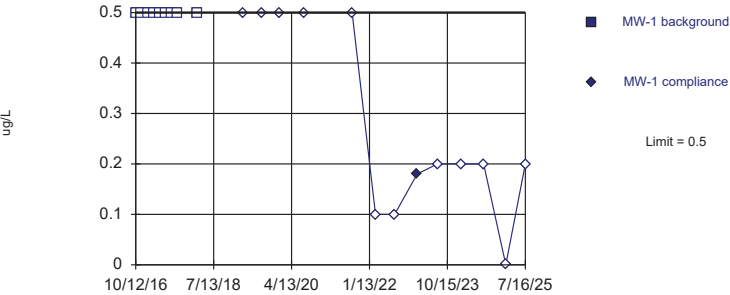
Constituent: Boron Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

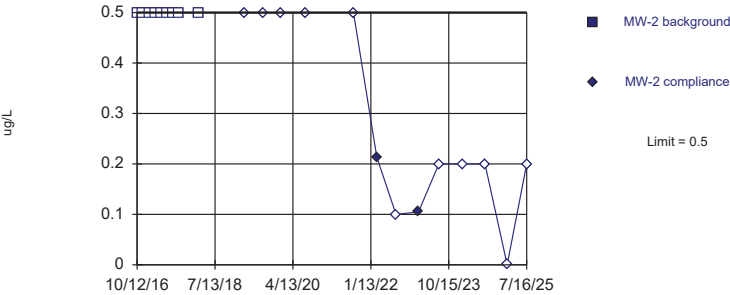
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

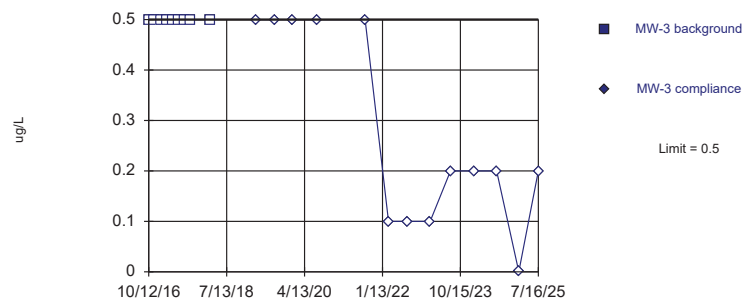
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

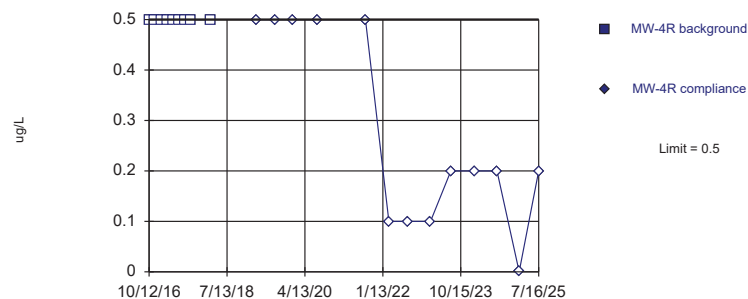
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

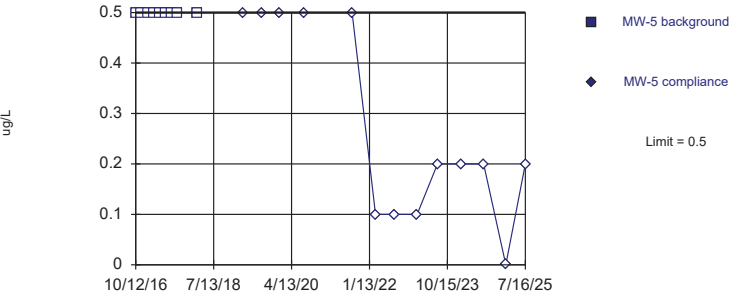
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

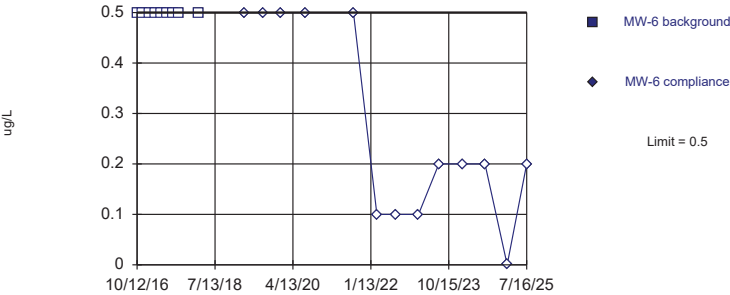
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

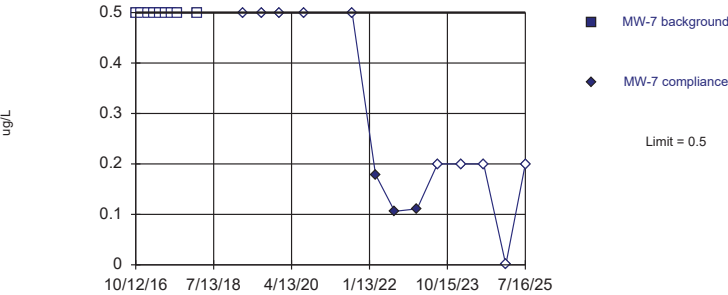
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

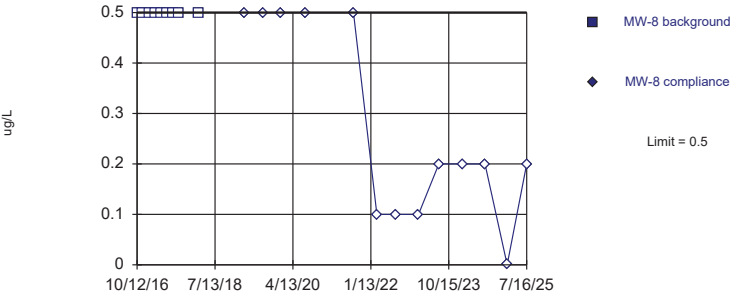
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

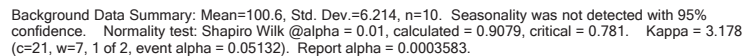
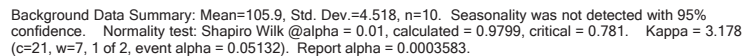
Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

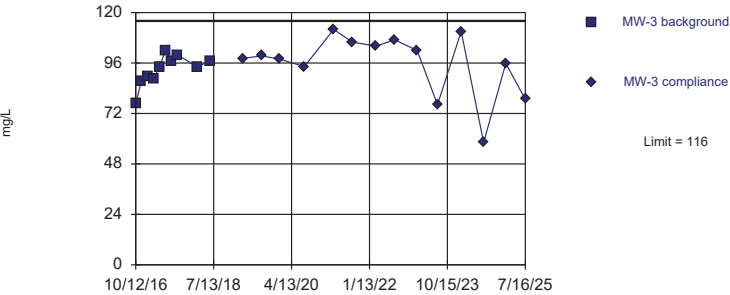
Constituent: Cadmium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Intrawell Parametric

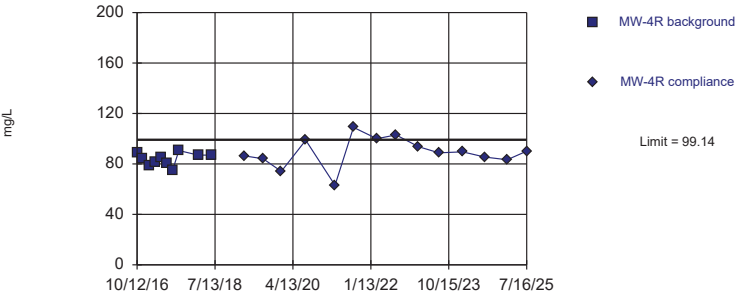


Background Data Summary: Mean=92.59, Std. Dev.=7.372, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9298, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Intrawell Parametric

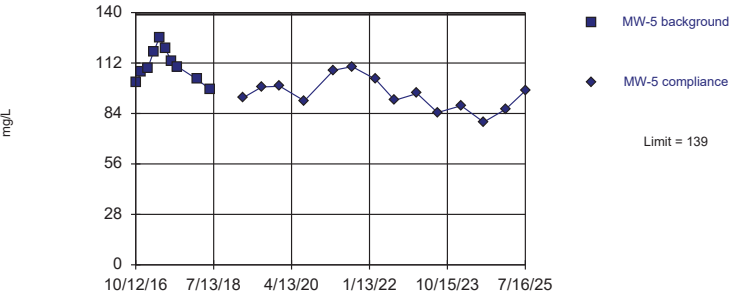


Background Data Summary: Mean=83.88, Std. Dev.=4.802, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9683, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Intrawell Parametric

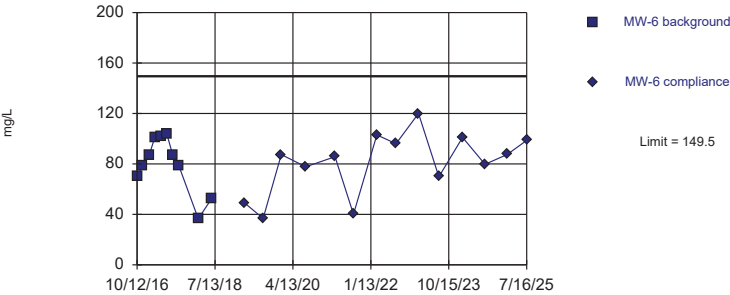


Background Data Summary: Mean=110.4, Std. Dev.=8.98, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9787, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Intrawell Parametric



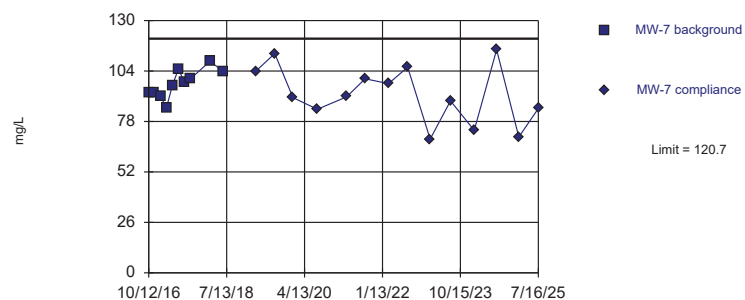
Background Data Summary: Mean=79.7, Std. Dev.=21.97, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9128, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



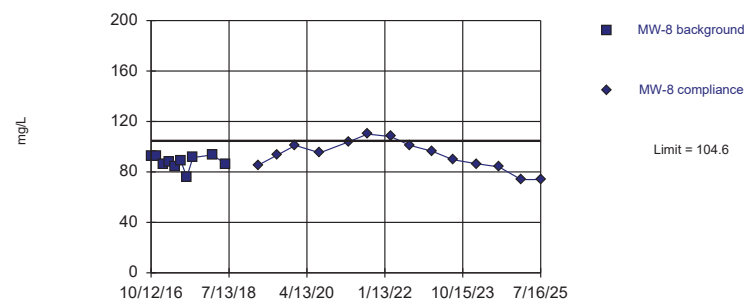
Background Data Summary: Mean=97.44, Std. Dev.=7.317, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9838, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric

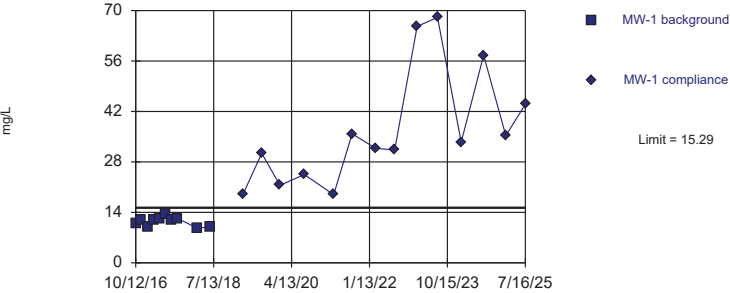


Background Data Summary: Mean=87.99, Std. Dev.=5.239, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8801, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Calcium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

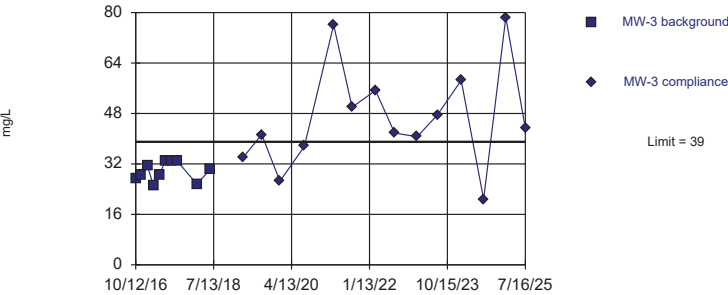
Exceeds Limit

Prediction Limit
Intrawell Parametric



Exceeds Limit

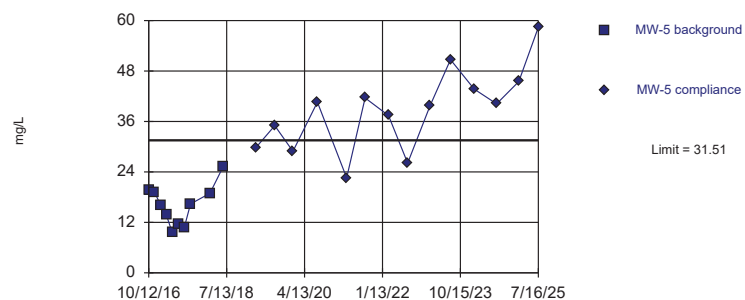
Prediction Limit
Intrawell Parametric



Exceeds Limit

Prediction Limit

Intrawell Parametric



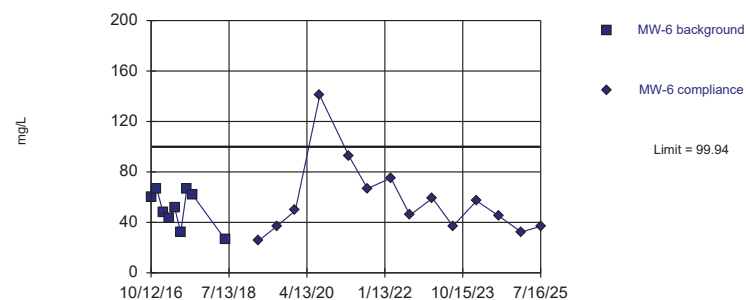
Background Data Summary: Mean=16.13, Std. Dev.=4.84, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9601, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Chloride Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



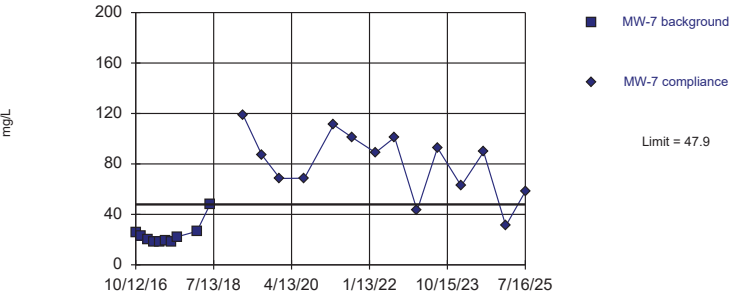
Background Data Summary: Mean=50.59, Std. Dev.=14.51, n=9. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9167, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Chloride Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit

Intrawell Non-parametric

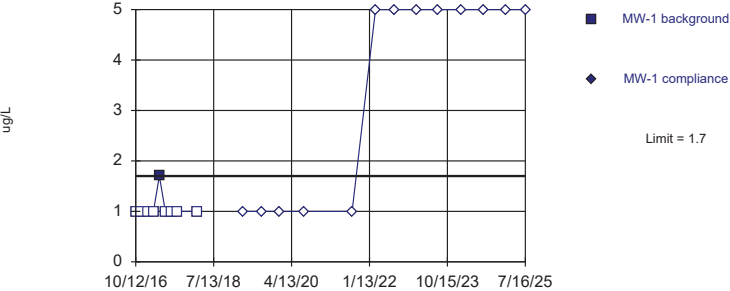


Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



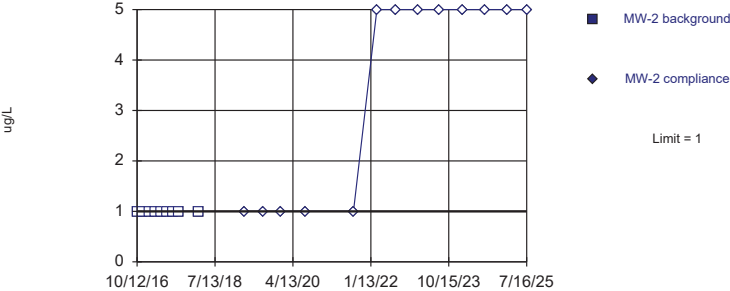
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



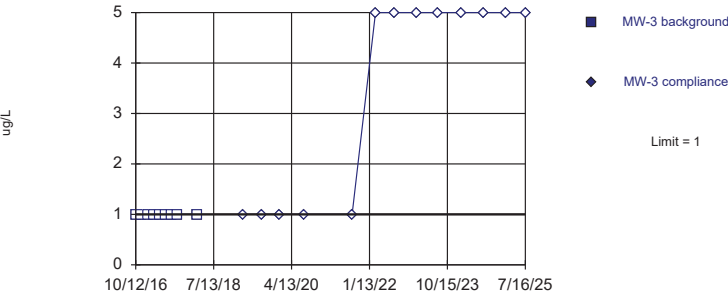
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

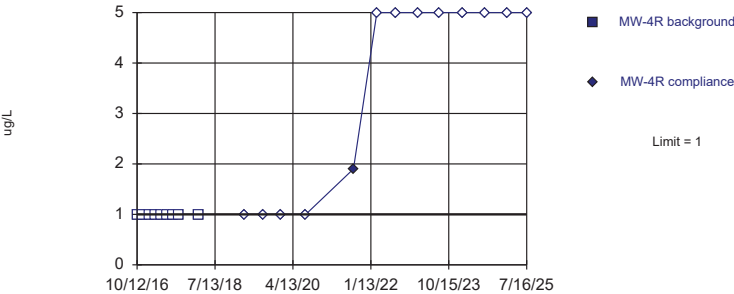
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

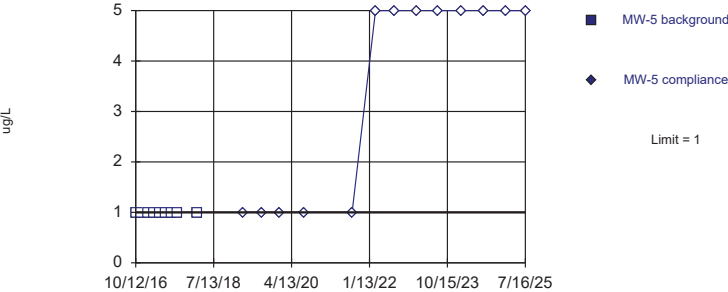
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

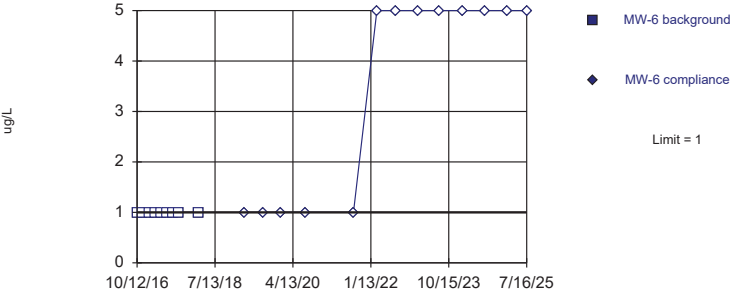
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



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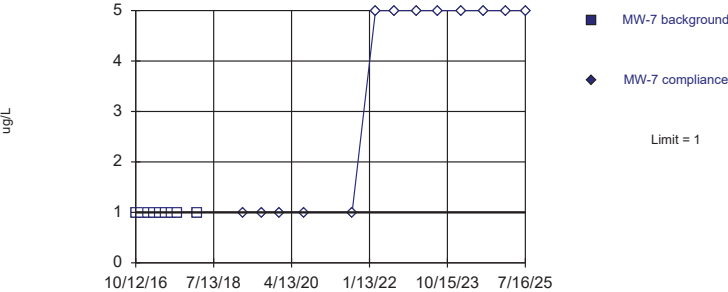
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



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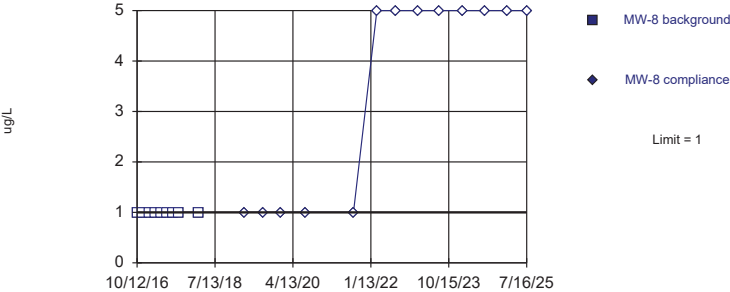
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



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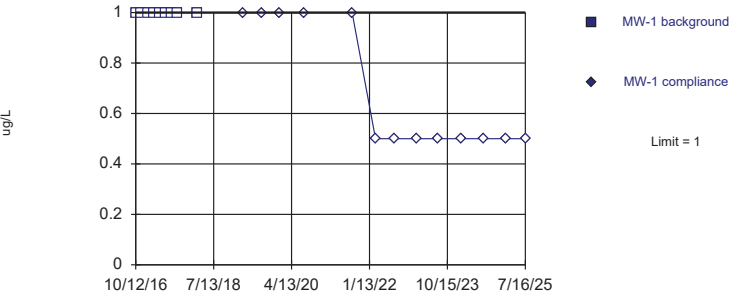
Constituent: Chromium Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

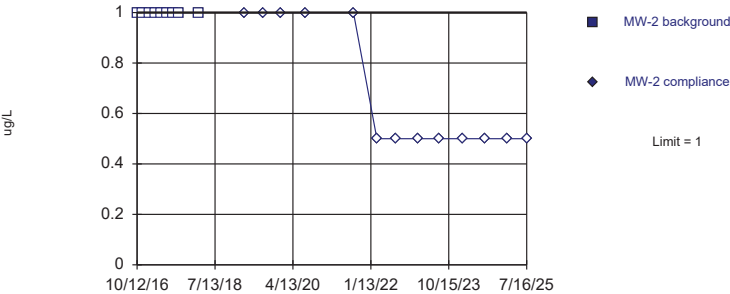
Constituent: Cobalt Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

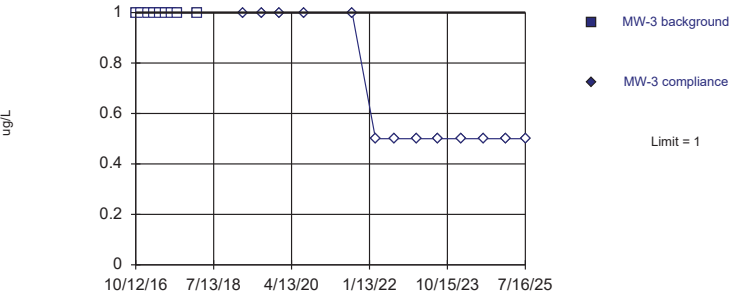
Constituent: Cobalt Analysis Run 8/18/2025 11:33 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 ($n = 9$) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

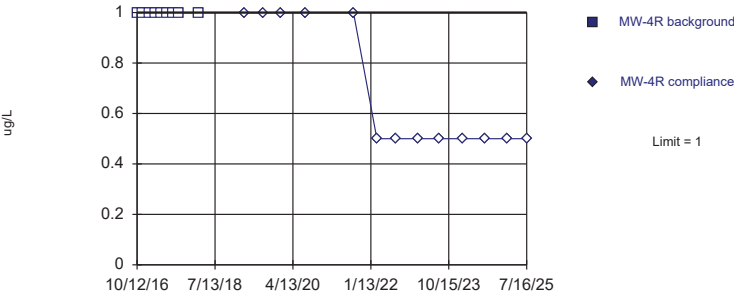
Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 ($n = 9$) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

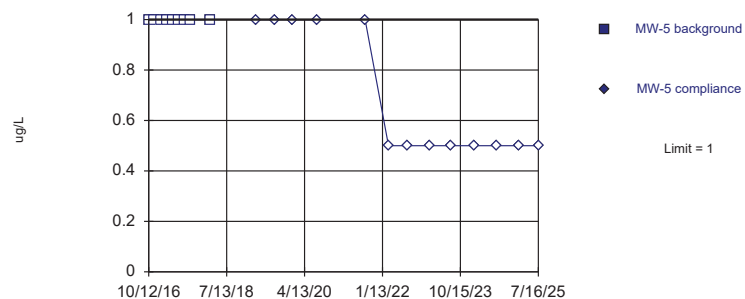
Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

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Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

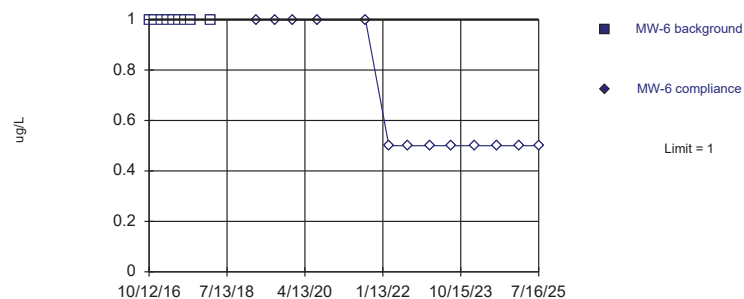
Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

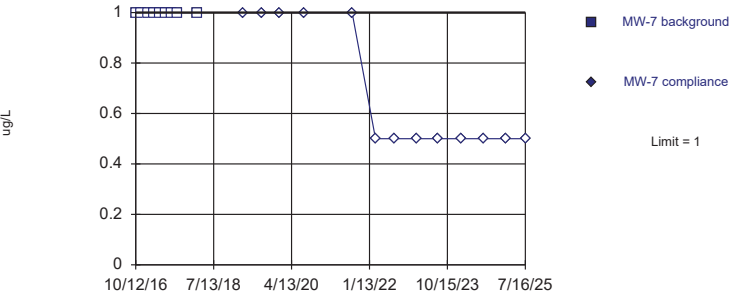
Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

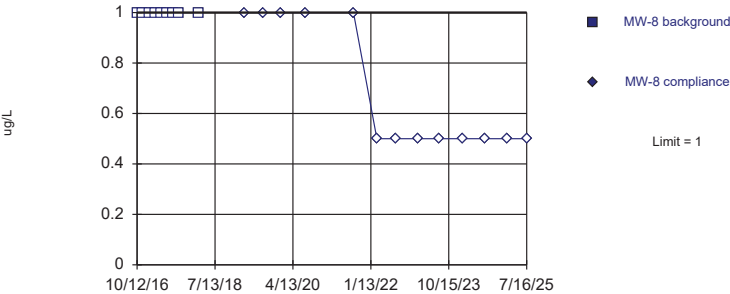
Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



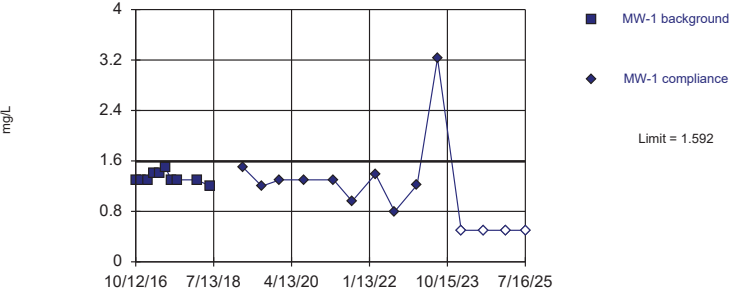
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Cobalt Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric

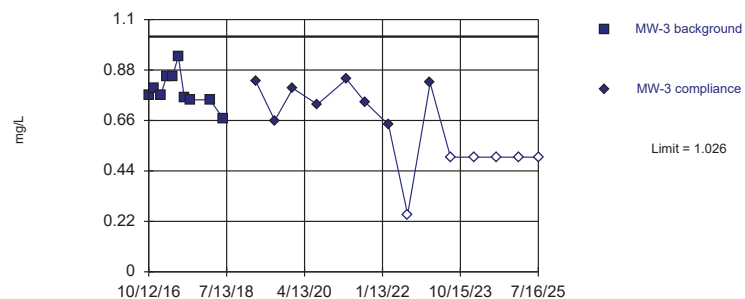


Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.791, Std. Dev.=0.07385, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9344, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

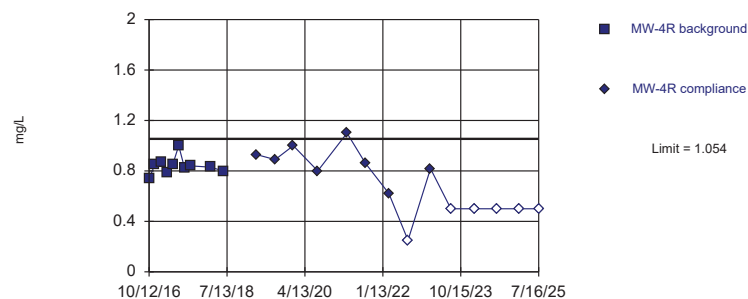
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.839, Std. Dev.=0.06773, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8772, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

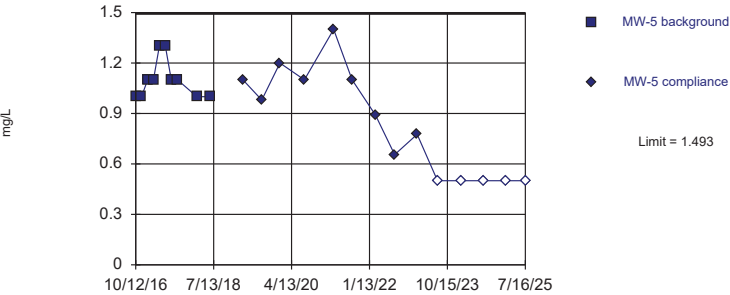
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=1.031, Std. Dev.=0.03519, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7826, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

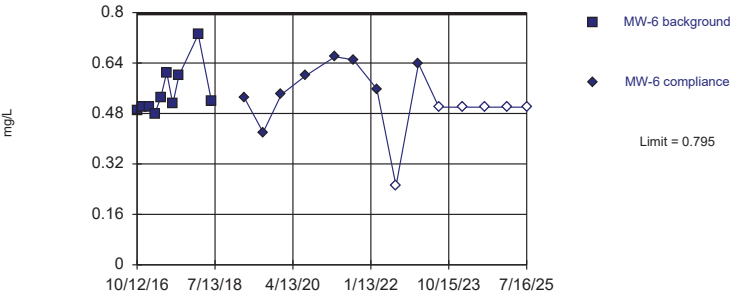
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.547, Std. Dev.=0.07804, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7927, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

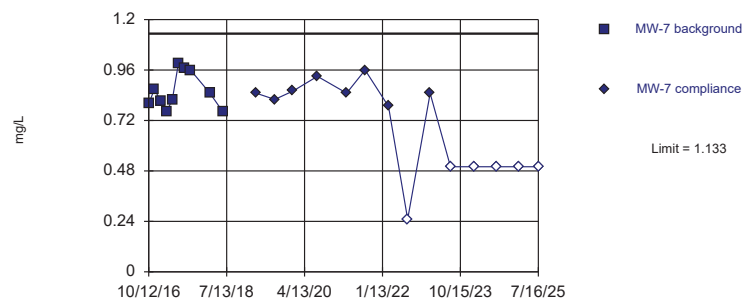
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.859, Std. Dev.=0.08621, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8894, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

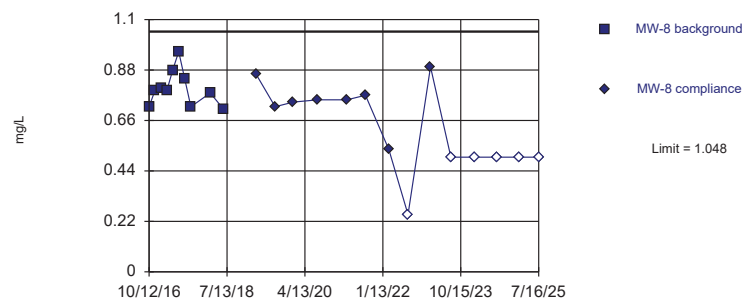
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.799, Std. Dev.=0.07824, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

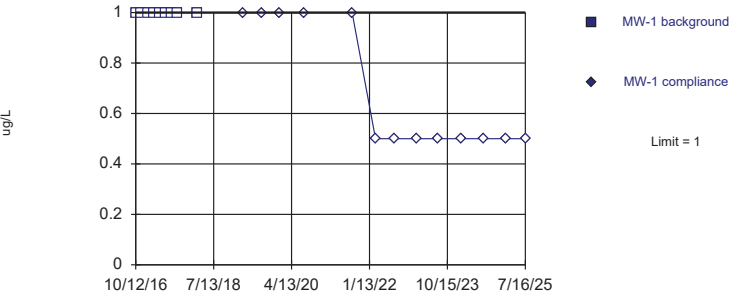
Constituent: Fluoride Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

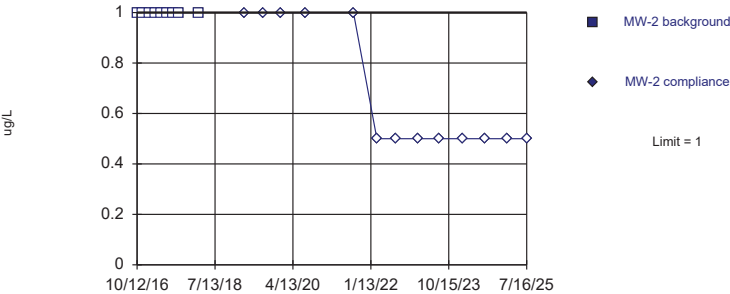
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

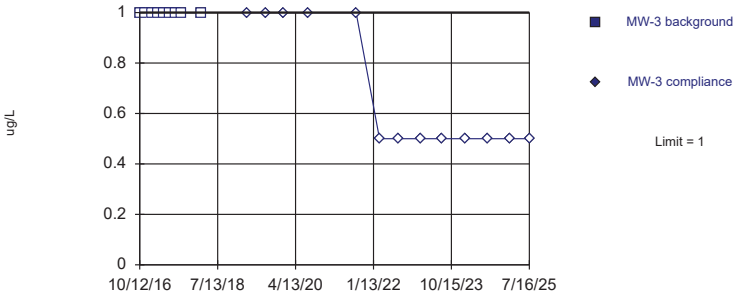
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

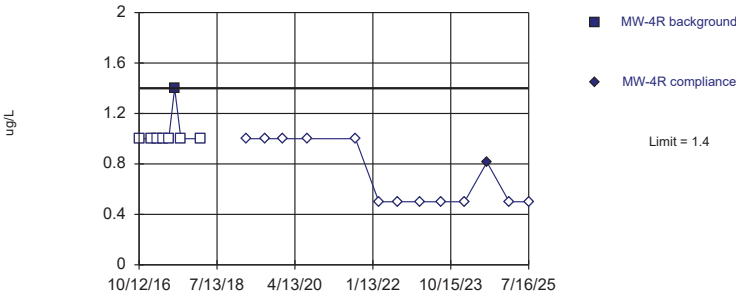
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

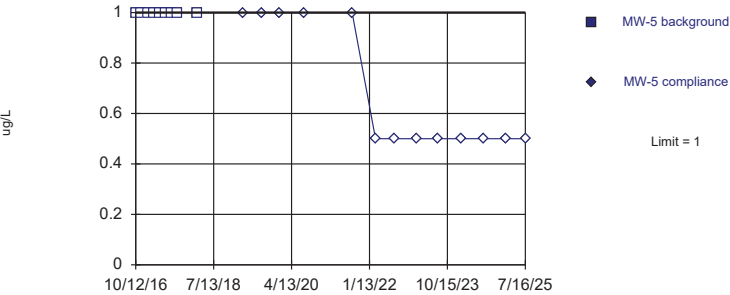
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 ($n = 9$) were censored; limit is most recent reporting limit. Well-constituent pair annual $\alpha = 0.03586$. Individual comparison $\alpha = 0.01809$ (1 of 2). Seasonality was not detected with 95% confidence.

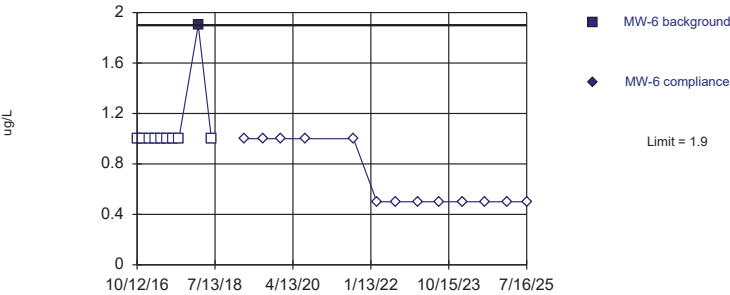
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 10 background values. 90% NDs. Well-constituent pair annual $\alpha = 0.0293$. Individual comparison $\alpha = 0.01476$ (1 of 2). Seasonality was not detected with 95% confidence.

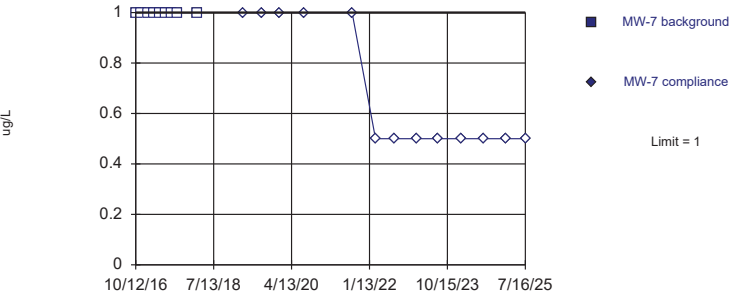
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

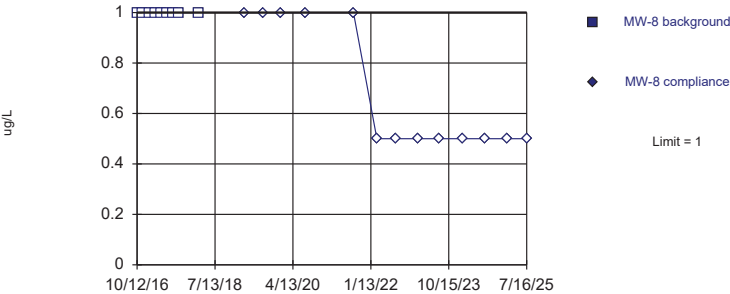
Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



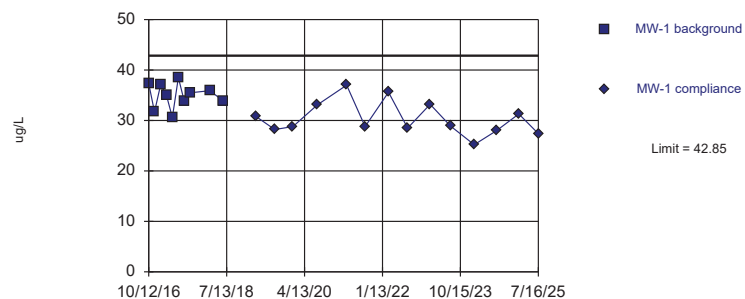
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Lead Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



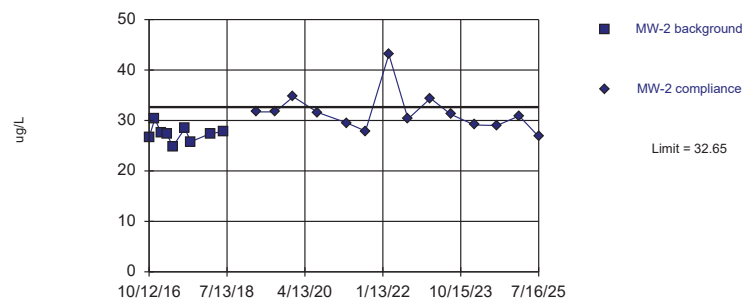
Background Data Summary: Mean=34.93, Std. Dev.=2.491, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9666, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



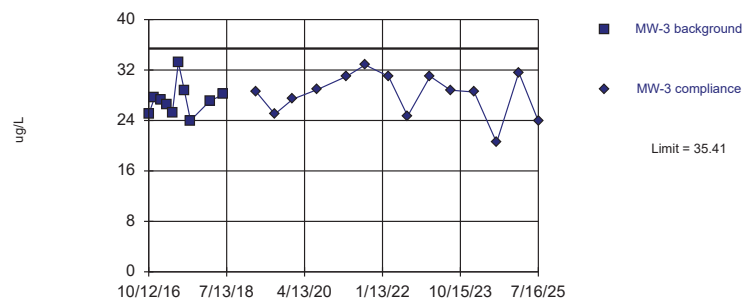
Background Data Summary: Mean=27.36, Std. Dev.=1.557, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.961, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



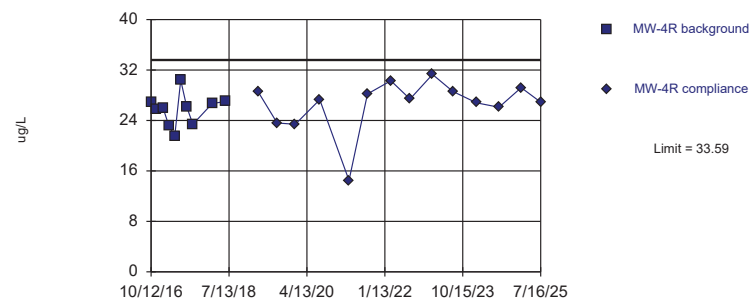
Background Data Summary: Mean=27.27, Std. Dev.=2.562, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8998, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



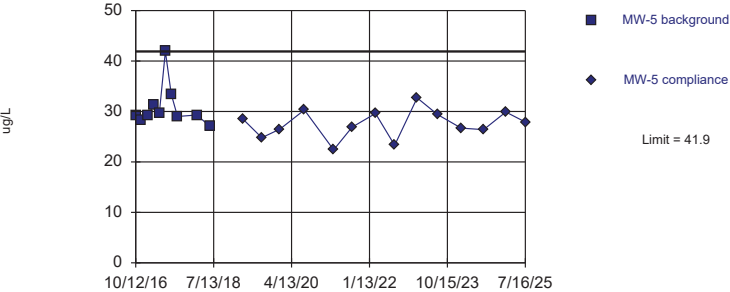
Background Data Summary: Mean=25.7, Std. Dev.=2.484, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9349, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

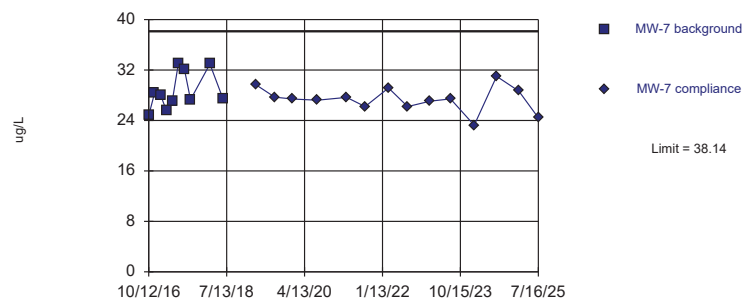
Intrawell Non-parametric



Within Limit

Prediction Limit

Intrawell Parametric



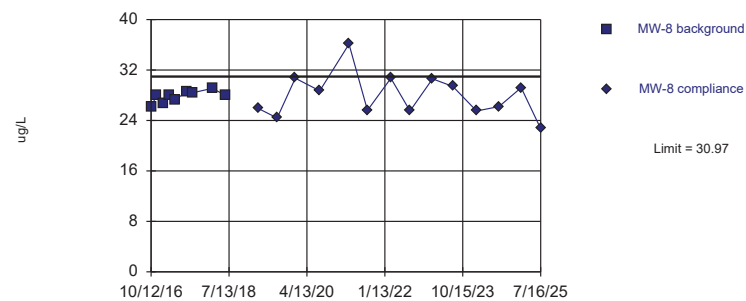
Background Data Summary: Mean=28.66, Std. Dev.=2.982, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8725, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.8, Std. Dev.=0.9314, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

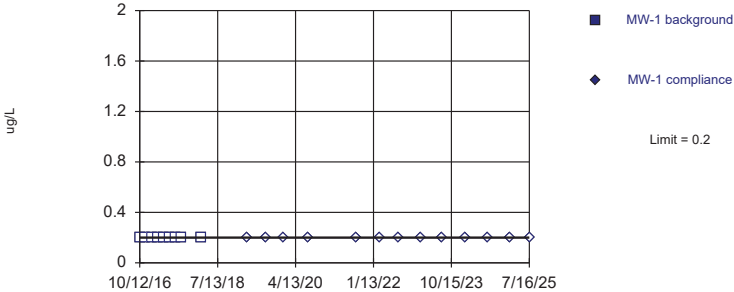
Constituent: Lithium Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

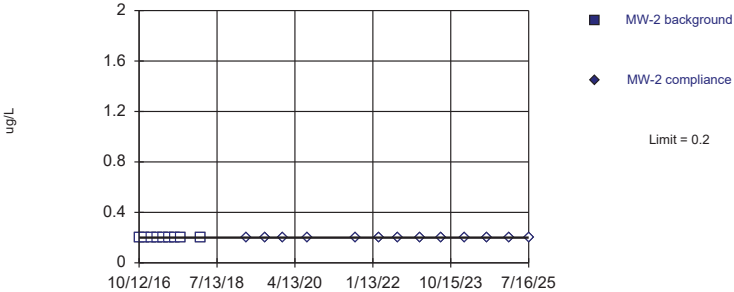
Constituent: Mercury Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

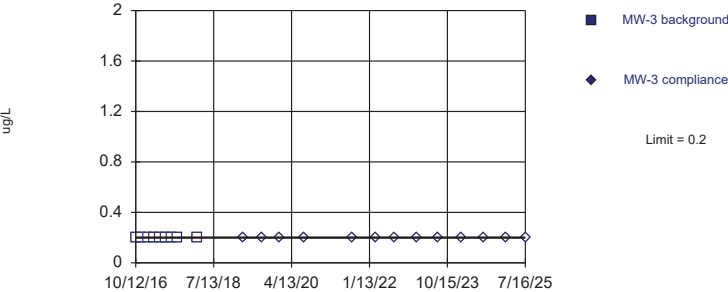
Constituent: Mercury Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric

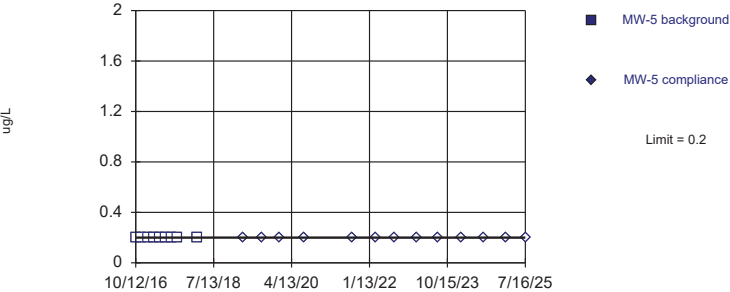


Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

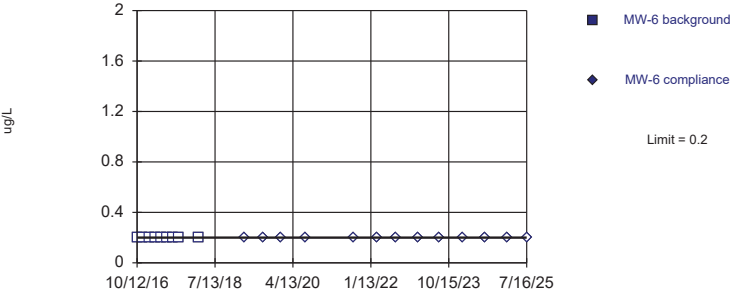
Constituent: Mercury Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

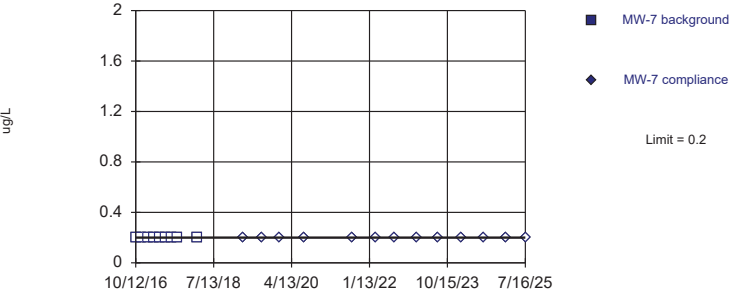
Constituent: Mercury Analysis Run 8/18/2025 11:34 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

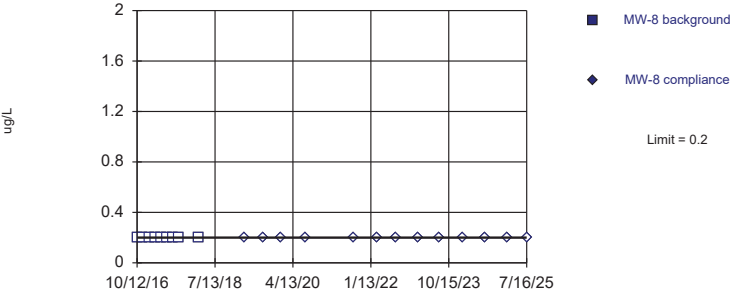
Constituent: Mercury Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



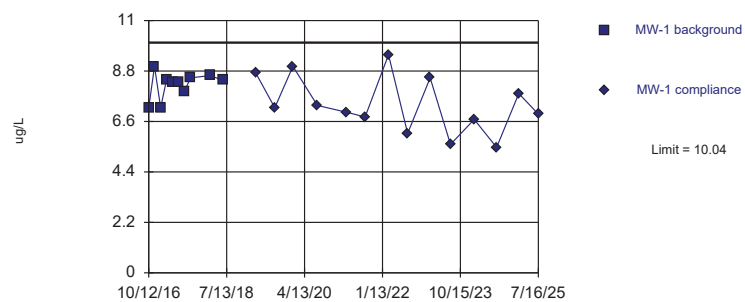
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Mercury Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

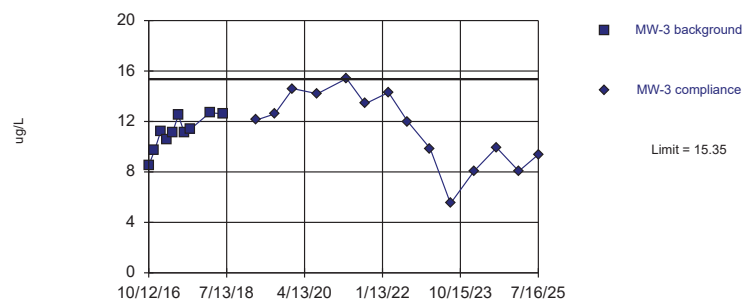
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric



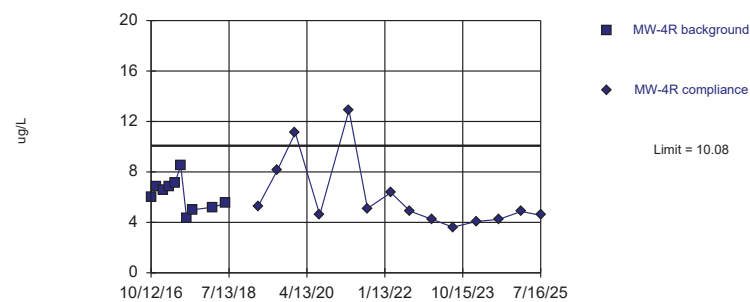
Background Data Summary: Mean=11.14, Std. Dev.=1.326, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9184, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Molybdenum Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



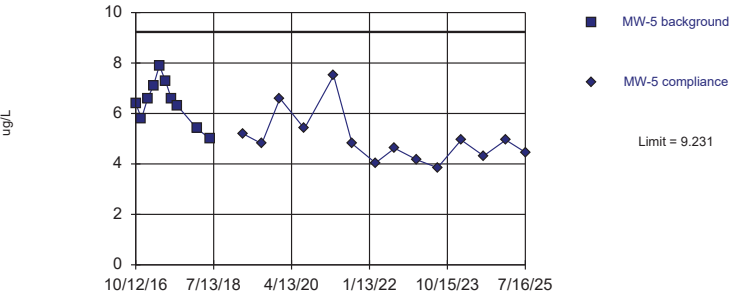
Background Data Summary: Mean=6.18, Std. Dev.=1.227, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9705, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Molybdenum Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric

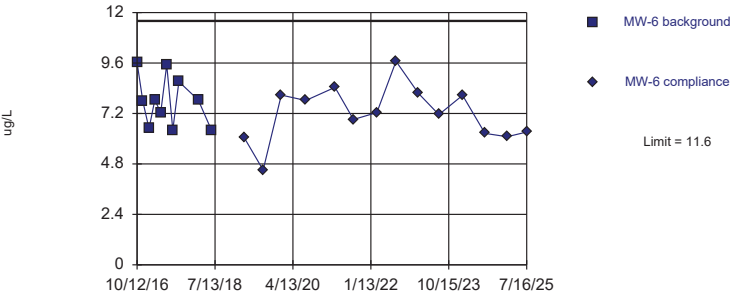


Background Data Summary: Mean=6.44, Std. Dev.=0.8784, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.983, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit

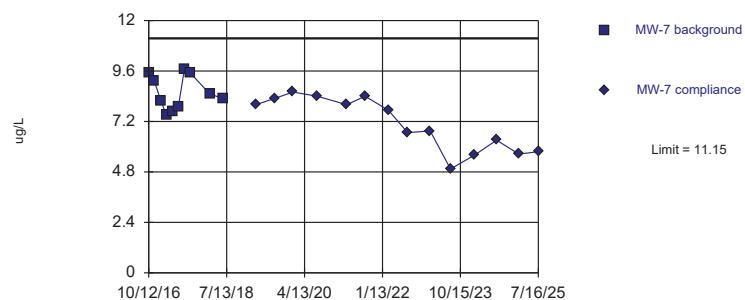
Intrawell Parametric



Within Limit

Prediction Limit

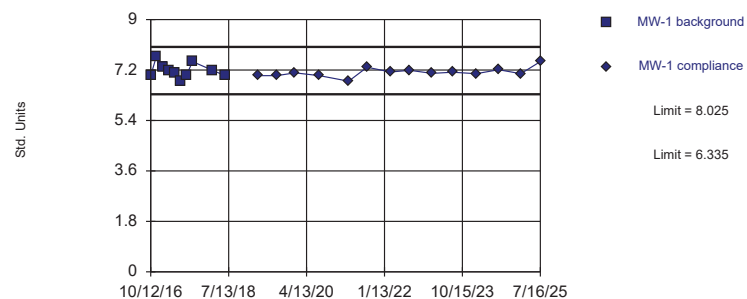
Intrawell Parametric



Within Limits

Prediction Limit

Intrawell Parametric



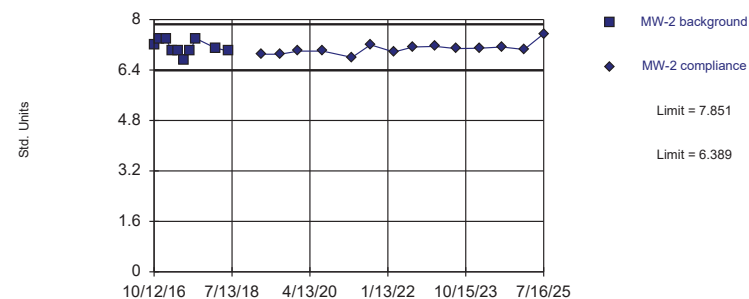
Background Data Summary: Mean=7.18, Std. Dev.=0.2658, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9414, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



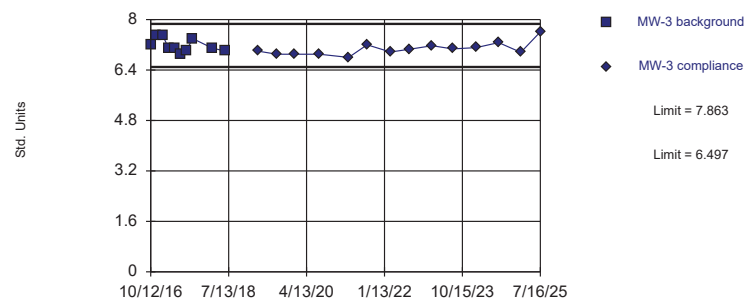
Background Data Summary: Mean=7.12, Std. Dev.=0.23, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8807, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



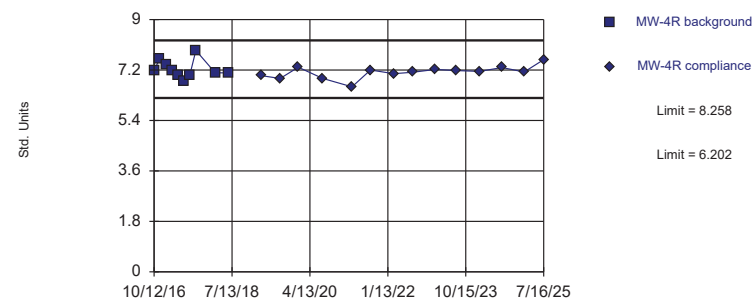
Background Data Summary: Mean=7.18, Std. Dev.=0.215, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



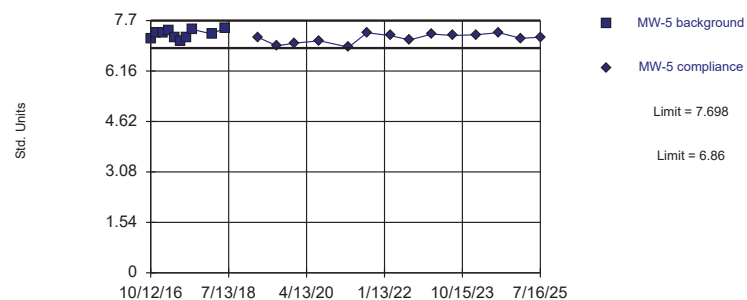
Background Data Summary: Mean=7.23, Std. Dev.=0.3234, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9204, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric



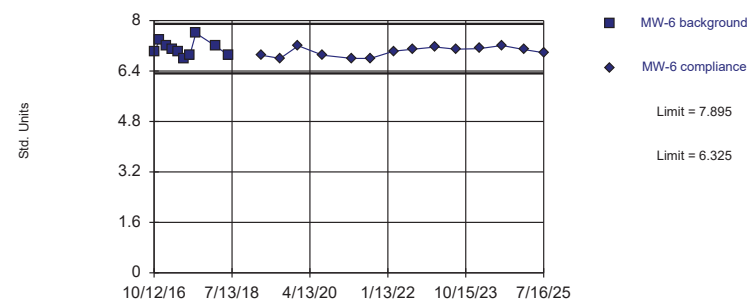
Background Data Summary: Mean=7.279, Std. Dev.=0.1319, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9624, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Intrawell Parametric

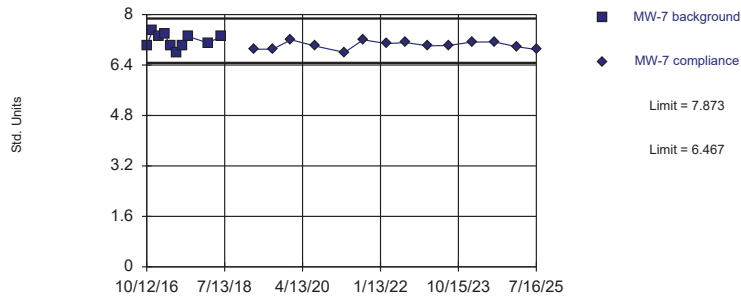


Background Data Summary: Mean=7.11, Std. Dev.=0.247, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9348, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit
Intrawell Parametric

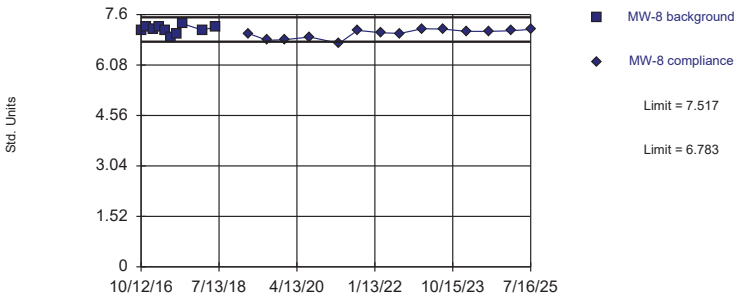


Background Data Summary: Mean=7.17, Std. Dev.=0.2214, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=7.15, Std. Dev.=0.1154, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9482, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

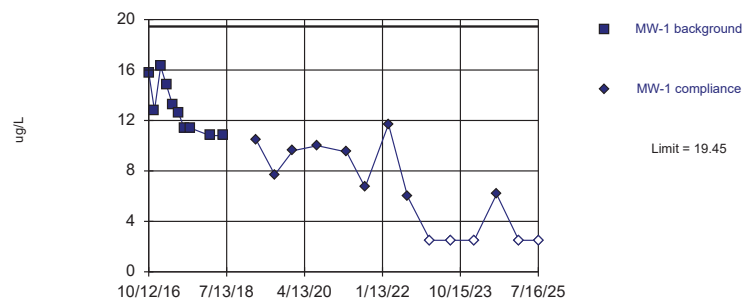
Constituent: pH Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric

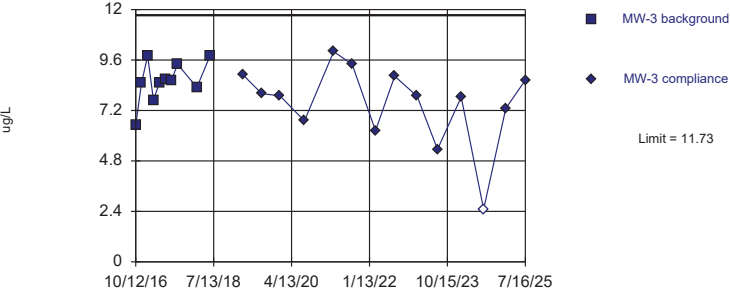


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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric

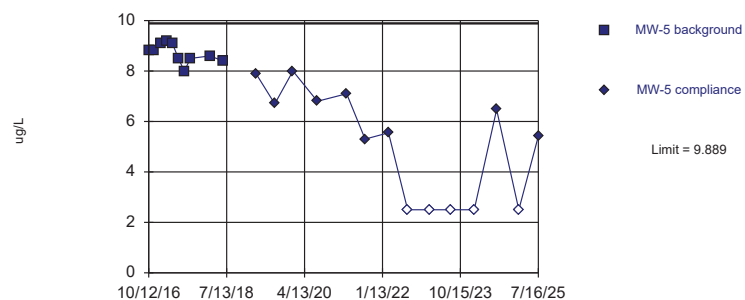


Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric

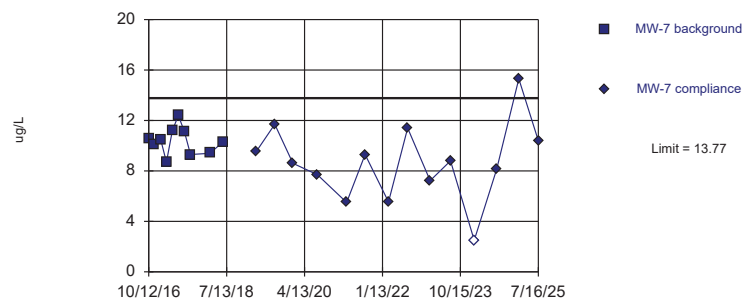


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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.36, Std. Dev.=1.073, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9769, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

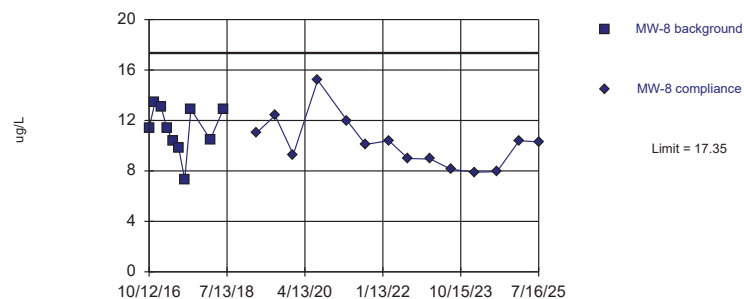
Constituent: Selenium Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG

Within Limit

Prediction Limit

Intrawell Parametric

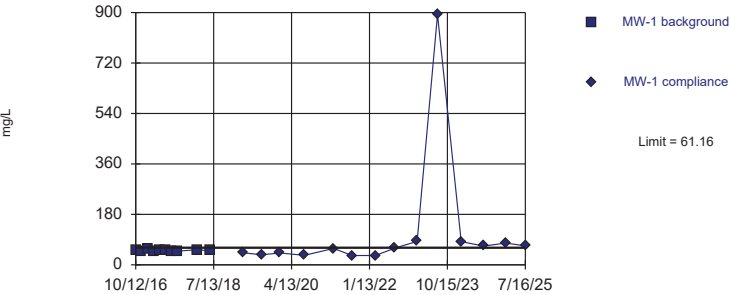


Background Data Summary: Mean=11.31, Std. Dev.=1.9, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9028, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Selenium Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Exceeds Limit

Prediction Limit
Intrawell Parametric

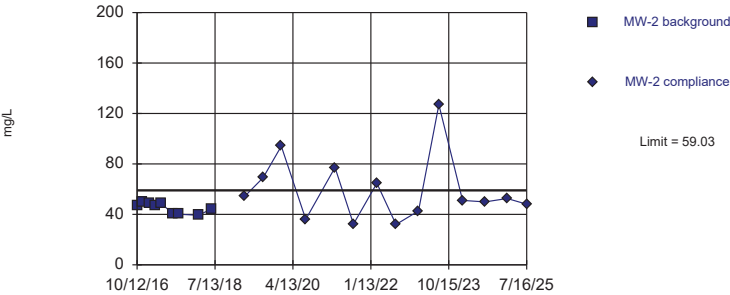


Background Data Summary: Mean=51.63, Std. Dev.=2.999, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9727, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Intrawell Parametric



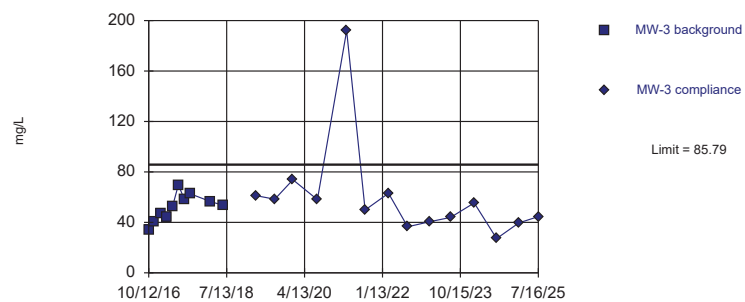
Background Data Summary: Mean=45.01, Std. Dev.=4.122, n=9. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.866, critical = 0.764. Kappa = 3.401 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

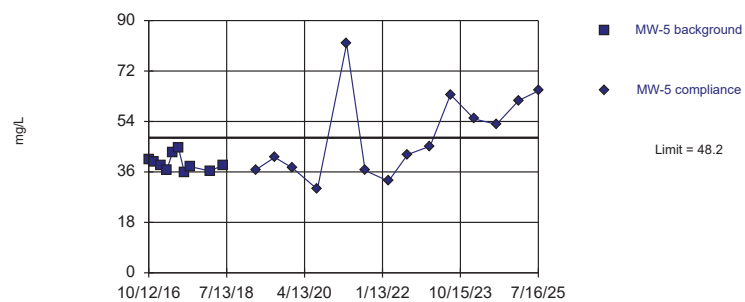
Intrawell Parametric



Exceeds Limit

Prediction Limit

Intrawell Parametric



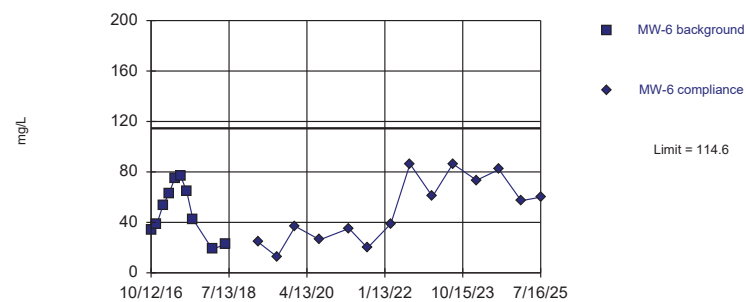
Background Data Summary: Mean=39.12, Std. Dev.=2.859, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9135, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Intrawell Parametric



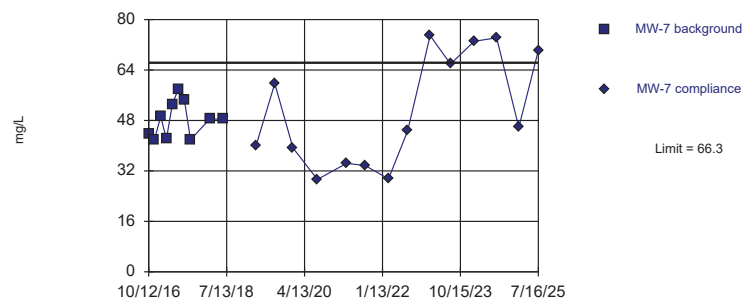
Background Data Summary: Mean=48.84, Std. Dev.=20.69, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9417, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Constituent: Sulfate Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

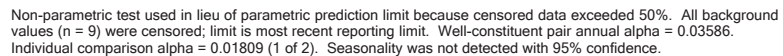
Exceeds Limit

Prediction Limit

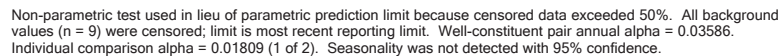
Intrawell Parametric



Within Limit



Within Limit



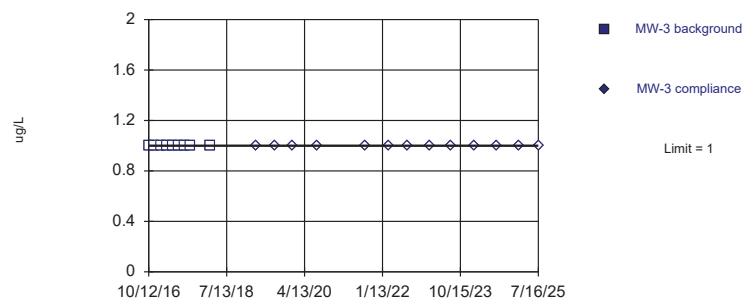
Constituent: Thallium Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

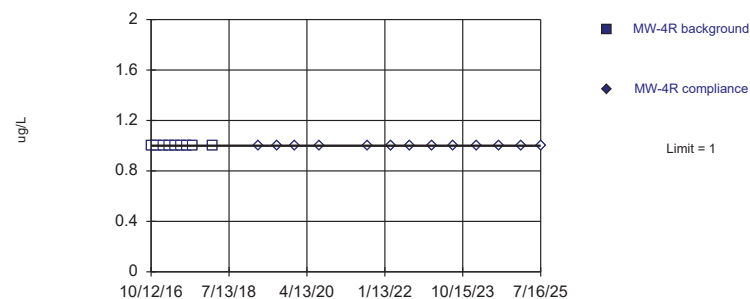
Constituent: Thallium Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

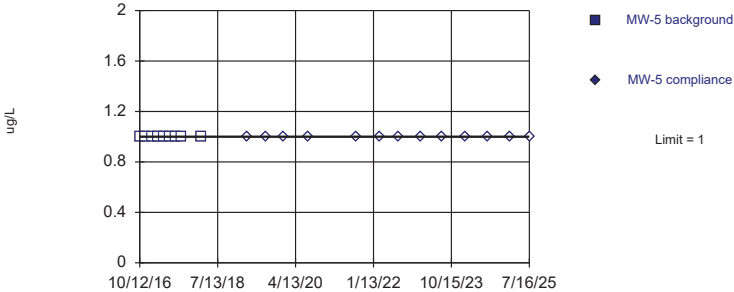
Constituent: Thallium Analysis Run 8/18/2025 11:35 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



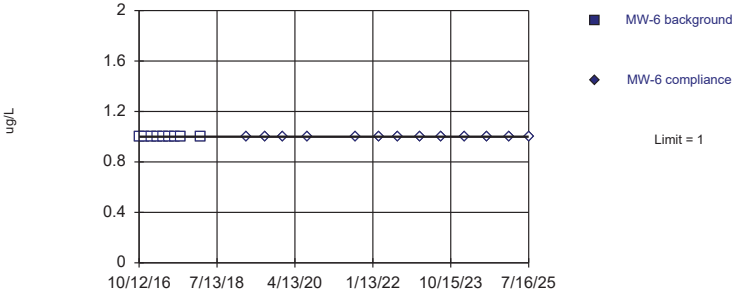
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



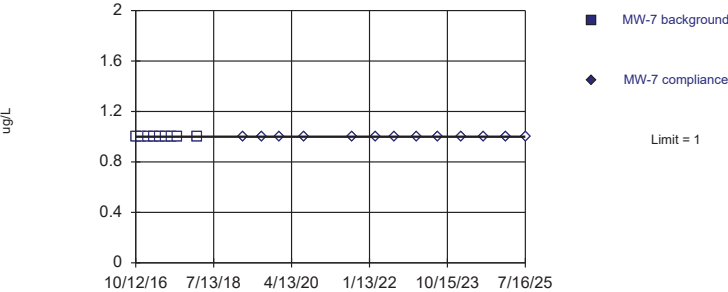
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, 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 = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

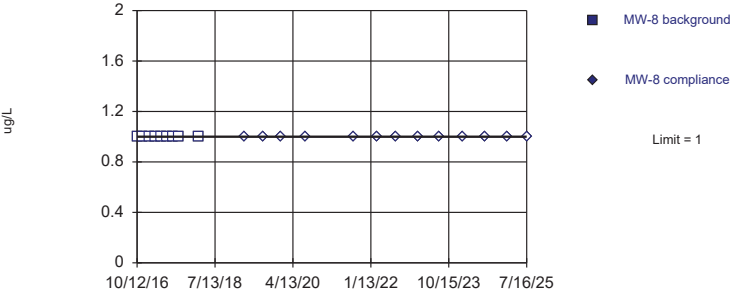
Constituent: Thallium Analysis Run 8/18/2025 11:36 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



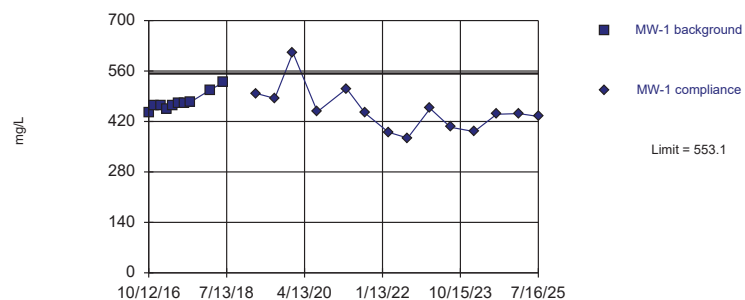
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 9) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2). Seasonality was not detected with 95% confidence.

Constituent: Thallium Analysis Run 8/18/2025 11:36 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

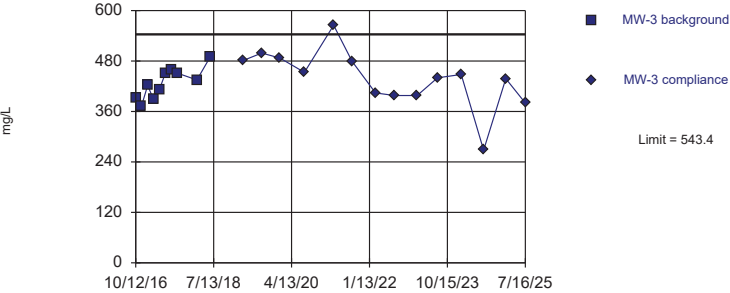
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric

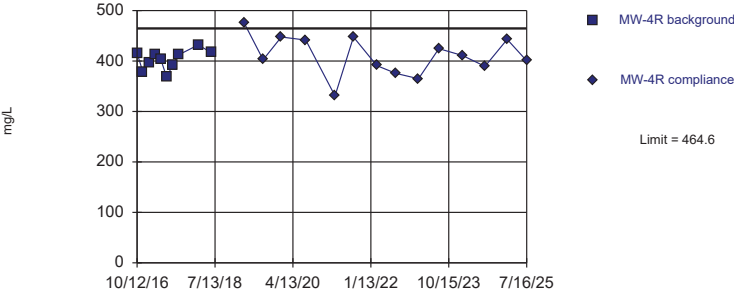


Background Data Summary: Mean=427.4, Std. Dev.=36.49, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.971, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit

Intrawell Parametric

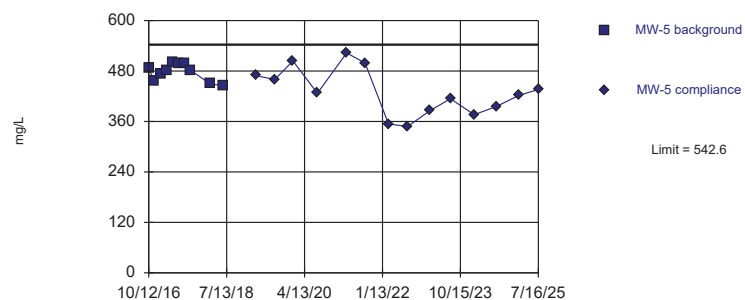


Background Data Summary: Mean=402.8, Std. Dev.=19.45, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9523, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit

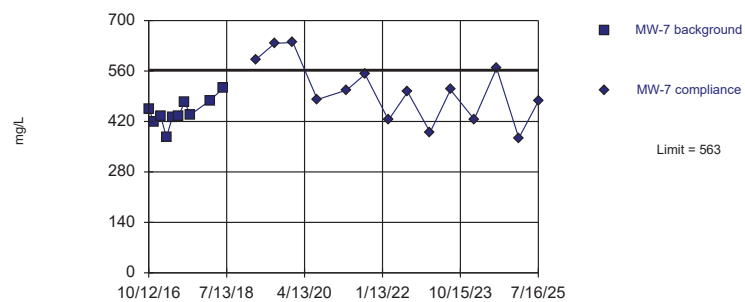
Intrawell Parametric



Within Limit

Prediction Limit

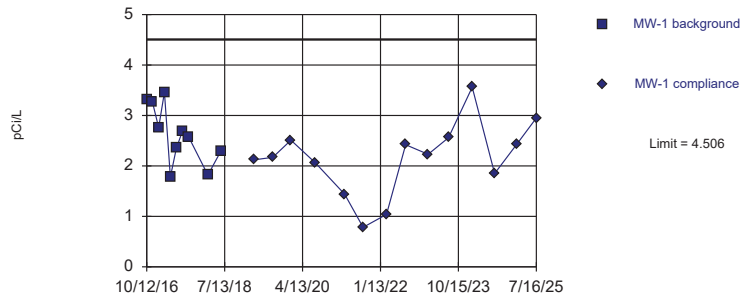
Intrawell Parametric



Within Limit

Prediction Limit

Intrawell Parametric

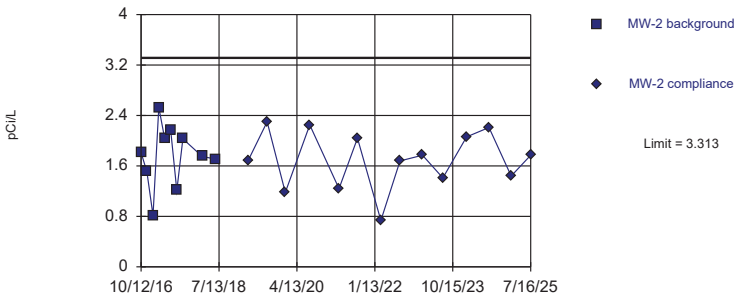


Background Data Summary: Mean=2.63, Std. Dev.=0.5903, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.937, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit

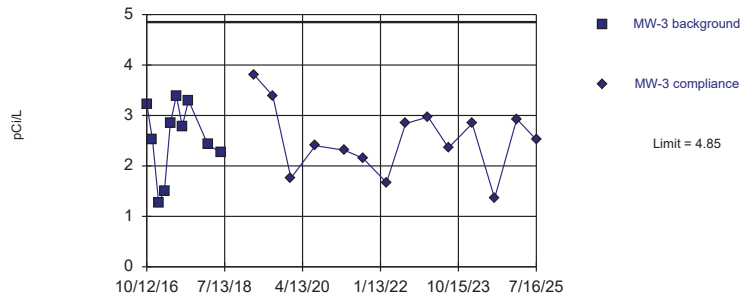
Intrawell Parametric



Background Data Summary: Mean=1.755, Std. Dev.=0.4903, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9723, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

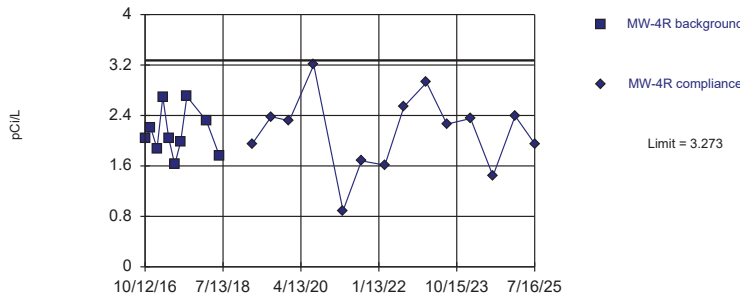
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.554, Std. Dev.=0.7226, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9177, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

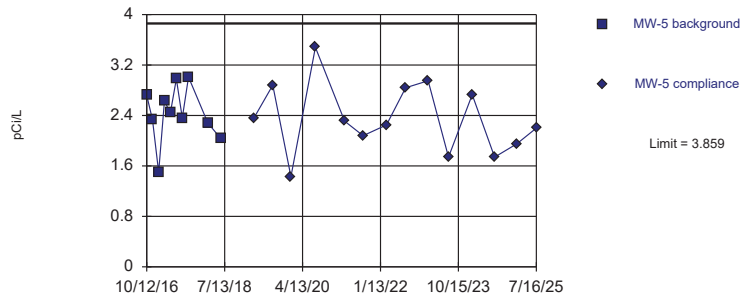
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.124, Std. Dev.=0.3616, n=10. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9304, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

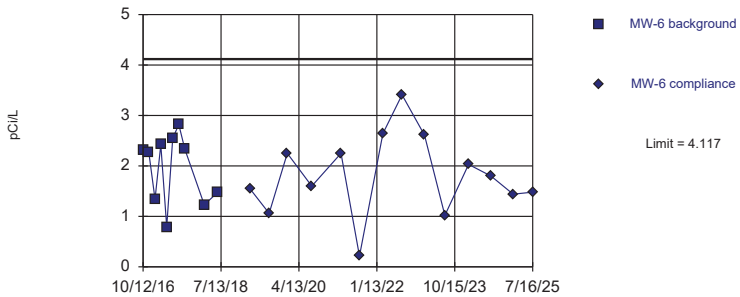
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=2.428, Std. Dev.=0.4504, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

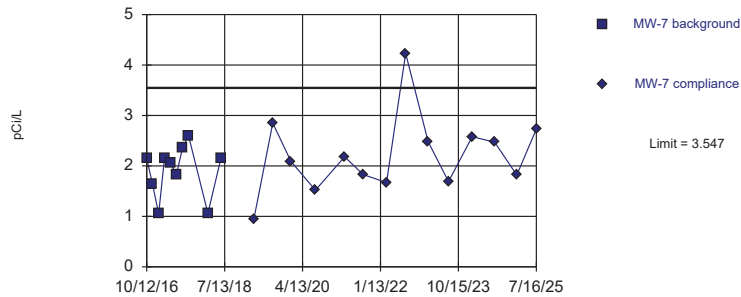
Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=1.952, Std. Dev.=0.6812, n=10. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8997, critical = 0.781. Kappa = 3.178 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.0003583.

Within Limit

Prediction Limit
Intrawell Parametric



A.3 Interwell Prediction Limits

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (ug/L)	MW-1	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-2	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-3	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-5	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-6	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-7	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Antimony (ug/L)	MW-8	2	n/a	7/16/2025	2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Arsenic (ug/L)	MW-1	6.894	n/a	7/16/2025	4.11	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-2	6.894	n/a	7/16/2025	4.63	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-3	6.894	n/a	7/16/2025	3.69	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-5	6.894	n/a	7/16/2025	4.35	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-6	6.894	n/a	7/16/2025	4.59	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-7	6.894	n/a	7/16/2025	3.75	No	24	0	No	0.000...	Param Inter 1 of 2
Arsenic (ug/L)	MW-8	6.894	n/a	7/16/2025	3.23	No	24	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-1	157	n/a	7/16/2025	124	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-2	157	n/a	7/16/2025	93.6	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-3	157	n/a	7/16/2025	116	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-5	157	n/a	7/16/2025	136	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-6	157	n/a	7/16/2025	131	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-7	157	n/a	7/16/2025	124	No	48	0	No	0.000...	Param Inter 1 of 2
Barium (ug/L)	MW-8	157	n/a	7/16/2025	116	No	48	0	No	0.000...	Param Inter 1 of 2
Beryllium (ug/L)	MW-1	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-2	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-3	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-5	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-6	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-7	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Beryllium (ug/L)	MW-8	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Boron (ug/L)	MW-1	341	n/a	7/16/2025	107	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-2	341	n/a	7/16/2025	113	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-3	341	n/a	7/16/2025	100	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-5	341	n/a	7/16/2025	114	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-6	341	n/a	7/16/2025	110	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-7	341	n/a	7/16/2025	117	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Boron (ug/L)	MW-8	341	n/a	7/16/2025	100ND	No	24	41.67	n/a	0.002899	NP Inter (normality) ...
Cadmium (ug/L)	MW-1	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-2	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-3	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-5	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-6	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-7	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cadmium (ug/L)	MW-8	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Calcium (mg/L)	MW-1	111.5	n/a	7/16/2025	94.9	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-2	111.5	n/a	7/16/2025	78.8	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-3	111.5	n/a	7/16/2025	78.7	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-5	111.5	n/a	7/16/2025	96.6	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-6	111.5	n/a	7/16/2025	98.7	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-7	111.5	n/a	7/16/2025	84.7	No	48	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	MW-8	111.5	n/a	7/16/2025	74	No	48	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-1	71.37	n/a	7/16/2025	44	No	23	0	No	0.000...	Param Inter 1 of 2

Prediction Limit

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	MW-2	71.37	n/a	7/16/2025	30.3	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-3	71.37	n/a	7/16/2025	43.3	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-5	71.37	n/a	7/16/2025	58.4	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-6	71.37	n/a	7/16/2025	62.3	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-7	71.37	n/a	7/16/2025	58.2	No	23	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	MW-8	71.37	n/a	7/16/2025	35	No	23	0	No	0.000...	Param Inter 1 of 2
Chromium (ug/L)	MW-1	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-2	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-3	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-5	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-6	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-7	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Chromium (ug/L)	MW-8	14.31	n/a	7/16/2025	4.01	No	46	97.83	n/a	0.000...	NP Inter (NDs) 1 of ...
Cobalt (ug/L)	MW-1	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-2	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-3	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-5	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-6	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-7	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Cobalt (ug/L)	MW-8	0.5	n/a	7/16/2025	0.5ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	MW-1	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-2	1.589	n/a	7/16/2025	1.16	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-3	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-5	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-6	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-7	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	MW-8	1.589	n/a	7/16/2025	1ND	No	24	25	No	0.000...	Param Inter 1 of 2
Lead (ug/L)	MW-1	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-2	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-3	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-5	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-6	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-7	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lead (ug/L)	MW-8	1.4	n/a	7/16/2025	0.5ND	No	21	90.48	n/a	0.003652	NP Inter (NDs) 1 of 2
Lithium (ug/L)	MW-1	33.2	n/a	7/16/2025	27.4	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-2	33.2	n/a	7/16/2025	26.8	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-3	33.2	n/a	7/16/2025	23.9	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-5	33.2	n/a	7/16/2025	27.9	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-6	33.2	n/a	7/16/2025	25.8	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-7	33.2	n/a	7/16/2025	27.6	No	24	0	x^2	0.000...	Param Inter 1 of 2
Lithium (ug/L)	MW-8	33.2	n/a	7/16/2025	22.7	No	24	0	x^2	0.000...	Param Inter 1 of 2
Mercury (ug/L)	MW-1	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-2	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-3	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-5	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-6	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-7	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Mercury (ug/L)	MW-8	0.2	n/a	7/16/2025	0.2ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Molybdenum (ug/L)	MW-1	11.98	n/a	7/16/2025	6.92	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-2	11.98	n/a	7/16/2025	5.19	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2

Prediction Limit

Fremont Dept. of Utilities

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Data: Fremont Department of Utilities Groundwater

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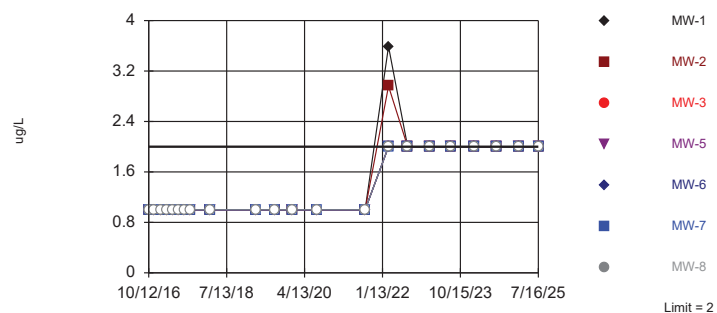
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Molybdenum (ug/L)	MW-3	11.98	n/a	7/16/2025	9.38	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-5	11.98	n/a	7/16/2025	4.46	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-6	11.98	n/a	7/16/2025	4.8	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-7	11.98	n/a	7/16/2025	5.76	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
Molybdenum (ug/L)	MW-8	11.98	n/a	7/16/2025	4.77	No	24	0	x^(1/3)	0.000...	Param Inter 1 of 2
pH (Std. Units)	MW-1	7.9	0	7/16/2025	7.5	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-2	7.9	0	7/16/2025	7.55	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-3	7.9	0	7/16/2025	7.61	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-5	7.9	0	7/16/2025	7.11	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-6	7.9	0	7/16/2025	6.98	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-7	7.9	0	7/16/2025	6.89	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
pH (Std. Units)	MW-8	7.9	0	7/16/2025	7.03	No	34	2.941	n/a	0.003069	NP Inter (normality) ...
Selenium (ug/L)	MW-1	25	n/a	7/16/2025	2.5ND	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-2	25	n/a	7/16/2025	5.97	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-3	25	n/a	7/16/2025	8.64	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-5	25	n/a	7/16/2025	5.42	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-6	25	n/a	7/16/2025	5.63	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-7	25	n/a	7/16/2025	10.4	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Selenium (ug/L)	MW-8	25	n/a	7/16/2025	10.3	No	47	2.128	n/a	0.000...	NP Inter (normality) ...
Sulfate (mg/L)	MW-1	77.61	n/a	7/16/2025	67.8	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-2	77.61	n/a	7/16/2025	48.1	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-3	77.61	n/a	7/16/2025	44.6	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-5	77.61	n/a	7/16/2025	64.9	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-6	77.61	n/a	7/16/2025	60	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-7	77.61	n/a	7/16/2025	70.2	No	48	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	MW-8	77.61	n/a	7/16/2025	28.9	No	48	0	No	0.000...	Param Inter 1 of 2
Thallium (ug/L)	MW-1	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-2	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-3	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-5	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-6	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-7	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Thallium (ug/L)	MW-8	1	n/a	7/16/2025	1ND	No	22	100	n/a	0.0034	NP Inter (NDs) 1 of 2
Total Dissolved Solids (mg/L)	MW-1	521.2	n/a	7/16/2025	416.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-2	521.2	n/a	7/16/2025	338.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-3	521.2	n/a	7/16/2025	362.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-5	521.2	n/a	7/16/2025	418.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-6	521.2	n/a	7/16/2025	422.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-7	521.2	n/a	7/16/2025	458.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Dissolved Solids (mg/L)	MW-8	521.2	n/a	7/16/2025	340.6	No	48	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-1	3.539	n/a	7/16/2025	2.961	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-2	3.539	n/a	7/16/2025	1.781	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-3	3.539	n/a	7/16/2025	2.531	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-5	3.539	n/a	7/16/2025	2.211	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-6	3.539	n/a	7/16/2025	1.491	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-7	3.539	n/a	7/16/2025	2.741	No	24	0	No	0.000...	Param Inter 1 of 2 De...
Total Radium (pCi/L)	MW-8	3.539	n/a	7/16/2025	2.181	No	24	0	No	0.000...	Param Inter 1 of 2 De...

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values ($n = 22$) were censored; limit is most recent reporting limit. Annual per-constituent $\alpha = 0.04656$. Individual comparison $\alpha = 0.0034$ (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

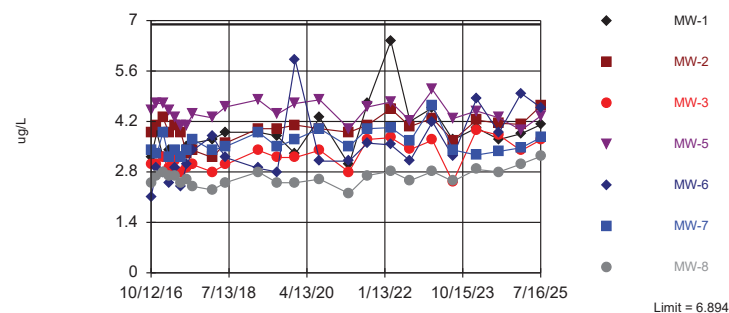
Constituent: Antimony Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=4.548, Std. Dev.=0.9645, $n=24$. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @ $\alpha = 0.01$, calculated = 0.9522, critical = 0.884. Kappa = 2.433 ($c=21$, $w=7$, 1 of 2, event $\alpha = 0.05132$). Report $\alpha = 0.002505$. Individual comparison $\alpha = 0.0003583$. Comparing 7 points to limit.

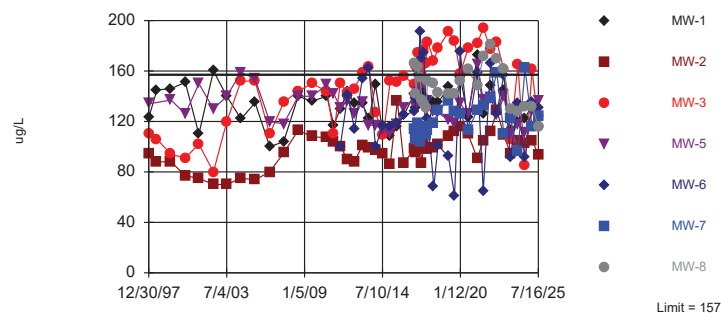
Constituent: Arsenic Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=122, Std. Dev.=15.65, n=48. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9624, critical = 0.929. Kappa = 2.237 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

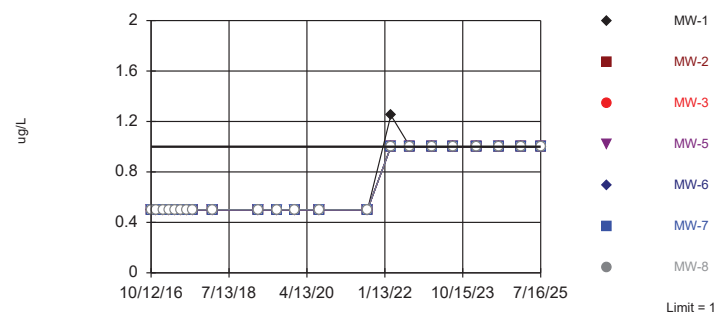
Constituent: Barium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 22) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04656. Individual comparison alpha = 0.0034 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

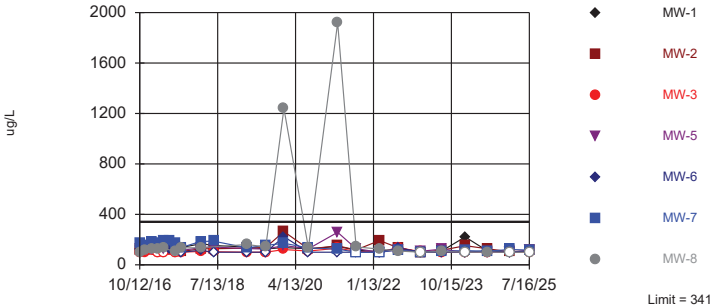
Constituent: Beryllium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. 41.67% NDs. Annual per-constituent alpha = 0.03983. Individual comparison alpha = 0.002899 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

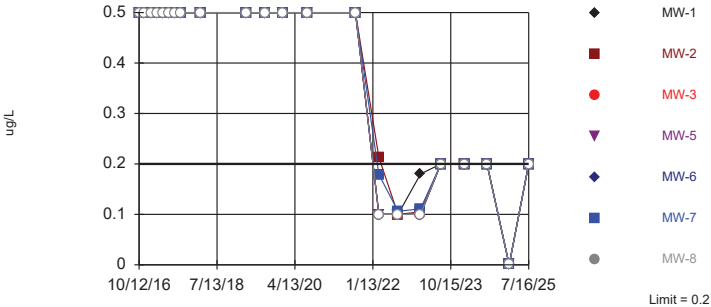
Constituent: Boron Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



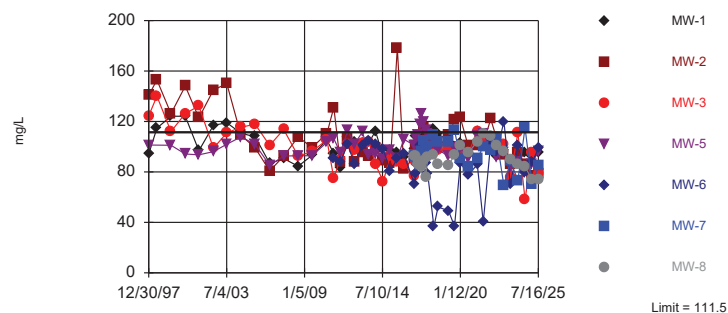
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 22) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04656. Individual comparison alpha = 0.0034 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Cadmium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



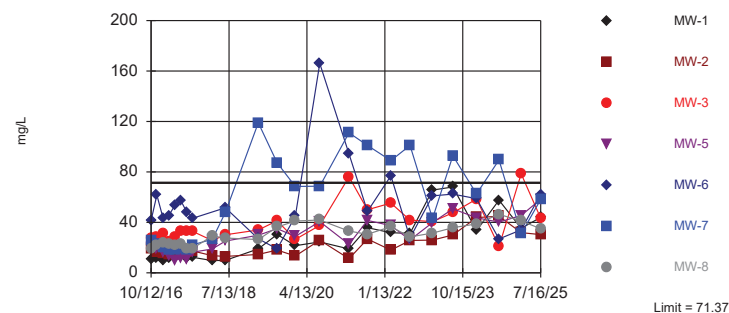
Background Data Summary: Mean=87.86, Std. Dev.=10.55, n=48. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9857, critical = 0.929. Kappa = 2.237 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Calcium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=31.6, Std. Dev.=16.22, n=23. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9405, critical = 0.881. Kappa = 2.452 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

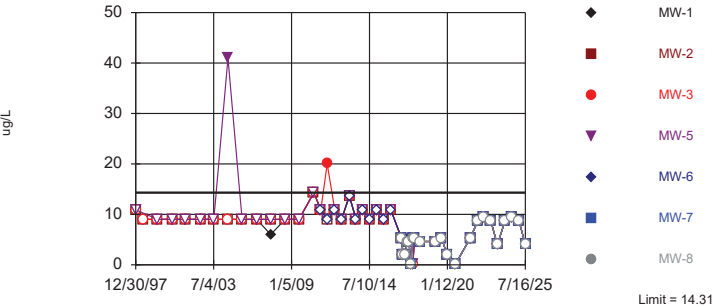
Constituent: Chloride Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 46 background values. 97.83% NDs. Annual per-constituent alpha = 0.01241. Individual comparison alpha = 0.0008917 (1 of 2). Comparing 7 points to limit. Data were deseasonalized.

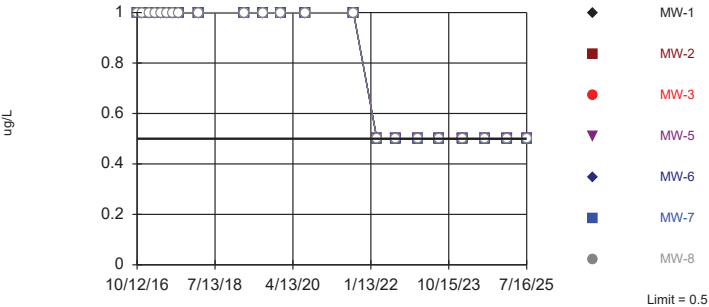
Constituent: Chromium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 22) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04656. Individual comparison alpha = 0.0034 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

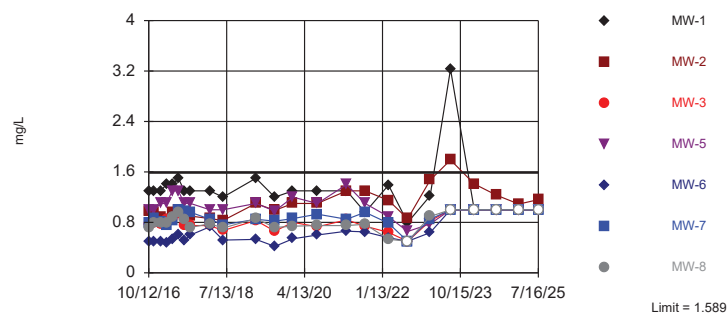
Constituent: Cobalt Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (after Aitchison's Adjustment): Mean=0.642, Std. Dev.=0.3895, n=24, 25% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.884. Kappa = 2.433 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

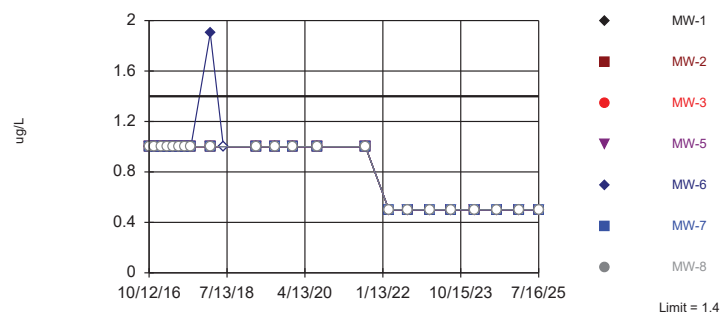
Constituent: Fluoride Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 90.48% NDs. Annual per-constituent alpha = 0.04993. Individual comparison alpha = 0.003652 (1 of 2). Comparing 7 points to limit. Insufficient data to test for seasonality; data will not be deseasonalized.

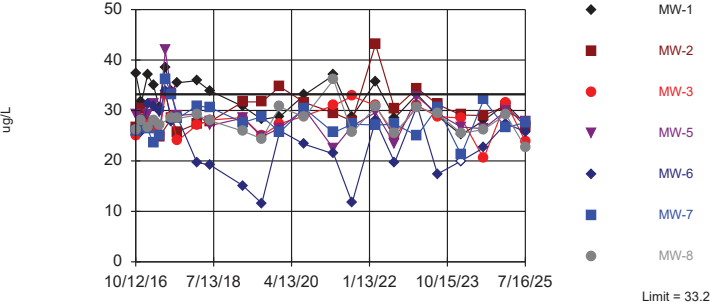
Constituent: Lead Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on square transformation): Mean=698.8, Std. Dev.=166, n=24. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9355, critical = 0.884. Kappa = 2.433 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

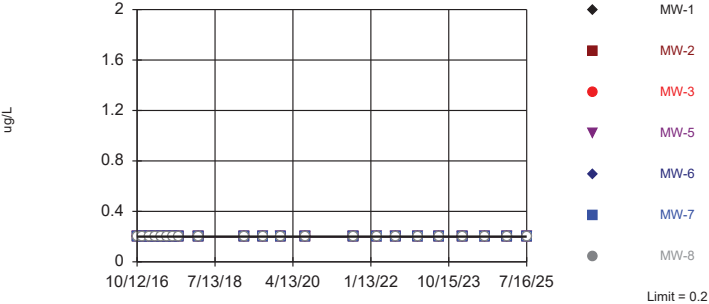
Constituent: Lithium Analysis Run 8/18/2025 11:51 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



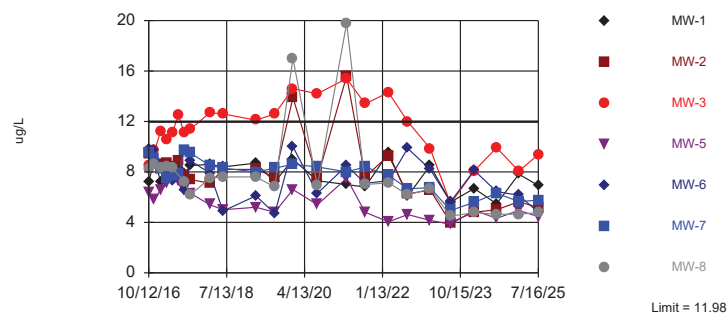
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 22) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04656. Individual comparison alpha = 0.0034 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Mercury Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit

Interwell Parametric



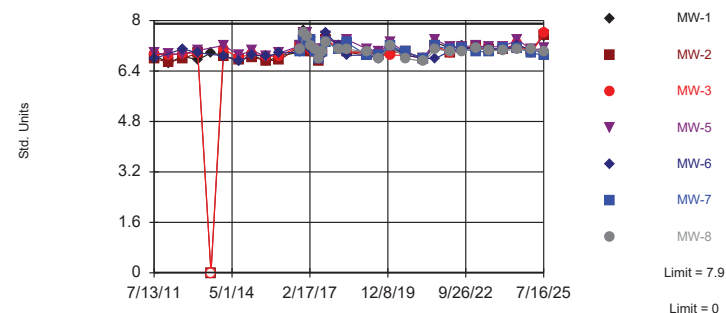
Background Data Summary (based on cube root transformation): Mean=1.803, Std. Dev.=0.1997, n=24. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8975, critical = 0.884. Kappa = 2.433 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Molybdenum Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limits

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 34 background values. 2.941% NDs. Annual per-constituent alpha = 0.04253. Individual comparison alpha = 0.003069 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

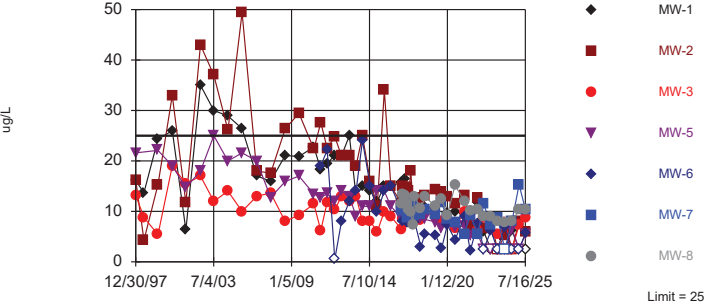
Constituent: pH Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 47 background values. 2.128% NDs. Annual per-constituent alpha = 0.01188. Individual comparison alpha = 0.0008532 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

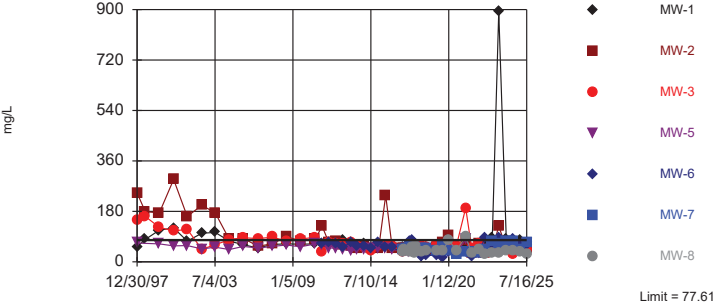
Constituent: Selenium Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

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Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=48.37, Std. Dev.=13.07, n=48. Seasonality was not detected with 95% confidence. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9356, critical = 0.929. Kappa = 2.237 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

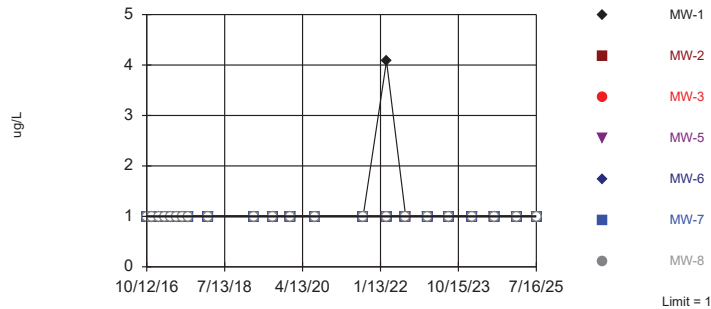
Constituent: Sulfate Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 22) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04656. Individual comparison alpha = 0.0034 (1 of 2). Comparing 7 points to limit. Seasonality was not detected with 95% confidence.

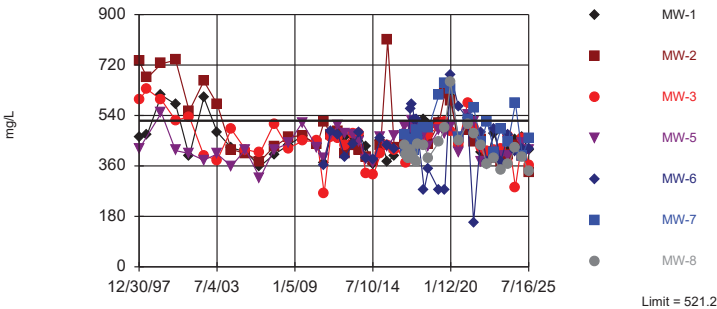
Constituent: Thallium Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sanitas™ v.10.0.27 Software licensed to SCS Engineers, UG

Within Limit

Prediction Limit

Interwell Parametric

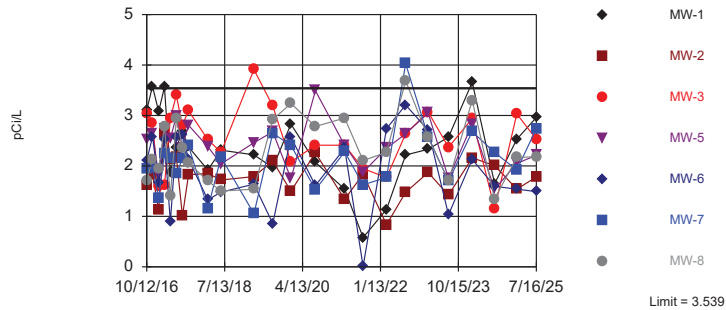


Background Data Summary: Mean=413.5, Std. Dev.=48.17, n=48. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9804, critical = 0.929. Kappa = 2.237 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 8/18/2025 11:52 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Within Limit

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=2.16, Std. Dev.=0.567, n=24. Seasonality was detected with 95% confidence and data were deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9597, critical = 0.884. Kappa = 2.433 (c=21, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505. Individual comparison alpha = 0.0003583. Comparing 7 points to limit.

A.4 Sen's Slope/Mann-Kendall Analysis

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

Printed 8/18/2025, 12:05 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (ug/L)	MW-1	0	105	84	Yes	22	95.45	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-2	0	105	84	Yes	22	95.45	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-3	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-4R (bg)	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-5	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-6	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-7	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Antimony (ug/L)	MW-8	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-1	0.1047	110	95	Yes	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-2	0.03623	89	95	No	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-3	0.094	114	95	Yes	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-4R (bg)	0.2647	150	95	Yes	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-5	-0.01242	-25	-95	No	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-6	0.2025	163	95	Yes	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-7	0.03417	69	95	No	24	0	n/a	n/a	0.02	NP
Arsenic (ug/L)	MW-8	0.02614	82	95	No	24	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-1	-0.08936	-0.2674	-2.33	No	49	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-2	1.023	3.76	2.33	Yes	49	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-3	2.886	4.873	2.33	Yes	49	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-4R (bg)	-0.1275	-7	-95	No	24	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-5	-0.3938	-1.362	-2.33	No	48	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-6	-0.366	-12	-158	No	34	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-7	2.471	86	95	No	24	0	n/a	n/a	0.02	NP
Barium (ug/L)	MW-8	-1.672	-50	-95	No	24	0	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-1	0	105	84	Yes	22	95.45	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-2	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-3	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-4R (bg)	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-5	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-6	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-7	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Beryllium (ug/L)	MW-8	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Boron (ug/L)	MW-1	-4.237	-98	-95	Yes	24	4.167	n/a	n/a	0.02	NP
Boron (ug/L)	MW-2	1.118	23	89	No	23	4.348	n/a	n/a	0.02	NP
Boron (ug/L)	MW-3	0	9	95	No	24	33.33	n/a	n/a	0.02	NP
Boron (ug/L)	MW-4R (bg)	-10.24	-93	-95	No	24	41.67	n/a	n/a	0.02	NP
Boron (ug/L)	MW-5	-2.601	-96	-95	Yes	24	8.333	n/a	n/a	0.02	NP
Boron (ug/L)	MW-6	-0.704	-87	-95	No	24	50	n/a	n/a	0.02	NP
Boron (ug/L)	MW-7	-9.223	-153	-95	Yes	24	12.5	n/a	n/a	0.02	NP
Boron (ug/L)	MW-8	-2.316	-49	-84	No	22	18.18	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-1	-0.03474	-103	-84	Yes	22	95.45	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-2	-0.03644	-114	-84	Yes	22	90.91	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-3	-0.03474	-105	-84	Yes	22	100	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-4R (bg)	-0.03474	-105	-84	Yes	22	100	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-5	-0.03474	-105	-84	Yes	22	100	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-6	-0.03474	-105	-84	Yes	22	100	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-7	-0.03644	-106	-84	Yes	22	86.36	n/a	n/a	0.02	NP
Cadmium (ug/L)	MW-8	-0.03474	-105	-84	Yes	22	100	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-1	-0.4411	-1.785	-2.33	No	49	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-2	-1.088	-2.544	-2.33	Yes	49	0	n/a	n/a	0.02	NP

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-3	-0.8043	-2.405	-2.33	Yes	49	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-4R (bg)	0.6736	57	95	No	24	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-5	-0.1214	-0.56	-2.33	No	48	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-6	-0.5411	-77	-166	No	35	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-7	-0.8142	-34	-95	No	24	0	n/a	n/a	0.02	NP
Calcium (mg/L)	MW-8	0.09367	4	95	No	24	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-1	3.875	192	95	Yes	24	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-2	1.977	115	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-3	2.885	136	95	Yes	24	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-4R (bg)	4.15	165	89	Yes	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-5	4.212	184	95	Yes	24	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-6	0.6354	19	89	No	23	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-7	6.521	105	95	Yes	24	0	n/a	n/a	0.02	NP
Chloride (mg/L)	MW-8	2.275	161	95	Yes	24	0	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-1	-0.2067	-4.395	-2.33	Yes	47	95.74	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-2	-0.1957	-4.447	-2.33	Yes	47	100	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-3	-0.2038	-4.339	-2.33	Yes	47	97.87	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-4R (bg)	0.3662	125	84	Yes	22	95.45	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-5	-0.2218	-4.412	-2.33	Yes	46	97.83	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-6	0	-130	-151	No	33	100	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-7	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Chromium (ug/L)	MW-8	0	112	84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-1	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-2	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-3	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-4R (bg)	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-5	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-6	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-7	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Cobalt (ug/L)	MW-8	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-1	-0.0352	-93	-95	No	24	16.67	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-2	0.04614	123	95	Yes	24	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-3	0.009555	38	95	No	24	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-4R (bg)	0.01728	69	95	No	24	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-5	-0.01248	-68	-95	No	24	20.83	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-6	0.03975	155	95	Yes	24	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-7	0.01565	88	95	No	24	25	n/a	n/a	0.02	NP
Fluoride (mg/L)	MW-8	0.01598	61	95	No	24	25	n/a	n/a	0.02	NP
Lead (ug/L)	MW-1	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lead (ug/L)	MW-2	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lead (ug/L)	MW-3	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lead (ug/L)	MW-4R (bg)	-0.0358	-103	-78	Yes	21	90.48	n/a	n/a	0.02	NP
Lead (ug/L)	MW-5	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lead (ug/L)	MW-6	0	-118	-89	Yes	23	95.65	n/a	n/a	0.02	NP
Lead (ug/L)	MW-7	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lead (ug/L)	MW-8	0	-112	-84	Yes	22	100	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-1	-0.8521	-125	-95	Yes	24	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-2	0.3783	64	89	No	23	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-3	0.2404	33	95	No	24	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-4R (bg)	0.3635	78	95	No	24	0	n/a	n/a	0.02	NP

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

Data: Fremont Department of Utilities Groundwater

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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (ug/L)	MW-5	-0.3186	-57	-95	No	24	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-6	-0.753	-65	-95	No	24	4.167	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-7	-0.03633	-6	-95	No	24	0	n/a	n/a	0.02	NP
Lithium (ug/L)	MW-8	0	3	89	No	23	0	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-1	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-2	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-3	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-4R (bg)	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-5	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-6	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-7	0	0	84	No	22	100	n/a	n/a	0.02	NP
Mercury (ug/L)	MW-8	0	0	84	No	22	100	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-1	-0.1812	-79	-95	No	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-2	-0.4117	-139	-95	Yes	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-3	0.0129	2	95	No	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-4R (bg)	-0.2357	-101	-95	Yes	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-5	-0.2901	-146	-95	Yes	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-6	-0.2409	-80	-95	No	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-7	-0.3748	-138	-95	Yes	24	0	n/a	n/a	0.02	NP
Molybdenum (ug/L)	MW-8	-0.41	-139	-89	Yes	23	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-1	0.02665	220	158	Yes	34	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-2	0.02768	221	158	Yes	34	2.941	n/a	n/a	0.02	NP
pH (Std. Units)	MW-3	0.01285	127	158	No	34	2.941	n/a	n/a	0.02	NP
pH (Std. Units)	MW-4R (bg)	0.003265	10	95	No	24	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-5	0.01352	104	151	No	33	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-6	0.01129	85	145	No	32	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-7	-0.02307	-51	-95	No	24	0	n/a	n/a	0.02	NP
pH (Std. Units)	MW-8	-0.01328	-63	-95	No	24	0	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-1	-1.043	-7.091	-2.33	Yes	49	10.2	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-2	-1.089	-5.777	-2.33	Yes	49	4.082	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-3	-0.2582	-4.305	-2.33	Yes	49	2.041	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-4R (bg)	0.007652	10	89	No	23	0	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-5	-0.745	-8.267	-2.33	Yes	48	10.42	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-6	-0.9853	-321	-166	Yes	35	14.29	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-7	-0.2937	-67	-95	No	24	4.167	n/a	n/a	0.02	NP
Selenium (ug/L)	MW-8	-0.3487	-111	-95	Yes	24	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-1	-1.288	-2.767	-2.33	Yes	49	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-2	-3.114	-4.942	-2.33	Yes	48	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-3	-2.26	-4.526	-2.33	Yes	49	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-4R (bg)	-0.00...	-1	-95	No	24	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-5	-0.7382	-3.111	-2.33	Yes	48	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-6	-0.6685	-37	-166	No	35	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-7	1.537	34	95	No	24	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	MW-8	-0.5691	-44	-95	No	24	0	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-1	0	7	84	No	22	95.45	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-2	0	0	84	No	22	100	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-3	0	0	84	No	22	100	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-4R (bg)	0	0	84	No	22	100	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-5	0	0	84	No	22	100	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-6	0	0	84	No	22	100	n/a	n/a	0.02	NP

Trend Test

Fremont Dept. of Utilities

Client: SCS Engineers

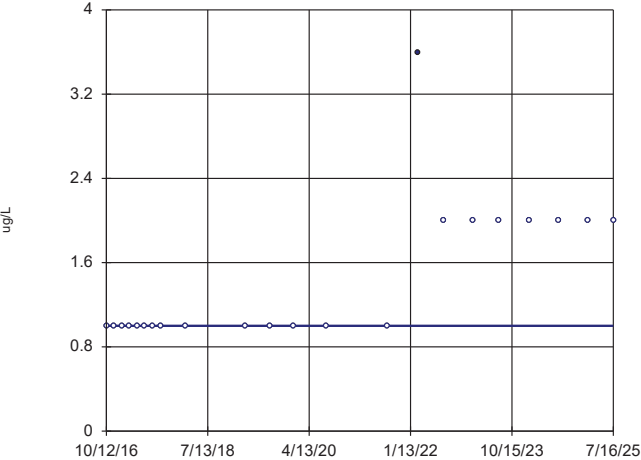
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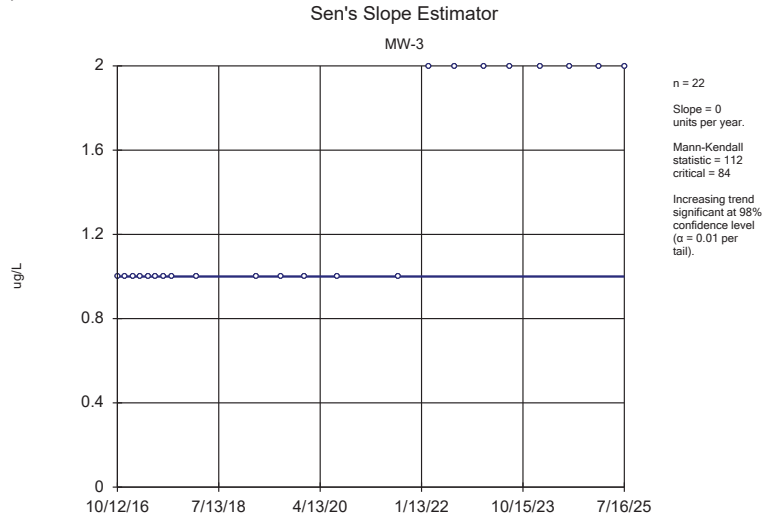
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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (ug/L)	MW-7	0	0	84	No	22	100	n/a	n/a	0.02	NP
Thallium (ug/L)	MW-8	0	0	84	No	22	100	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-1	-1.055	-0.871	-2.33	No	49	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-2	-6.225	-3.656	-2.33	Yes	49	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-3	-2.973	-2.104	-2.33	No	49	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-4R (bg)	3.54	33	95	No	24	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-5	0.1264	0.08891	2.33	No	48	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-6	-1.22	-39	-166	No	35	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-7	6.974	44	95	No	24	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	MW-8	-2.972	-35	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-1	-0.07146	-50	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-2	-0.00677	-8	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-3	-0.02838	-19	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-4R (bg)	0.02775	21	95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-5	-0.03583	-46	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-6	-0.02806	-21	-95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-7	0.06619	59	95	No	24	0	n/a	n/a	0.02	NP
Total Radium (pCi/L)	MW-8	0.03568	23	95	No	24	0	n/a	n/a	0.02	NP

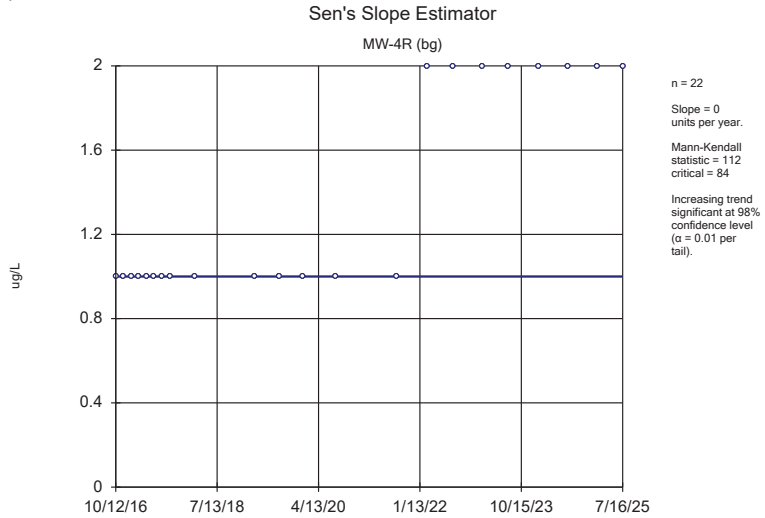
Sen's Slope Estimator

MW-1

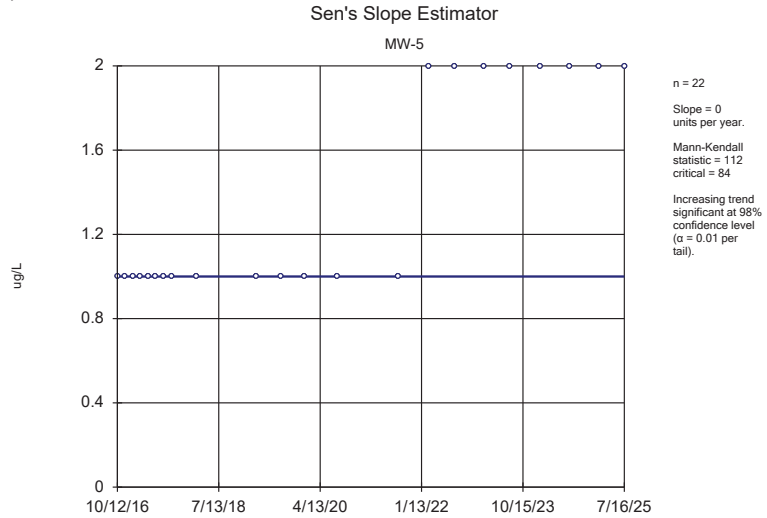




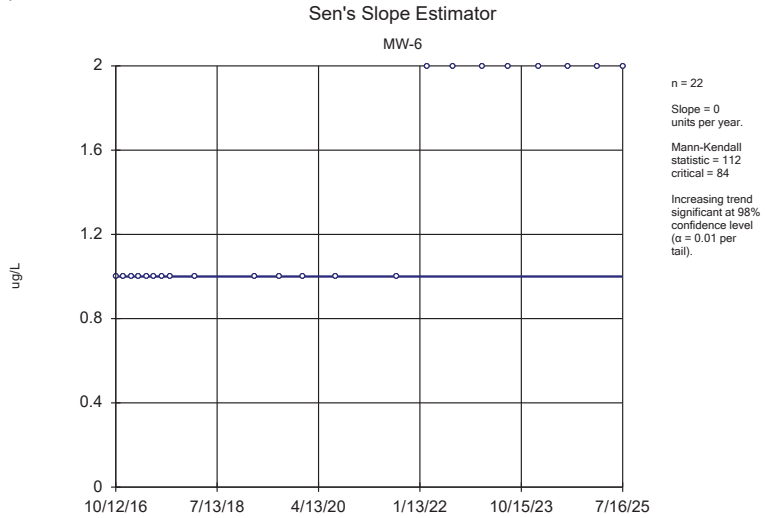
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



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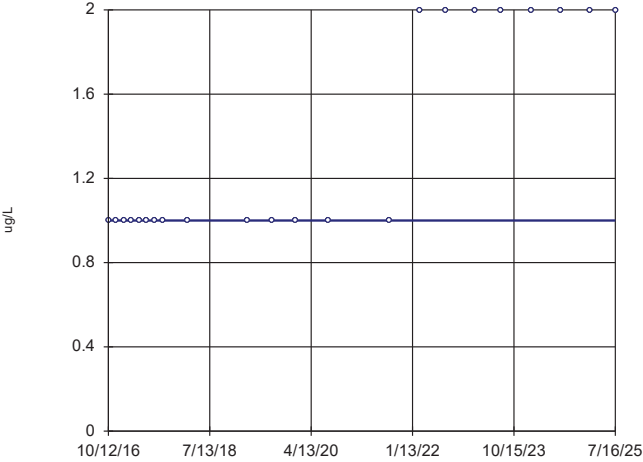
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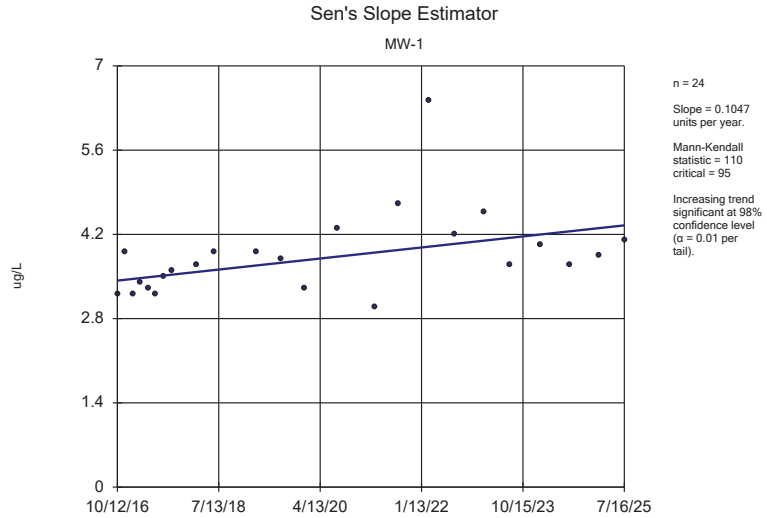


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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

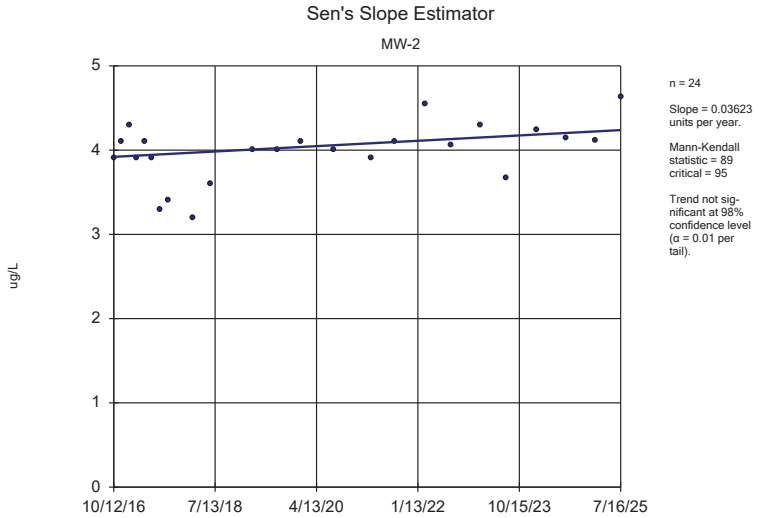
Sen's Slope Estimator

MW-7

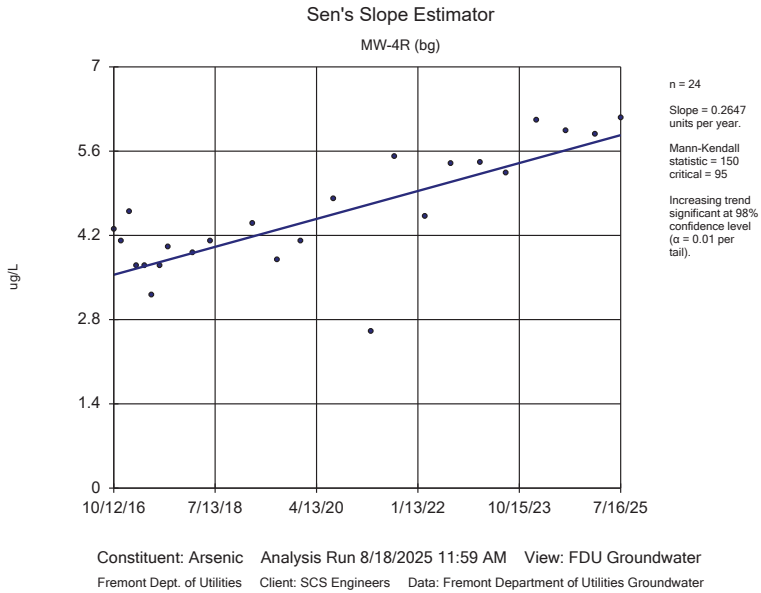
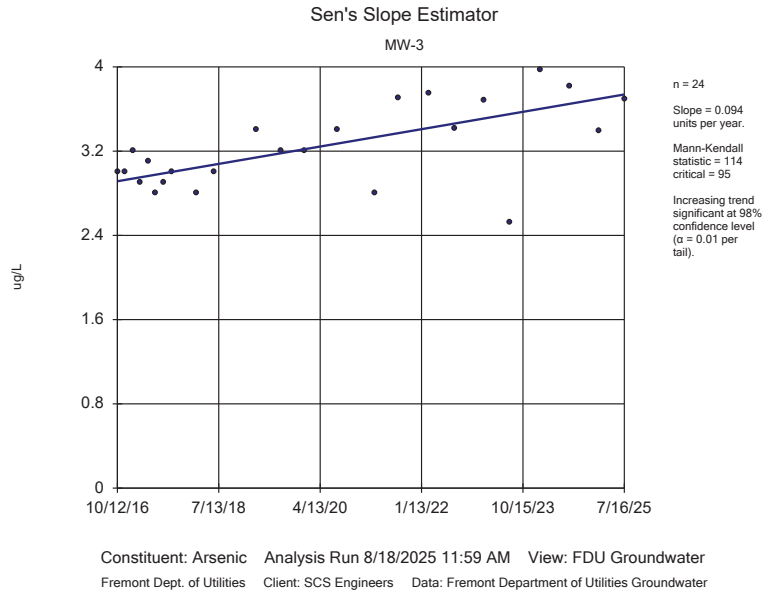


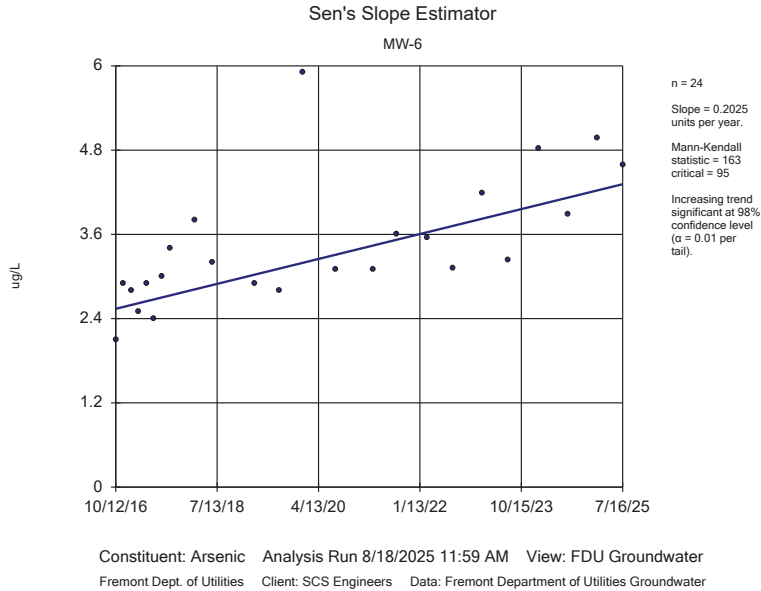
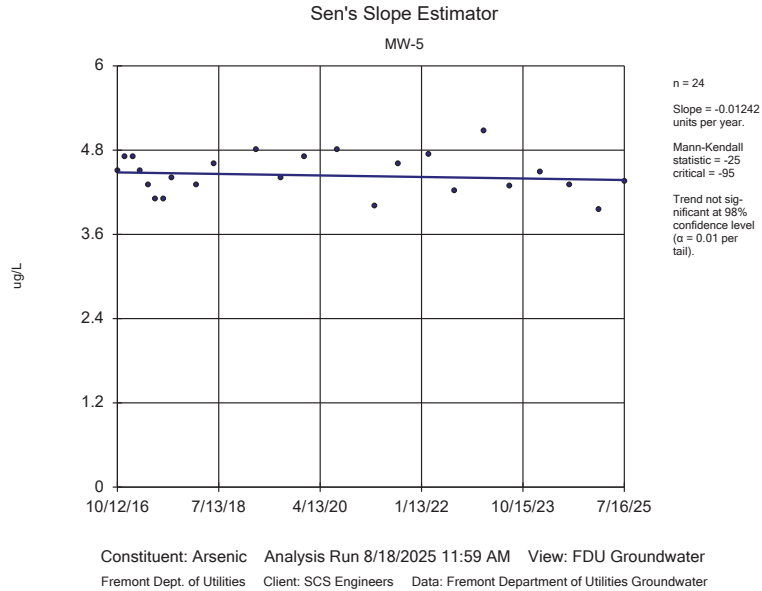


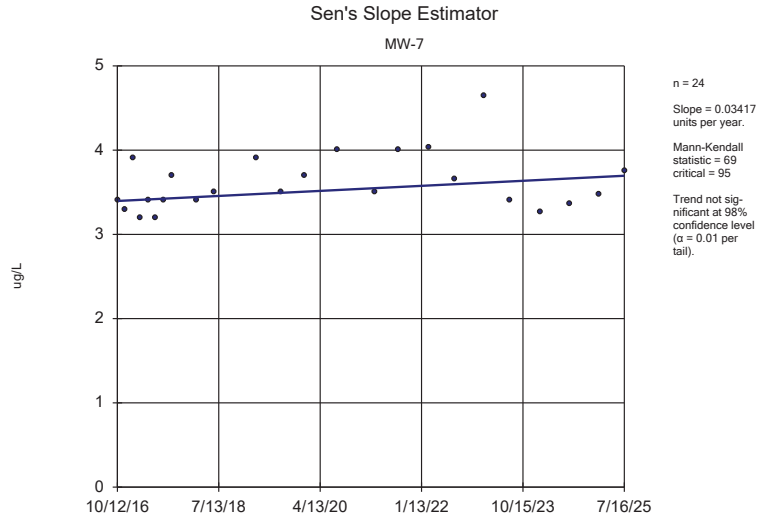
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



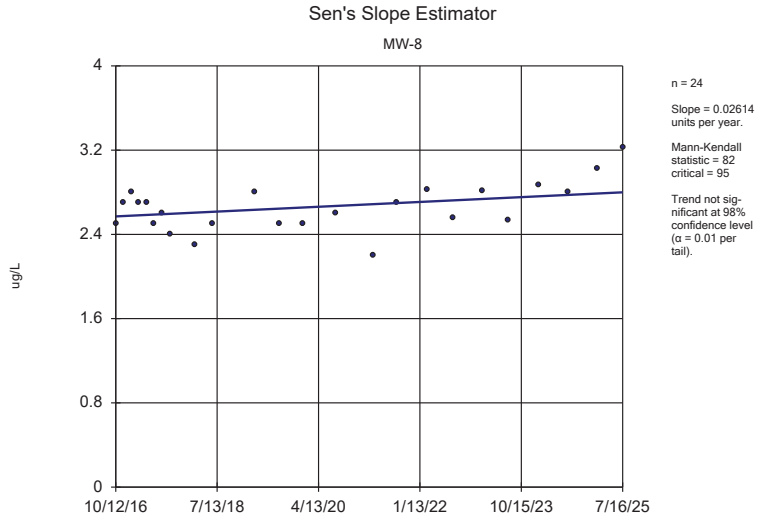
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



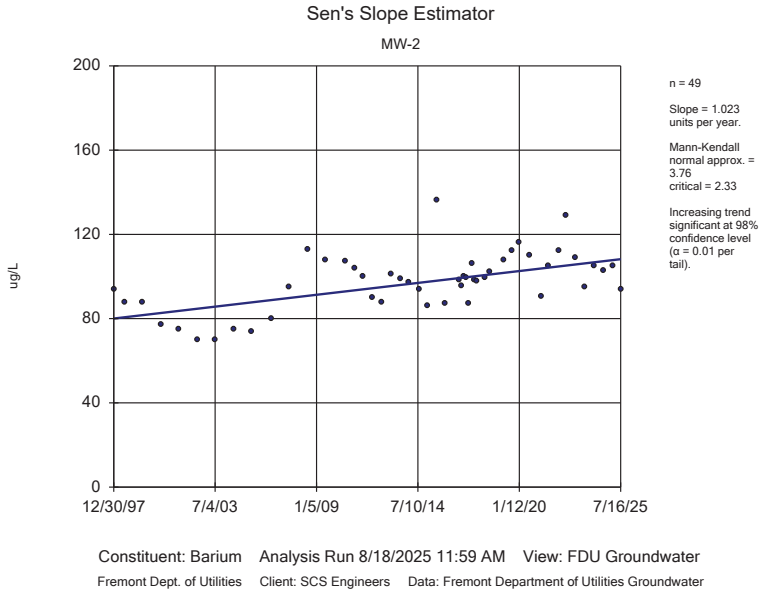
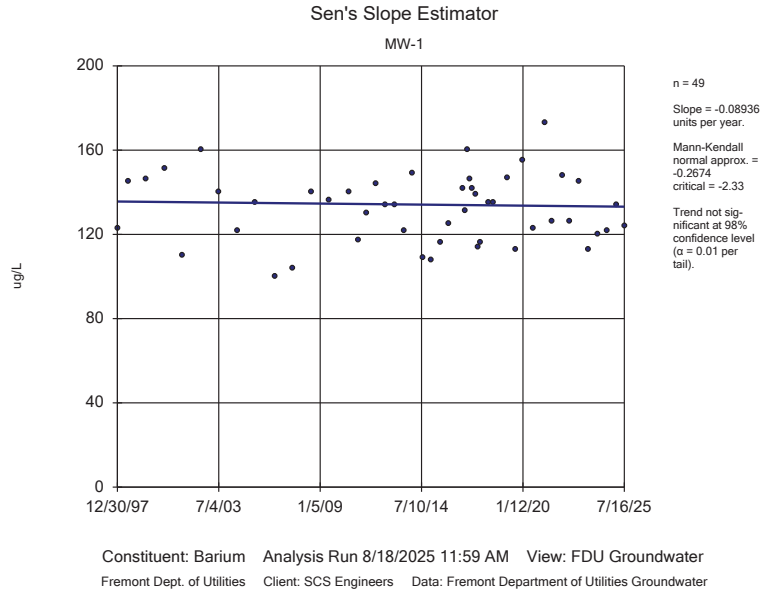


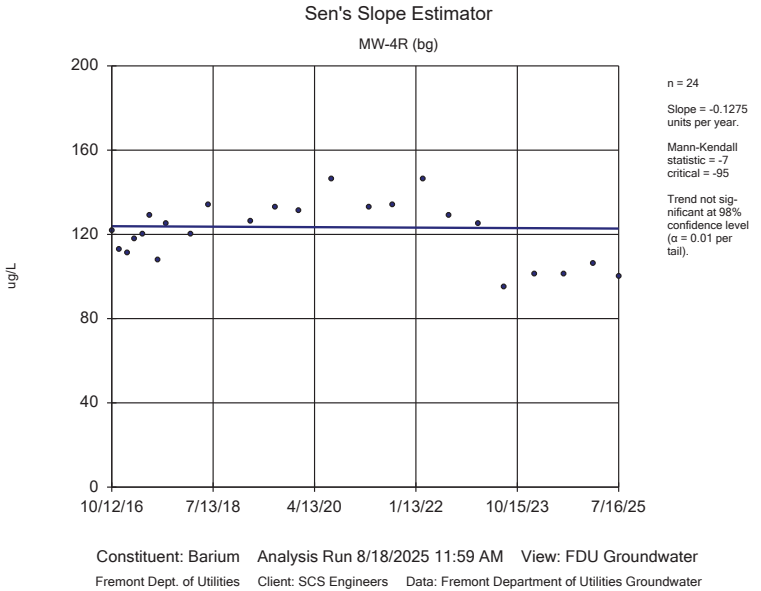
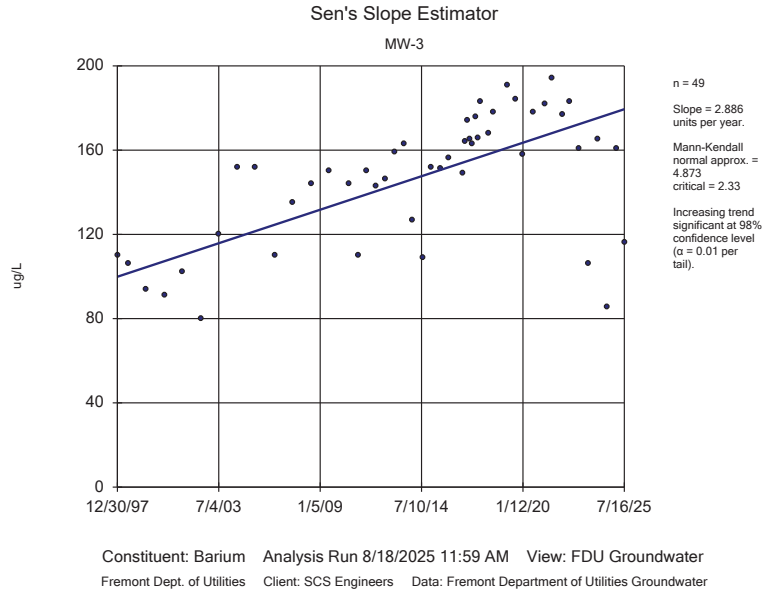


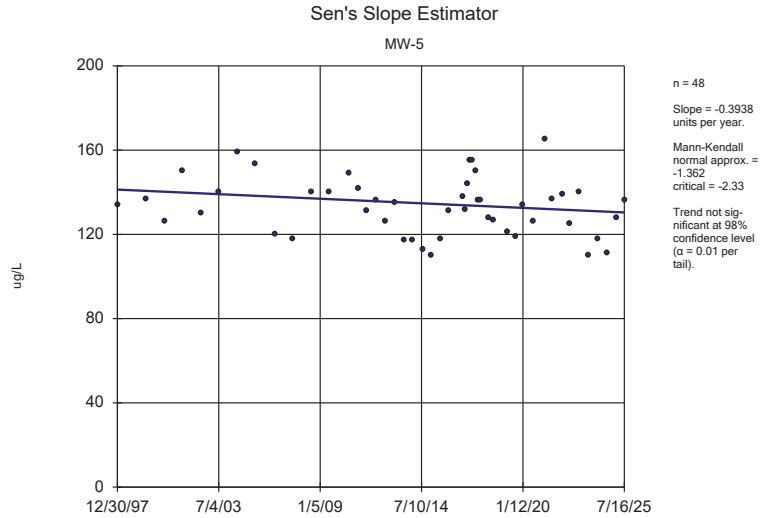
Constituent: Arsenic Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



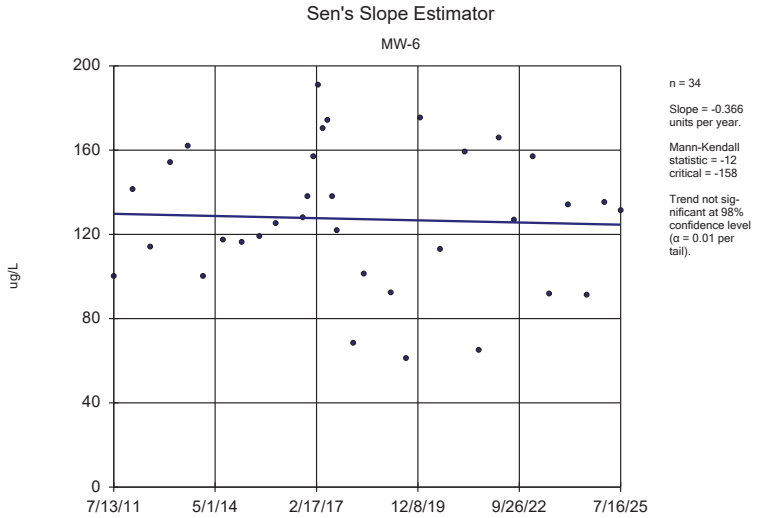
Constituent: Arsenic Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



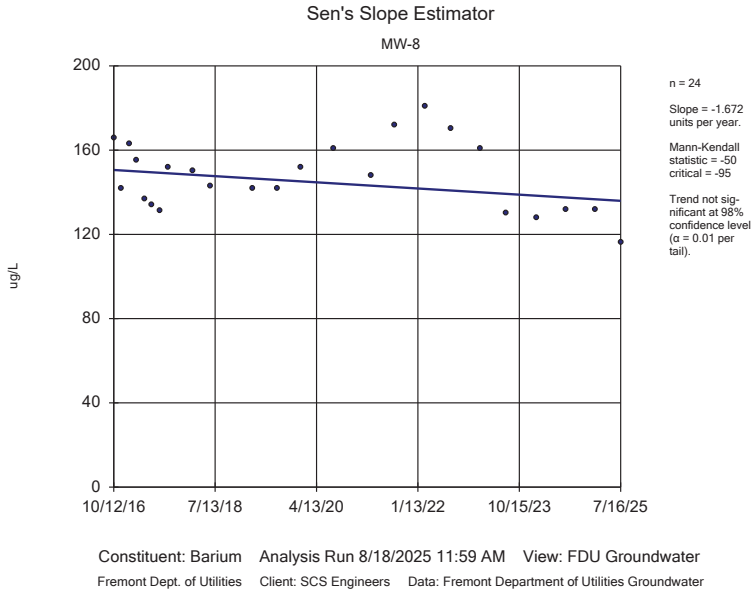
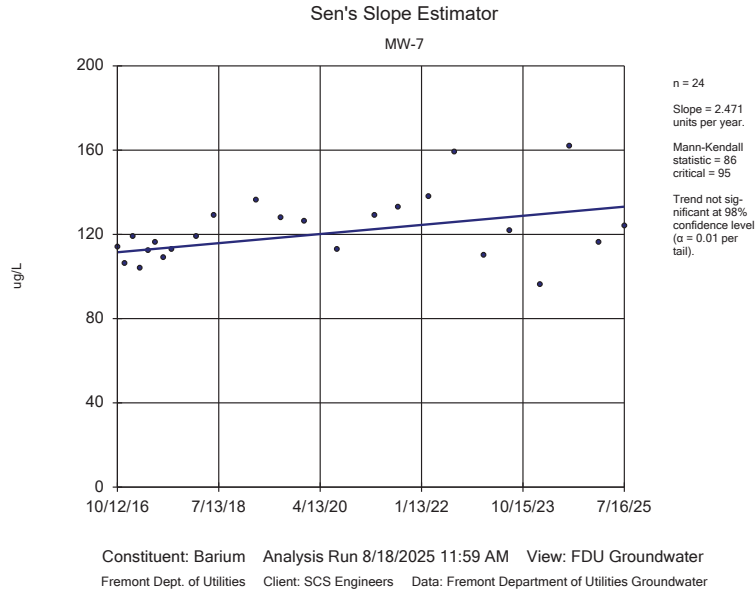




Constituent: Barium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

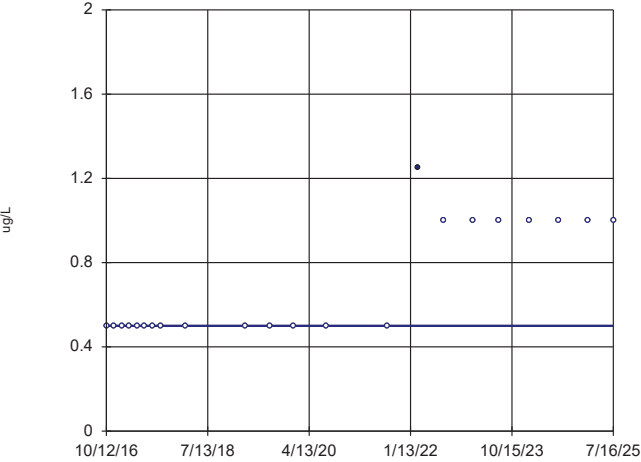


Constituent: Barium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



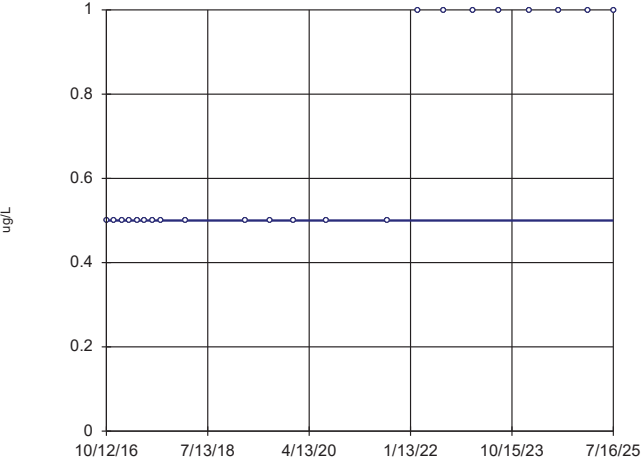
Sen's Slope Estimator

MW-1



Sen's Slope Estimator

MW-3

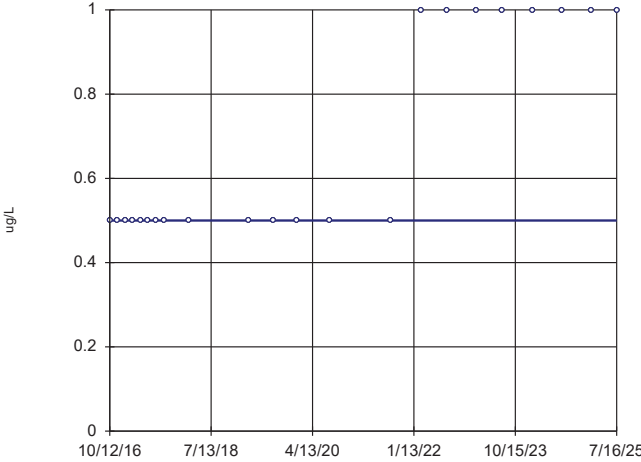


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Beryllium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

MW-4R (bg)

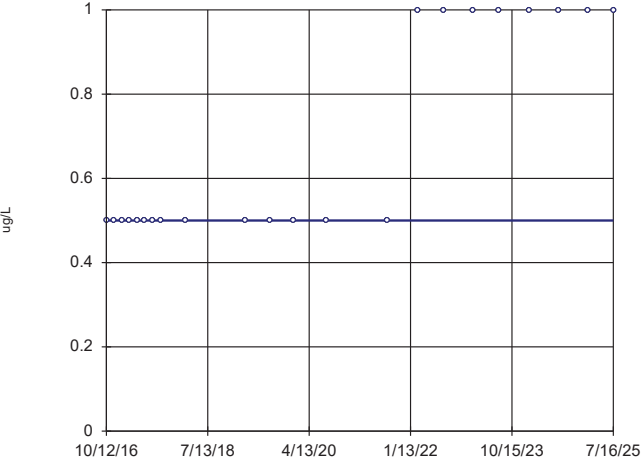


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Beryllium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

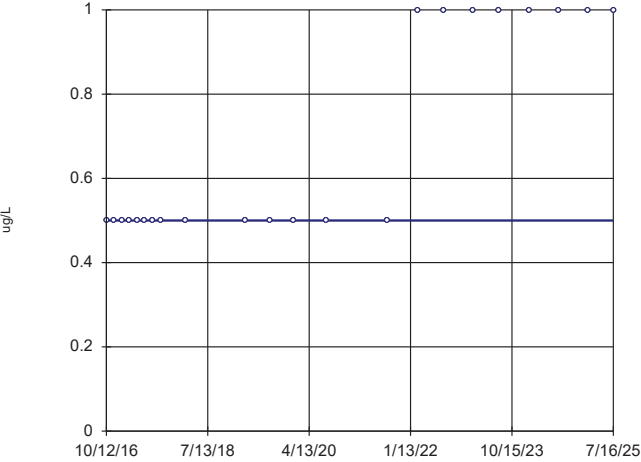
Sen's Slope Estimator

MW-5



Sen's Slope Estimator

MW-7

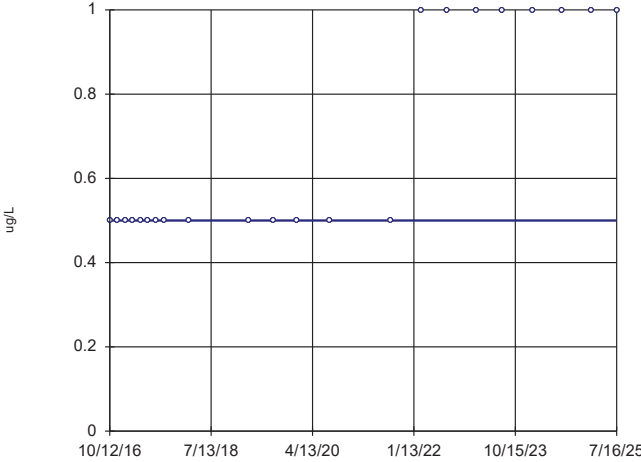


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Beryllium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

MW-8

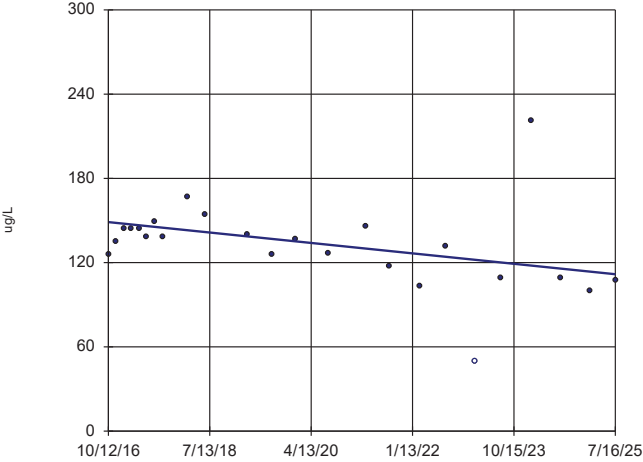


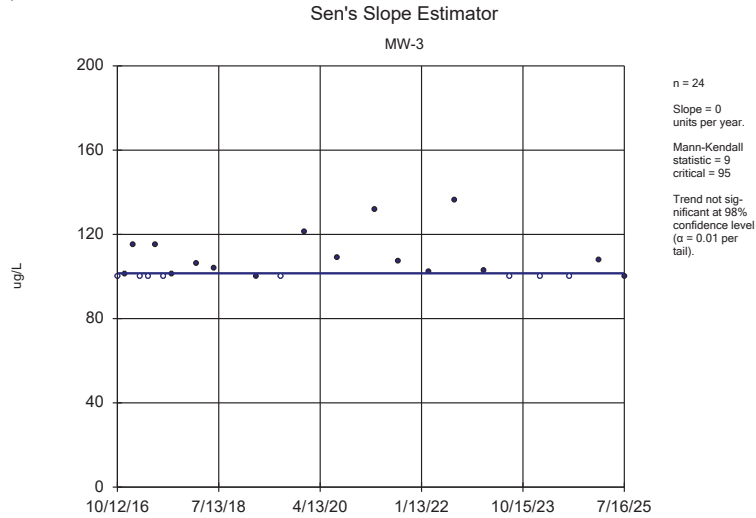
n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Beryllium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

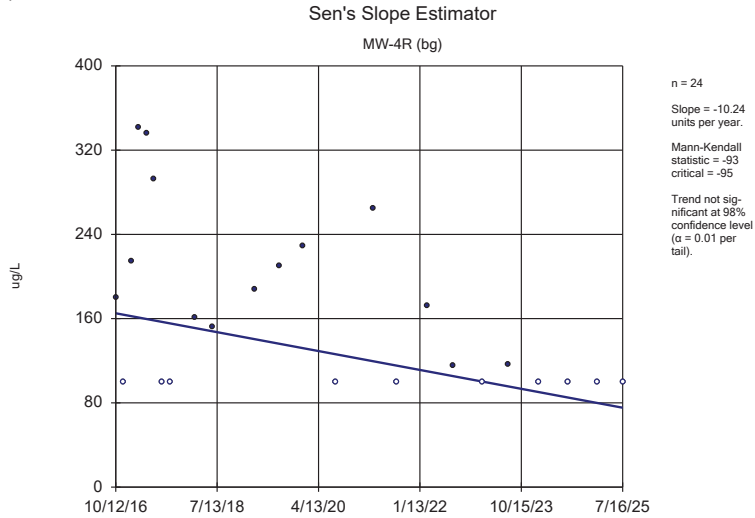
Sen's Slope Estimator

MW-1





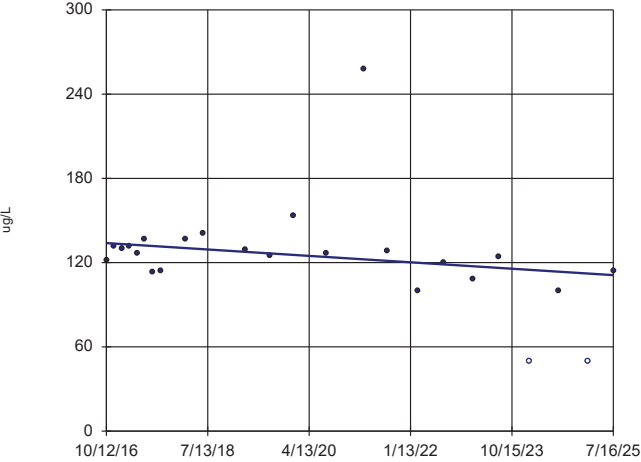
Constituent: Boron Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

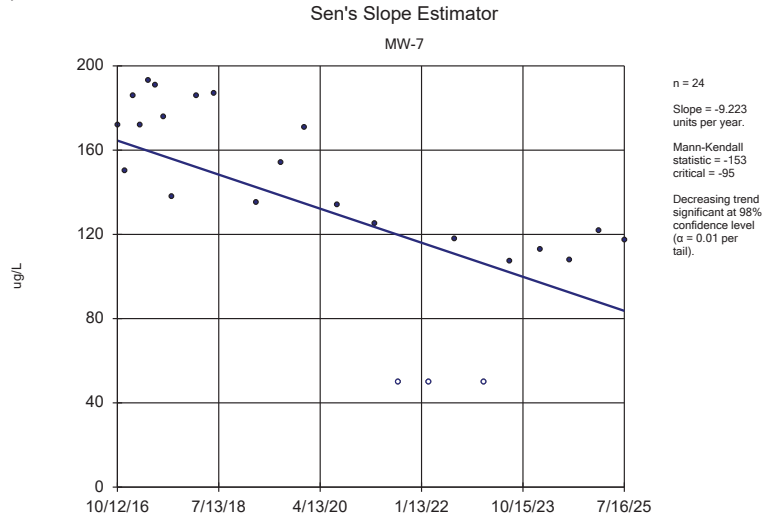


Constituent: Boron Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

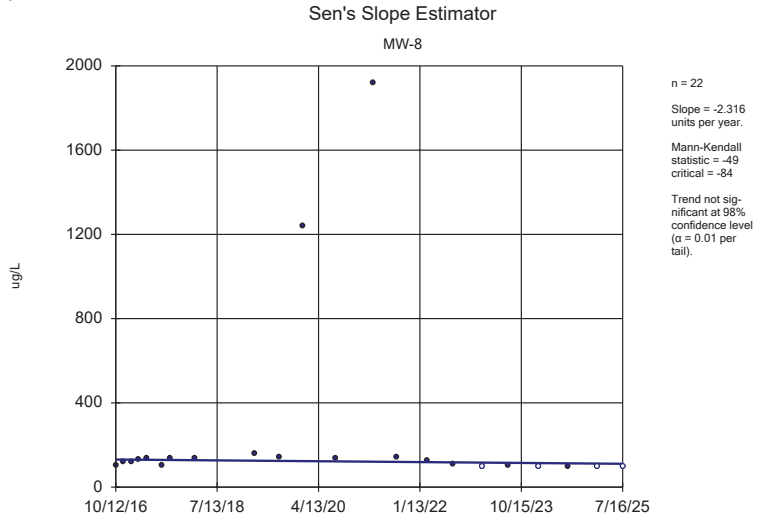
Sen's Slope Estimator

MW-5

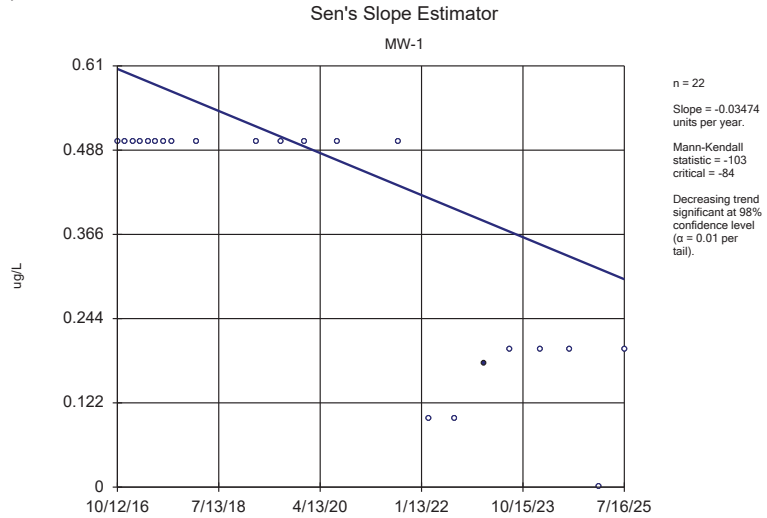




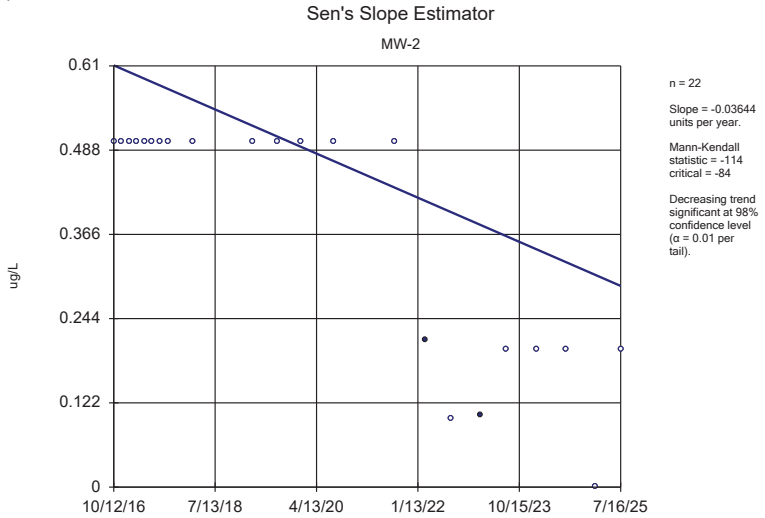
Constituent: Boron Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



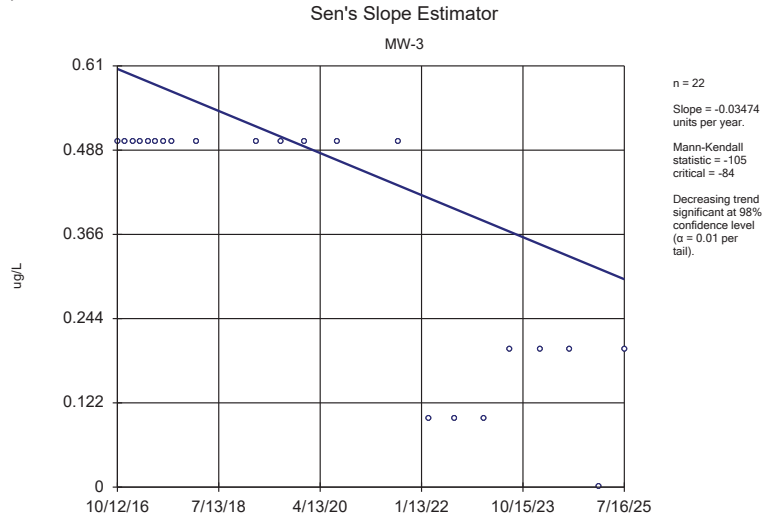
Constituent: Boron Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



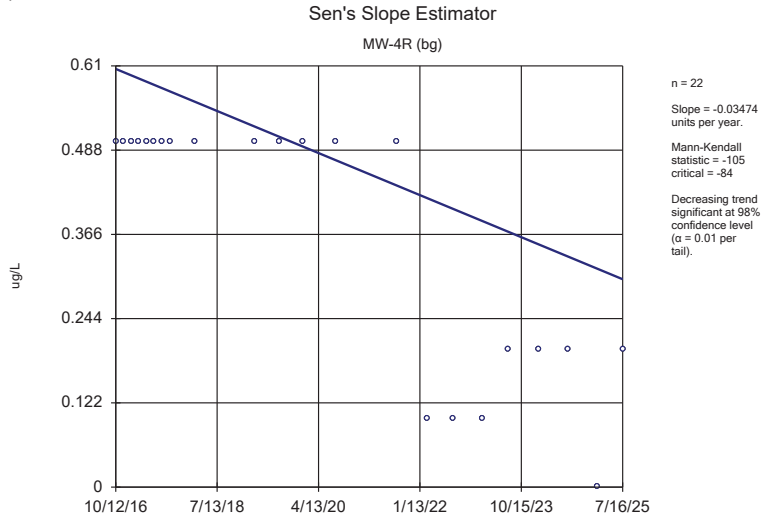
Constituent: Cadmium Analysis Run 8/18/2025 11:59 AM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



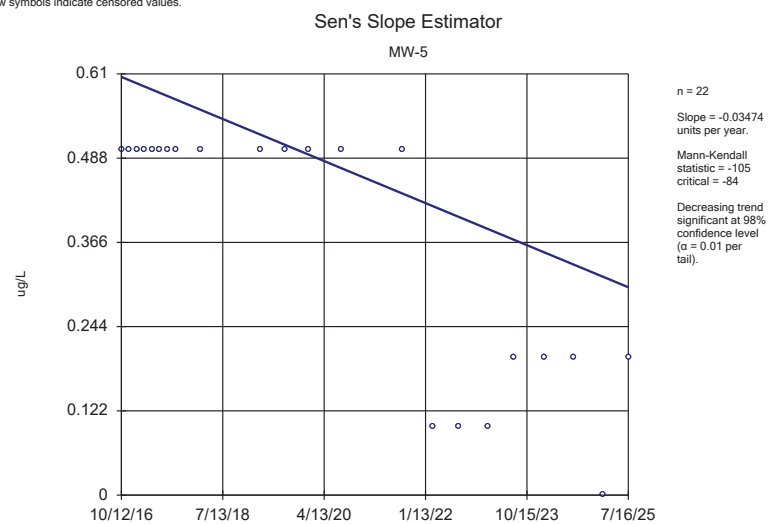
Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



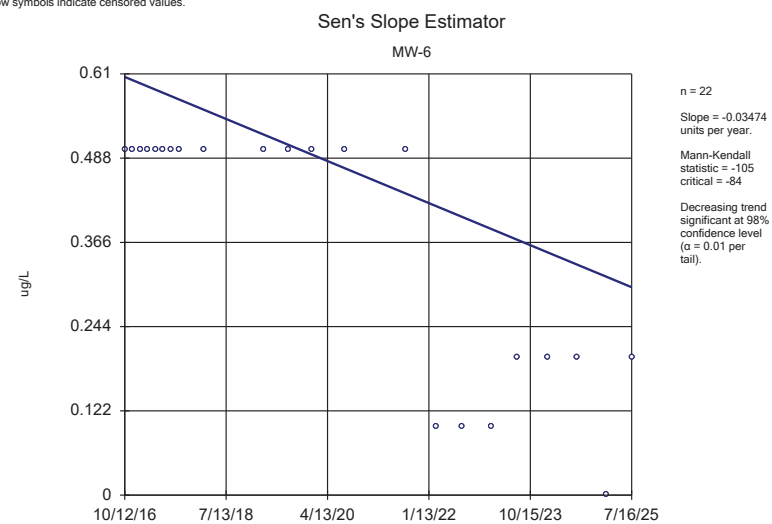
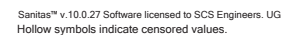
Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

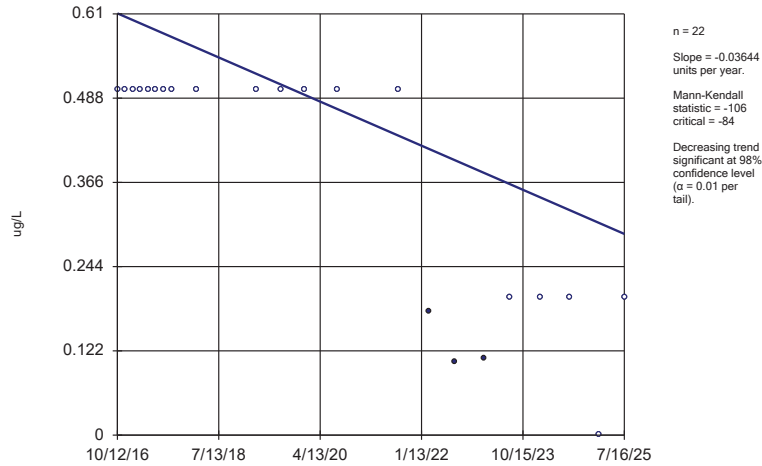


Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



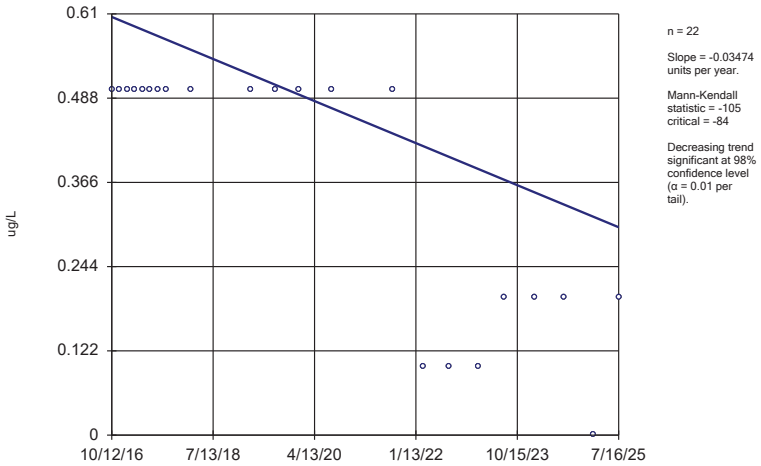
Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-7

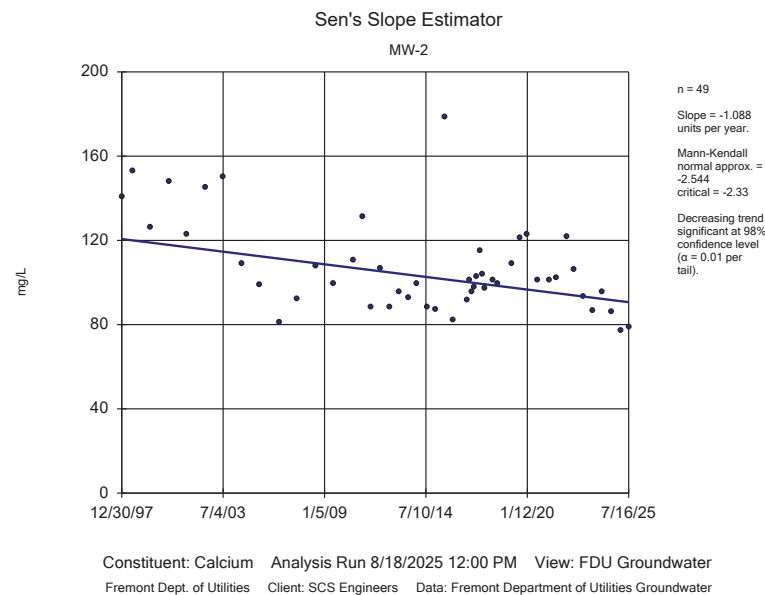
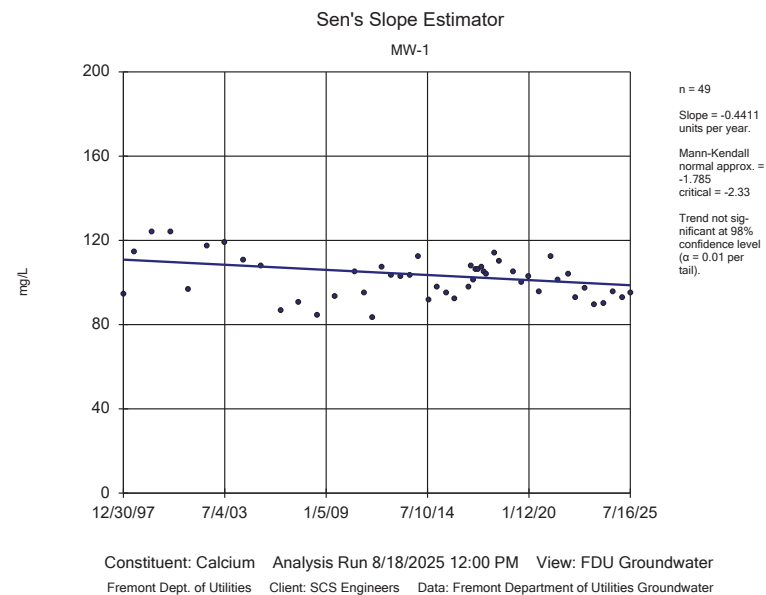


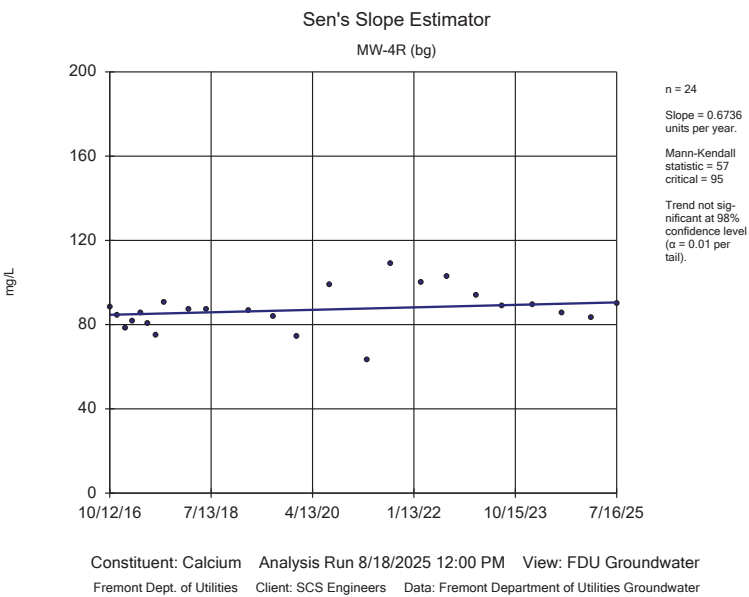
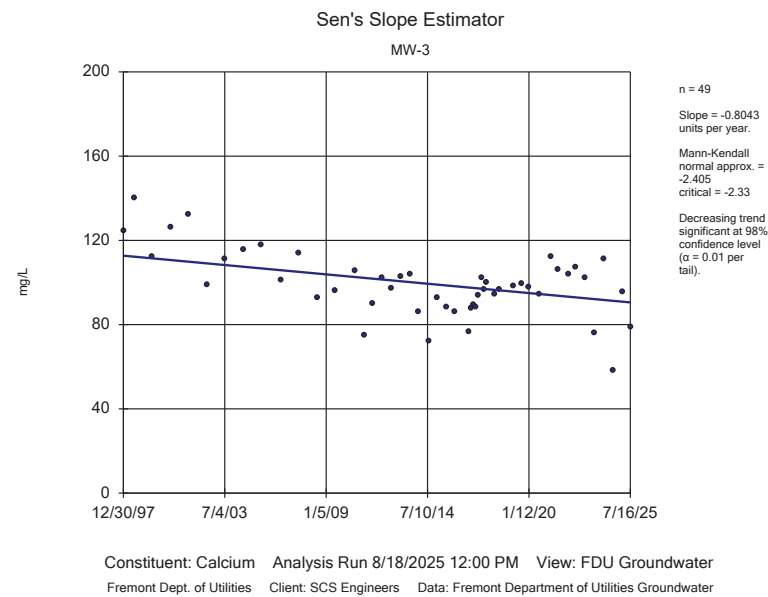
Constituent: Cadmium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

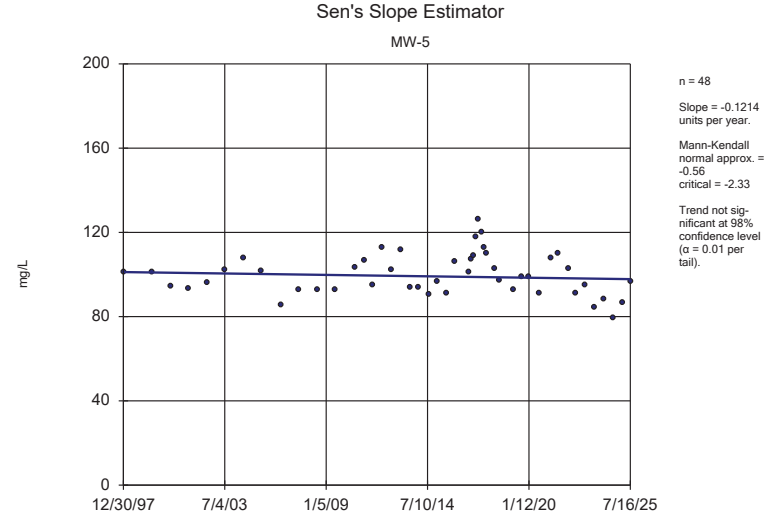
Sen's Slope Estimator
MW-8



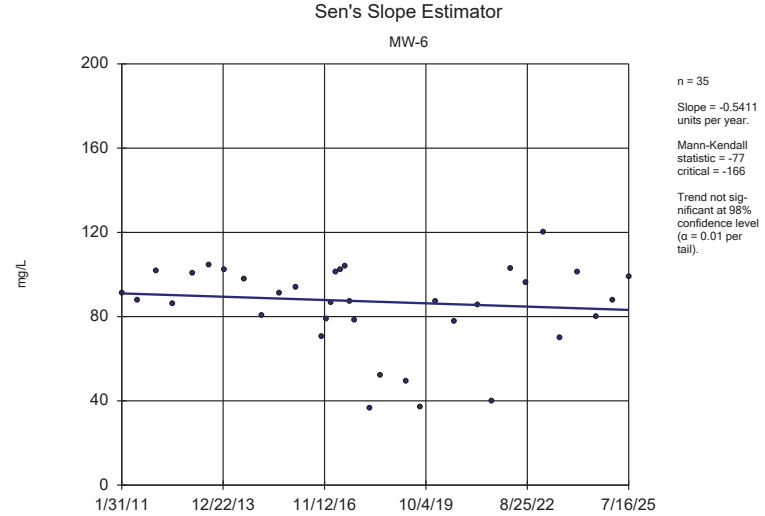
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



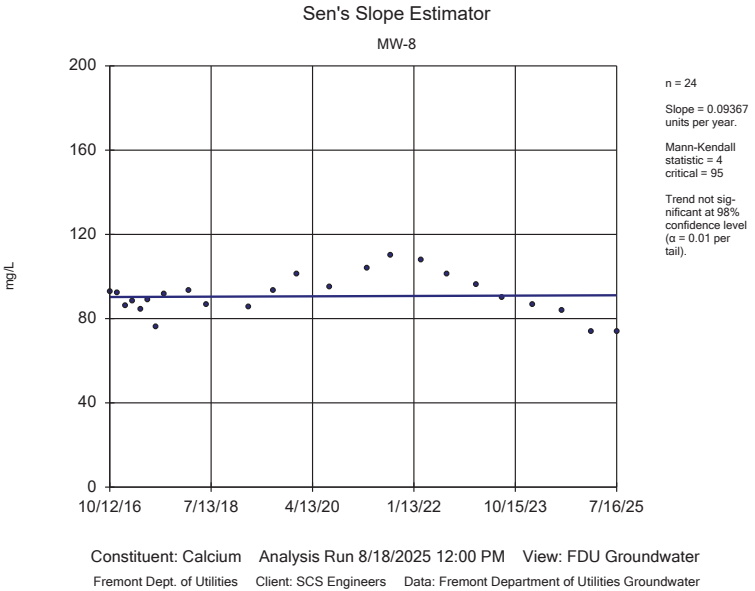
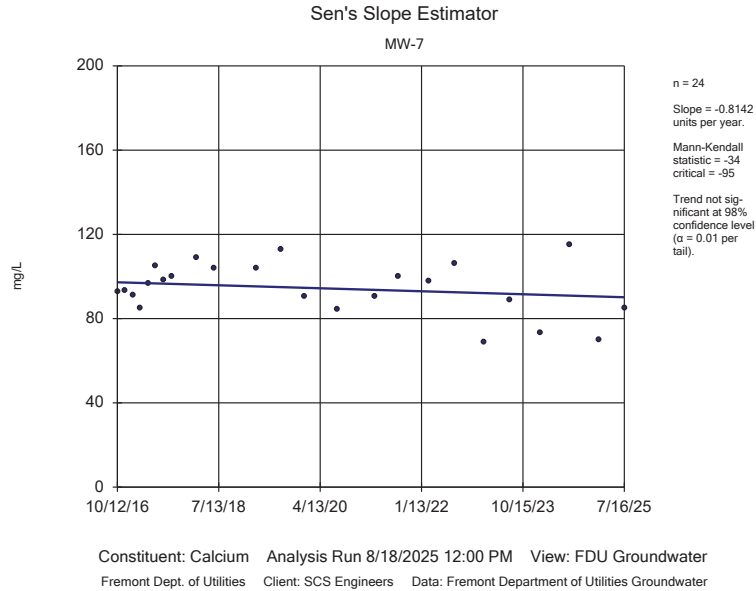


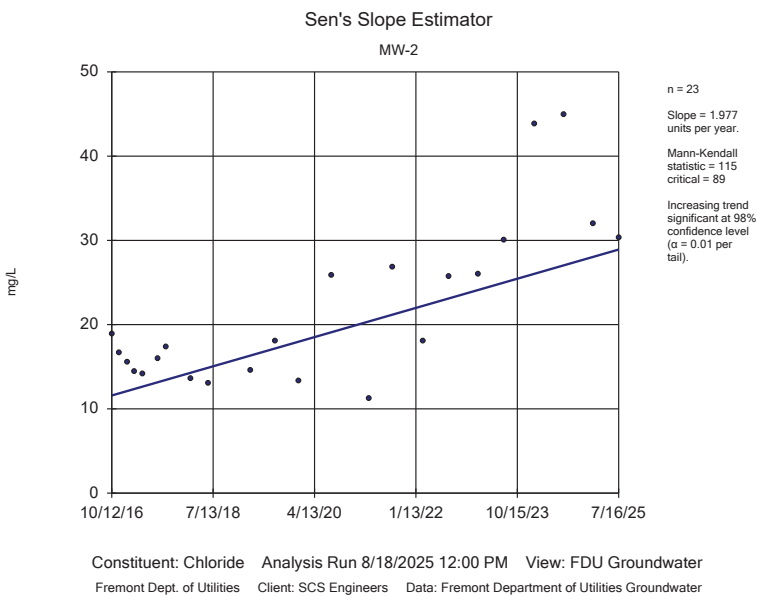
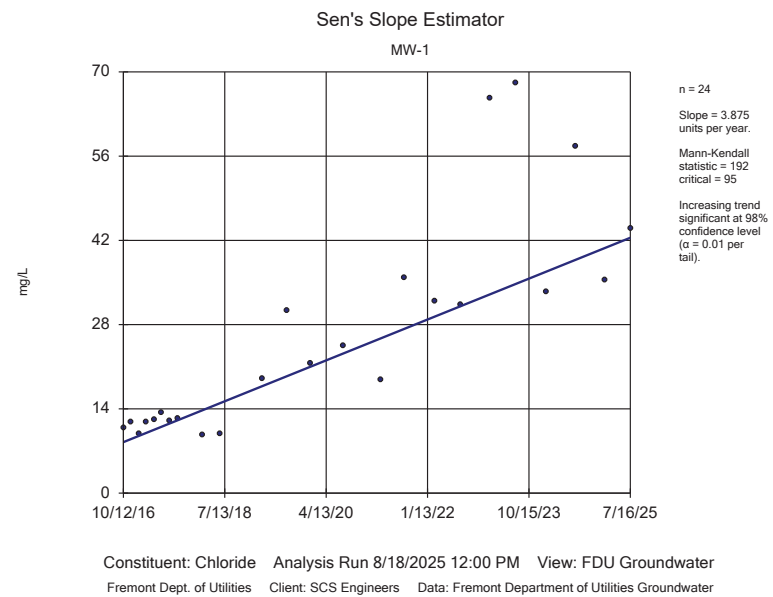


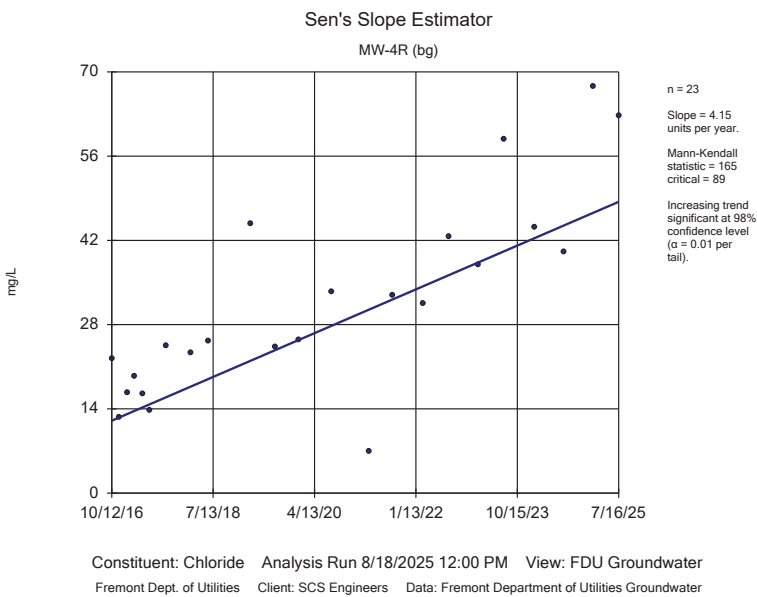
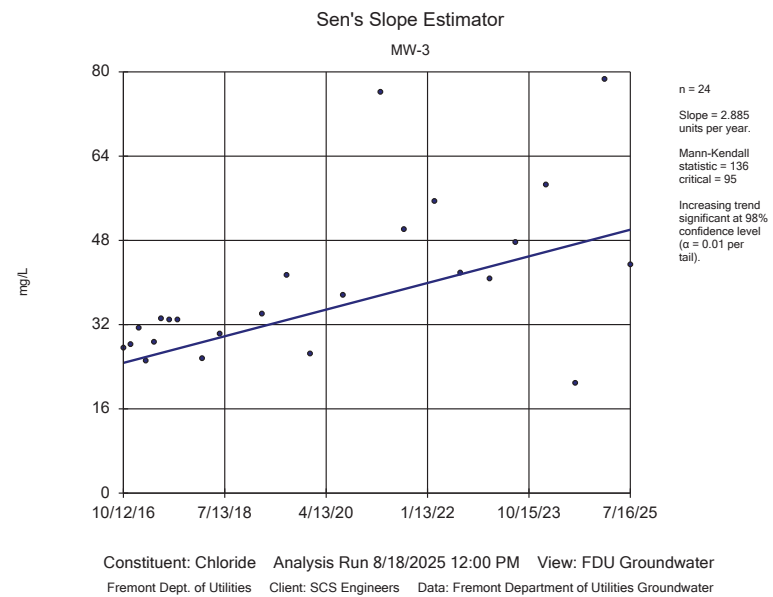
Constituent: Calcium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

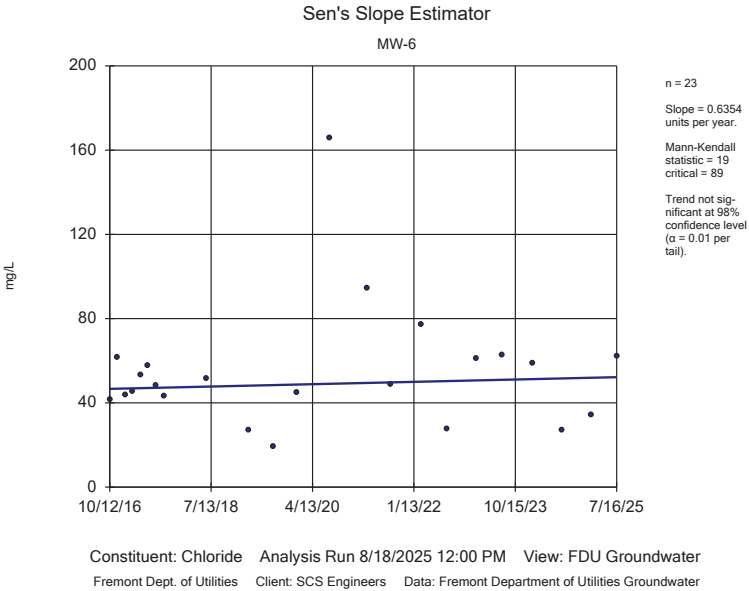
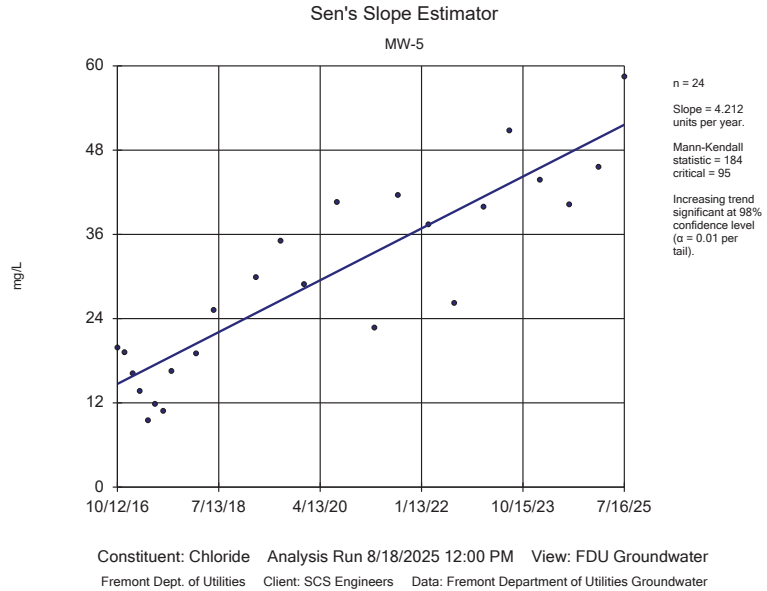


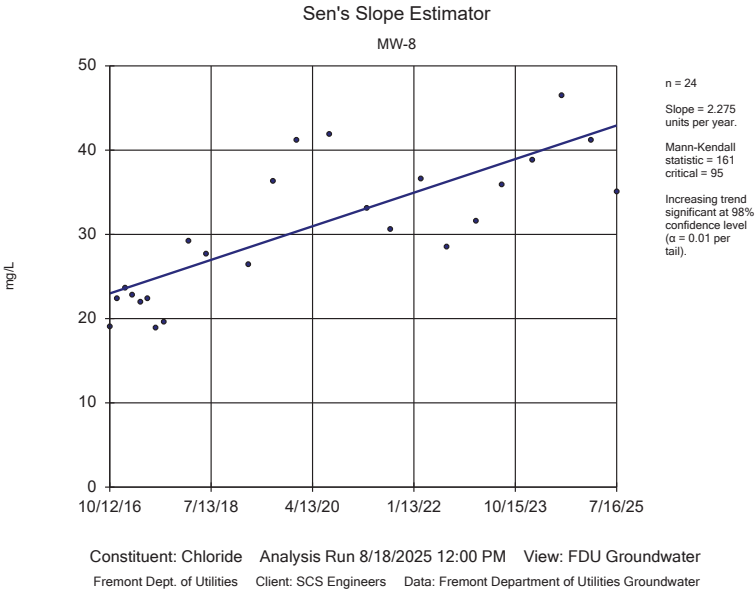
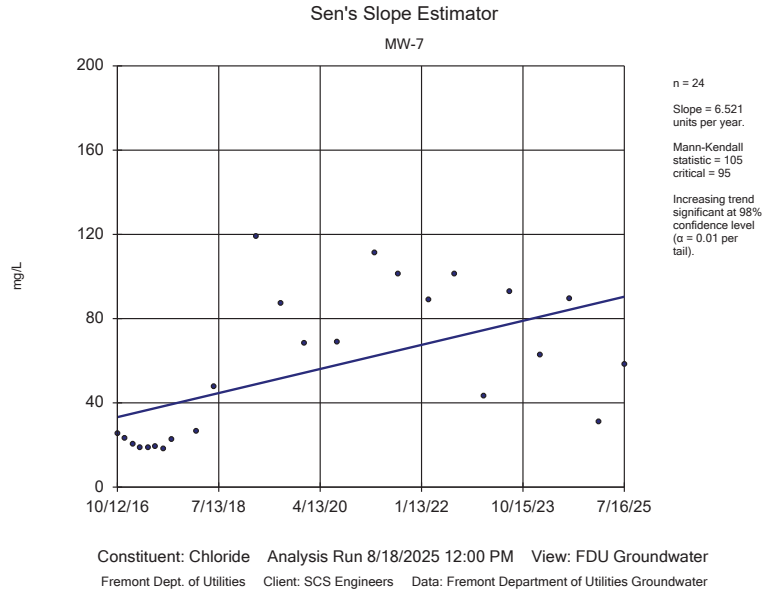
Constituent: Calcium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

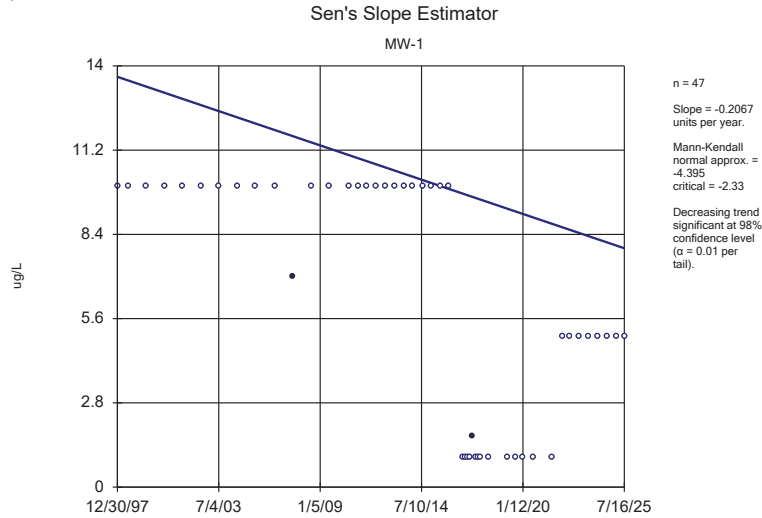




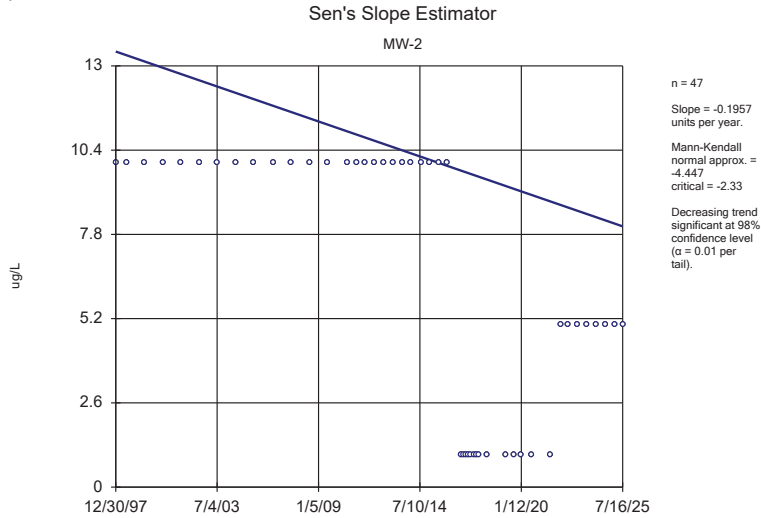




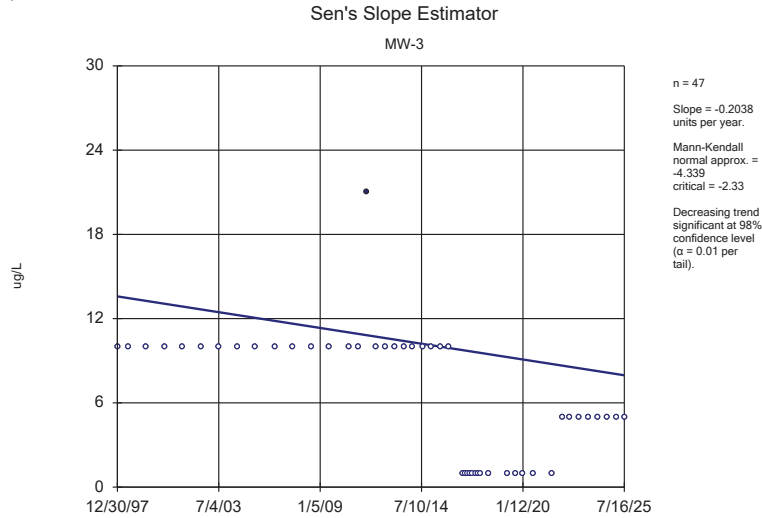




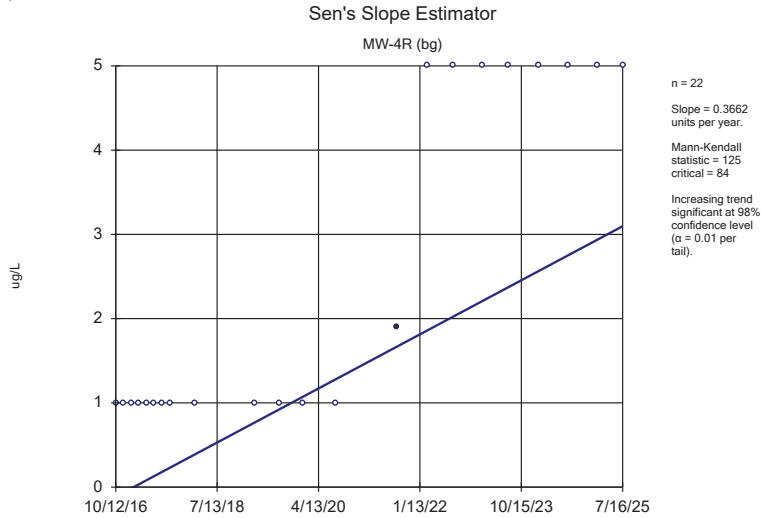
Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

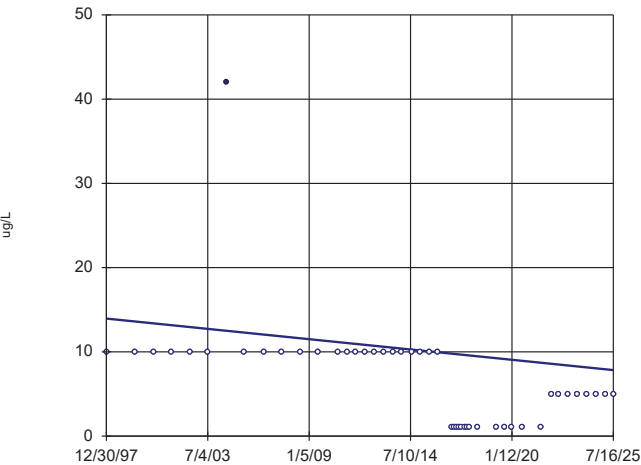


Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

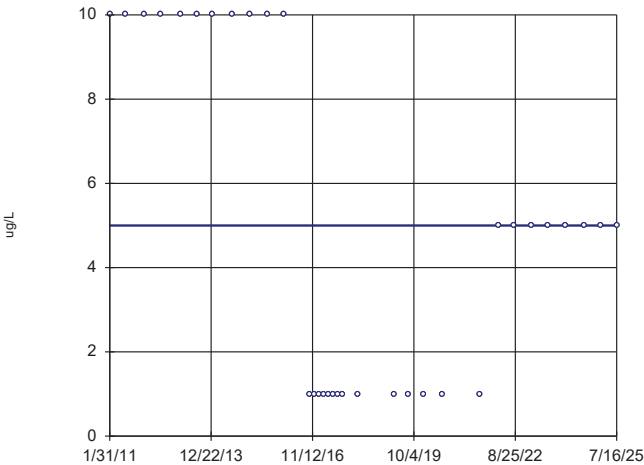
Sen's Slope Estimator
MW-5



n = 46
Slope = -0.2218
units per year.
Mann-Kendall
normal approx. =
-4.412
critical = -2.33
Decreasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-6

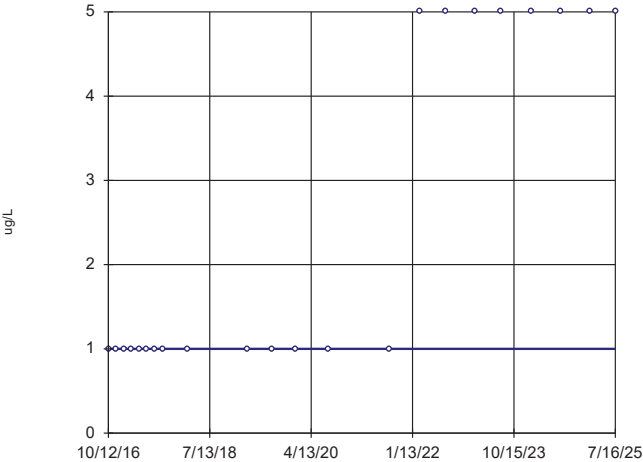


n = 33
Slope = 0
units per year.
Mann-Kendall
statistic = -130
critical = -151
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Chromium Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

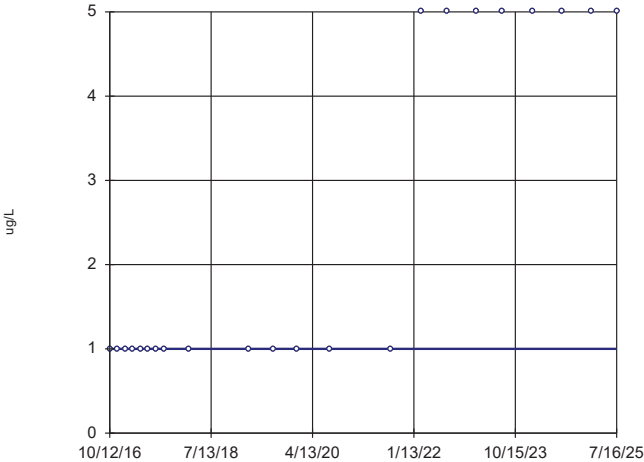
MW-7



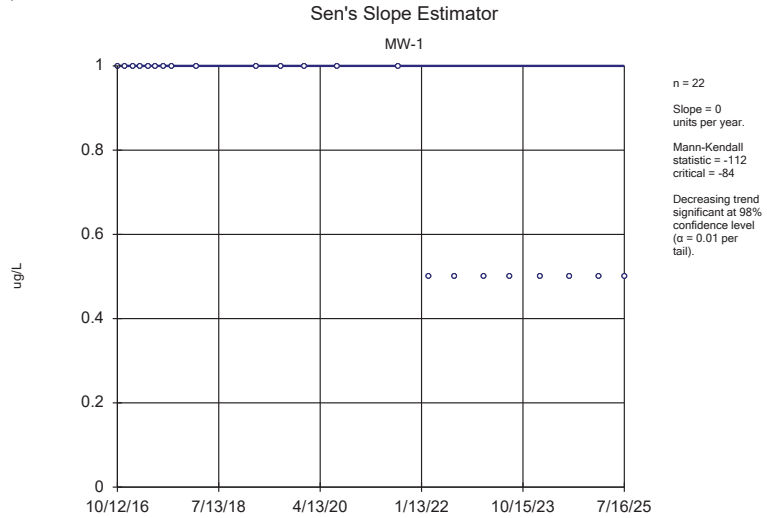
n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Sen's Slope Estimator

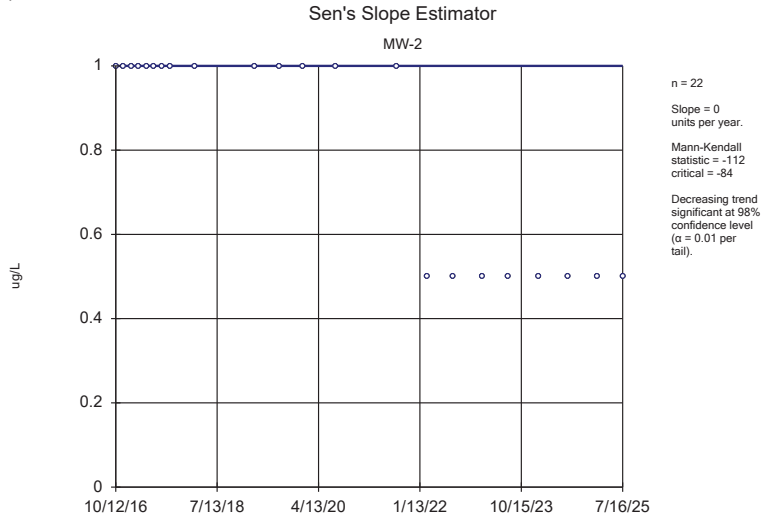
MW-8



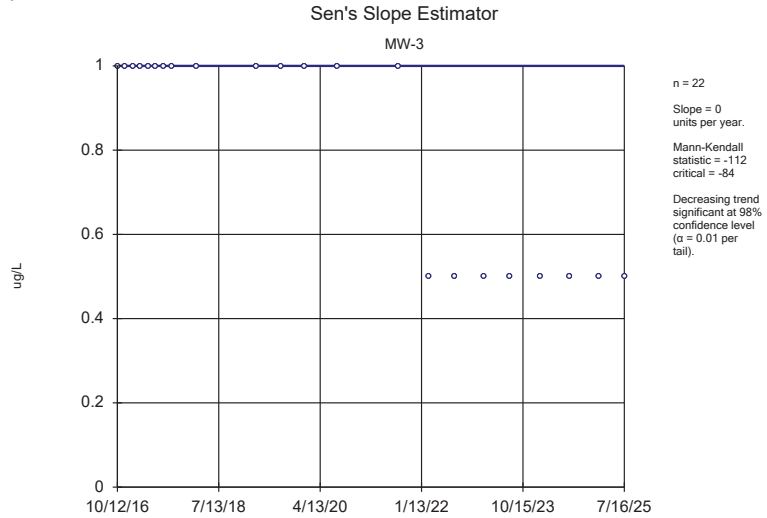
n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 112
critical = 84
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).



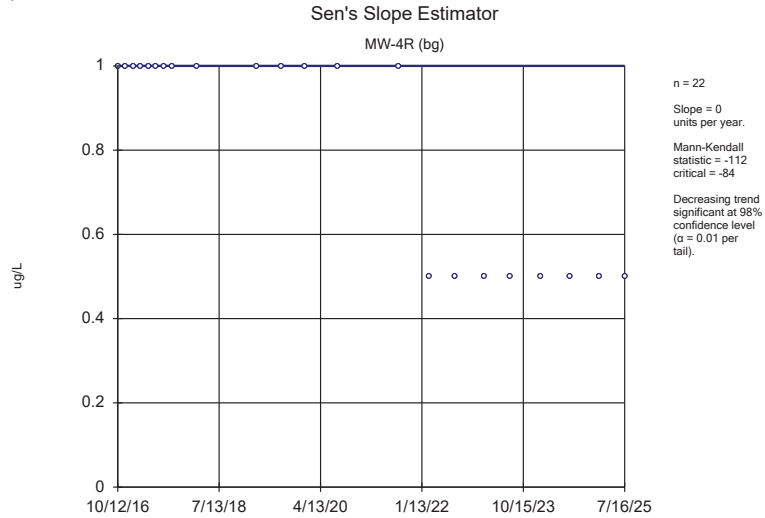
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



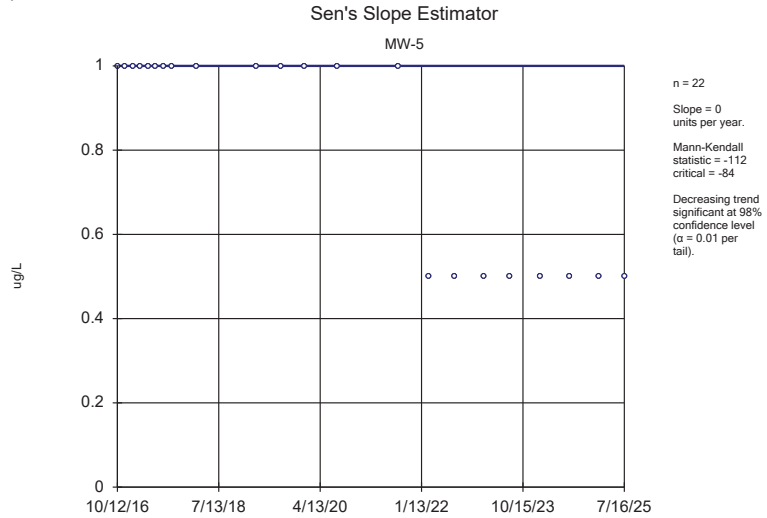
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



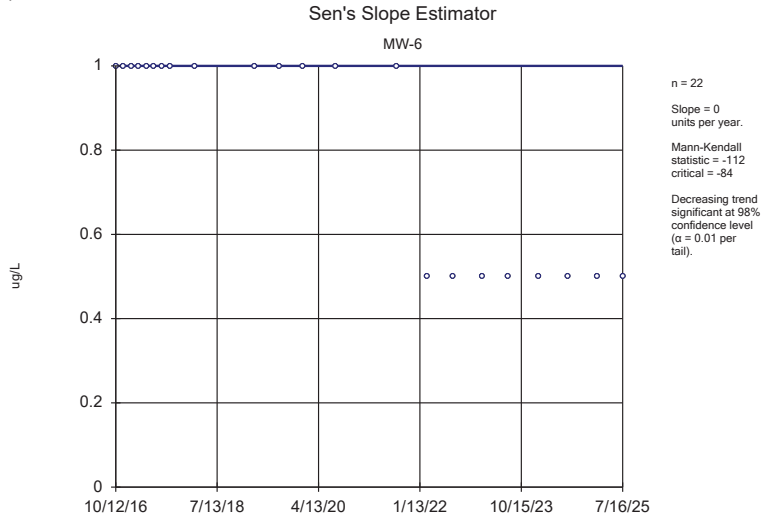
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



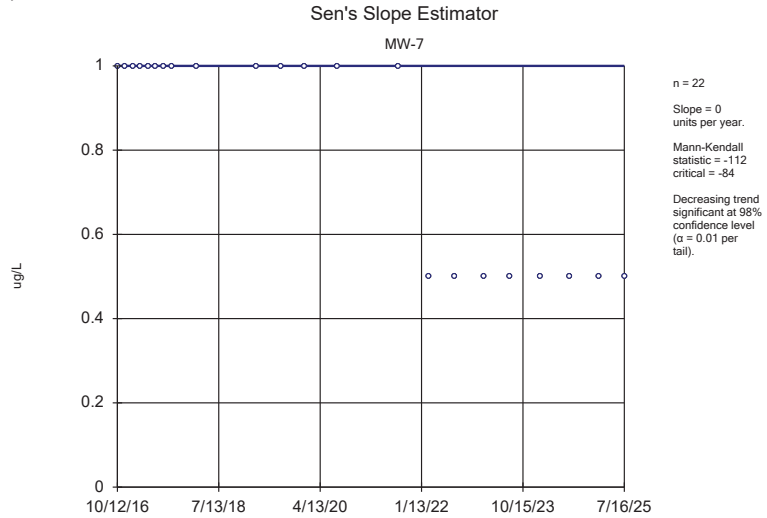
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



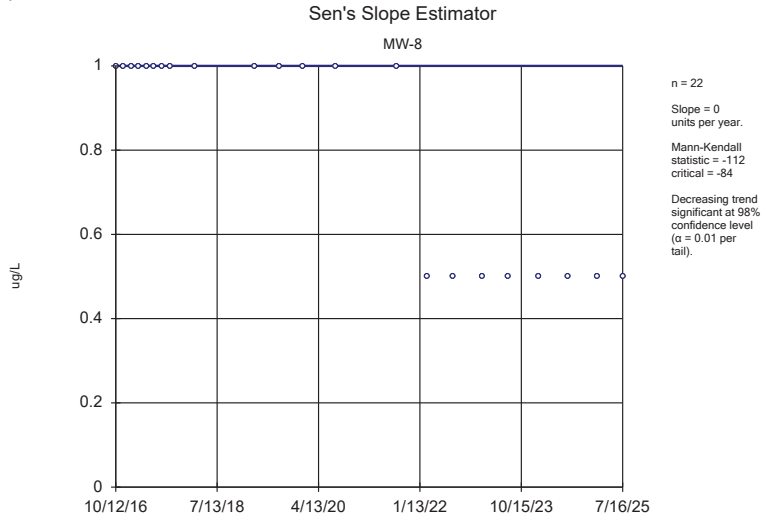
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



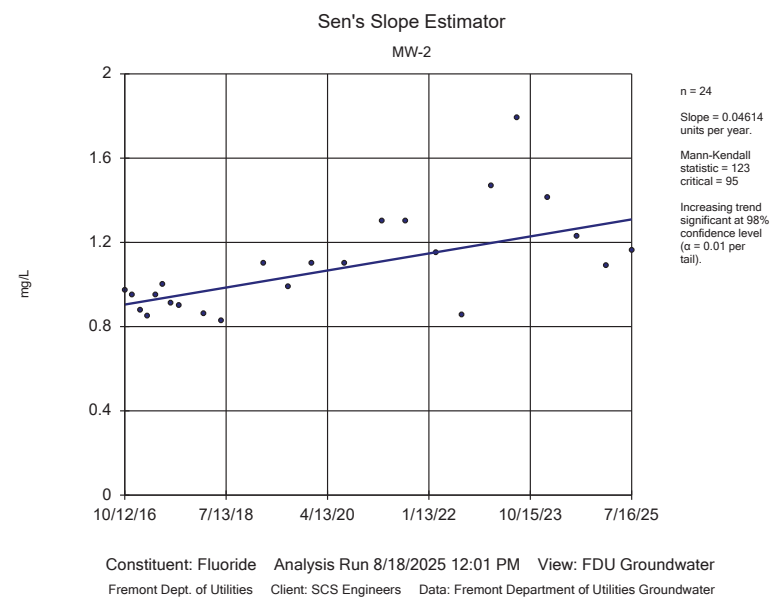
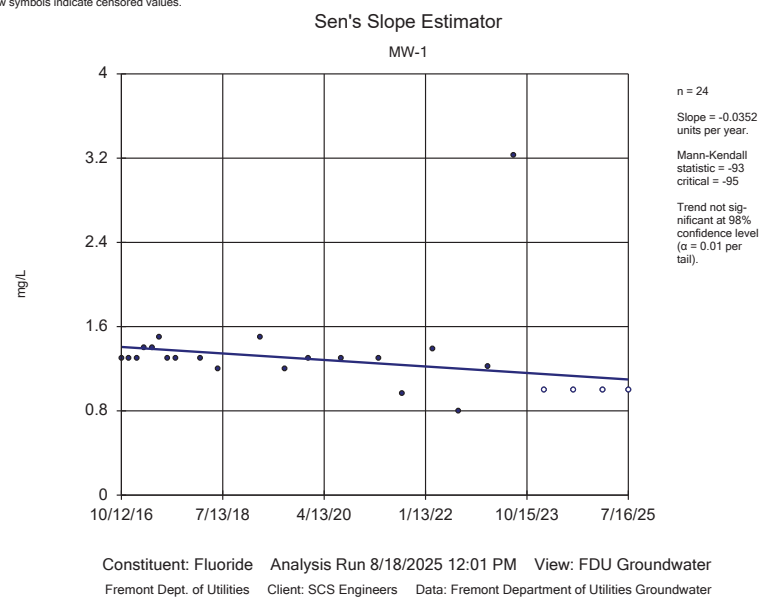
Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

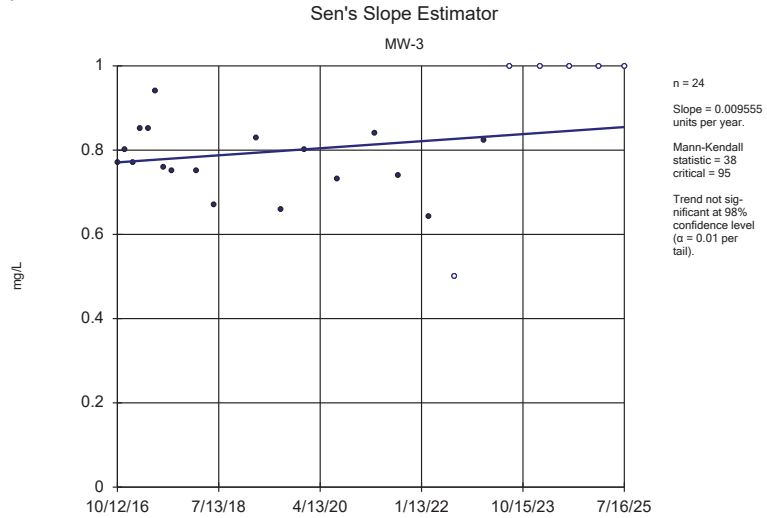


Constituent: Cobalt Analysis Run 8/18/2025 12:00 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

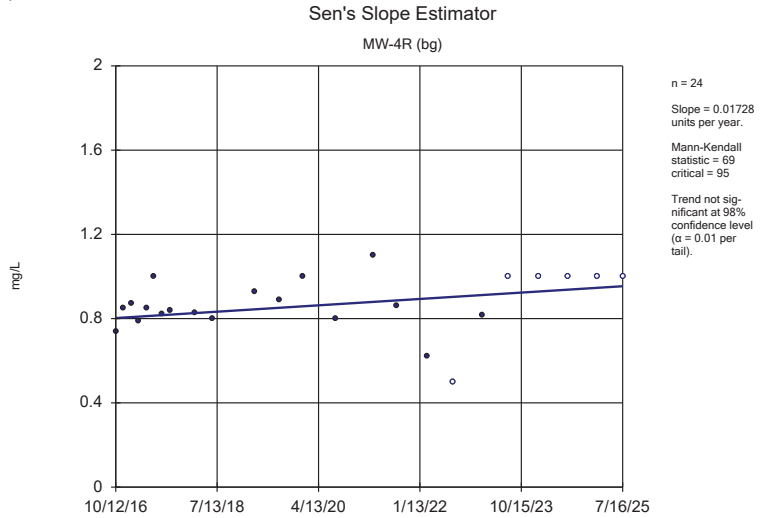


Constituent: Cobalt Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater





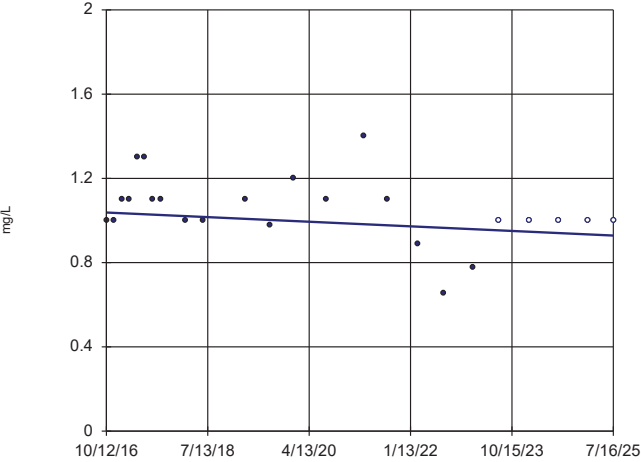
Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

MW-5

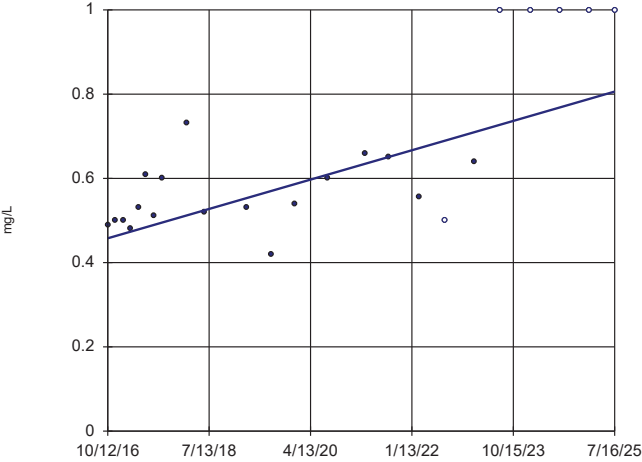


n = 24
Slope = -0.01248
units per year.
Mann-Kendall
statistic = -68
critical = -95
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

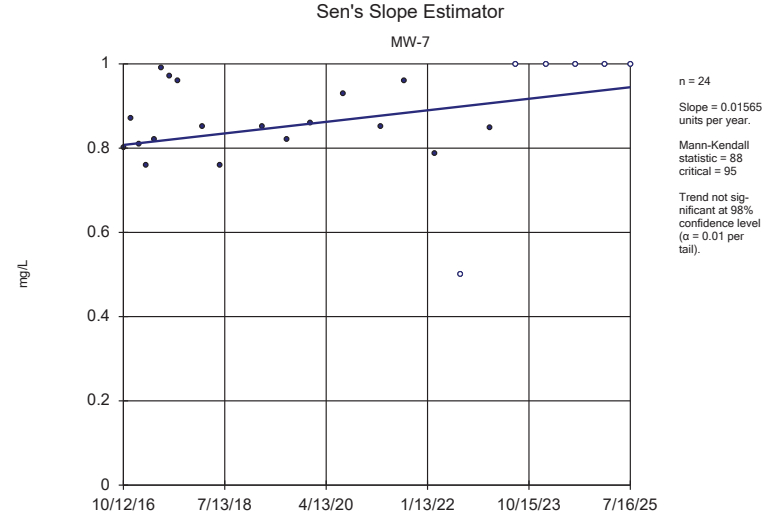
Sen's Slope Estimator

MW-6

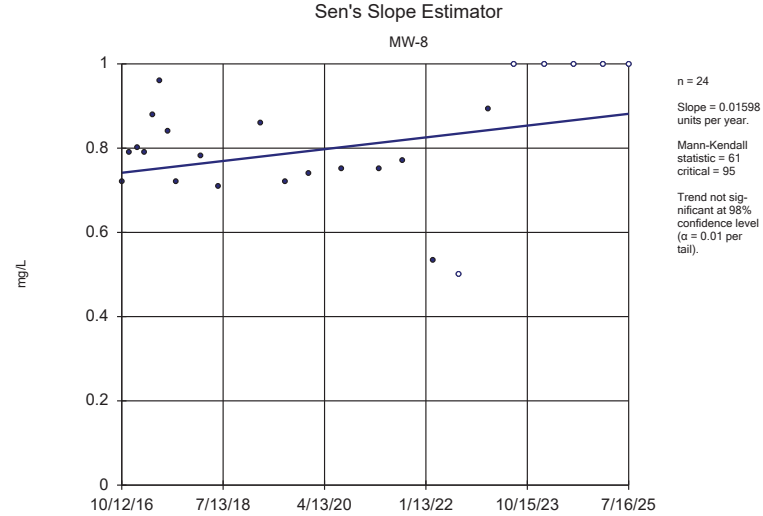


n = 24
Slope = 0.03975
units per year.
Mann-Kendall
statistic = 155
critical = 95
Increasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

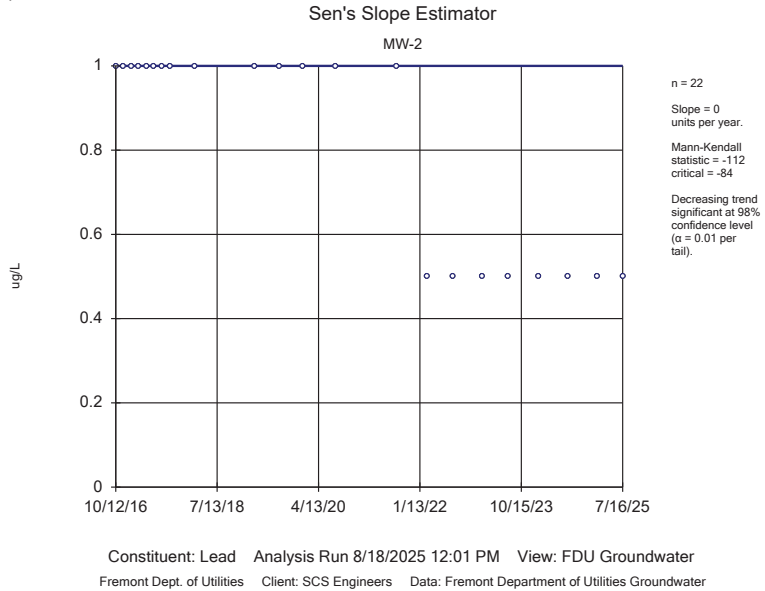
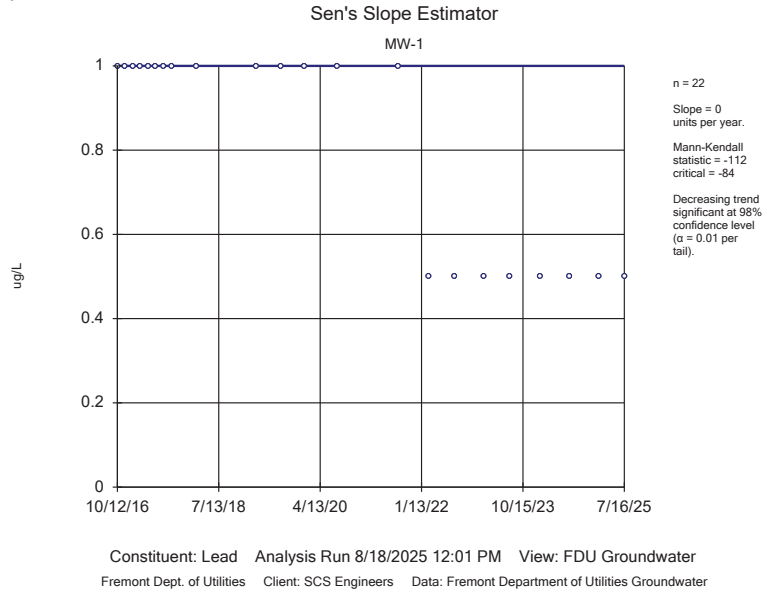
Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

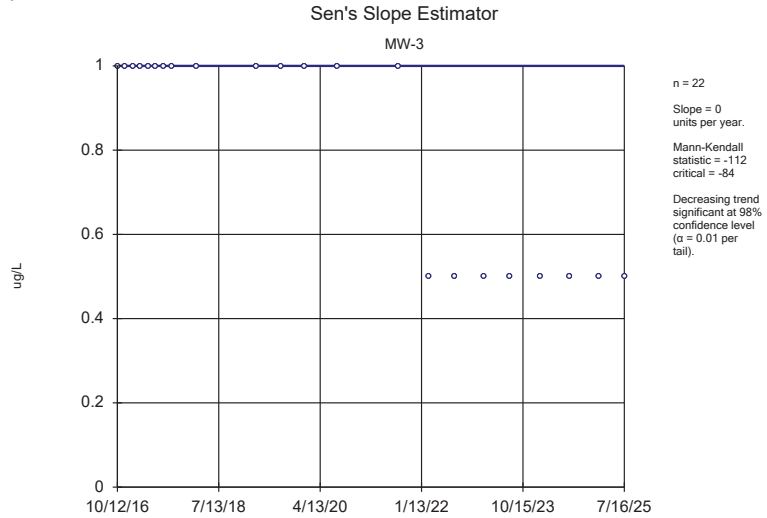


Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

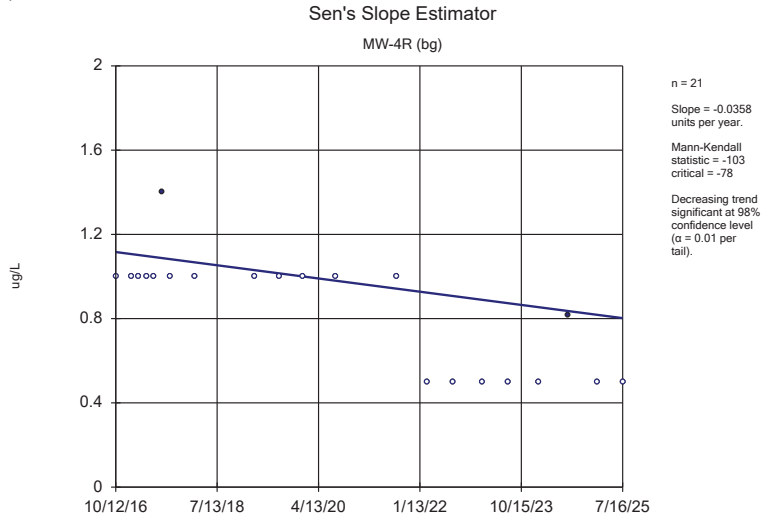


Constituent: Fluoride Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

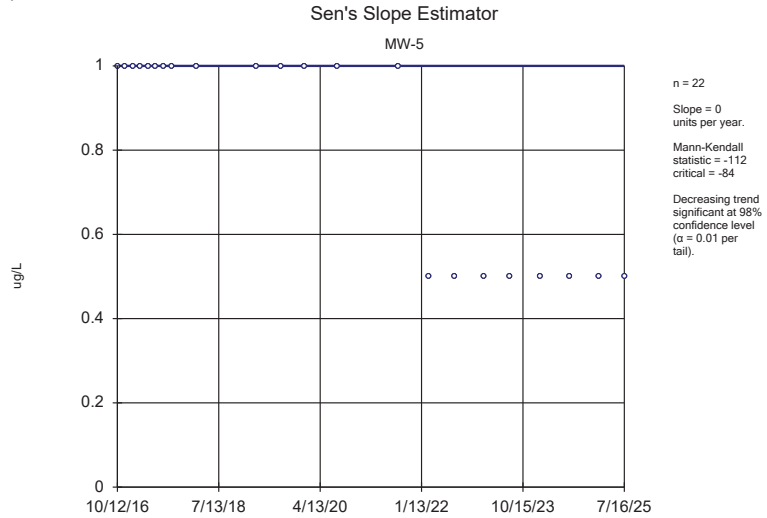




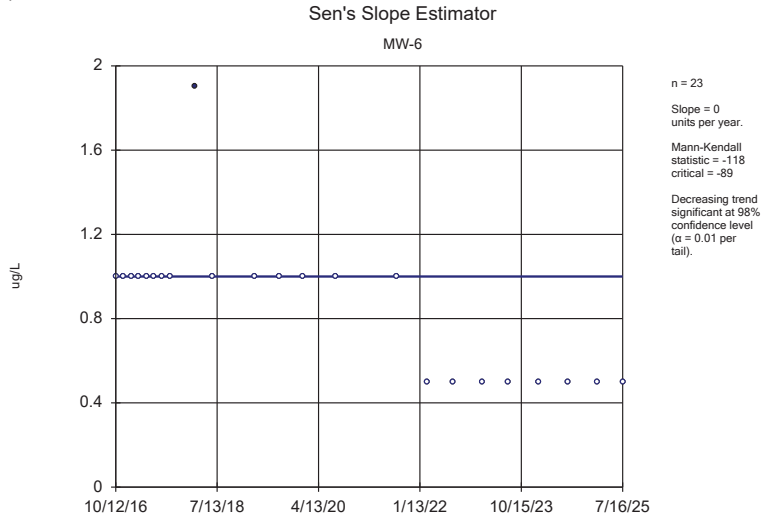
Constituent: Lead Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



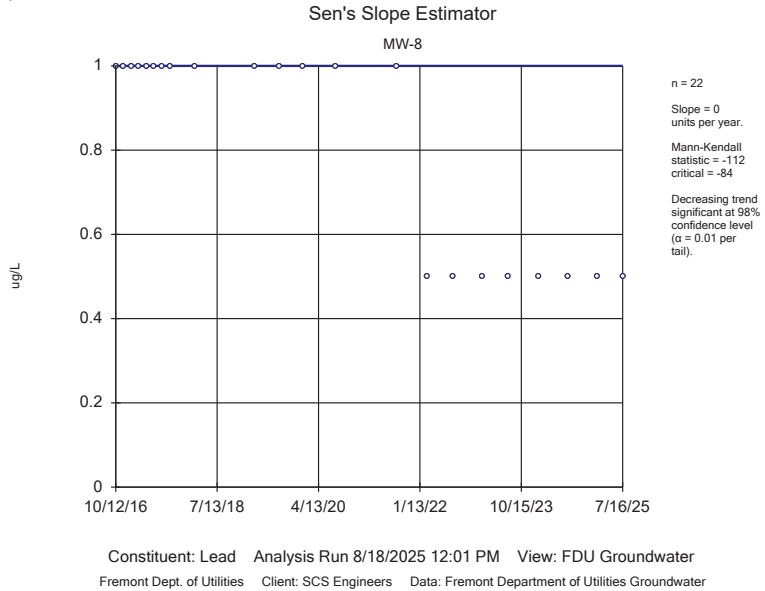
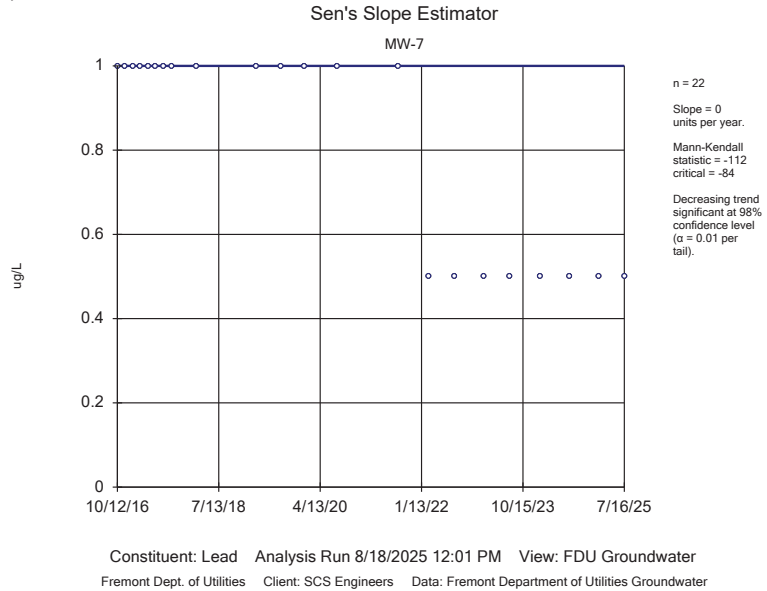
Constituent: Lead Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

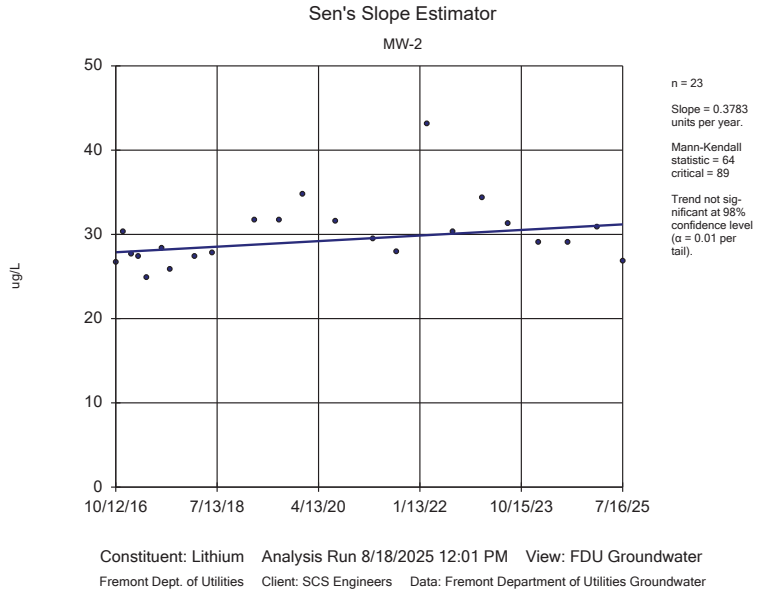
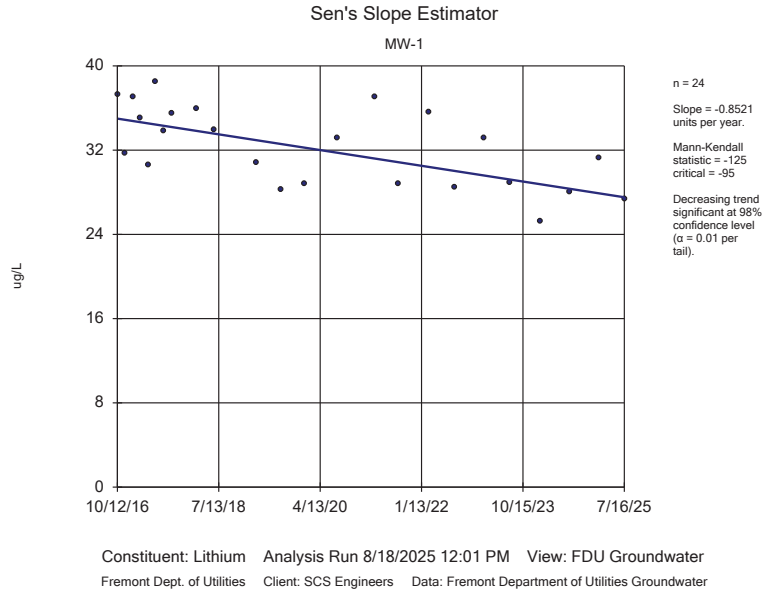


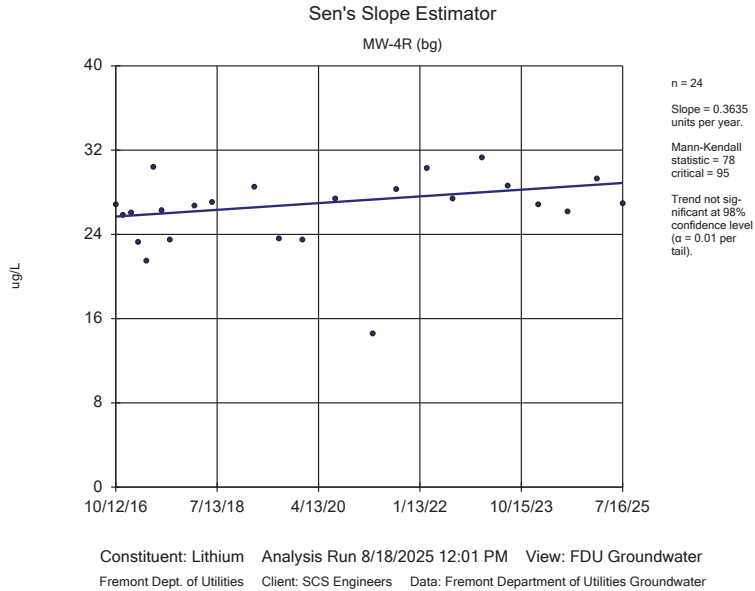
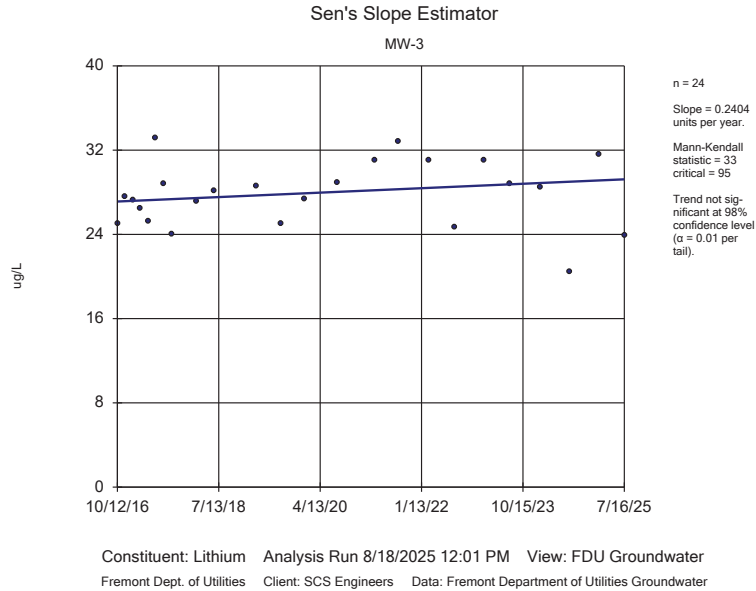
Constituent: Lead Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

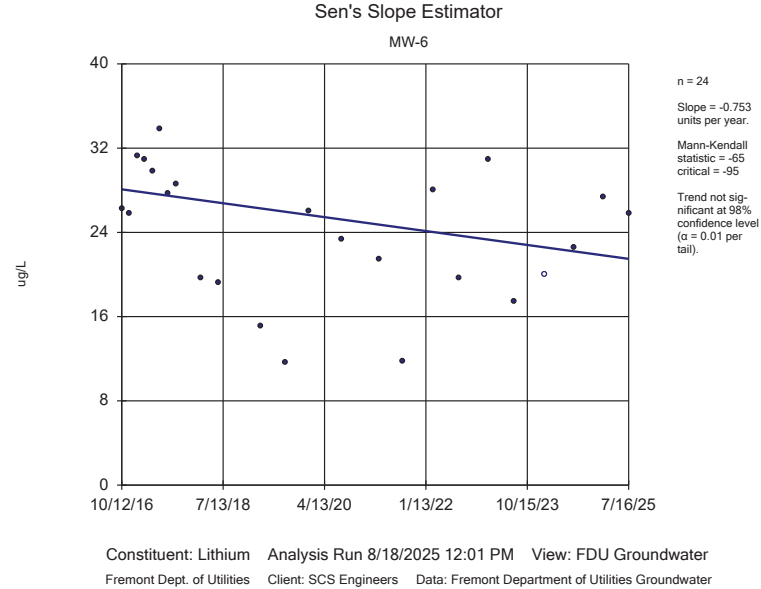
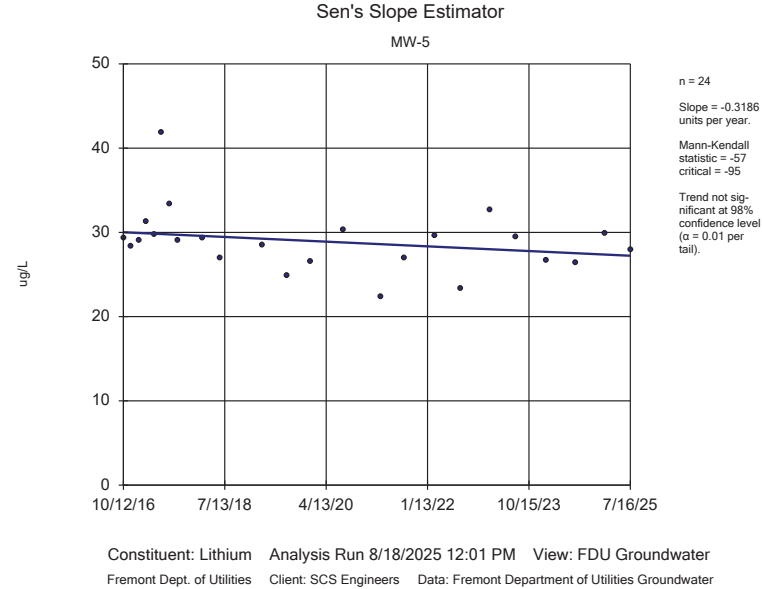


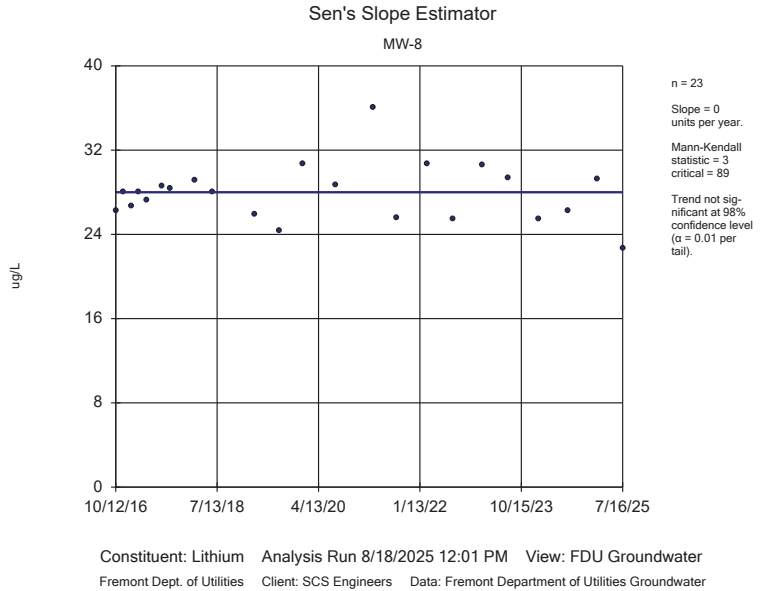
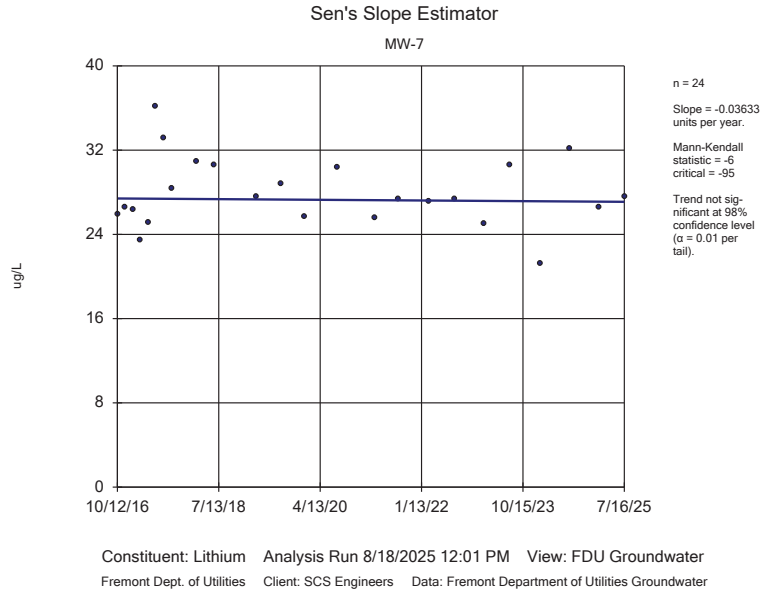
Constituent: Lead Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater





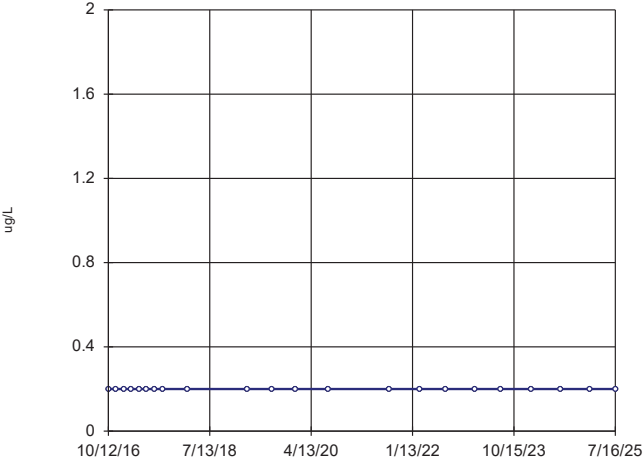






Sen's Slope Estimator

MW-1

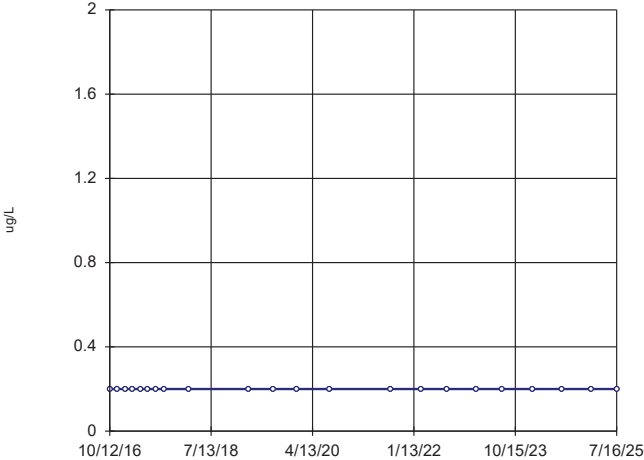


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator

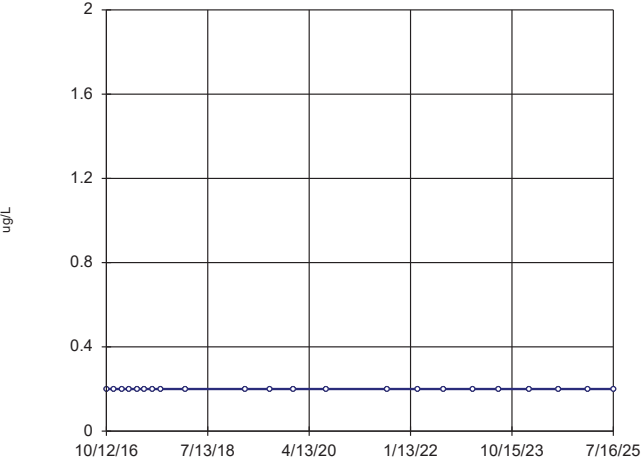
MW-2



n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

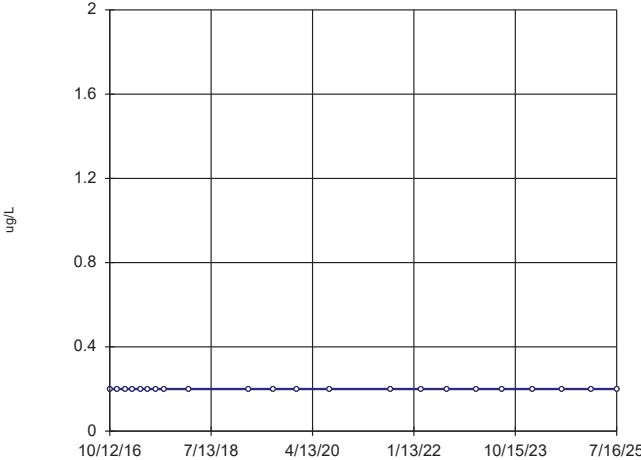
Sen's Slope Estimator
MW-3



n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

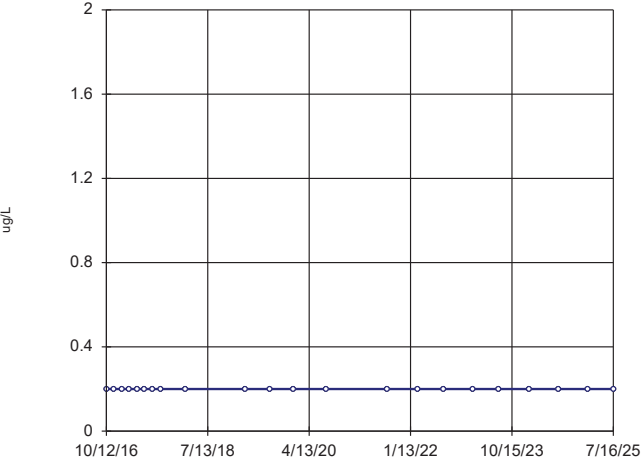
Sen's Slope Estimator
MW-4R (bg)



n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

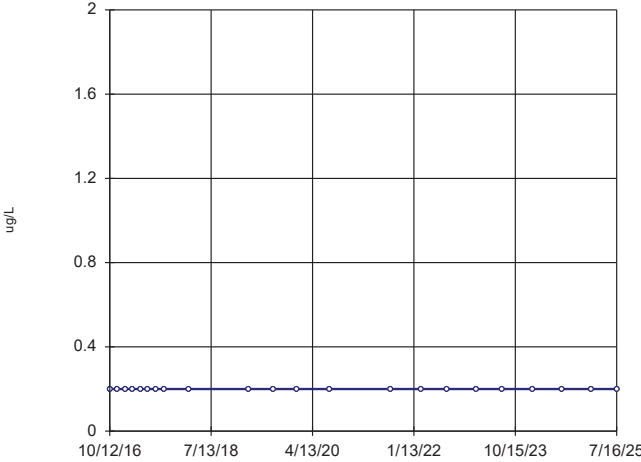
Sen's Slope Estimator
MW-5



n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

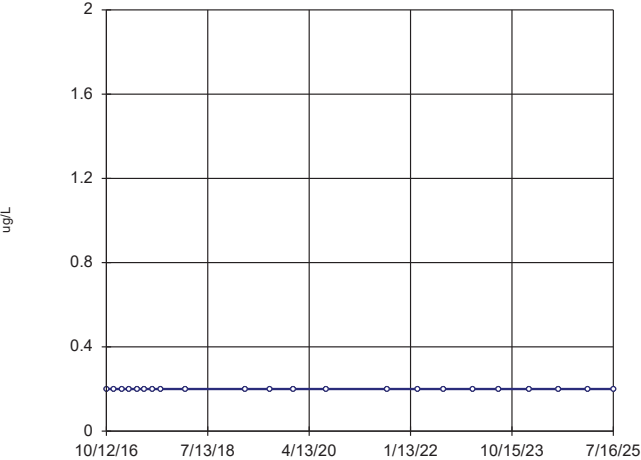
Sen's Slope Estimator
MW-6

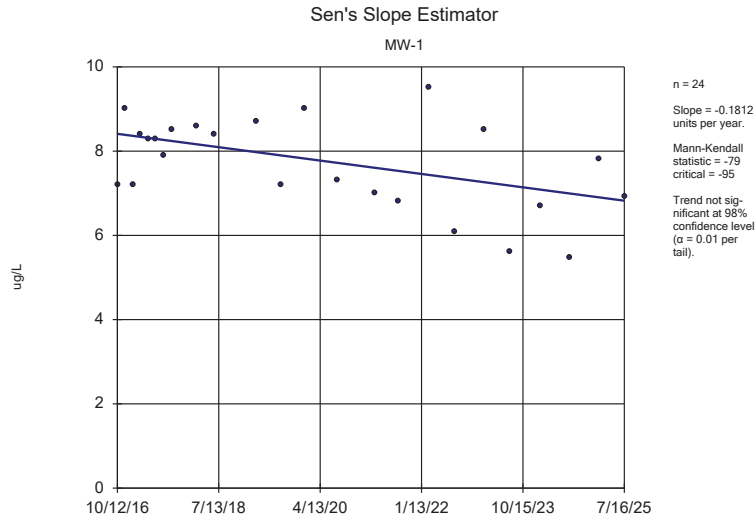


n = 22
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 84
Trend not sig-
nificant at 98%
confidence level
($\alpha = 0.01$ per
tail).

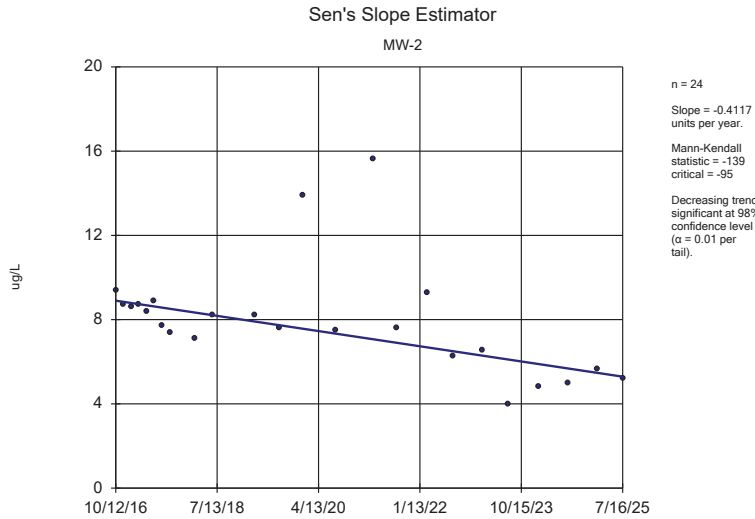
Constituent: Mercury Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-7

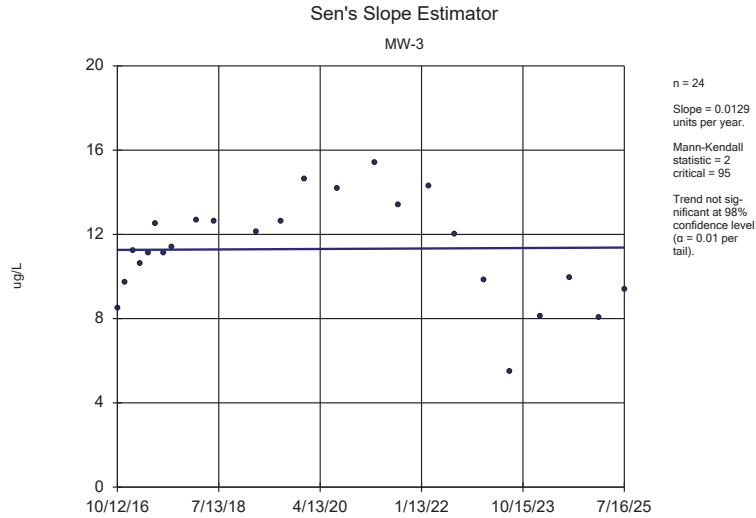




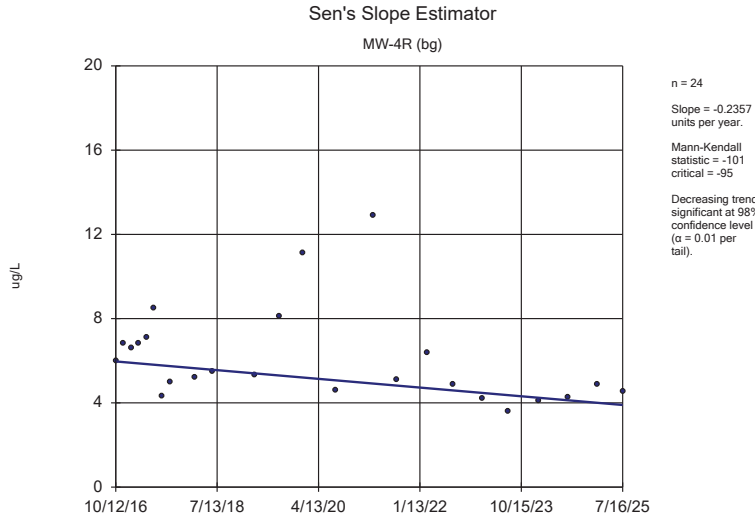
Constituent: Molybdenum Analysis Run 8/18/2025 12:01 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



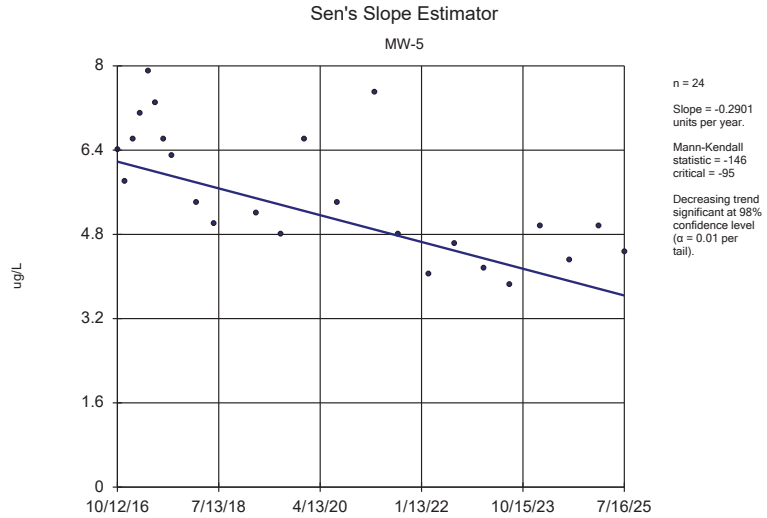
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



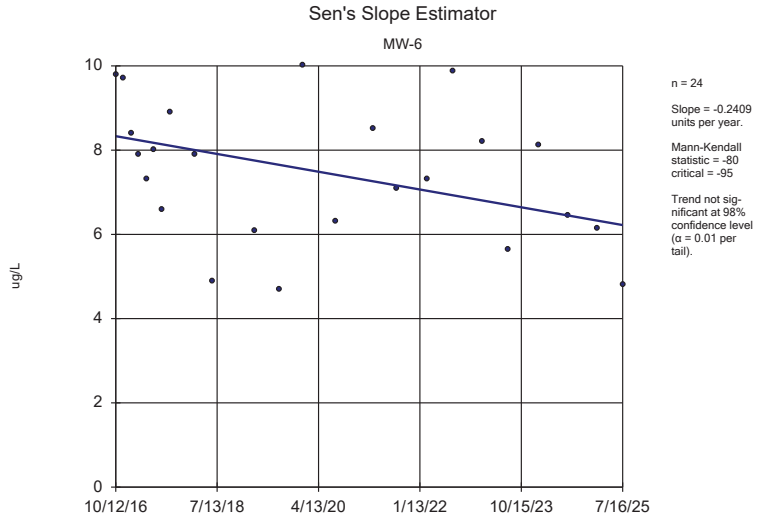
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



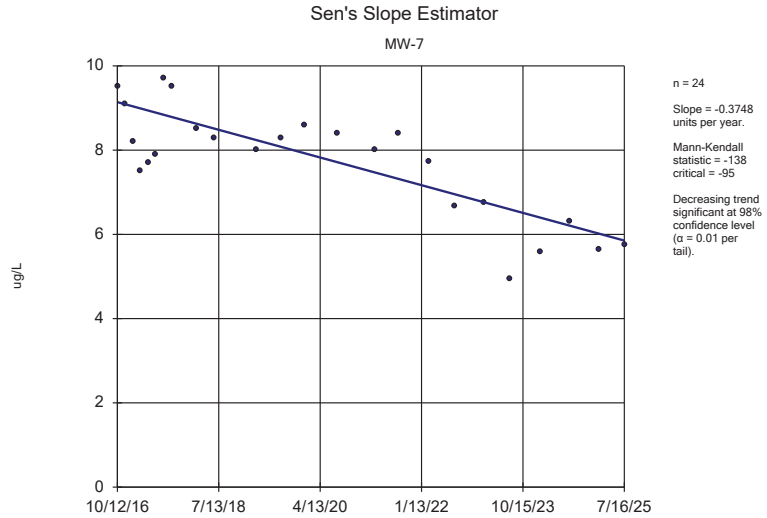
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



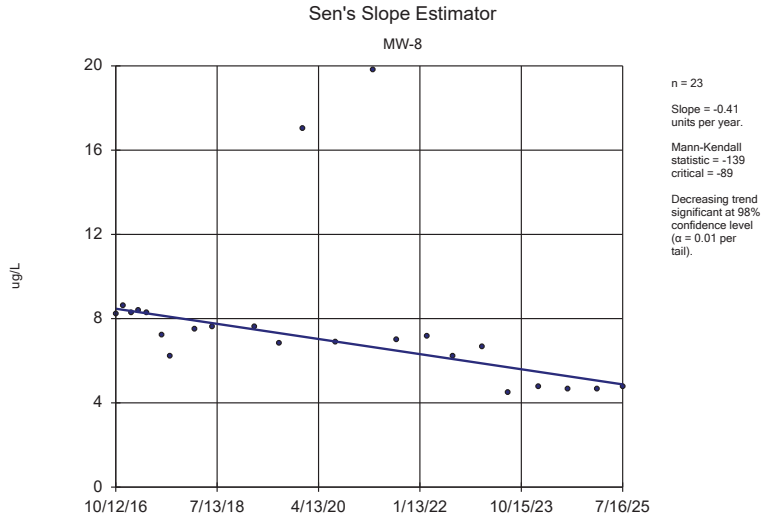
Constituent: Molybdenum Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



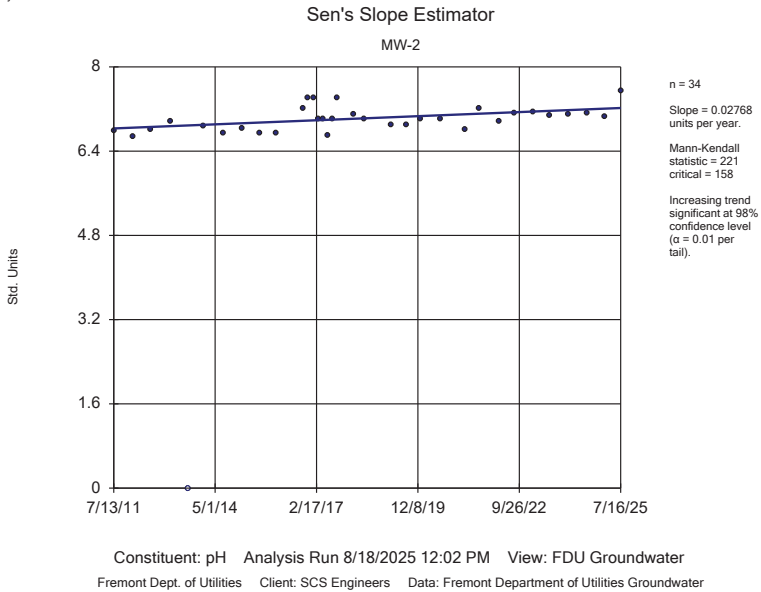
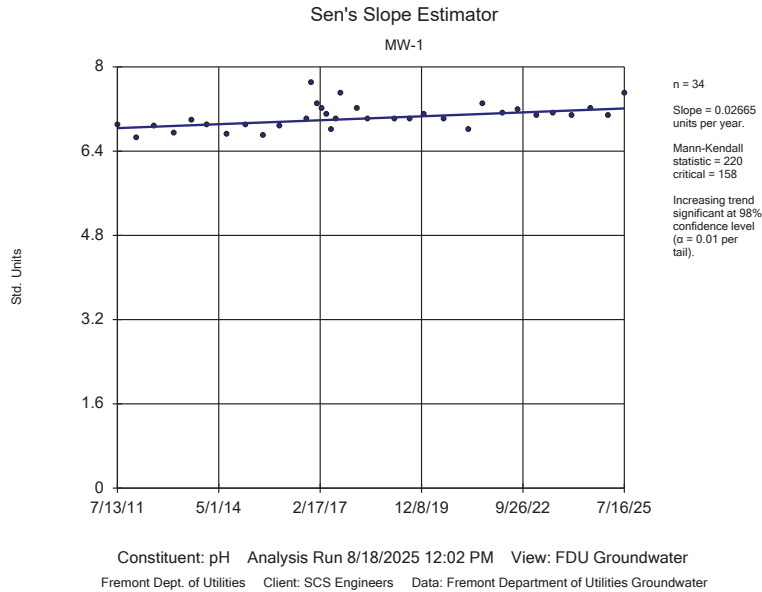
Constituent: Molybdenum Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

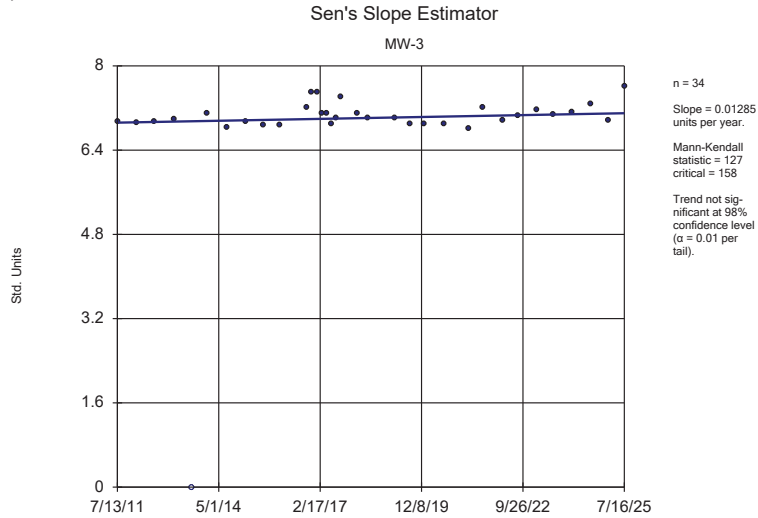


Constituent: Molybdenum Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

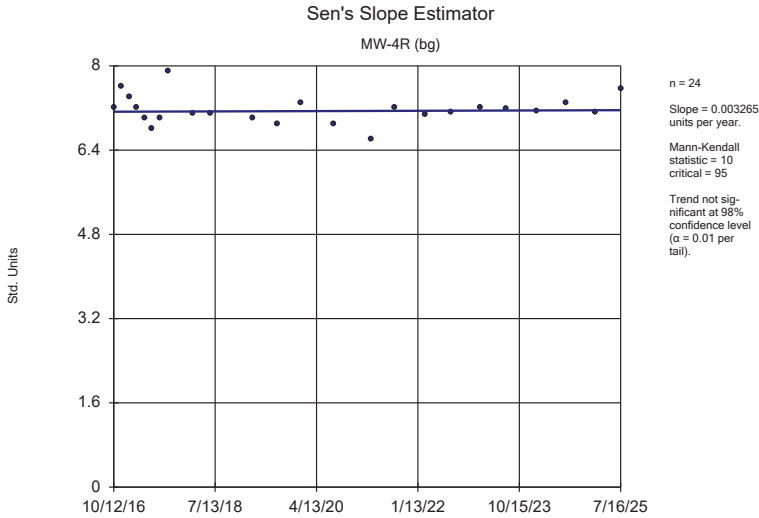


Constituent: Molybdenum Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

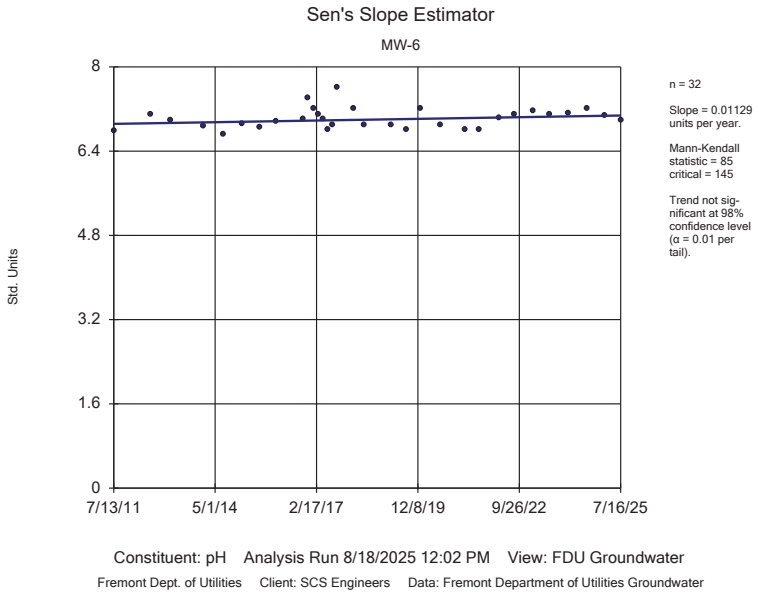
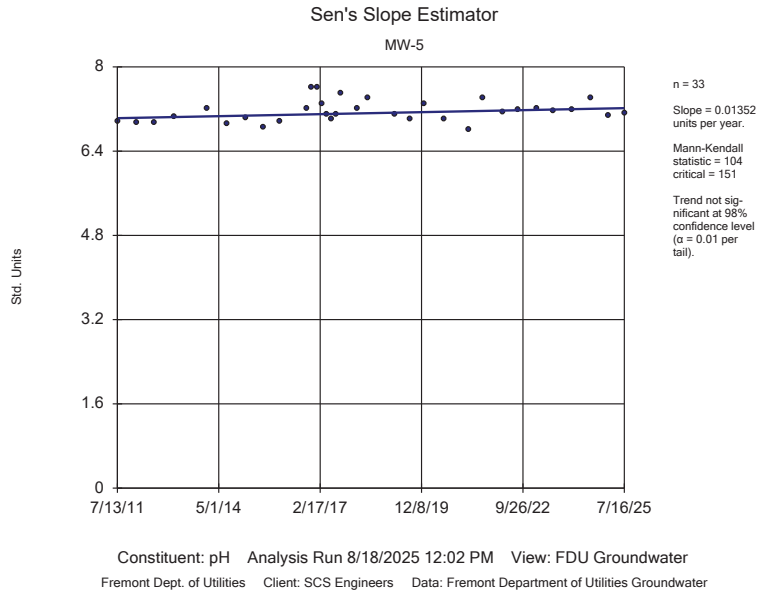


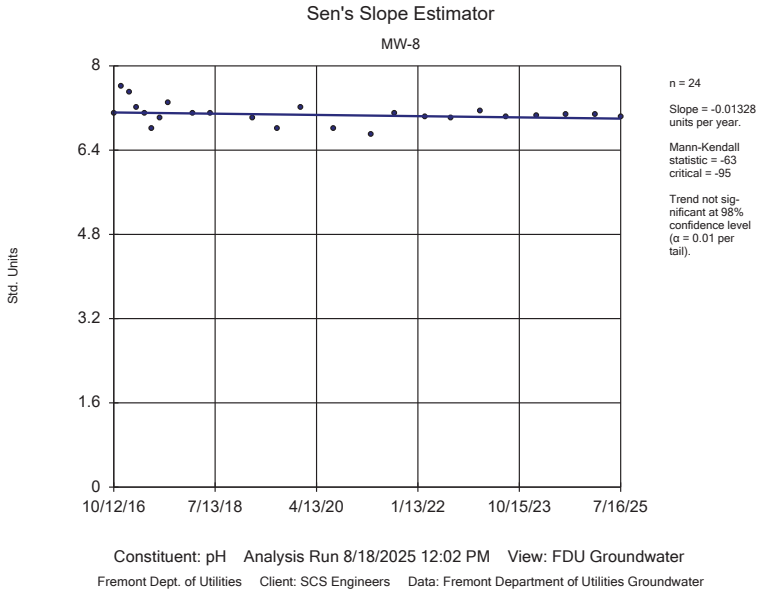
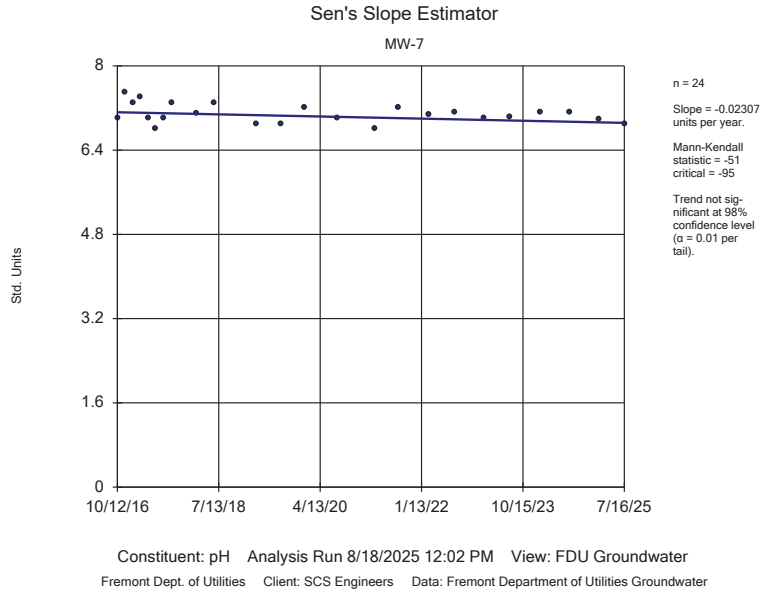


Constituent: pH Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



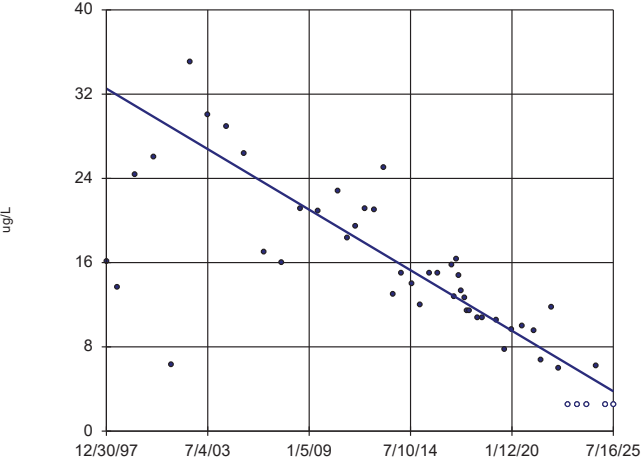
Constituent: pH Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater





Sen's Slope Estimator

MW-1

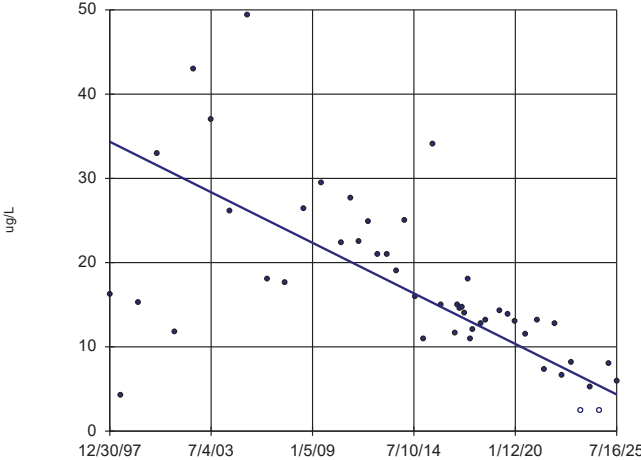


n = 49
Slope = -1.043
units per year.
Mann-Kendall
normal approx. =
-7.091
critical = -2.33
Decreasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

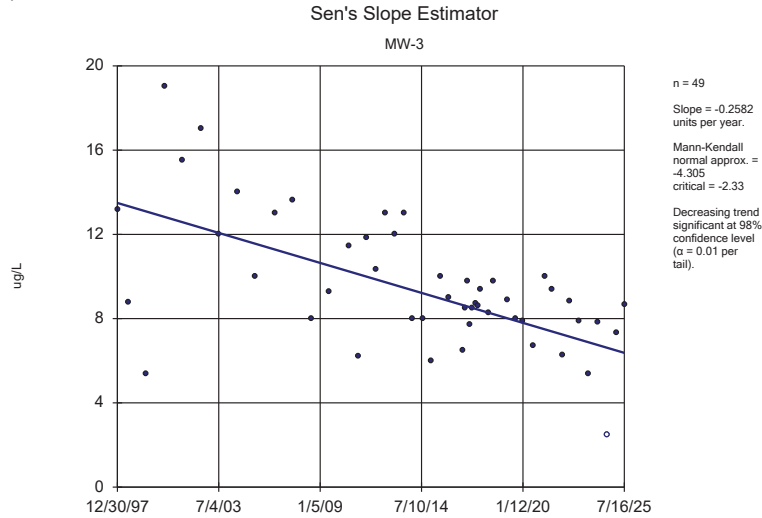
Sen's Slope Estimator

MW-2

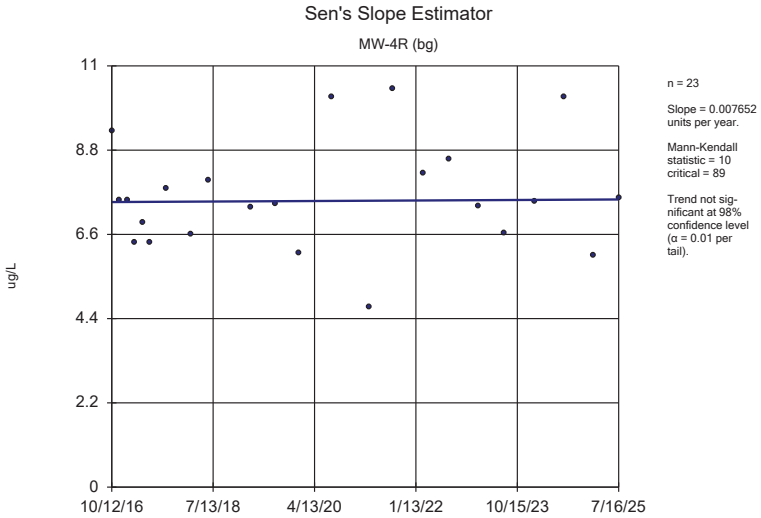


n = 49
Slope = -1.089
units per year.
Mann-Kendall
normal approx. =
-5.777
critical = -2.33
Decreasing trend
significant at 98%
confidence level
($\alpha = 0.01$ per
tail).

Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

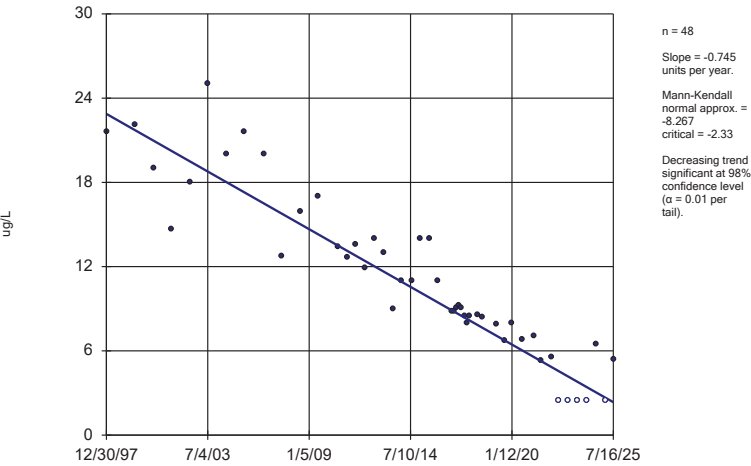


Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



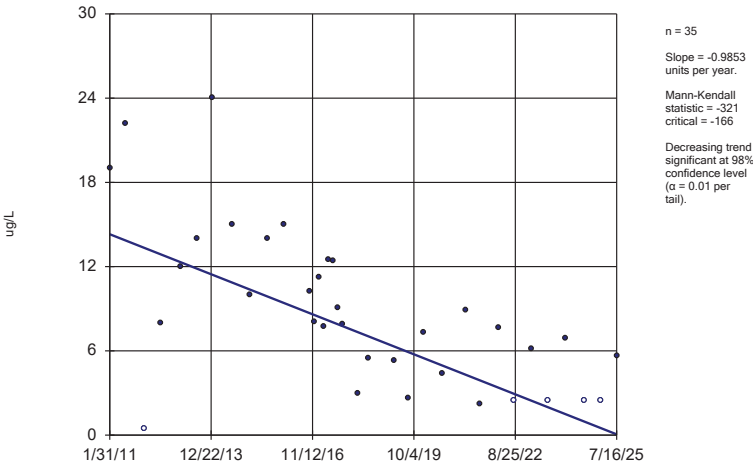
Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-5

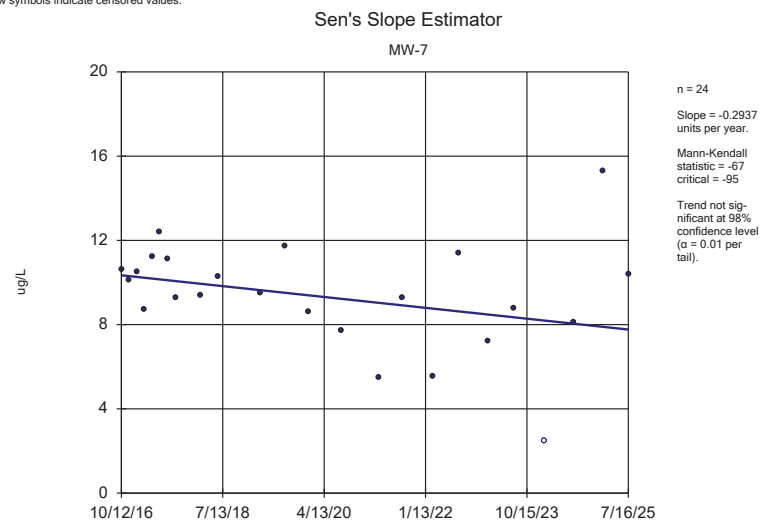


Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

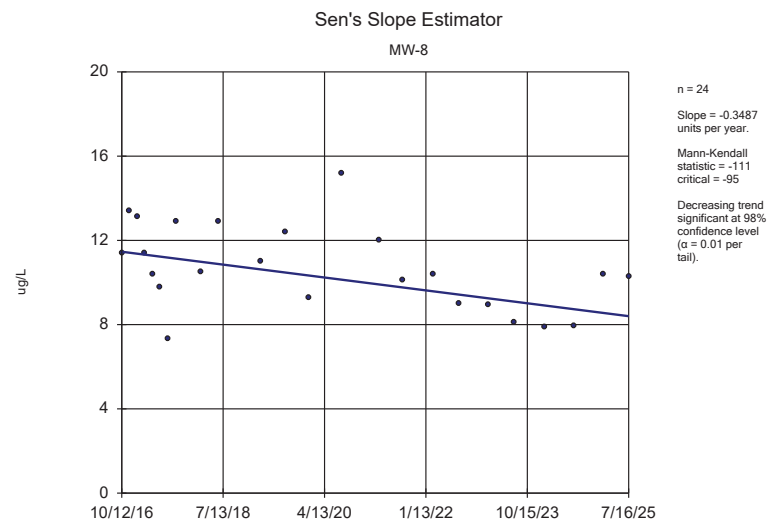
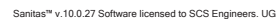
Sen's Slope Estimator
MW-6



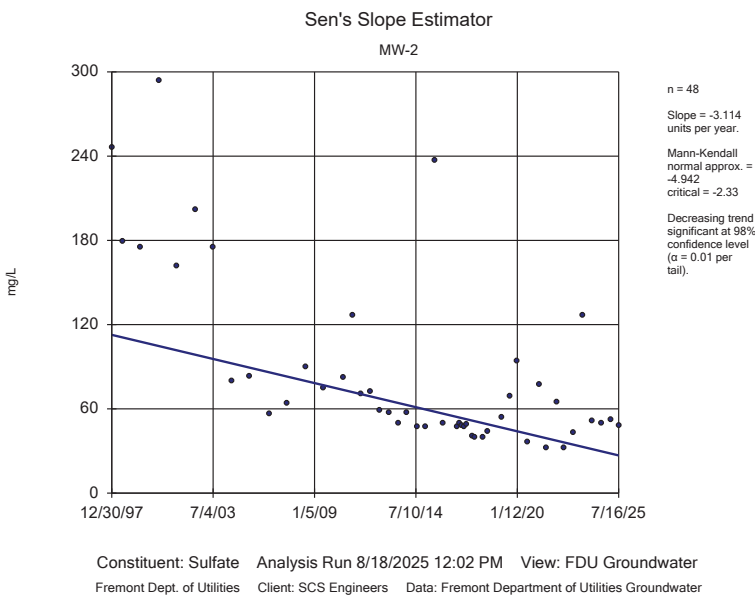
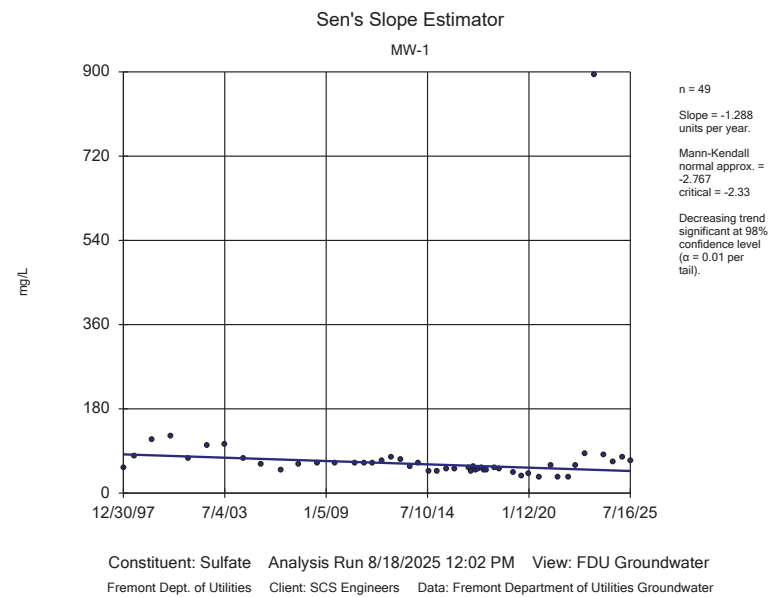
Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

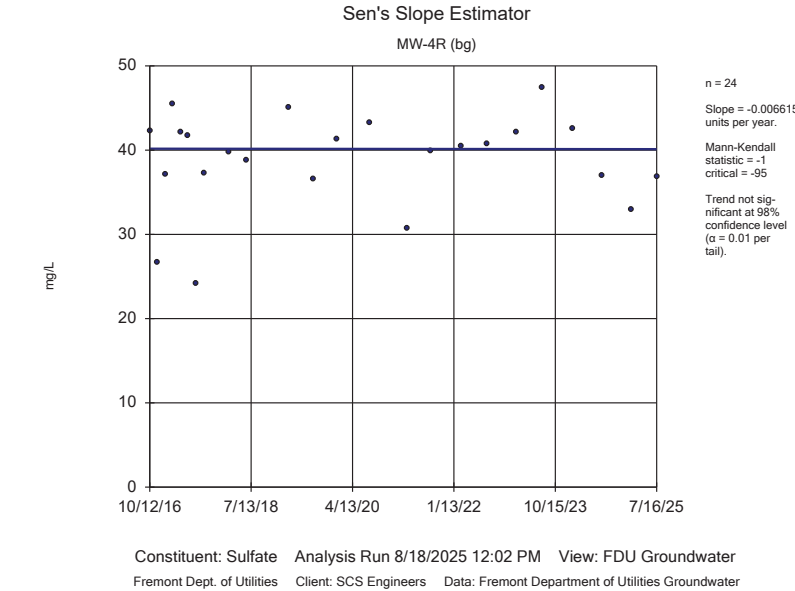
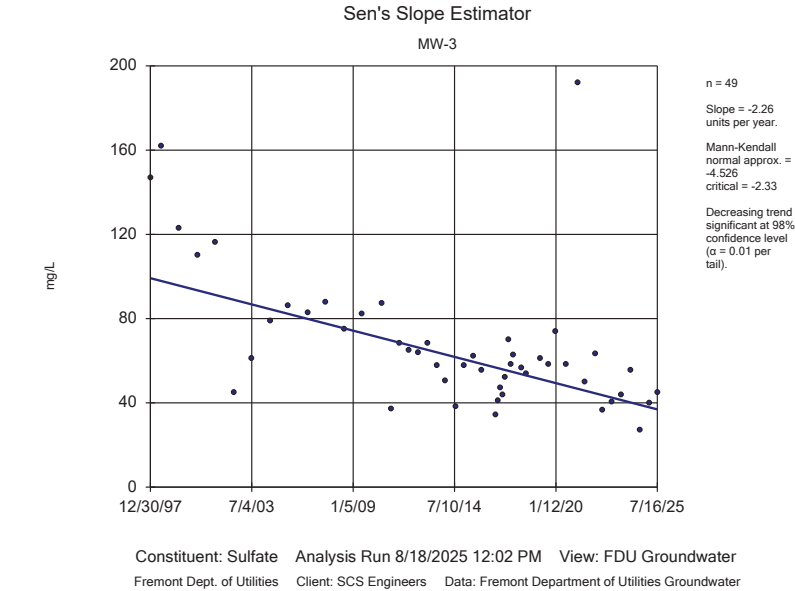


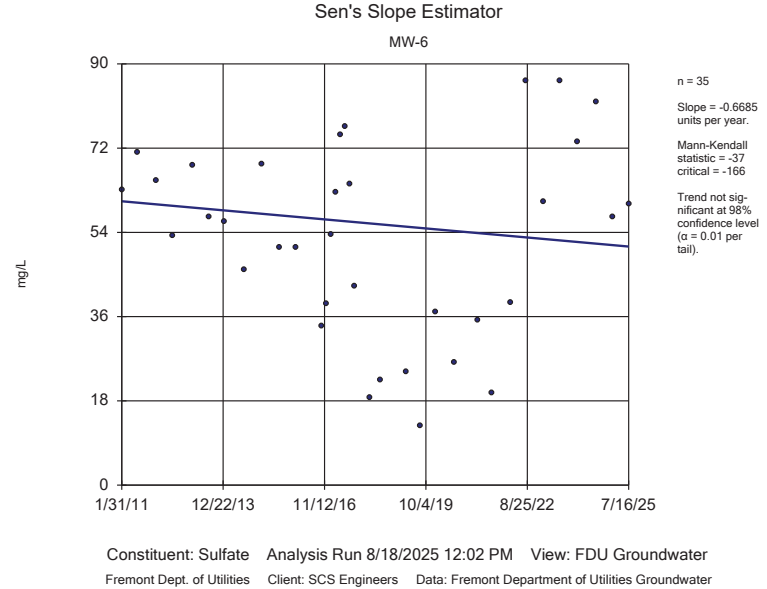
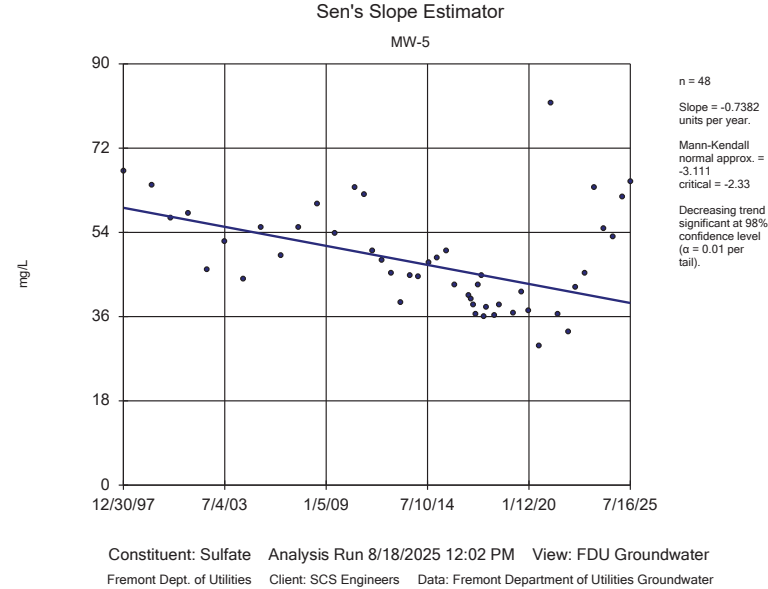
Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

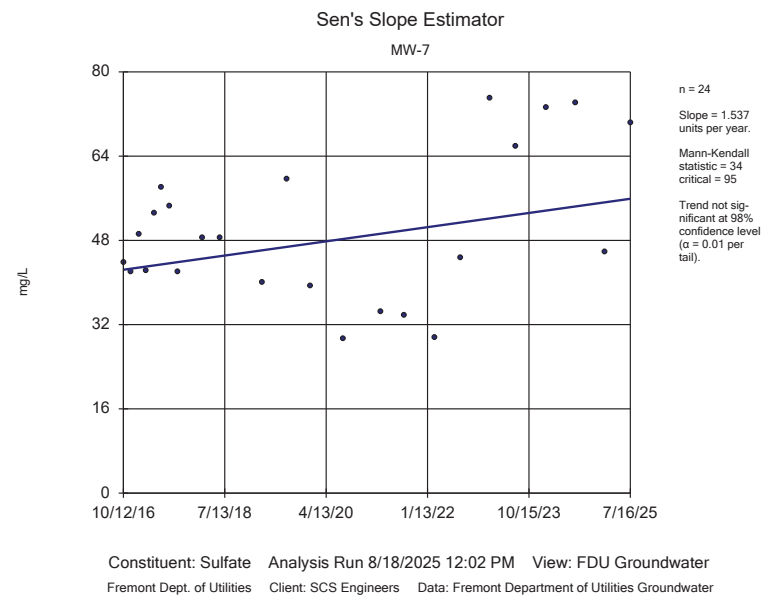


Constituent: Selenium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



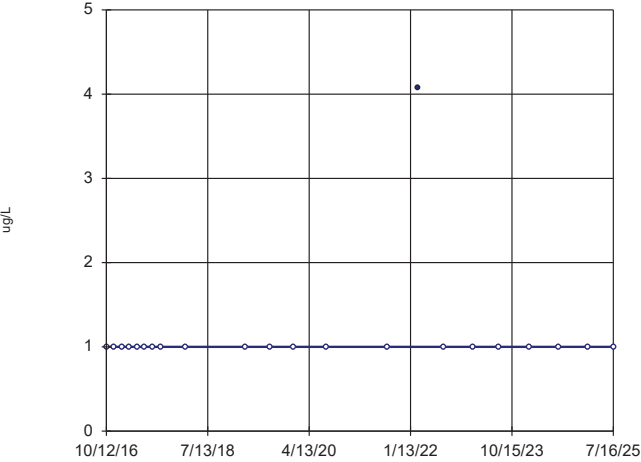




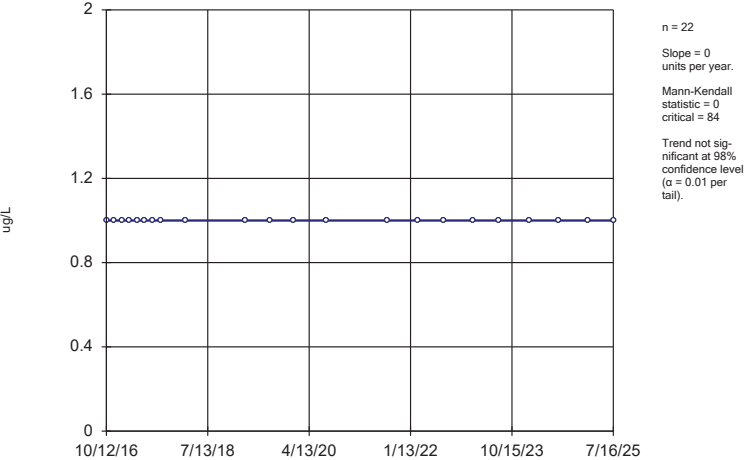


Sen's Slope Estimator

MW-1

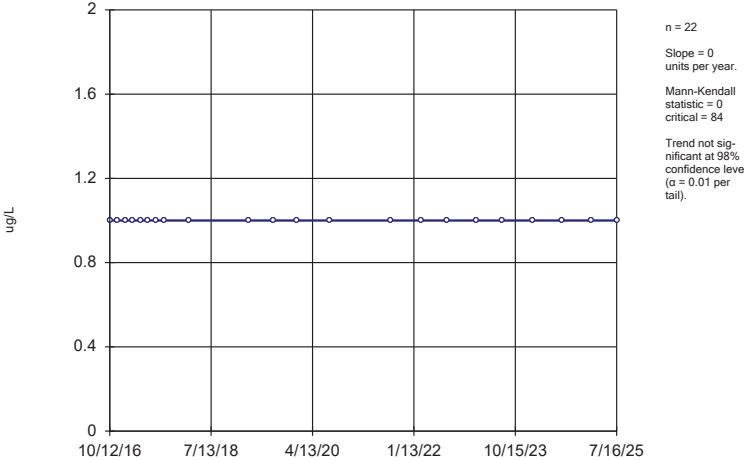


Sen's Slope Estimator
MW-3



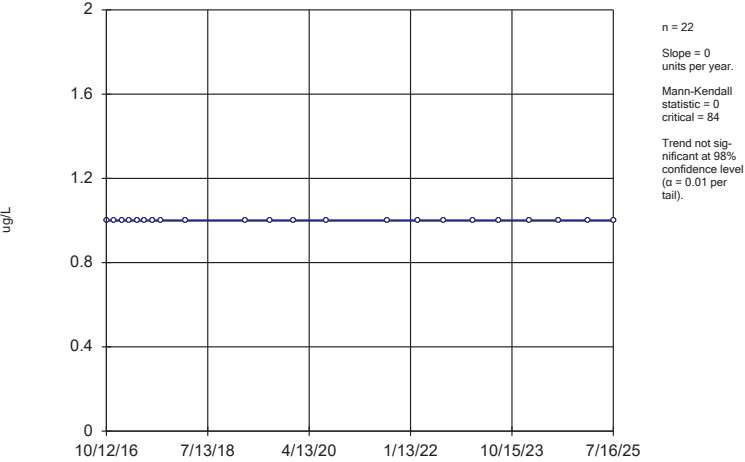
Constituent: Thallium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-4R (bg)



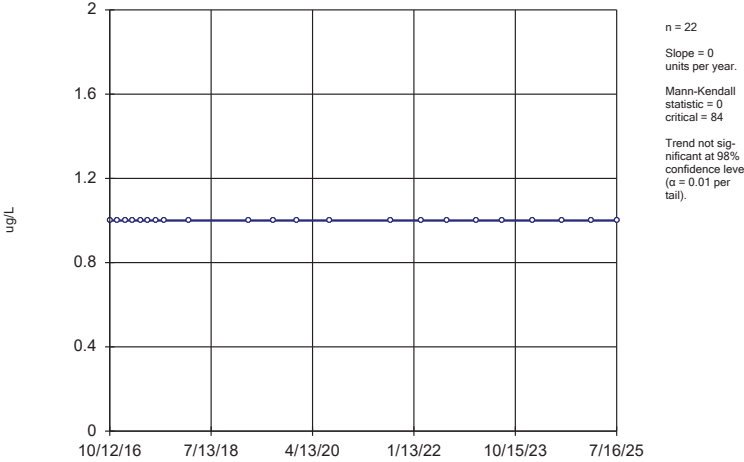
Constituent: Thallium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-5



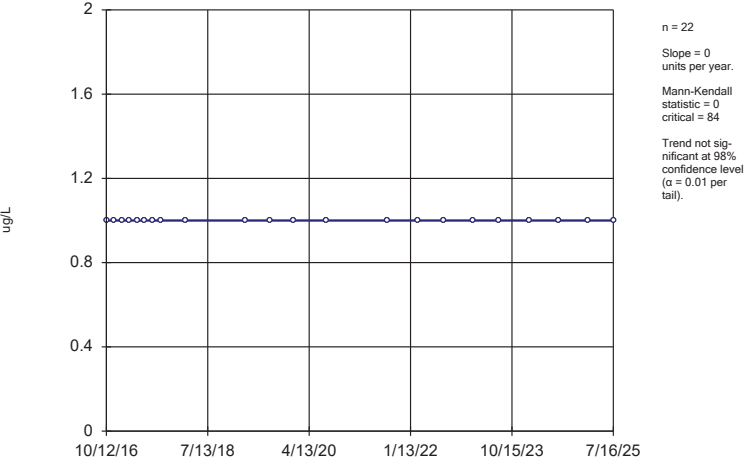
Constituent: Thallium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-6



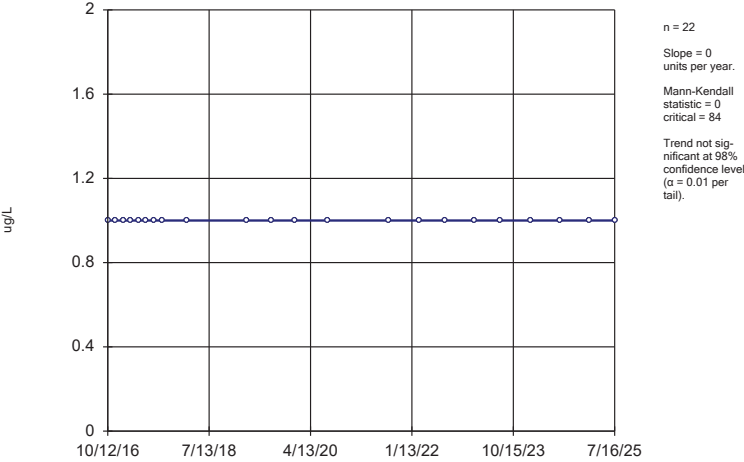
Constituent: Thallium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Sen's Slope Estimator
MW-7

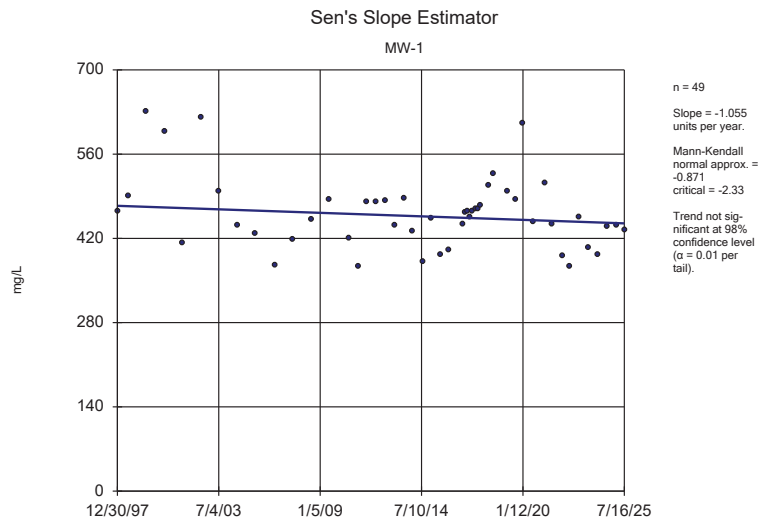


Constituent: Thallium Analysis Run 8/18/2025 12:02 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

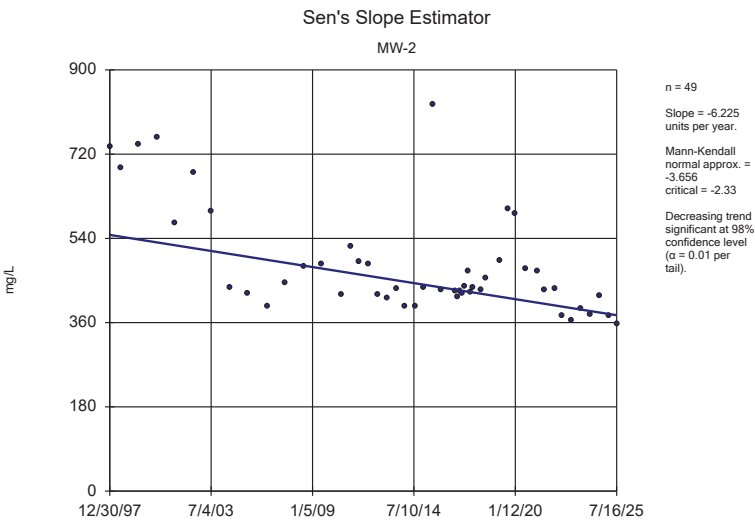
Sen's Slope Estimator
MW-8



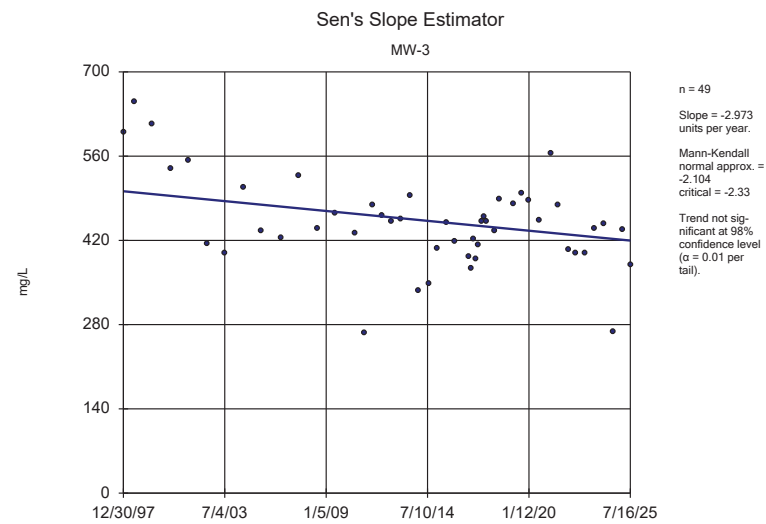
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



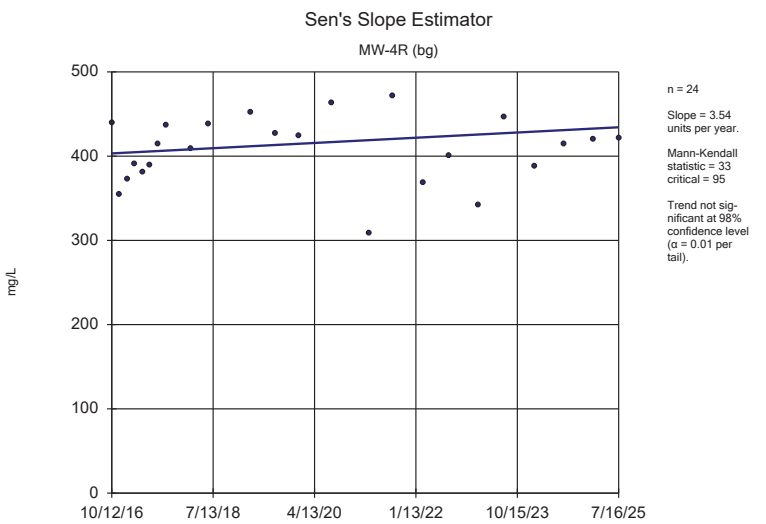
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



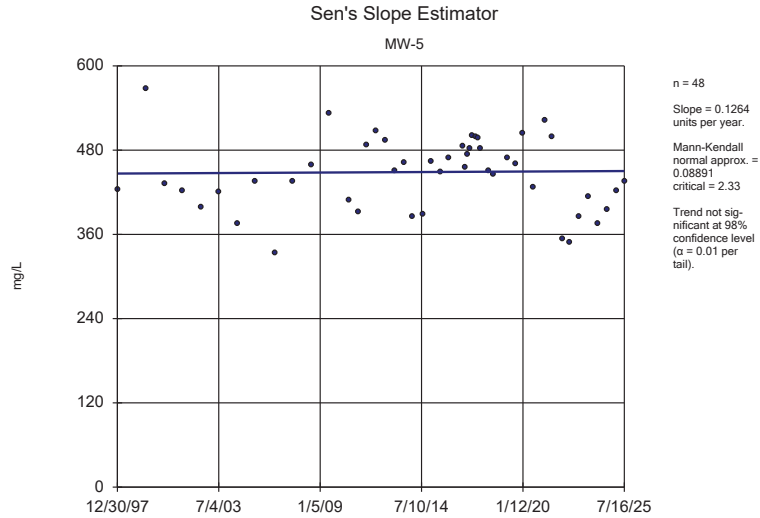
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



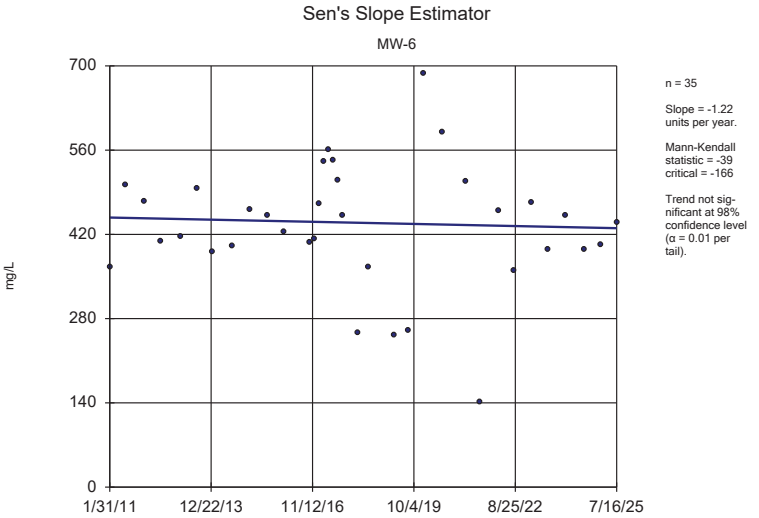
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



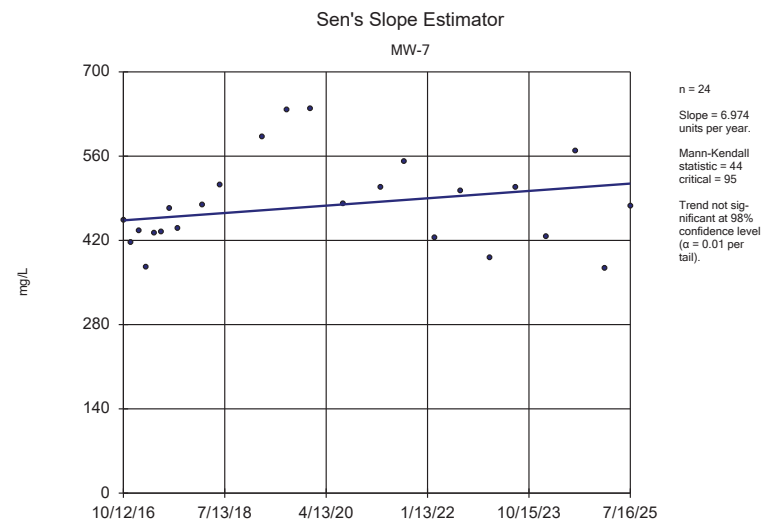
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



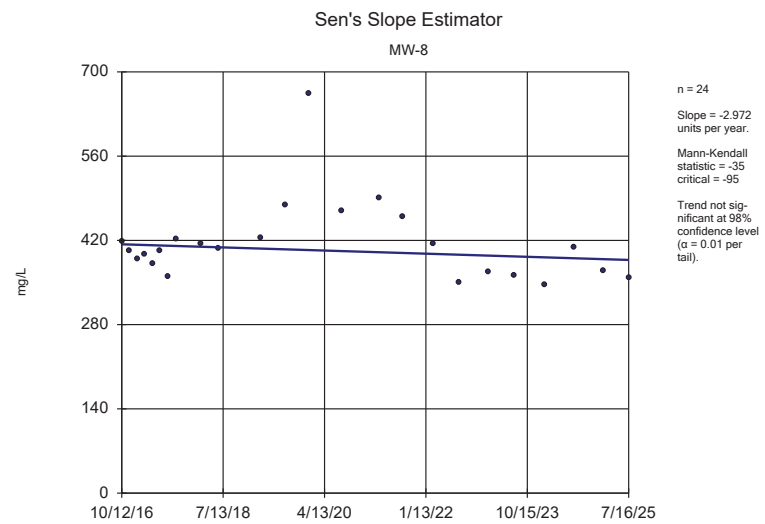
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



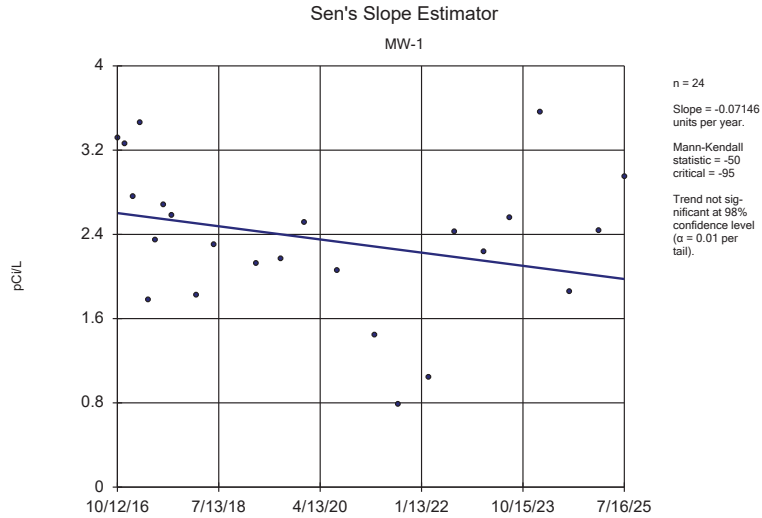
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



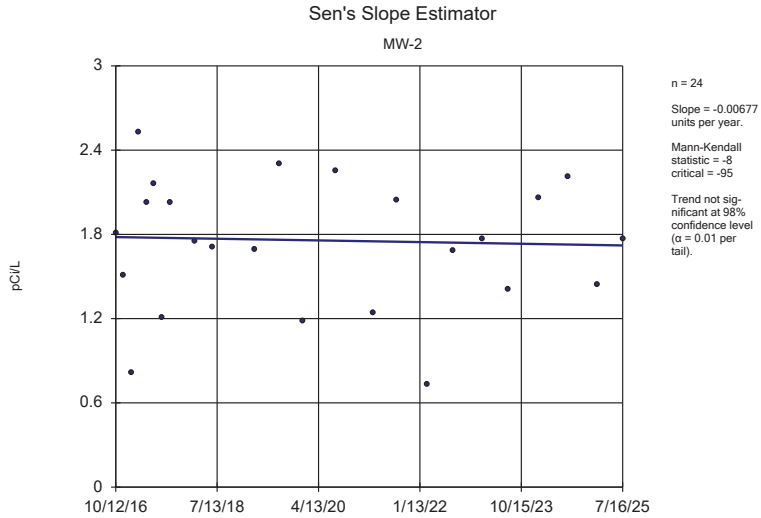
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



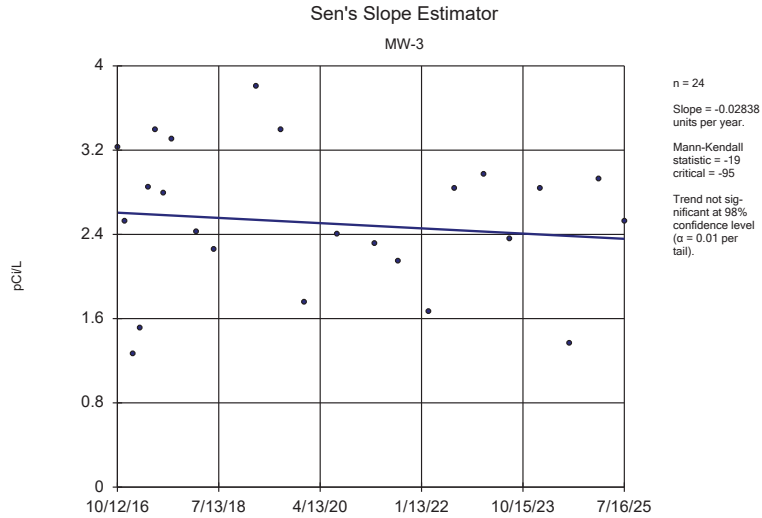
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



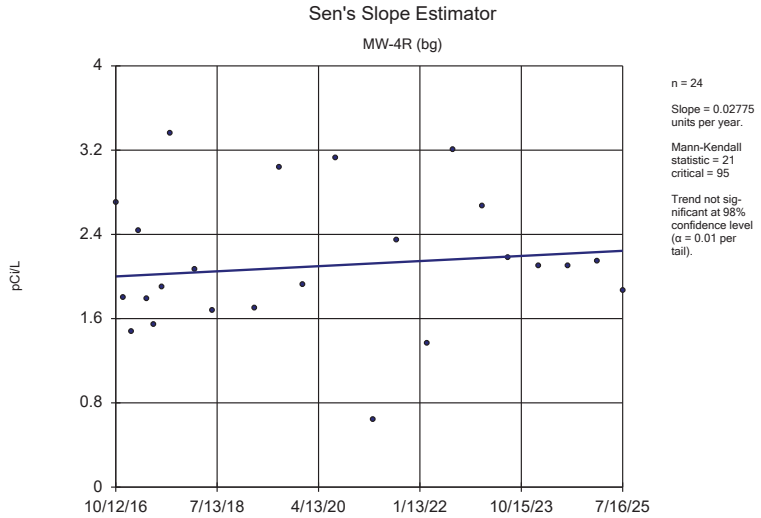
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



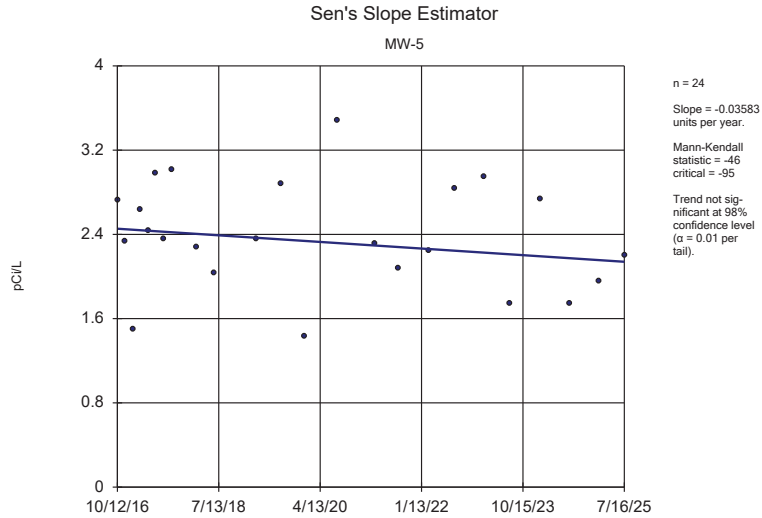
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



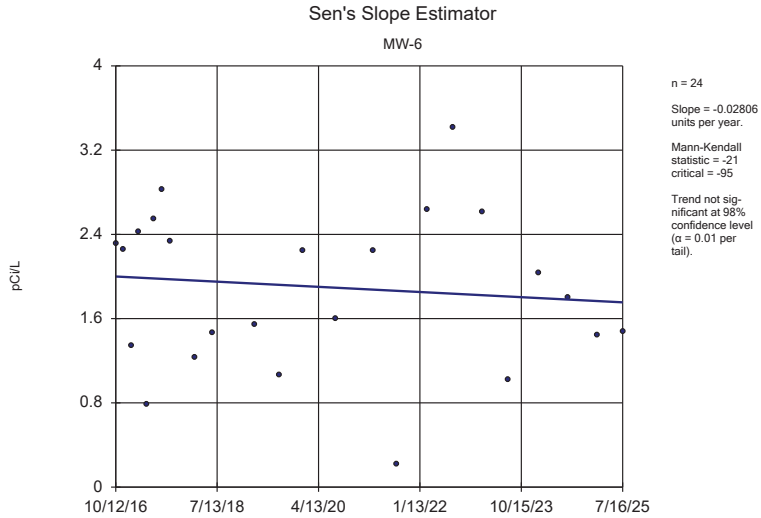
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



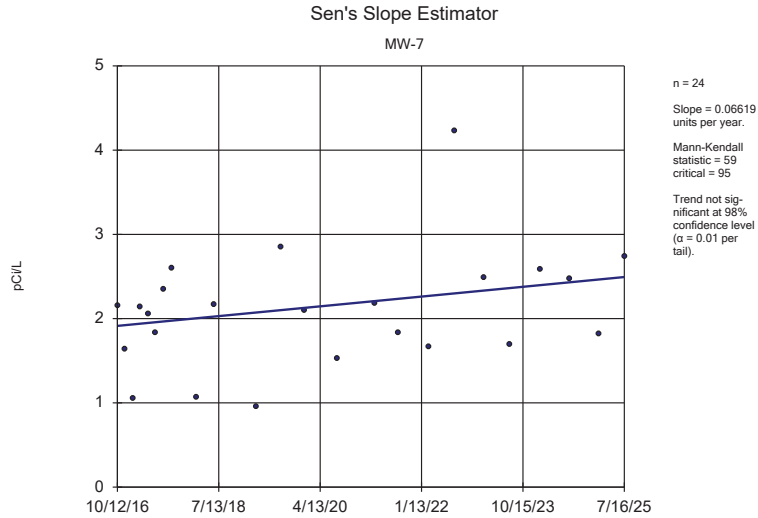
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



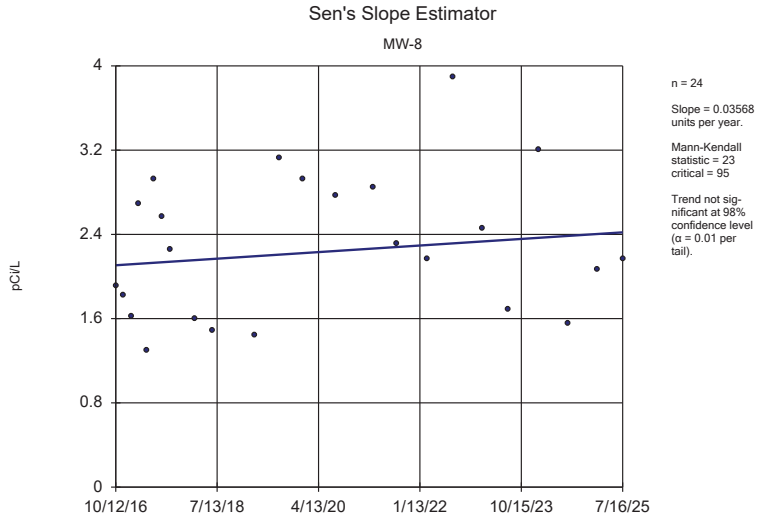
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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Radium Analysis Run 8/18/2025 12:03 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



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Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Radium Analysis Run 8/18/2025 12:03 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

A.5 Confidence Interval Analysis

Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 8/18/2025, 12:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (ug/L)	MW-1	2	1	6	No	22	95.45	No	0.01	NP (NDs)
Antimony (ug/L)	MW-2	2	1	6	No	22	95.45	No	0.01	NP (NDs)
Antimony (ug/L)	MW-3	2	1	6	No	22	100	No	0.01	NP (NDs)
Antimony (ug/L)	MW-4R (bg)	2	1	6	No	22	100	No	0.01	NP (NDs)
Antimony (ug/L)	MW-5	2	1	6	No	22	100	No	0.01	NP (NDs)
Antimony (ug/L)	MW-6	2	1	6	No	22	100	No	0.01	NP (NDs)
Antimony (ug/L)	MW-7	2	1	6	No	22	100	No	0.01	NP (NDs)
Antimony (ug/L)	MW-8	2	1	6	No	22	100	No	0.01	NP (NDs)
Arsenic (ug/L)	MW-1	4.129	3.501	10	No	24	0	ln(x)	0.01	Param.
Arsenic (ug/L)	MW-2	4.158	3.802	10	No	24	0	No	0.01	Param.
Arsenic (ug/L)	MW-3	3.432	3.038	10	No	24	0	No	0.01	Param.
Arsenic (ug/L)	MW-4R (bg)	5.04	4.056	10	No	24	0	No	0.01	Param.
Arsenic (ug/L)	MW-5	4.598	4.312	10	No	24	0	No	0.01	Param.
Arsenic (ug/L)	MW-6	3.909	2.989	10	No	24	0	No	0.01	Param.
Arsenic (ug/L)	MW-7	3.771	3.435	10	No	24	0	sqrt(x)	0.01	Param.
Arsenic (ug/L)	MW-8	2.768	2.537	10	No	24	0	No	0.01	Param.
Barium (ug/L)	MW-1	137.5	126.5	2000	No	49	0	No	0.01	Param.
Barium (ug/L)	MW-2	102.1	92.7	2000	No	49	0	No	0.01	Param.
Barium (ug/L)	MW-3	159	139.6	2000	No	49	0	x^2	0.01	Param.
Barium (ug/L)	MW-4R (bg)	128.3	113.8	2000	No	24	0	No	0.01	Param.
Barium (ug/L)	MW-5	137.6	128.3	2000	No	48	0	No	0.01	Param.
Barium (ug/L)	MW-6	141.2	113.7	2000	No	34	0	No	0.01	Param.
Barium (ug/L)	MW-7	130.2	114.2	2000	No	24	0	No	0.01	Param.
Barium (ug/L)	MW-8	155.8	139.2	2000	No	24	0	No	0.01	Param.
Beryllium (ug/L)	MW-1	1	0.5	4	No	22	95.45	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-2	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-3	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-4R (bg)	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-5	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-6	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-7	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Beryllium (ug/L)	MW-8	1	0.5	4	No	22	100	No	0.01	NP (NDs)
Boron (ug/L)	MW-1	147.3	116.3	153.3	No	24	4.167	No	0.01	Param.
Boron (ug/L)	MW-2	134	115	153.3	No	23	4.348	No	0.01	NP (normality)
Boron (ug/L)	MW-3	109	100	153.3	No	24	33.33	No	0.01	NP (normality)
Boron (ug/L)	MW-4R (bg)	214	100	153.3	No	24	41.67	No	0.01	NP (normality)
Boron (ug/L)	MW-5	132	113	153.3	No	24	8.333	No	0.01	NP (normality)
Boron (ug/L)	MW-6	127	100	153.3	No	24	50	No	0.01	NP (normality)
Boron (ug/L)	MW-7	160.3	115.1	153.3	No	24	12.5	No	0.01	Param.
Boron (ug/L)	MW-8	136	102	153.3	No	22	18.18	No	0.01	NP (normality)
Cadmium (ug/L)	MW-1	0.5	0.2	5	No	22	95.45	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-2	0.5	0.2	5	No	22	90.91	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-3	0.5	0.2	5	No	22	100	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-4R (bg)	0.5	0.2	5	No	22	100	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-5	0.5	0.2	5	No	22	100	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-6	0.5	0.2	5	No	22	100	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-7	0.5	0.2	5	No	22	86.36	No	0.01	NP (NDs)
Cadmium (ug/L)	MW-8	0.5	0.2	5	No	22	100	No	0.01	NP (NDs)
Calcium (mg/L)	MW-1	105	98.39	87.04	Yes	49	0	No	0.01	Param.
Calcium (mg/L)	MW-2	111.8	98.31	87.04	Yes	49	0	ln(x)	0.01	Param.

Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 8/18/2025, 12:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	MW-3	104.3	93.7	87.04	Yes	49	0	No	0.01	Param.
Calcium (mg/L)	MW-4R (bg)	91.98	82.04	87.04	No	24	0	No	0.01	Param.
Calcium (mg/L)	MW-5	103.2	96.5	87.04	Yes	48	0	No	0.01	Param.
Calcium (mg/L)	MW-6	94.16	79.52	87.04	No	35	0	x^2	0.01	Param.
Calcium (mg/L)	MW-7	100.5	87.85	87.04	Yes	24	0	No	0.01	Param.
Calcium (mg/L)	MW-8	95.79	86.06	87.04	No	24	0	No	0.01	Param.
Chloride (mg/L)	MW-1	32.53	16.38	250	No	24	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-2	25.67	16.55	250	No	23	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-3	45.69	31.46	250	No	24	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-4R (bg)	40.09	23.12	250	No	23	0	No	0.01	Param.
Chloride (mg/L)	MW-5	36.28	22.19	250	No	24	0	No	0.01	Param.
Chloride (mg/L)	MW-6	65.63	39.4	250	No	23	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-7	70.18	35.47	250	No	24	0	sqrt(x)	0.01	Param.
Chloride (mg/L)	MW-8	34.6	26.27	250	No	24	0	No	0.01	Param.
Chromium (ug/L)	MW-1	10	1.7	50	No	47	95.74	No	0.01	NP (NDs)
Chromium (ug/L)	MW-2	10	5	50	No	47	100	No	0.01	NP (NDs)
Chromium (ug/L)	MW-3	10	5	50	No	47	97.87	No	0.01	NP (NDs)
Chromium (ug/L)	MW-4R (bg)	5	1	50	No	22	95.45	No	0.01	NP (NDs)
Chromium (ug/L)	MW-5	10	5	50	No	46	97.83	No	0.01	NP (NDs)
Chromium (ug/L)	MW-6	10	1	50	No	33	100	No	0.01	NP (NDs)
Chromium (ug/L)	MW-7	5	1	50	No	22	100	No	0.01	NP (NDs)
Chromium (ug/L)	MW-8	5	1	50	No	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-1	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-2	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-3	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-4R (bg)	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-5	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-6	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-7	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Cobalt (ug/L)	MW-8	1	0.5	0.425	Yes	22	100	No	0.01	NP (NDs)
Fluoride (mg/L)	MW-1	1.39	1.2	4	No	24	16.67	No	0.01	NP (normality)
Fluoride (mg/L)	MW-2	1.195	0.9676	4	No	24	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	MW-3	0.9289	0.7754	4	No	24	25	No	0.01	Param.
Fluoride (mg/L)	MW-4R (bg)	0.9845	0.8421	4	No	24	25	No	0.01	Param.
Fluoride (mg/L)	MW-5	1.13	0.9696	4	No	24	20.83	No	0.01	Param.
Fluoride (mg/L)	MW-6	0.73	0.51	4	No	24	25	No	0.01	NP (normality)
Fluoride (mg/L)	MW-7	0.99	0.81	4	No	24	25	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	MW-8	0.9374	0.7736	4	No	24	25	No	0.01	Param.
Lead (ug/L)	MW-1	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lead (ug/L)	MW-2	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lead (ug/L)	MW-3	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lead (ug/L)	MW-4R (bg)	1	0.5	15	No	21	90.48	No	0.01	NP (NDs)
Lead (ug/L)	MW-5	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lead (ug/L)	MW-6	1	0.5	15	No	23	95.65	No	0.01	NP (NDs)
Lead (ug/L)	MW-7	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lead (ug/L)	MW-8	1	0.5	15	No	22	100	No	0.01	NP (NDs)
Lithium (ug/L)	MW-1	34.17	30.34	40	No	24	0	No	0.01	Param.
Lithium (ug/L)	MW-2	31.7	27.93	40	No	23	0	x^(1/3)	0.01	Param.
Lithium (ug/L)	MW-3	29.35	26.18	40	No	24	0	No	0.01	Param.
Lithium (ug/L)	MW-4R (bg)	27.99	24.78	40	No	24	0	x^2	0.01	Param.

Confidence Interval

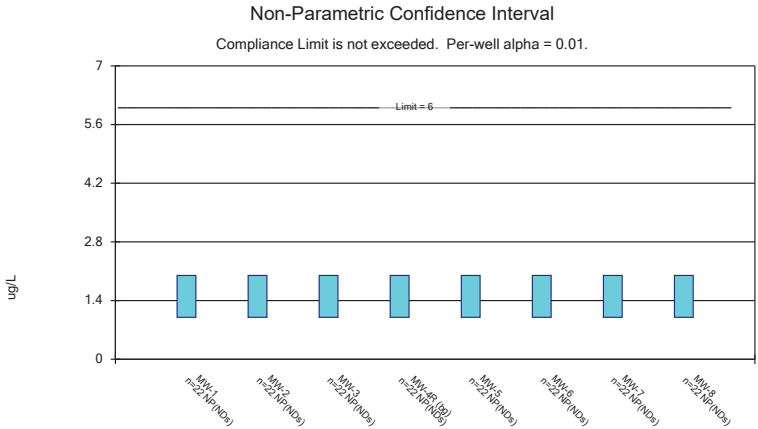
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 8/18/2025, 12:14 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (ug/L)	MW-5	30.68	26.95	40	No	24	0	sqrt(x)	0.01	Param.
Lithium (ug/L)	MW-6	27.04	20.77	40	No	24	4.167	No	0.01	Param.
Lithium (ug/L)	MW-7	29.57	26.23	40	No	24	0	No	0.01	Param.
Lithium (ug/L)	MW-8	29.32	26.46	40	No	23	0	No	0.01	Param.
Mercury (ug/L)	MW-1	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-2	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-3	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-4R (bg)	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-5	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-6	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-7	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Mercury (ug/L)	MW-8	0.2	0.2	2	No	22	100	No	0.01	NP (NDs)
Molybdenum (ug/L)	MW-1	8.239	7.127	100	No	24	0	No	0.01	Param.
Molybdenum (ug/L)	MW-2	9.034	6.554	100	No	24	0	sqrt(x)	0.01	Param.
Molybdenum (ug/L)	MW-3	12.5	10.07	100	No	24	0	No	0.01	Param.
Molybdenum (ug/L)	MW-4R (bg)	6.908	4.919	100	No	24	0	x^(1/3)	0.01	Param.
Molybdenum (ug/L)	MW-5	6.191	4.98	100	No	24	0	No	0.01	Param.
Molybdenum (ug/L)	MW-6	8.266	6.619	100	No	24	0	No	0.01	Param.
Molybdenum (ug/L)	MW-7	8.382	7.035	100	No	24	0	No	0.01	Param.
Molybdenum (ug/L)	MW-8	8.3	6.19	100	No	23	0	No	0.01	NP (normality)
pH (Std. Units)	MW-1	7.158	6.938	8.5	No	34	0	No	0.005	Param.
pH (Std. Units)	MW-2	7.1	6.84	8.5	No	34	2.941	No	0.01	NP (normality)
pH (Std. Units)	MW-3	7.1	6.91	8.5	No	34	2.941	No	0.01	NP (normality)
pH (Std. Units)	MW-4R (bg)	7.319	7.009	8.5	No	24	0	No	0.005	Param.
pH (Std. Units)	MW-5	7.245	7.053	8.5	No	33	0	No	0.005	Param.
pH (Std. Units)	MW-6	7.107	6.922	8.5	No	32	0	No	0.005	Param.
pH (Std. Units)	MW-7	7.19	6.981	8.5	No	24	0	No	0.005	Param.
pH (Std. Units)	MW-8	7.193	6.962	8.5	No	24	0	No	0.005	Param.
Selenium (ug/L)	MW-1	17.21	11.92	50	No	49	10.2	No	0.01	Param.
Selenium (ug/L)	MW-2	19.35	12.86	50	No	49	4.082	sqrt(x)	0.01	Param.
Selenium (ug/L)	MW-3	10.63	8.507	50	No	49	2.041	No	0.01	Param.
Selenium (ug/L)	MW-4R (bg)	8.328	6.843	50	No	23	0	No	0.01	Param.
Selenium (ug/L)	MW-5	13.14	9.153	50	No	48	10.42	No	0.01	Param.
Selenium (ug/L)	MW-6	11.16	6.457	50	No	35	14.29	No	0.01	Param.
Selenium (ug/L)	MW-7	10.7	8.068	50	No	24	4.167	No	0.01	Param.
Selenium (ug/L)	MW-8	11.69	9.651	50	No	24	0	No	0.01	Param.
Sulfate (mg/L)	MW-1	67	50.9	250	No	49	0	No	0.01	NP (normality)
Sulfate (mg/L)	MW-2	77.2	49.4	250	No	48	0	No	0.01	NP (normality)
Sulfate (mg/L)	MW-3	71.52	54.11	250	No	49	0	ln(x)	0.01	Param.
Sulfate (mg/L)	MW-4R (bg)	41.72	35.97	250	No	24	0	No	0.01	Param.
Sulfate (mg/L)	MW-5	52.08	44.56	250	No	48	0	No	0.01	Param.
Sulfate (mg/L)	MW-6	60.84	44.22	250	No	35	0	No	0.01	Param.
Sulfate (mg/L)	MW-7	56.92	42.74	250	No	24	0	No	0.01	Param.
Sulfate (mg/L)	MW-8	42.6	33.1	250	No	24	0	No	0.01	NP (normality)
Thallium (ug/L)	MW-1	4.08	1	2	No	22	95.45	No	0.01	NP (NDs)
Thallium (ug/L)	MW-2	1	1	2	No	22	100	No	0.01	NP (NDs)
Thallium (ug/L)	MW-3	1	1	2	No	22	100	No	0.01	NP (NDs)
Thallium (ug/L)	MW-4R (bg)	1	1	2	No	22	100	No	0.01	NP (NDs)
Thallium (ug/L)	MW-5	1	1	2	No	22	100	No	0.01	NP (NDs)
Thallium (ug/L)	MW-6	1	1	2	No	22	100	No	0.01	NP (NDs)

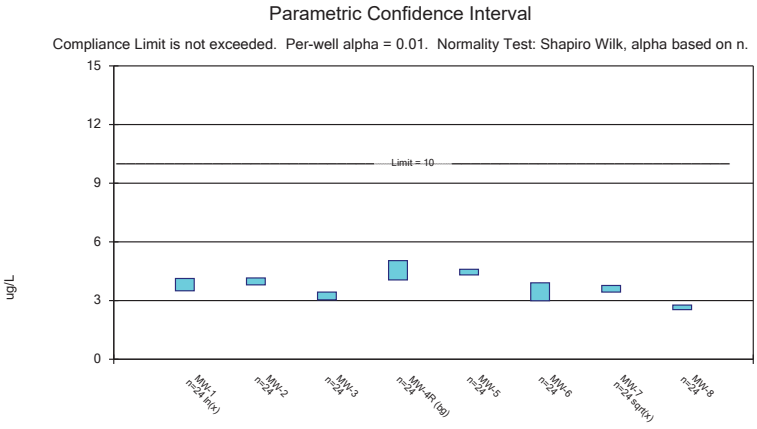
Confidence Interval

Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater Printed 8/18/2025, 12:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Thallium (ug/L)	MW-7	1	1	2	No	22	100	No	0.01	NP (NDs)
Thallium (ug/L)	MW-8	1	1	2	No	22	100	No	0.01	NP (NDs)
Total Dissolved Solids (mg/L)	MW-1	477.7	438.6	500	No	49	0	ln(x)	0.01	Param.
Total Dissolved Solids (mg/L)	MW-2	480	423	500	No	49	0	No	0.01	NP (normality)
Total Dissolved Solids (mg/L)	MW-3	474.3	422.9	500	No	49	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-4R (bg)	427.4	386.9	500	No	24	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-5	463	427.6	500	No	48	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-6	474.4	389.6	500	No	35	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-7	518.2	442.2	500	No	24	0	No	0.01	Param.
Total Dissolved Solids (mg/L)	MW-8	425	368	500	No	24	0	No	0.01	NP (normality)
Total Radium (pCi/L)	MW-1	2.708	1.994	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-2	1.958	1.486	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-3	2.881	2.19	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-4R (bg)	2.46	1.801	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-5	2.645	2.123	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-6	2.249	1.49	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-7	2.441	1.737	5	No	24	0	No	0.01	Param.
Total Radium (pCi/L)	MW-8	2.625	1.942	5	No	24	0	No	0.01	Param.



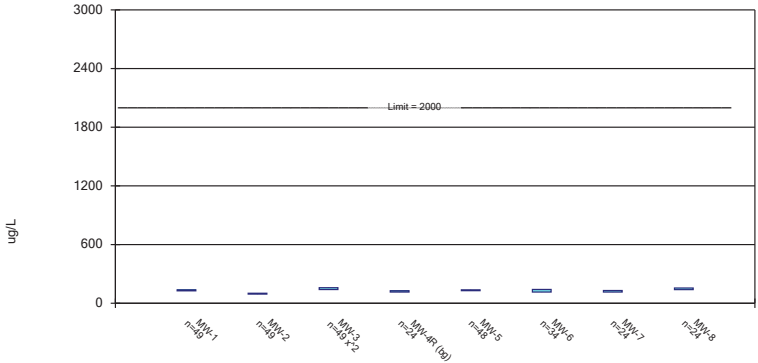
Constituent: Antimony Analysis Run 8/18/2025 12:09 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Arsenic Analysis Run 8/18/2025 12:09 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric Confidence Interval

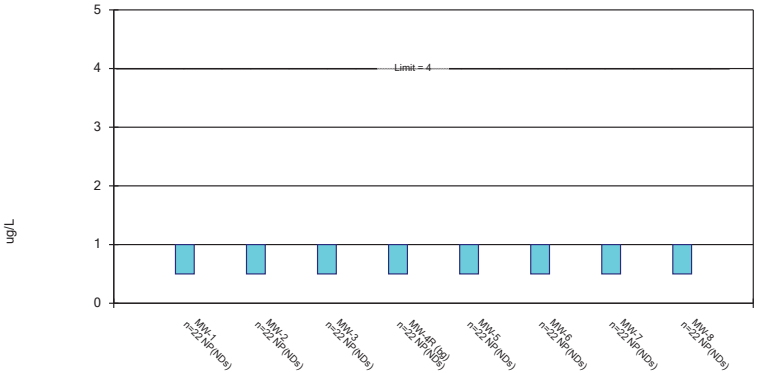
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



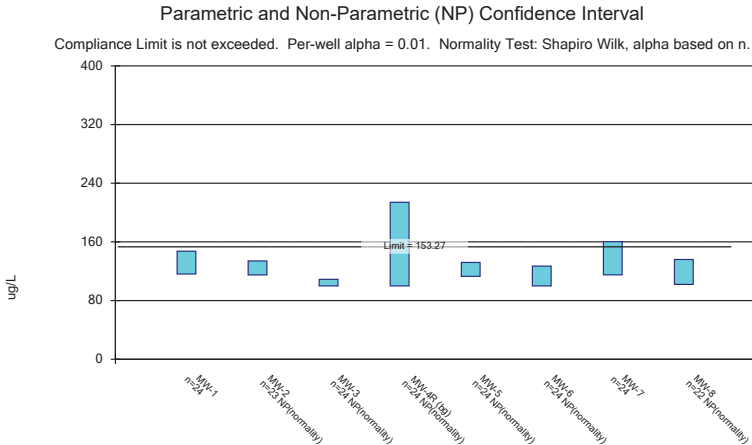
Constituent: Barium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Non-Parametric Confidence Interval

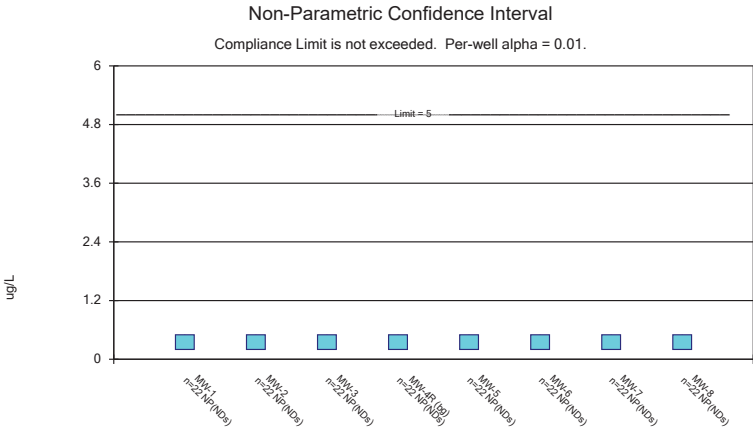
Compliance Limit is not exceeded. Per-well alpha = 0.01.



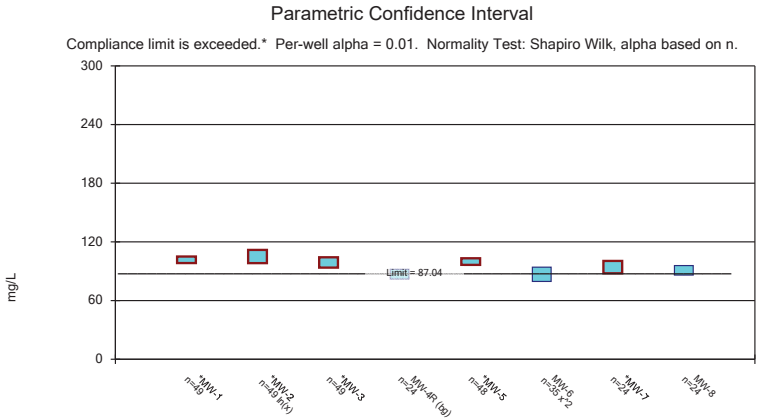
Constituent: Beryllium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



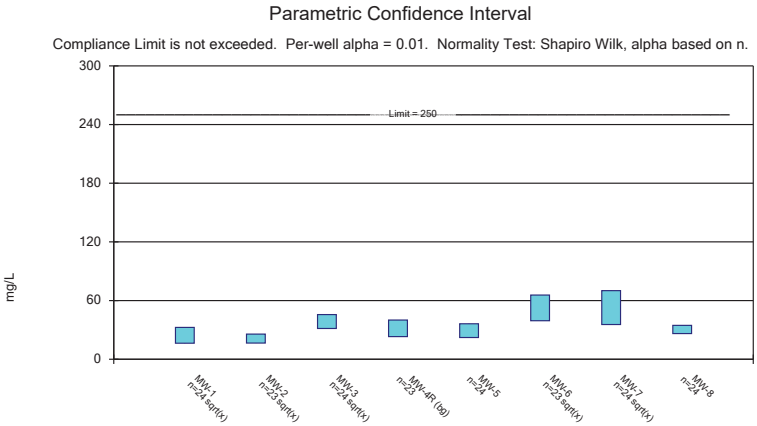
Constituent: Boron Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



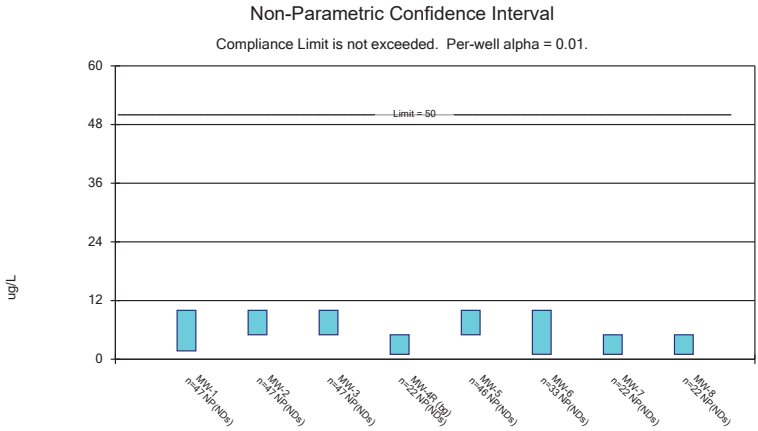
Constituent: Cadmium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



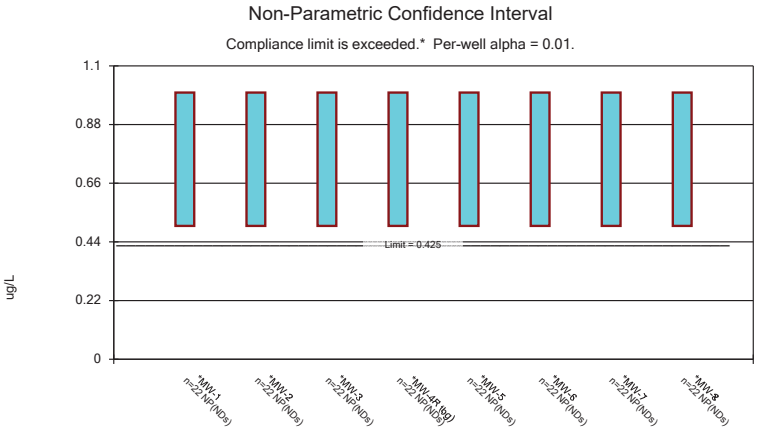
Constituent: Calcium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Chloride Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



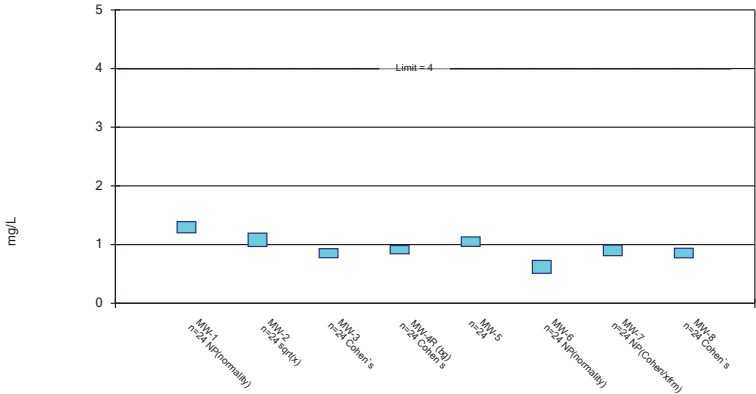
Constituent: Chromium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Cobalt Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

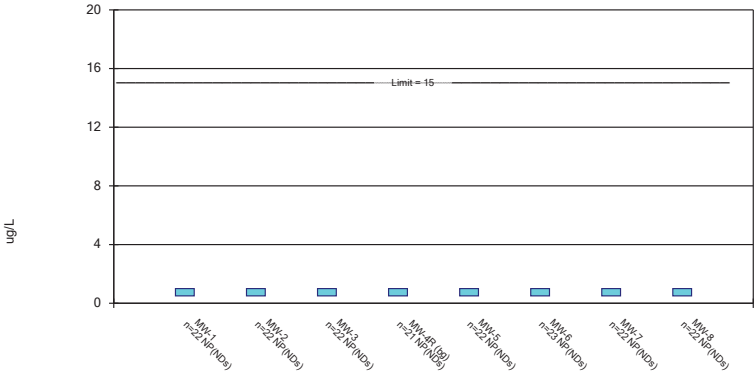
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



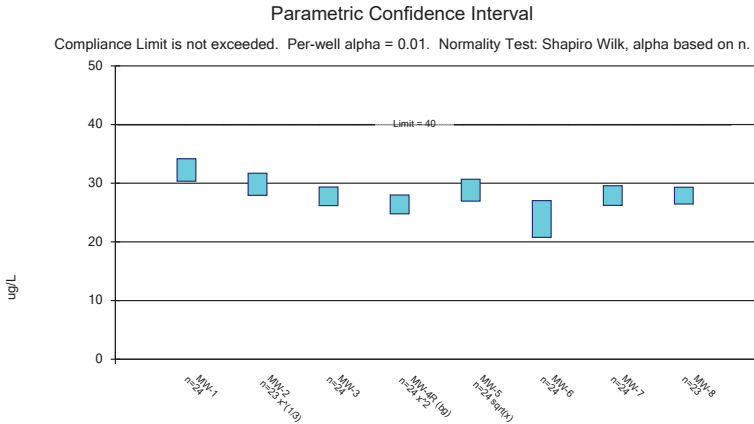
Constituent: Fluoride Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Non-Parametric Confidence Interval

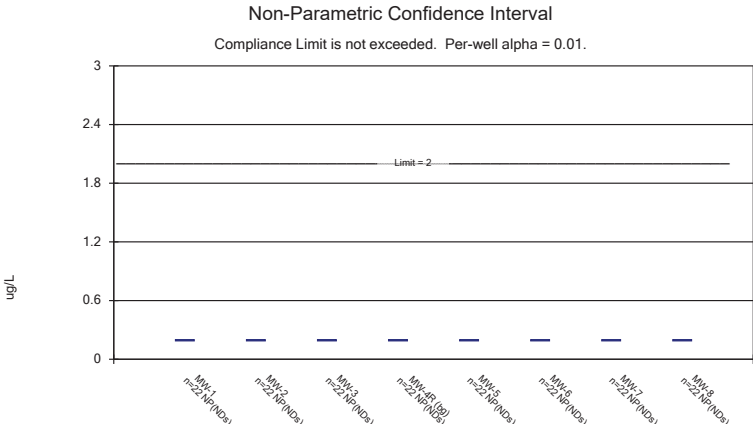
Compliance Limit is not exceeded. Per-well alpha = 0.01.



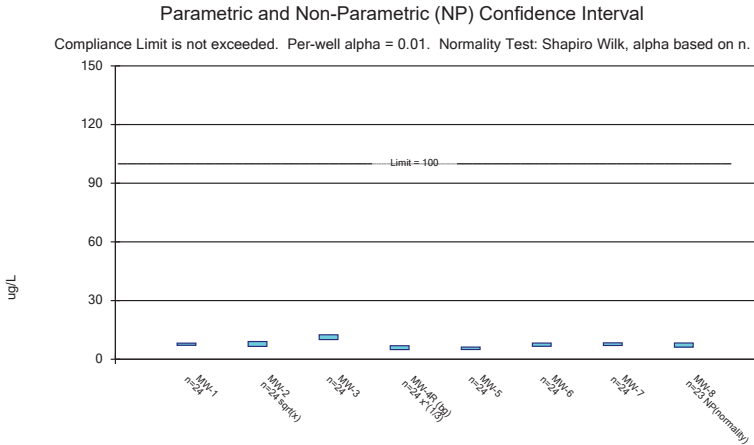
Constituent: Lead Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



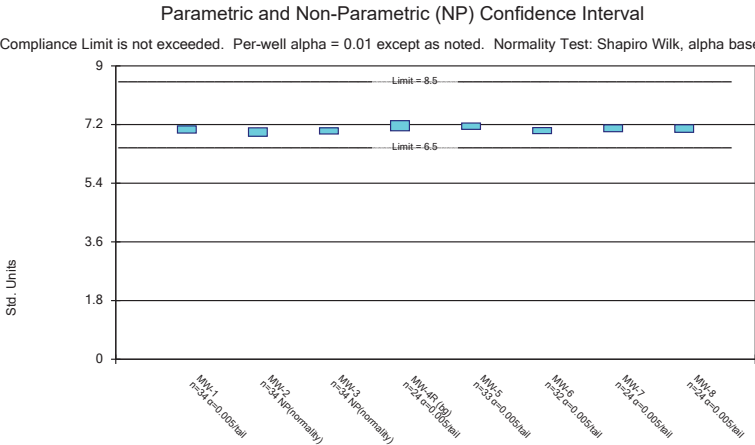
Constituent: Lithium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Mercury Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



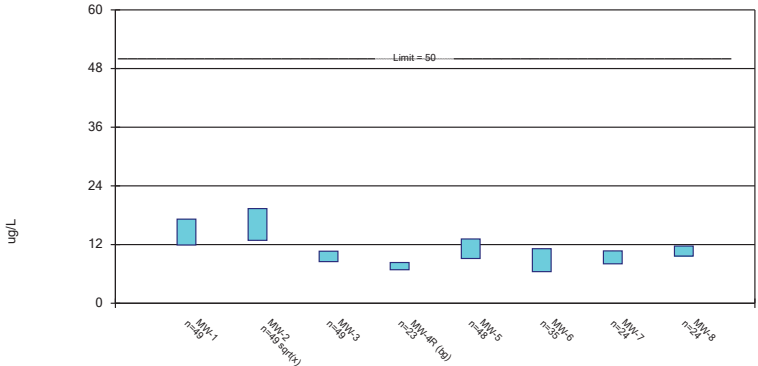
Constituent: Molybdenum Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: pH Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric Confidence Interval

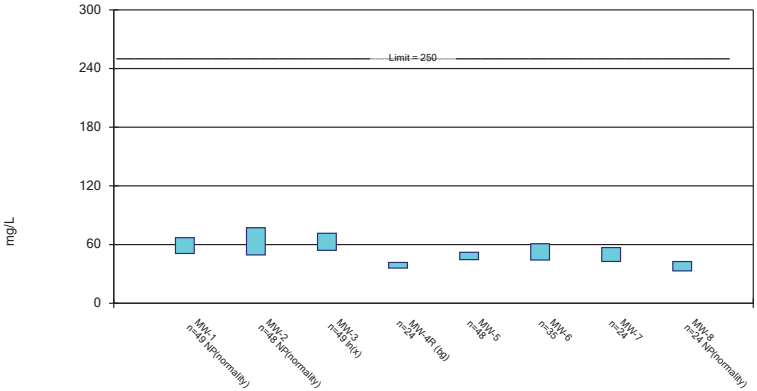
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



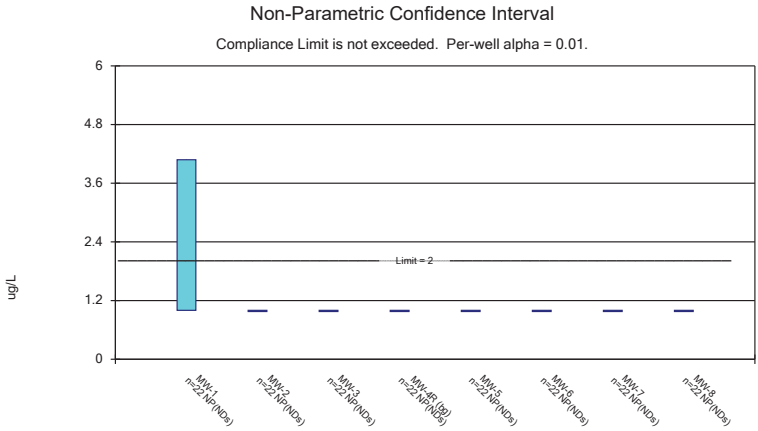
Constituent: Selenium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater

Parametric and Non-Parametric (NP) Confidence Interval

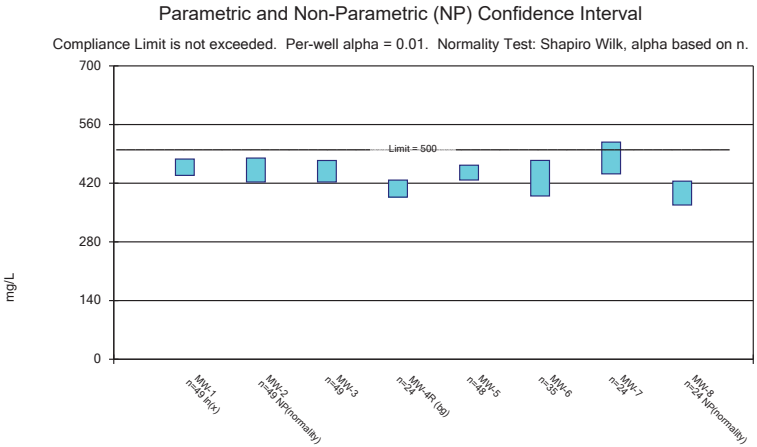
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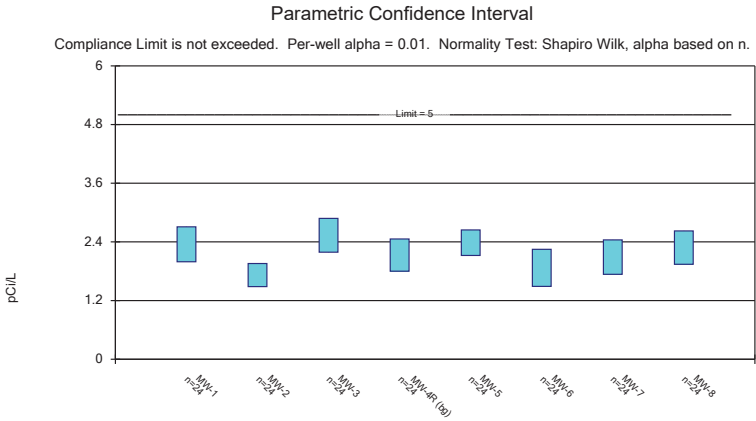
Constituent: Sulfate Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Thallium Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



Constituent: Total Dissolved Solids Analysis Run 8/18/2025 12:10 PM View: FDU Groundwater
Fremont Dept. of Utilities Client: SCS Engineers Data: Fremont Department of Utilities Groundwater



B Figures

C Supporting information

C.1 Field Data Sheets

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-1
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 29.00 feet below TOC
Static Water Level: 21.22 feet below TOC
Date/Time Measured: 7/16/2025 11:34 TD - SWL: 7.78 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(7.78)(10)(3) = 233.4$ Min Purge Volume: 250 mL
Initial Parameter Readings: Temp (°C) 20.38 pH 6.93 ORP 192.00
Sp. Cond. 0.721 Turbidity 0 DO 8.76
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
11:44	900	250	20.52	6.93	192.00	0.719	0.00	5.43	21.25
11:49	2150	250	20.59	6.91	193.00	0.171	0.00	4.24	21.24
11:54	3400	250	20.12	6.90	194.00	0.728	0.00	4.49	21.24

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 11:59
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 20.12 pH 6.9 ORP 194.00
Sp. Cond. 0.728 Turbidity 0 DO 4.49
Water Level 21.24 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-1N
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: **N** S E W (circle two if needed)
Precipitation: **None** Light Heavy Sky: **Cloudy** Sunny Partly

Well Observations

Well Pad Ok
Casing Ok
Protective Casing Ok
Reference Mark/Identification Ok

Locks
Protective Casing
Well

Yes	No
X	
	X

Groundwater Level Measurements

Total Depth: 62.24 feet below TOC
Static Water Level: 22.06 feet below TOC
Date/Time Measured: 7/16/2025 11:38 TD - SWL: _____ water column (ft.)

Water Level Only

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-1S
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: **N** S E W (circle two if needed)
Precipitation: **None** Light Heavy Sky: **Cloudy** Sunny Partly

Well Observations

Well Pad Ok
Casing Ok
Protective Casing Ok
Reference Mark/Identification Ok

Locks
Protective Casing
Well

Yes	No
X	
	X

Groundwater Level Measurements

Total Depth: 92.19 feet below TOC
Static Water Level: 22.03 feet below TOC
Date/Time Measured: 7/16/2025 11:40 TD - SWL: _____ water column (ft.)

Water Level Only

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____

Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-2
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 17.83 feet below TOC
Date/Time Measured: 7/16/2025 12:10 TD - SWL: 10.17 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(10.17)(10)(3) = 305.1$ Min Purge Volume: 350 mL
Initial Parameter Readings: Temp (°C) 12.18 pH 7.12 ORP 186.00
Sp. Cond. 0.634 Turbidity 1.2 DO 7.65
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
12:17	700	250	17.16	7.06	189.00	0.630	0.70	7.20	17.84
12:20	1450	250	16.29	6.92	196.00	0.626	0.00	6.38	17.84
12:23	2200	250	16.04	6.86	200.00	0.623	0.00	5.80	17.84

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 12:26
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 16.04 pH 6.86 ORP 200.00
Sp. Cond. 0.623 Turbidity 0.00 DO 5.80
Water Level 17.84 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-3
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 74 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 19.10 feet below TOC
Date/Time Measured: 7/16/2025 12:42 TD - SWL: 8.90 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(8.90)(10)(3) = 267$ Min Purge Volume: 300 mL
Initial Parameter Readings: Temp (°C) 19.18 pH 7.15 ORP 151.00
Sp. Cond. 0.703 Turbidity 0.5 DO 5.52
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
12:47	700	250	17.01	6.89	171.00	0.692	0.30	6.23	19.11
12:50	1450	250	16.21	6.84	178.00	0.680	0.70	7.44	19.11
12:53	2200	250	16.17	6.78	184.00	0.670	2.90	6.94	19.11

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 12:55
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 16.17 pH 6.78 ORP 184.00
Sp. Cond. 0.67 Turbidity 2.9 DO 6.94
Water Level 19.11 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-4R
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 72 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing	<u>X</u>	
Protective Casing	<u>Ok</u>	Well		<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 17.46 feet below TOC
Date/Time Measured: 7/16/2025 9:58 TD - SWL: 10.54 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(10.54)(10)(3) = 316.20$ Min Purge Volume: 350 mL
Initial Parameter Readings: Temp (°C) 15.45 pH 7.36 ORP 187.00
Sp. Cond. 0.811 Turbidity 0 DO 5.34
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
10:05	1250	250	15.31	7.02	187.00	0.763	0.00	5.03	17.48
10:10	2500	250	14.66	6.76	192.00	0.746	0.00	4.78	17.47
10:15	3750	250	14.57	6.73	200.00	0.748	0.00	4.98	17.47
10:20	5000	250	14.49	6.67	207.00	0.747	0.00	5.11	17.47

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 10:22
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 14.49 pH 6.67 ORP 207.00
Sp. Cond. 0.747 Turbidity 0.00 DO 5.11
Water Level 17.47 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-5
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 72 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 17.72 feet below TOC
Date/Time Measured: 7/16/2025 10:45 TD - SWL: 10.28 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(10.28)(10)(3) = 308.4$ Min Purge Volume: 350 mL
Initial Parameter Readings: Temp (°C) 18.82 pH 7.25 ORP 181.00
Sp. Cond. 0.672 Turbidity 1.9 DO 4.48
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
10:53	1250	250	15.94	6.82	201.00	0.742	0.10	4.65	17.72
10:58	2000	250	16.02	6.81	201.00	0.747	0.00	4.52	17.72
11:03	3250	250	15.92	6.80	201.00	0.749	0.00	4.62	17.72

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 11:05
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 15.92 pH 6.80 ORP 201.00
Sp. Cond. 0.749 Turbidity 0.00 DO 4.62
Water Level 17.72 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-6
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 74 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 17.80 feet below TOC
Date/Time Measured: 7/16/2025 14:26 TD - SWL: 10.20 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(10.20)(22)(3) = 673.20$ Min Purge Volume: 700 mL
Initial Parameter Readings: Temp (°C) 17.56 pH 6.87 ORP 194.00
Sp. Cond. 0.736 Turbidity 0 DO 10.72
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
14:30	1200	250	17.42	6.77	199.00	0.764	0.00	9.11	17.85
14:33	1950	250	17.13	6.75	200.00	0.772	0.00	9.31	17.85
14:36	2700	250	17.14	6.72	203.00	0.770	0.00	5.17	17.85

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/25 1438
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 17.14 pH 6.72 ORP 203.00
Sp. Cond. 0.770 Turbidity 0.00 DO 5.17
Water Level 17.85 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-7
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 17.67 feet below TOC
Date/Time Measured: 7/16/2025 13:47 TD - SWL: 10.33 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(10.33)(22)(3) = 681.78$ Min Purge Volume: 700 mL
Initial Parameter Readings: Temp (°C) 17.27 pH 6.92 ORP 192.00
Sp. Cond. 0.708 Turbidity 0 DO 10.10
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
13:54	1100	250	16.29	6.80	197.00	0.761	0.20	9.58	17.67
13:57	1850	250	15.99	6.75	200.00	0.775	0.70	8.09	17.67
14:00	2600	250	15.82	6.75	201.00	0.779	0.30	8.68	17.67

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 14:02
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 15.82 pH 6.75 ORP 201.00
Sp. Cond. 0.779 Turbidity 0.30 DO 8.68
Water Level 17.67 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Collected blind duplicated from this location. Sample ID: Duplicate reference time - 23:59

Electronic Form Completed By: _____ Date: _____

Field Data Sheet

Project Name: FDU GW Sampling
Project Location: Fremont, NE
Project Number: 27224080.01

Monitoring Point: MW-8
Date(s): 7/16/2025

Field Team Members

Name: C. Joyce Affiliation: SCS Engineers
Name: _____ Affiliation: SCS Engineers

Weather Conditions

Mean Temp: 73 °F (Mean) Wind Direction: N S E W (circle two if needed)
Precipitation: None Light Heavy Sky: Cloudy Sunny Partly

Well Observations

Well Pad	Ok	Locks	Yes	No
Casing	<u>Ok</u>	Protective Casing Well	<u>X</u>	
Protective Casing	<u>Ok</u>			<u>X</u>
Reference Mark/Identification	<u>Ok</u>			

Groundwater Level Measurements

Total Depth: 28.00 feet below TOC
Static Water Level: 18.09 feet below TOC
Date/Time Measured: 7/16/2025 13:10 TD - SWL: 9.91 water column (ft.)

Purging Activities

Purged By: C. Joyce Purge Date: 07/16/25
Purge Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Well Diameter: 1-inch 2-inch 3-inch 4-inch Other _____ (circle one)
Purge Volume Calculation: $(9.91)(22)(3) = 654$ Min Purge Volume: 700 mL
Initial Parameter Readings: Temp (°C) 18.61 pH 7.18 ORP 172.00
Sp. Cond. 0.61 Turbidity 0.7 DO 7.53
Physical appearance of purge water: Clear

Purge Time	Cumulative Purge Vol. (mL)	Purge Rate (mL/m)	Temp (°C)	pH	ORP (mV)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Water Level (ft below TOC)
13:20	1100	250	18.34	6.88	188.00	0.576	0.80	5.48	18.09
13:23	1850	250	17.67	6.83	193.00	0.569	0.00	5.88	18.09
13:26	1600	250	18.20	6.82	196.00	0.565	0.00	5.12	18.10

Sampling Activities

Sampled By: C. Joyce Sample Date/Time: 7/16/2025 13:29
Sample Method: Bailer Dedicated Pump Non-Dedicated Pump Peristaltic Pump (circle one)
Sample Parameters: Temp (°C) 18.20 pH 6.82 ORP 196.00
Sp. Cond. 0.565 Turbidity 0.00 DO 5.12
Water Level 18.10 (feet below TOC)

Observations/Comments: (i.e., equipment malfunctions, contamination sources, sampling difficulties; duplicate sample)

Electronic Form Completed By: _____ Date: _____

C.2 Chain of Custody

Chain of Custody Record

TestAmerica.org
268

Environment Testing
America

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact		Project Manager: Morgan Sykes		Site Contact: C. Boyle		Date: 7/16/25		COC No: 1 of 1 COCs							
SCS Engineers		Email: msykes@scsengineers.com		Lab Contact: S. Miller		Carrier: FedEx		TALS Project #:							
14755 Grover Street		Tel/Fax: (402) 938-0323						Sampler: C. Boyle							
Omaha Nebraska, 68144		Analysis Turnaround Time						For Lab Use Only:							
(402) 884-6202 Phone		☒ CALENDAR DAYS ☐ WORKING DAYS						Walk-in Client:							
(913)681-0012 FAX		TAT if different from Below 10						Lab Sampling:							
Project Name: City of Fremont Department of Utilities		☐ 2 weeks						Job / SDG No.:							
Site: Ash Monofill		☐ 1 week													
P O # 27224080.01		☐ 2 days													
		☐ 1 day													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	7470A Mercury	7740B010 Total Metals	9056 Chloride-Fluoride-Sulfate	2540C TDS	9040 pH	9315 Total Radium (226 & 228) *	Sample Specific Notes:
MW-1	7/16/25	1159	G	WT				X	X	X	X	X	X	X	
MW-2	7/16/25	1226	G	WT				X	X	X	X	X	X	X	
MW-3	7/16/25	1255	G	WT				X	X	X	X	X	X	X	
MW-4R	7/16/25	1022	G	WT				X	X	X	X	X	X	X	
MW-5	7/16/25	1105	G	WT				X	X	X	X	X	X	X	
MW-6	7/16/25	1438	G	WT				X	X	X	X	X	X	X	
MW-7	7/16/25	1402	G	WT				X	X	X	X	X	X	X	
MW-8	7/16/25	1329	G	WT				X	X	X	X	X	X	X	
Duplicate	7/16/25	2359	G	WT				X	X	X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other															
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.															
Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months															
Special Instructions/QC Requirements & Comments: Total Metals = Ar, Ba, Be, Bo, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se & Tl.															
* Radium speciation is not required.															
new FedEx#'s : 882841612379 / 882841612380															
Custody Seals intact: ☒ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____		Corr'd: _____		Therm ID No.:							
Relinquished by: [Signature]		Company: SCS 7/14/25		Date/Time: 1630		Received by: FedEx 817027231720		Company:		Date/Time:					
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:					
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:		Date/Time:					

C.3 Testing Results

ANALYTICAL REPORT

PREPARED FOR

Attn: Morgan Sykes
SCS Engineers
14755 Grover St
Omaha, Nebraska 68144

Generated 7/30/2025 1:33:49 PM

JOB DESCRIPTION

City of Fremont Department of Utilities

JOB NUMBER

310-311167-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)595-2008

Table of Contents

Cover Page	1
Table of Contents	3
Case Narrative	4
Sample Summary	5
Detection Summary	6
Client Sample Results	9
Definitions	18
QC Sample Results	19
QC Association	22
Chronicle	25
Certification Summary	28
Method Summary	29
Chain of Custody	30
Receipt Checklists	33



Case Narrative

Client: SCS Engineers
Project: City of Fremont Department of Utilities

Job ID: 310-311167-1

Job ID: 310-311167-1

Eurofins Cedar Falls

Job Narrative 310-311167-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/17/2025 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were -0.4°C and 1.3°C.

Receipt Exceptions

One or more containers for the following samples were received leaking. Sample 4 still has 925mL left and sample 5 still has 700mL left. We still have enough volume to run the requested analyses.: MW-4R (310-311167-4) and MW-5 (310-311167-5).

Affected containers:

D-4
C-5

HPLC/IC

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: MW-1 (310-311167-1), MW-3 (310-311167-3), MW-4R (310-311167-4), MW-5 (310-311167-5), MW-6 (310-311167-6), MW-7 (310-311167-7), MW-8 (310-311167-8) and Duplicate (310-311167-9). Elevated reporting limits (RLs) are provided.

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

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers

Job ID: 310-311167-1

Project/Site: City of Fremont Department of Utilities

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-311167-1	MW-1	Water	07/16/25 11:59	07/17/25 08:45
310-311167-2	MW-2	Water	07/16/25 12:26	07/17/25 08:45
310-311167-3	MW-3	Water	07/16/25 12:55	07/17/25 08:45
310-311167-4	MW-4R	Water	07/16/25 10:22	07/17/25 08:45
310-311167-5	MW-5	Water	07/16/25 11:05	07/17/25 08:45
310-311167-6	MW-6	Water	07/16/25 14:38	07/17/25 08:45
310-311167-7	MW-7	Water	07/16/25 14:02	07/17/25 08:45
310-311167-8	MW-8	Water	07/16/25 13:29	07/17/25 08:45
310-311167-9	Duplicate	Water	07/16/25 23:59	07/17/25 08:45

Detection Summary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-1

Lab Sample ID: 310-311167-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	44.0		5.00		mg/L	5		9056A	Total/NA
Sulfate	67.8		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00411		0.00200		mg/L	1		6020B	Total/NA
Barium	0.124		0.00200		mg/L	1		6020B	Total/NA
Boron	0.107		0.100		mg/L	1		6020B	Total/NA
Calcium	94.9		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0274		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00692		0.00200		mg/L	1		6020B	Total/NA
pH	7.50	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	434		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 310-311167-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	30.3		5.00		mg/L	5		9056A	Total/NA
Fluoride	1.16		1.00		mg/L	5		9056A	Total/NA
Sulfate	48.1		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00463		0.00200		mg/L	1		6020B	Total/NA
Barium	0.0936		0.00200		mg/L	1		6020B	Total/NA
Boron	0.113		0.100		mg/L	1		6020B	Total/NA
Calcium	78.8		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0268		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00519		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00597		0.00500		mg/L	1		6020B	Total/NA
pH	7.55	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	356		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 310-311167-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	43.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	44.6		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00369		0.00200		mg/L	1		6020B	Total/NA
Barium	0.116		0.00200		mg/L	1		6020B	Total/NA
Boron	0.100		0.100		mg/L	1		6020B	Total/NA
Calcium	78.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0239		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00938		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00864		0.00500		mg/L	1		6020B	Total/NA
pH	7.61	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	380		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-4R

Lab Sample ID: 310-311167-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	62.7		5.00		mg/L	5		9056A	Total/NA
Sulfate	36.9		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00616		0.00200		mg/L	1		6020B	Total/NA
Barium	0.100		0.00200		mg/L	1		6020B	Total/NA
Calcium	90.1		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0269		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00456		0.00200		mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers

Job ID: 310-311167-1

Project/Site: City of Fremont Department of Utilities

Client Sample ID: MW-4R (Continued)

Lab Sample ID: 310-311167-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.00754		0.00500		mg/L	1		6020B	Total/NA
pH	7.57	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	422		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 310-311167-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	58.4		5.00		mg/L	5		9056A	Total/NA
Sulfate	64.9		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00435		0.00200		mg/L	1		6020B	Total/NA
Barium	0.136		0.00200		mg/L	1		6020B	Total/NA
Boron	0.114		0.100		mg/L	1		6020B	Total/NA
Calcium	96.6		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0279		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00446		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00542		0.00500		mg/L	1		6020B	Total/NA
pH	7.11	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	436		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 310-311167-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	62.3		5.00		mg/L	5		9056A	Total/NA
Sulfate	60.0		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00459		0.00200		mg/L	1		6020B	Total/NA
Barium	0.131		0.00200		mg/L	1		6020B	Total/NA
Boron	0.110		0.100		mg/L	1		6020B	Total/NA
Calcium	98.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0258		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00480		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.00563		0.00500		mg/L	1		6020B	Total/NA
pH	6.98	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	440		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 310-311167-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	58.2		5.00		mg/L	5		9056A	Total/NA
Sulfate	70.2		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00375		0.00200		mg/L	1		6020B	Total/NA
Barium	0.124		0.00200		mg/L	1		6020B	Total/NA
Boron	0.117		0.100		mg/L	1		6020B	Total/NA
Calcium	84.7		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0276		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00576		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0104		0.00500		mg/L	1		6020B	Total/NA
pH	6.89	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	476		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35.0		5.00		mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers

Job ID: 310-311167-1

Project/Site: City of Fremont Department of Utilities

Client Sample ID: MW-8 (Continued)

Lab Sample ID: 310-311167-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	28.9		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00323		0.00200		mg/L	1		6020B	Total/NA
Barium	0.116		0.00200		mg/L	1		6020B	Total/NA
Calcium	74.0		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0227		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00477		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0103		0.00500		mg/L	1		6020B	Total/NA
pH	7.03	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	358		50.0		mg/L	1		SM 2540C	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	58.1		5.00		mg/L	5		9056A	Total/NA
Sulfate	70.5		5.00		mg/L	5		9056A	Total/NA
Arsenic	0.00385		0.00200		mg/L	1		6020B	Total/NA
Barium	0.127		0.00200		mg/L	1		6020B	Total/NA
Boron	0.119		0.100		mg/L	1		6020B	Total/NA
Calcium	86.5		0.500		mg/L	1		6020B	Total/NA
Lithium	0.0275		0.0100		mg/L	1		6020B	Total/NA
Molybdenum	0.00586		0.00200		mg/L	1		6020B	Total/NA
Selenium	0.0108		0.00500		mg/L	1		6020B	Total/NA
pH	7.00	HF	1.00		SU	1		9040C	Total/NA
Total Dissolved Solids	470		50.0		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-1

Lab Sample ID: 310-311167-1

Date Collected: 07/16/25 11:59

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.0		5.00		mg/L			07/22/25 09:38	5
Fluoride	<1.00		1.00		mg/L			07/22/25 09:38	5
Sulfate	67.8		5.00		mg/L			07/22/25 09:38	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:43	1
Arsenic	0.00411		0.00200		mg/L		07/21/25 09:10	07/28/25 16:43	1
Barium	0.124		0.00200		mg/L		07/21/25 09:10	07/28/25 16:43	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:43	1
Boron	0.107		0.100		mg/L		07/21/25 09:10	07/28/25 16:43	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:43	1
Calcium	94.9		0.500		mg/L		07/21/25 09:10	07/28/25 16:43	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:43	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:43	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:43	1
Lithium	0.0274		0.0100		mg/L		07/21/25 09:10	07/28/25 16:43	1
Molybdenum	0.00692		0.00200		mg/L		07/21/25 09:10	07/28/25 16:43	1
Selenium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:43	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/28/25 13:22	07/29/25 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	434		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.50	HF	1.00		SU			07/17/25 17:51	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-2

Lab Sample ID: 310-311167-2

Date Collected: 07/16/25 12:26

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	30.3		5.00		mg/L			07/22/25 09:50	5
Fluoride	1.16		1.00		mg/L			07/22/25 09:50	5
Sulfate	48.1		5.00		mg/L			07/22/25 09:50	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:46	1
Arsenic	0.00463		0.00200		mg/L		07/21/25 09:10	07/28/25 16:46	1
Barium	0.0936		0.00200		mg/L		07/21/25 09:10	07/28/25 16:46	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:46	1
Boron	0.113		0.100		mg/L		07/21/25 09:10	07/28/25 16:46	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:46	1
Calcium	78.8		0.500		mg/L		07/21/25 09:10	07/28/25 16:46	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:46	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:46	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:46	1
Lithium	0.0268		0.0100		mg/L		07/21/25 09:10	07/28/25 16:46	1
Molybdenum	0.00519		0.00200		mg/L		07/21/25 09:10	07/28/25 16:46	1
Selenium	0.00597		0.00500		mg/L		07/21/25 09:10	07/28/25 16:46	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:46	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/28/25 13:22	07/29/25 12:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	356		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.55	HF	1.00		SU			07/17/25 17:50	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-3

Lab Sample ID: 310-311167-3

Date Collected: 07/16/25 12:55

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	43.3		5.00		mg/L			07/22/25 10:03	5
Fluoride	<1.00		1.00		mg/L			07/22/25 10:03	5
Sulfate	44.6		5.00		mg/L			07/22/25 10:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:48	1
Arsenic	0.00369		0.00200		mg/L		07/21/25 09:10	07/28/25 16:48	1
Barium	0.116		0.00200		mg/L		07/21/25 09:10	07/28/25 16:48	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:48	1
Boron	0.100		0.100		mg/L		07/21/25 09:10	07/28/25 16:48	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:48	1
Calcium	78.7		0.500		mg/L		07/21/25 09:10	07/28/25 16:48	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:48	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:48	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:48	1
Lithium	0.0239		0.0100		mg/L		07/21/25 09:10	07/28/25 16:48	1
Molybdenum	0.00938		0.00200		mg/L		07/21/25 09:10	07/28/25 16:48	1
Selenium	0.00864		0.00500		mg/L		07/21/25 09:10	07/28/25 16:48	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:48	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	380		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.61	HF	1.00		SU			07/17/25 17:59	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-4R

Lab Sample ID: 310-311167-4

Date Collected: 07/16/25 10:22

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.7		5.00		mg/L			07/22/25 10:15	5
Fluoride	<1.00		1.00		mg/L			07/22/25 10:15	5
Sulfate	36.9		5.00		mg/L			07/22/25 10:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:51	1
Arsenic	0.00616		0.00200		mg/L		07/21/25 09:10	07/28/25 16:51	1
Barium	0.100		0.00200		mg/L		07/21/25 09:10	07/28/25 16:51	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:51	1
Boron	<0.100		0.100		mg/L		07/21/25 09:10	07/28/25 16:51	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:51	1
Calcium	90.1		0.500		mg/L		07/21/25 09:10	07/28/25 16:51	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:51	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:51	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:51	1
Lithium	0.0269		0.0100		mg/L		07/21/25 09:10	07/28/25 16:51	1
Molybdenum	0.00456		0.00200		mg/L		07/21/25 09:10	07/28/25 16:51	1
Selenium	0.00754		0.00500		mg/L		07/21/25 09:10	07/28/25 16:51	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	422		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.57	HF	1.00		SU			07/17/25 17:49	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-5

Lab Sample ID: 310-311167-5

Date Collected: 07/16/25 11:05

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.4		5.00		mg/L			07/22/25 10:27	5
Fluoride	<1.00		1.00		mg/L			07/22/25 10:27	5
Sulfate	64.9		5.00		mg/L			07/22/25 10:27	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:54	1
Arsenic	0.00435		0.00200		mg/L		07/21/25 09:10	07/28/25 16:54	1
Barium	0.136		0.00200		mg/L		07/21/25 09:10	07/28/25 16:54	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:54	1
Boron	0.114		0.100		mg/L		07/21/25 09:10	07/28/25 16:54	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:54	1
Calcium	96.6		0.500		mg/L		07/21/25 09:10	07/28/25 16:54	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:54	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:54	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:54	1
Lithium	0.0279		0.0100		mg/L		07/21/25 09:10	07/28/25 16:54	1
Molybdenum	0.00446		0.00200		mg/L		07/21/25 09:10	07/28/25 16:54	1
Selenium	0.00542		0.00500		mg/L		07/21/25 09:10	07/28/25 16:54	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	436		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.11	HF	1.00		SU			07/17/25 17:53	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-6

Lab Sample ID: 310-311167-6

Date Collected: 07/16/25 14:38

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	62.3		5.00		mg/L			07/22/25 10:38	5
Fluoride	<1.00		1.00		mg/L			07/22/25 10:38	5
Sulfate	60.0		5.00		mg/L			07/22/25 10:38	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 17:04	1
Arsenic	0.00459		0.00200		mg/L		07/21/25 09:10	07/28/25 17:04	1
Barium	0.131		0.00200		mg/L		07/21/25 09:10	07/28/25 17:04	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:04	1
Boron	0.110		0.100		mg/L		07/21/25 09:10	07/28/25 17:04	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 17:04	1
Calcium	98.7		0.500		mg/L		07/21/25 09:10	07/28/25 17:04	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 17:04	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:04	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:04	1
Lithium	0.0258		0.0100		mg/L		07/21/25 09:10	07/28/25 17:04	1
Molybdenum	0.00480		0.00200		mg/L		07/21/25 09:10	07/28/25 17:04	1
Selenium	0.00563		0.00500		mg/L		07/21/25 09:10	07/28/25 17:04	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:04	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	440		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	6.98	HF	1.00		SU			07/17/25 17:58	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-7

Lab Sample ID: 310-311167-7

Date Collected: 07/16/25 14:02

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.2		5.00		mg/L			07/22/25 10:51	5
Fluoride	<1.00		1.00		mg/L			07/22/25 10:51	5
Sulfate	70.2		5.00		mg/L			07/22/25 10:51	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 17:06	1
Arsenic	0.00375		0.00200		mg/L		07/21/25 09:10	07/28/25 17:06	1
Barium	0.124		0.00200		mg/L		07/21/25 09:10	07/28/25 17:06	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:06	1
Boron	0.117		0.100		mg/L		07/21/25 09:10	07/28/25 17:06	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 17:06	1
Calcium	84.7		0.500		mg/L		07/21/25 09:10	07/28/25 17:06	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 17:06	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:06	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:06	1
Lithium	0.0276		0.0100		mg/L		07/21/25 09:10	07/28/25 17:06	1
Molybdenum	0.00576		0.00200		mg/L		07/21/25 09:10	07/28/25 17:06	1
Selenium	0.0104		0.00500		mg/L		07/21/25 09:10	07/28/25 17:06	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	476		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	6.89	HF	1.00		SU			07/17/25 17:55	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

Date Collected: 07/16/25 13:29

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35.0		5.00		mg/L			07/22/25 11:03	5
Fluoride	<1.00		1.00		mg/L			07/22/25 11:03	5
Sulfate	28.9		5.00		mg/L			07/22/25 11:03	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 17:09	1
Arsenic	0.00323		0.00200		mg/L		07/21/25 09:10	07/28/25 17:09	1
Barium	0.116		0.00200		mg/L		07/21/25 09:10	07/28/25 17:09	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:09	1
Boron	<0.100		0.100		mg/L		07/21/25 09:10	07/28/25 17:09	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 17:09	1
Calcium	74.0		0.500		mg/L		07/21/25 09:10	07/28/25 17:09	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 17:09	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:09	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:09	1
Lithium	0.0227		0.0100		mg/L		07/21/25 09:10	07/28/25 17:09	1
Molybdenum	0.00477		0.00200		mg/L		07/21/25 09:10	07/28/25 17:09	1
Selenium	0.0103		0.00500		mg/L		07/21/25 09:10	07/28/25 17:09	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	358		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.03	HF	1.00		SU			07/17/25 17:57	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

Date Collected: 07/16/25 23:59

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	58.1		5.00		mg/L			07/22/25 11:15	5
Fluoride	<1.00		1.00		mg/L			07/22/25 11:15	5
Sulfate	70.5		5.00		mg/L			07/22/25 11:15	5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 17:12	1
Arsenic	0.00385		0.00200		mg/L		07/21/25 09:10	07/28/25 17:12	1
Barium	0.127		0.00200		mg/L		07/21/25 09:10	07/28/25 17:12	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:12	1
Boron	0.119		0.100		mg/L		07/21/25 09:10	07/28/25 17:12	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 17:12	1
Calcium	86.5		0.500		mg/L		07/21/25 09:10	07/28/25 17:12	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 17:12	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:12	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 17:12	1
Lithium	0.0275		0.0100		mg/L		07/21/25 09:10	07/28/25 17:12	1
Molybdenum	0.00586		0.00200		mg/L		07/21/25 09:10	07/28/25 17:12	1
Selenium	0.0108		0.00500		mg/L		07/21/25 09:10	07/28/25 17:12	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 17:12	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	470		50.0		mg/L			07/18/25 20:41	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9040C)	7.00	HF	1.00		SU			07/17/25 17:56	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Parameter with a holding time of 15 minutes. Test performed by laboratory at client's request. Sample was analyzed outside of hold time.

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

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-461305/3

Matrix: Water

Analysis Batch: 461305

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00		mg/L			07/21/25 17:03	1
Fluoride	<0.200		0.200		mg/L			07/21/25 17:03	1
Sulfate	<1.00		1.00		mg/L			07/21/25 17:03	1

Lab Sample ID: LCS 310-461305/4

Matrix: Water

Analysis Batch: 461305

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.420		mg/L		94	90 - 110
Fluoride	2.00	1.988		mg/L		99	90 - 110
Sulfate	10.0	9.522		mg/L		95	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-461029/1-A

Matrix: Water

Analysis Batch: 461946

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 461029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:10	1
Arsenic	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:10	1
Barium	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:10	1
Beryllium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:10	1
Boron	<0.100		0.100		mg/L		07/21/25 09:10	07/28/25 16:10	1
Cadmium	<0.000200		0.000200		mg/L		07/21/25 09:10	07/28/25 16:10	1
Calcium	<0.500		0.500		mg/L		07/21/25 09:10	07/28/25 16:10	1
Chromium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:10	1
Cobalt	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:10	1
Lead	<0.000500		0.000500		mg/L		07/21/25 09:10	07/28/25 16:10	1
Lithium	<0.0100		0.0100		mg/L		07/21/25 09:10	07/28/25 16:10	1
Molybdenum	<0.00200		0.00200		mg/L		07/21/25 09:10	07/28/25 16:10	1
Selenium	<0.00500		0.00500		mg/L		07/21/25 09:10	07/28/25 16:10	1
Thallium	<0.00100		0.00100		mg/L		07/21/25 09:10	07/28/25 16:10	1

Lab Sample ID: LCS 310-461029/2-A

Matrix: Water

Analysis Batch: 461946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 461029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2121		mg/L		106	80 - 120
Arsenic	0.200	0.2052		mg/L		103	80 - 120
Barium	0.100	0.09873		mg/L		99	80 - 120
Beryllium	0.100	0.09537		mg/L		95	80 - 120
Boron	0.200	0.2110		mg/L		106	80 - 120
Cadmium	0.100	0.09595		mg/L		96	80 - 120
Calcium	2.00	1.911		mg/L		96	80 - 120
Chromium	0.100	0.09955		mg/L		100	80 - 120
Cobalt	0.100	0.09825		mg/L		98	80 - 120

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QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

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

Lab Sample ID: LCS 310-461029/2-A

Matrix: Water

Analysis Batch: 461946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 461029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2024		mg/L		101	80 - 120
Lithium	0.200	0.1948		mg/L		97	80 - 120
Molybdenum	0.200	0.1938		mg/L		97	80 - 120
Selenium	0.400	0.3788		mg/L		95	80 - 120
Thallium	0.100	0.09034		mg/L		90	80 - 120

Lab Sample ID: 310-311167-5 DU

Matrix: Water

Analysis Batch: 461946

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 461029

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	0.00435		0.004109		mg/L		6	20
Barium	0.136		0.1277		mg/L		6	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Boron	0.114		0.1153		mg/L		0.9	20
Cadmium	<0.000200		<0.000200		mg/L		NC	20
Calcium	96.6		89.97		mg/L		7	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	<0.000500		<0.000500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Lithium	0.0279		0.02610		mg/L		7	20
Molybdenum	0.00446		0.004369		mg/L		2	20
Selenium	0.00542		<0.00500		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-461948/1-A

Matrix: Water

Analysis Batch: 462142

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 461948

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		07/29/25 11:49	07/30/25 10:22	1

Lab Sample ID: LCS 310-461948/2-A

Matrix: Water

Analysis Batch: 462142

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 461948

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001685		mg/L		101	80 - 120

Lab Sample ID: 310-311167-3 MS

Matrix: Water

Analysis Batch: 462142

Client Sample ID: MW-3

Prep Type: Total/NA

Prep Batch: 461948

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.000200		0.00167	0.001704		mg/L		102	80 - 120

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QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 310-311167-3 MSD

Matrix: Water

Analysis Batch: 462142

Client Sample ID: MW-3

Prep Type: Total/NA

Prep Batch: 461948

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.000200		0.00167	0.001679		mg/L		101	80 - 120	2	20

Method: 9040C - pH

Lab Sample ID: LCS 310-460881/1

Matrix: Water

Analysis Batch: 460881

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
pH	7.00	6.920		SU		99	98 - 102

Lab Sample ID: 310-311167-5 DU

Matrix: Water

Analysis Batch: 460881

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.11	HF	7.120		SU		0.1	20

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

Lab Sample ID: MB 310-461041/1

Matrix: Water

Analysis Batch: 461041

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	<50.0		50.0		mg/L			07/18/25 20:41	1

Lab Sample ID: LCS 310-461041/2

Matrix: Water

Analysis Batch: 461041

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	1000	1004		mg/L		100	89 - 110

Lab Sample ID: 310-311167-7 DU

Matrix: Water

Analysis Batch: 461041

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	476		478.0		mg/L		0.4	13

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QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

HPLC/IC

Analysis Batch: 461305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	9056A	
310-311167-2	MW-2	Total/NA	Water	9056A	
310-311167-3	MW-3	Total/NA	Water	9056A	
310-311167-4	MW-4R	Total/NA	Water	9056A	
310-311167-5	MW-5	Total/NA	Water	9056A	
310-311167-6	MW-6	Total/NA	Water	9056A	
310-311167-7	MW-7	Total/NA	Water	9056A	
310-311167-8	MW-8	Total/NA	Water	9056A	
310-311167-9	Duplicate	Total/NA	Water	9056A	
MB 310-461305/3	Method Blank	Total/NA	Water	9056A	
LCS 310-461305/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 461029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	3005A	
310-311167-2	MW-2	Total/NA	Water	3005A	
310-311167-3	MW-3	Total/NA	Water	3005A	
310-311167-4	MW-4R	Total/NA	Water	3005A	
310-311167-5	MW-5	Total/NA	Water	3005A	
310-311167-6	MW-6	Total/NA	Water	3005A	
310-311167-7	MW-7	Total/NA	Water	3005A	
310-311167-8	MW-8	Total/NA	Water	3005A	
310-311167-9	Duplicate	Total/NA	Water	3005A	
MB 310-461029/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-461029/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-311167-5 DU	MW-5	Total/NA	Water	3005A	

Prep Batch: 461864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	7470A	
310-311167-2	MW-2	Total/NA	Water	7470A	

Analysis Batch: 461946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	6020B	461029
310-311167-2	MW-2	Total/NA	Water	6020B	461029
310-311167-3	MW-3	Total/NA	Water	6020B	461029
310-311167-4	MW-4R	Total/NA	Water	6020B	461029
310-311167-5	MW-5	Total/NA	Water	6020B	461029
310-311167-6	MW-6	Total/NA	Water	6020B	461029
310-311167-7	MW-7	Total/NA	Water	6020B	461029
310-311167-8	MW-8	Total/NA	Water	6020B	461029
310-311167-9	Duplicate	Total/NA	Water	6020B	461029
MB 310-461029/1-A	Method Blank	Total/NA	Water	6020B	461029
LCS 310-461029/2-A	Lab Control Sample	Total/NA	Water	6020B	461029
310-311167-5 DU	MW-5	Total/NA	Water	6020B	461029

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Metals

Prep Batch: 461948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-3	MW-3	Total/NA	Water	7470A	461948
310-311167-4	MW-4R	Total/NA	Water	7470A	
310-311167-5	MW-5	Total/NA	Water	7470A	
310-311167-6	MW-6	Total/NA	Water	7470A	
310-311167-7	MW-7	Total/NA	Water	7470A	
310-311167-8	MW-8	Total/NA	Water	7470A	
310-311167-9	Duplicate	Total/NA	Water	7470A	
MB 310-461948/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-461948/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-311167-3 MS	MW-3	Total/NA	Water	7470A	
310-311167-3 MSD	MW-3	Total/NA	Water	7470A	

Analysis Batch: 462002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	7470A	461864
310-311167-2	MW-2	Total/NA	Water	7470A	461864

Analysis Batch: 462142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-3	MW-3	Total/NA	Water	7470A	461948
310-311167-4	MW-4R	Total/NA	Water	7470A	461948
310-311167-5	MW-5	Total/NA	Water	7470A	461948
310-311167-6	MW-6	Total/NA	Water	7470A	461948
310-311167-7	MW-7	Total/NA	Water	7470A	461948
310-311167-8	MW-8	Total/NA	Water	7470A	461948
310-311167-9	Duplicate	Total/NA	Water	7470A	461948
MB 310-461948/1-A	Method Blank	Total/NA	Water	7470A	461948
LCS 310-461948/2-A	Lab Control Sample	Total/NA	Water	7470A	461948
310-311167-3 MS	MW-3	Total/NA	Water	7470A	461948
310-311167-3 MSD	MW-3	Total/NA	Water	7470A	461948

General Chemistry

Analysis Batch: 460881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	9040C	460881
310-311167-2	MW-2	Total/NA	Water	9040C	
310-311167-3	MW-3	Total/NA	Water	9040C	
310-311167-4	MW-4R	Total/NA	Water	9040C	
310-311167-5	MW-5	Total/NA	Water	9040C	
310-311167-6	MW-6	Total/NA	Water	9040C	
310-311167-7	MW-7	Total/NA	Water	9040C	
310-311167-8	MW-8	Total/NA	Water	9040C	
310-311167-9	Duplicate	Total/NA	Water	9040C	
LCS 310-460881/1	Lab Control Sample	Total/NA	Water	9040C	
310-311167-5 DU	MW-5	Total/NA	Water	9040C	

Analysis Batch: 461041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	SM 2540C	461041
310-311167-2	MW-2	Total/NA	Water	SM 2540C	

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers

Job ID: 310-311167-1

Project/Site: City of Fremont Department of Utilities

General Chemistry (Continued)

Analysis Batch: 461041 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-3	MW-3	Total/NA	Water	SM 2540C	
310-311167-4	MW-4R	Total/NA	Water	SM 2540C	
310-311167-5	MW-5	Total/NA	Water	SM 2540C	
310-311167-6	MW-6	Total/NA	Water	SM 2540C	
310-311167-7	MW-7	Total/NA	Water	SM 2540C	
310-311167-8	MW-8	Total/NA	Water	SM 2540C	
310-311167-9	Duplicate	Total/NA	Water	SM 2540C	
MB 310-461041/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-461041/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-311167-7 DU	MW-7	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-1

Date Collected: 07/16/25 11:59

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 09:38
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 16:43
Total/NA	Prep	7470A			461864	F5MW	EET CF	07/28/25 13:22
Total/NA	Analysis	7470A		1	462002	F5MW	EET CF	07/29/25 11:59
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:51
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-2

Date Collected: 07/16/25 12:26

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 09:50
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 16:46
Total/NA	Prep	7470A			461864	F5MW	EET CF	07/28/25 13:22
Total/NA	Analysis	7470A		1	462002	F5MW	EET CF	07/29/25 12:01
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:50
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-3

Date Collected: 07/16/25 12:55

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 10:03
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 16:48
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:26
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:59
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-4R

Date Collected: 07/16/25 10:22

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 10:15
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 16:51
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:32

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-4R

Date Collected: 07/16/25 10:22

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:49
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-5

Date Collected: 07/16/25 11:05

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 10:27
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 16:54
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:35
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:53
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-6

Date Collected: 07/16/25 14:38

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 10:38
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:04
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:37
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:58
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: MW-7

Date Collected: 07/16/25 14:02

Date Received: 07/17/25 08:45

Lab Sample ID: 310-311167-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 10:51
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:06
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:39
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:55
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

Date Collected: 07/16/25 13:29

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 11:03
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:09
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:45
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:57
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

Date Collected: 07/16/25 23:59

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	461305	QTZ5	EET CF	07/22/25 11:15
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:12
Total/NA	Prep	7470A			461948	F5MW	EET CF	07/29/25 11:49
Total/NA	Analysis	7470A		1	462142	F5MW	EET CF	07/30/25 10:47
Total/NA	Analysis	9040C		1	460881	MDU9	EET CF	07/17/25 17:56
Total/NA	Analysis	SM 2540C		1	461041	MDU9	EET CF	07/18/25 20:41

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-1

Laboratory: Eurofins Cedar Falls

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
6020B	3005A	Water	Lithium

Method Summary

Client: SCS Engineers

Job ID: 310-311167-1

Project/Site: City of Fremont Department of Utilities

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
9040C	pH	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

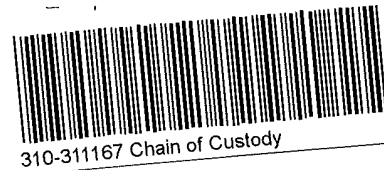
Protocol References:

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:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS Engineers</u>			
City/State:	CITY <u>Omaha</u>	STATE	Project
Receipt Information			
Date/Time Received.	DATE <u>7-17-25</u>	TIME <u>0814</u>	Received By: <u>EH</u>
Delivery Type. ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		If yes Cooler ID:	
☒ Yes ☐ No			
Multiple Coolers?		If yes: Cooler # <u>1</u> of <u>2</u>	
☒ Yes ☐ No			
Cooler Custody Seals Present?		If yes: Cooler custody seals intact?	
☒ Yes ☐ No		☒ Yes ☐ No	
Sample Custody Seals Present?		If yes: Sample custody seals intact?	
☐ Yes ☒ No		☐ Yes ☐ No	
Trip Blank Present?		If yes. Which VOA samples are in cooler? ↓	
☐ Yes ☒ No			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>AA</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>13</u>		Corrected Temp (°C): <u>1.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No			
a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			



Environment Testing
America

Place COC scanning label
here

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>SCS Engineers</u>			
City/State	CITY <u>Omaha</u>	STATE	Project.
Receipt Information			
Date/Time Received:	DATE <u>7-17-25</u>	TIME <u>0845</u>	Received By: <u>EH</u>
Delivery Type. ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>2</u> of <u>2</u>			
Cooler Custody Seals Present? ☒ Yes ☐ No If yes. Cooler custody seals intact? ☒ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE			
Thermometer ID: <u>AA</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>-0.4</u>		Corrected Temp (°C): <u>-0.4</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☒ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Cedar Falls, IA 50613

phone 319.277.2401 fax 319.277.2425

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

Eurofins Environment Testing America

Client Contact		Project Manager: Morgan Sykes		Site Contact: C. Soyle		Date: 7/16/25		COC No									
SCS Engineers		Email: msykes@scsengineers.com		Lab Contact: S. Miller		Carrier: FedEx		1 of 1 COCs									
14755 Grover Street		Tel/Fax: (402) 938-0323						TALS Project #									
Omaha Nebraska, 68144		Analysis Turnaround Time						Sampler C. Soyle									
(402) 884-6202 Phone		☒ CALENDAR DAYS ☐ WORKING DAYS						For Lab Use Only:									
(913)681-0012 FAX		TAT if different from Below 10						Walk-in Client:									
Project Name: City of Fremont Department of Utilities		☐ 2 weeks						Lab Sampling									
Site: Ash Monofill		☐ 1 week						Job / SDG No									
P O # 27224080 01		☐ 2 days															
		☐ 1 day															
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	7470A Mercury	7740/6010 Total Metals	9056 Chloride-Fluoride-Sulfate	2540C TDS	9040 pH	9315 Total Radium (226 & 228) *	Sample Specific Notes			
MW-1	7/16/25	1159	G	WT				X	X	X	X	X	X				
MW-2	7/16/25	1226	G	WT				X	X	X	X	X	X				
MW-3	7/16/25	1255	G	WT				X	X	X	X	X	X				
MW-4R	7/16/25	1022	G	WT				X	X	X	X	X	X				
MW-5	7/16/25	1105	G	WT				X	X	X	X	X	X				
MW-6	7/16/25	1438	G	WT				X	X	X	X	X	X				
MW-7	7/16/25	1402	G	WT				X	X	X	X	X	X				
MW-8	7/16/25	1329	G	WT				X	X	X	X	X	X				
Duplicate	7/16/25	2359	G	WT				X	X	X	X	X	X				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)											
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample						Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months											
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown																	
Special Instructions/QC Requirements & Comments: Total Metals = Ar, Ba, Be, Bo, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se & Ti. * Radium speciation is not required.																	
Custody Seals Intact: ☒ Yes ☐ No			Custody Seal No			Cooler Temp (°C) Obs'd			Corr'd			Therm ID No					
Relinquished by: [Signature]			Company: SCS 7/14/25			Date/Time: 1630			Received by: FedEx 817027231720			Company:			Date/Time:		
Relinquished by:			Company:			Date/Time:			Received by:			Company:			Date/Time:		
Relinquished by:			Company:			Date/Time:			Received in Laboratory by: [Signature]			Company:			Date/Time: 7.17.25 845		

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-311167-1

Login Number: 311167

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

ANALYTICAL REPORT

PREPARED FOR

Attn: Morgan Sykes
SCS Engineers
14755 Grover St
Omaha, Nebraska 68144

Generated 8/13/2025 5:03:45 PM

JOB DESCRIPTION

City of Fremont Department of Utilities

JOB NUMBER

310-311167-2

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



Generated
8/13/2025 5:03:45 PM

Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)595-2008

Table of Contents

Cover Page 1

Table of Contents 3

Case Narrative 4

Sample Summary 5

Detection Summary 6

Client Sample Results 7

Definitions 16

QC Sample Results 17

QC Association 19

Chronicle 20

Certification Summary 23

Method Summary 24

Chain of Custody 25

Receipt Checklists 29

Tracer Carrier Summary 31



Case Narrative

Client: SCS Engineers
Project: City of Fremont Department of Utilities

Job ID: 310-311167-2

Job ID: 310-311167-2

Eurofins Cedar Falls

Job Narrative 310-311167-2

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 7/17/2025 8:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were -0.4°C and 1.3°C.

Receipt Exceptions

One or more containers for the following samples were received leaking. Sample 4 still has 925mL left and sample 5 still has 700mL left. We still have enough volume to run the requested analyses.: MW-4R (310-311167-4) and MW-5 (310-311167-5).

Affected containers:

D-4
C-5

Gas Flow Proportional Counter

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

Rad

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

Eurofins Cedar Falls

Sample Summary

Client: SCS Engineers

Job ID: 310-311167-2

Project/Site: City of Fremont Department of Utilities

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-311167-1	MW-1	Water	07/16/25 11:59	07/17/25 08:45	Iowa
310-311167-2	MW-2	Water	07/16/25 12:26	07/17/25 08:45	Iowa
310-311167-3	MW-3	Water	07/16/25 12:55	07/17/25 08:45	Iowa
310-311167-4	MW-4R	Water	07/16/25 10:22	07/17/25 08:45	Iowa
310-311167-5	MW-5	Water	07/16/25 11:05	07/17/25 08:45	Iowa
310-311167-6	MW-6	Water	07/16/25 14:38	07/17/25 08:45	Iowa
310-311167-7	MW-7	Water	07/16/25 14:02	07/17/25 08:45	Iowa
310-311167-8	MW-8	Water	07/16/25 13:29	07/17/25 08:45	Iowa
310-311167-9	Duplicate	Water	07/16/25 23:59	07/17/25 08:45	Iowa

Detection Summary

Client: SCS Engineers

Job ID: 310-311167-2

Project/Site: City of Fremont Department of Utilities

Client Sample ID: MW-1

Lab Sample ID: 310-311167-1

No Detections.

Client Sample ID: MW-2

Lab Sample ID: 310-311167-2

No Detections.

Client Sample ID: MW-3

Lab Sample ID: 310-311167-3

No Detections.

Client Sample ID: MW-4R

Lab Sample ID: 310-311167-4

No Detections.

Client Sample ID: MW-5

Lab Sample ID: 310-311167-5

No Detections.

Client Sample ID: MW-6

Lab Sample ID: 310-311167-6

No Detections.

Client Sample ID: MW-7

Lab Sample ID: 310-311167-7

No Detections.

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

No Detections.

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-1

Lab Sample ID: 310-311167-1

Date Collected: 07/16/25 11:59

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.822		0.318	0.326	1.00	0.320	pCi/L	07/21/25 08:12	08/12/25 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		30 - 110					07/21/25 08:12	08/12/25 18:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.12		0.694	0.721	1.00	0.790	pCi/L	07/21/25 08:16	08/12/25 15:11	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	83.1		30 - 110					07/21/25 08:16	08/12/25 15:11	1
Y Carrier	78.5		30 - 110					07/21/25 08:16	08/12/25 15:11	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.95		0.763	0.791	5.00	0.790	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-2

Lab Sample ID: 310-311167-2

Date Collected: 07/16/25 12:26

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.669		0.273	0.280	1.00	0.273	pCi/L	07/21/25 08:12	08/12/25 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		30 - 110					07/21/25 08:12	08/12/25 18:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.10		0.425	0.437	1.00	0.540	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	81.5		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.77		0.505	0.519	5.00	0.540	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-3

Lab Sample ID: 310-311167-3

Date Collected: 07/16/25 12:55

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.849		0.356	0.364	1.00	0.420	pCi/L	07/21/25 08:12	08/12/25 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.4		30 - 110					07/21/25 08:12	08/12/25 18:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.67		0.515	0.537	1.00	0.599	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.4		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	78.5		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.52		0.626	0.649	5.00	0.599	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-4R

Lab Sample ID: 310-311167-4

Date Collected: 07/16/25 10:22

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.438		0.236	0.240	1.00	0.294	pCi/L	07/21/25 08:12	08/12/25 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		30 - 110					07/21/25 08:12	08/12/25 18:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.43		0.418	0.438	1.00	0.472	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	90.1		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.87		0.480	0.499	5.00	0.472	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-5

Lab Sample ID: 310-311167-5

Date Collected: 07/16/25 11:05

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.608		0.268	0.273	1.00	0.305	pCi/L	07/21/25 08:12	08/12/25 18:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					07/21/25 08:12	08/12/25 18:55	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.59		0.421	0.445	1.00	0.449	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.0		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	89.3		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.20		0.499	0.522	5.00	0.449	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-6

Lab Sample ID: 310-311167-6

Date Collected: 07/16/25 14:38

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.563		0.270	0.274	1.00	0.323	pCi/L	07/21/25 08:12	08/12/25 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		30 - 110					07/21/25 08:12	08/12/25 18:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.919		0.358	0.368	1.00	0.452	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	90.8		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.48		0.448	0.459	5.00	0.452	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-7

Lab Sample ID: 310-311167-7

Date Collected: 07/16/25 14:02

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.288	U	0.274	0.275	1.00	0.433	pCi/L	07/21/25 08:12	08/12/25 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		30 - 110					07/21/25 08:12	08/12/25 18:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.45		0.561	0.604	1.00	0.563	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.7		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	79.3		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.73		0.624	0.664	5.00	0.563	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

Date Collected: 07/16/25 13:29

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.961		0.367	0.377	1.00	0.422	pCi/L	07/21/25 08:12	08/12/25 18:56	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					07/21/25 08:12	08/12/25 18:56	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.20		0.479	0.492	1.00	0.637	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.7		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	81.1		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.17		0.603	0.620	5.00	0.637	pCi/L		08/13/25 16:52	1

Client Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

Date Collected: 07/16/25 23:59

Matrix: Water

Date Received: 07/17/25 08:45

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.334	U	0.270	0.272	1.00	0.407	pCi/L	07/21/25 08:12	08/12/25 18:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		30 - 110					07/21/25 08:12	08/12/25 18:54	1

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.97		0.555	0.584	1.00	0.619	pCi/L	07/21/25 08:16	08/12/25 11:55	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.9		30 - 110					07/21/25 08:16	08/12/25 11:55	1
Y Carrier	80.7		30 - 110					07/21/25 08:16	08/12/25 11:55	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.31		0.617	0.644	5.00	0.619	pCi/L		08/13/25 16:52	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Qualifiers

Rad

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-728157/1-A

Matrix: Water

Analysis Batch: 731524

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 728157

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04738	U	0.148	0.148	1.00	0.287	pCi/L	07/21/25 08:12	08/12/25 18:54	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					07/21/25 08:12	08/12/25 18:54	1

Lab Sample ID: LCS 160-728157/2-A

Matrix: Water

Analysis Batch: 731524

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 728157

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	9.911		1.31	1.00	0.315	pCi/L	104	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	86.4		30 - 110							

Lab Sample ID: 310-311167-1 DU

Matrix: Water

Analysis Batch: 731524

Client Sample ID: MW-1

Prep Type: Total/NA

Prep Batch: 728157

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.822		1.016		0.368	1.00	0.332	pCi/L	0.28	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	75.1		30 - 110							

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-728158/1-A

Matrix: Water

Analysis Batch: 731524

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 728158

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4735	U	0.360	0.363	1.00	0.553	pCi/L	07/21/25 08:16	08/12/25 11:54	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		30 - 110					07/21/25 08:16	08/12/25 11:54	1
Y Carrier	83.4		30 - 110					07/21/25 08:16	08/12/25 11:54	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

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

Lab Sample ID: LCS 160-728158/2-A

Matrix: Water

Analysis Batch: 731524

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 728158

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.17	9.757		1.33	1.00	0.496	pCi/L	106	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	86.4		30 - 110
Y Carrier	84.1		30 - 110

Lab Sample ID: 310-311167-1 DU

Matrix: Water

Analysis Batch: 731498

Client Sample ID: MW-1

Prep Type: Total/NA

Prep Batch: 728158

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	2.12		1.871		0.743	1.00	0.894	pCi/L	0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	75.1		30 - 110
Y Carrier	77.4		30 - 110

QC Association Summary

Client: SCS Engineers

Job ID: 310-311167-2

Project/Site: City of Fremont Department of Utilities

Rad

Prep Batch: 728157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	PrecSep-21	
310-311167-2	MW-2	Total/NA	Water	PrecSep-21	
310-311167-3	MW-3	Total/NA	Water	PrecSep-21	
310-311167-4	MW-4R	Total/NA	Water	PrecSep-21	
310-311167-5	MW-5	Total/NA	Water	PrecSep-21	
310-311167-6	MW-6	Total/NA	Water	PrecSep-21	
310-311167-7	MW-7	Total/NA	Water	PrecSep-21	
310-311167-8	MW-8	Total/NA	Water	PrecSep-21	
310-311167-9	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-728157/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-728157/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
310-311167-1 DU	MW-1	Total/NA	Water	PrecSep-21	

Prep Batch: 728158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311167-1	MW-1	Total/NA	Water	PrecSep_0	
310-311167-2	MW-2	Total/NA	Water	PrecSep_0	
310-311167-3	MW-3	Total/NA	Water	PrecSep_0	
310-311167-4	MW-4R	Total/NA	Water	PrecSep_0	
310-311167-5	MW-5	Total/NA	Water	PrecSep_0	
310-311167-6	MW-6	Total/NA	Water	PrecSep_0	
310-311167-7	MW-7	Total/NA	Water	PrecSep_0	
310-311167-8	MW-8	Total/NA	Water	PrecSep_0	
310-311167-9	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-728158/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-728158/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
310-311167-1 DU	MW-1	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-1

Lab Sample ID: 310-311167-1

Date Collected: 07/16/25 11:59

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:55
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731498	SWS	EET SL	08/12/25 15:11
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-2

Lab Sample ID: 310-311167-2

Date Collected: 07/16/25 12:26

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:55
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-3

Lab Sample ID: 310-311167-3

Date Collected: 07/16/25 12:55

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:55
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-4R

Lab Sample ID: 310-311167-4

Date Collected: 07/16/25 10:22

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:55
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: MW-5

Lab Sample ID: 310-311167-5

Date Collected: 07/16/25 11:05

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:55
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-6

Lab Sample ID: 310-311167-6

Date Collected: 07/16/25 14:38

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:56
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-7

Lab Sample ID: 310-311167-7

Date Collected: 07/16/25 14:02

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:56
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Client Sample ID: MW-8

Lab Sample ID: 310-311167-8

Date Collected: 07/16/25 13:29

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731524	SWS	EET SL	08/12/25 18:56
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Client Sample ID: Duplicate

Lab Sample ID: 310-311167-9

Date Collected: 07/16/25 23:59

Matrix: Water

Date Received: 07/17/25 08:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			728157	JTR	EET SL	07/21/25 08:12
Total/NA	Analysis	9315		1	731525	SWS	EET SL	08/12/25 18:54
Total/NA	Prep	PrecSep_0			728158	JTR	EET SL	07/21/25 08:16
Total/NA	Analysis	9320		1	731524	SWS	EET SL	08/12/25 11:55
Total/NA	Analysis	Ra226_Ra228		1	731867	SCB	EET SL	08/13/25 16:52

Laboratory References:
EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: SCS Engineers

Job ID: 310-311167-2

Project/Site: City of Fremont Department of Utilities

Laboratory: Eurofins St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	373	12-01-26

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
9315	PrecSep-21	Water	Radium-226
9320	PrecSep_0	Water	Radium-228
Ra226_Ra228		Water	Combined Radium 226 + 228

Method Summary

Client: SCS Engineers

Job ID: 310-311167-2

Project/Site: City of Fremont Department of Utilities

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

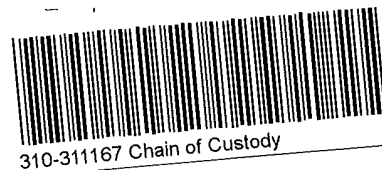
None = None

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

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

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



Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS Engineers</u>			
City/State:	CITY <u>Omaha</u>	STATE	Project
Receipt Information			
Date/Time Received.	DATE <u>7-17-25</u>	TIME <u>0814</u>	Received By: <u>EH</u>
Delivery Type. ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other. _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler?		If yes Cooler ID:	
☒ Yes ☐ No			
Multiple Coolers?		If yes: Cooler # <u>1</u> of <u>2</u>	
☒ Yes ☐ No			
Cooler Custody Seals Present?		If yes: Cooler custody seals intact?	
☒ Yes ☐ No		☒ Yes ☐ No	
Sample Custody Seals Present?		If yes: Sample custody seals intact?	
☐ Yes ☒ No		☐ Yes ☐ No	
Trip Blank Present?		If yes. Which VOA samples are in cooler? ↓	
☐ Yes ☒ No			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>AA</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>13</u>		Corrected Temp (°C): <u>1.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No			
a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>SCS Engineers</u>			
City/State	CITY <u>Omaha</u>	STATE	Project.
Receipt Information			
Date/Time Received:	DATE <u>7-17-25</u>	TIME <u>0845</u>	Received By: <u>EH</u>
Delivery Type. ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other: _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID: _____			
Multiple Coolers? ☒ Yes ☐ No If yes: Cooler # <u>2</u> of <u>2</u>			
Cooler Custody Seals Present? ☒ Yes ☐ No If yes. Cooler custody seals intact? ☒ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☐ Yes ☒ No If yes: Which VOA samples are in cooler? ↓			
Temperature Record			
Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other _____ ☐ NONE			
Thermometer ID: <u>AA</u>		Correction Factor (°C): <u>0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>-0.4</u>		Corrected Temp (°C): <u>-0.4</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1		CONTAINER 2
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☒ No			
NOTE: If yes, contact PM before proceeding. If no, proceed with login			
Additional Comments			

Eurofins Cedar Falls

3019 Venture Way

Cedar Falls, IA 50613

phone 319.277.2401 fax 319.277.2425

Chain of Custody Record

estAmerica Eurofins

268

Environment Testing
AmericaRegulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

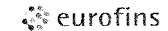
Eurofins Environment Testing America

Client Contact		Project Manager: Morgan Sykes		Site Contact: C. Soyle		Date: 7/16/25		COC No							
SCS Engineers		Email: msykes@scsengineers.com		Lab Contact: S. Miller		Carrier: FedEx		1 of 1 COCs							
14755 Grover Street		Tel/Fax: (402) 938-0323						TALS Project #							
Omaha Nebraska, 68144		Analysis Turnaround Time						Sampler C. Soyle							
(402) 884-6202 Phone		☒ CALENDAR DAYS ☐ WORKING DAYS						For Lab Use Only:							
(913)681-0012 FAX		TAT if different from Below 10						Walk-in Client:							
Project Name: City of Fremont Department of Utilities		☐ 2 weeks						Lab Sampling							
Site: Ash Monofill		☐ 1 week						Job / SDG No							
P O # 27224080 01		☐ 2 days													
		☐ 1 day													
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	7470A Mercury	7740/6010 Total Metals	9056 Chloride-Fluoride-Sulfate	2540C TDS	9040 pH	9315 Total Radium (226 & 228) *	Sample Specific Notes.
MW-1	7/16/25	1159	G	WT				X	X	X	X	X	X	X	
MW-2	7/16/25	1226	G	WT				X	X	X	X	X	X	X	
MW-3	7/16/25	1255	G	WT				X	X	X	X	X	X	X	
MW-4R	7/16/25	1022	G	WT				X	X	X	X	X	X	X	
MW-5	7/16/25	1105	G	WT				X	X	X	X	X	X	X	
MW-6	7/16/25	1438	G	WT				X	X	X	X	X	X	X	
MW-7	7/16/25	1402	G	WT				X	X	X	X	X	X	X	
MW-8	7/16/25	1329	G	WT				X	X	X	X	X	X	X	
Duplicate	7/16/25	2359	G	WT				X	X	X	X	X	X	X	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)								
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample							☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months								
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown															
Special Instructions/QC Requirements & Comments: Total Metals = Ar, Ba, Be, Bo, Ca, Cd, Co, Cr, Hg, Li, Mo, Pb, Sb, Se & Ti. * Radium speciation is not required.															
Custody Seals Intact: ☒ Yes ☐ No		Custody Seal No		Cooler Temp (°C) Obs'd		Corr'd		Therm ID No							
Relinquished by: [Signature]		Company: SCS 7/14/25		Date/Time: 1630		Received by: FedEx 817027231720		Company:		Date/Time:					
Relinquished by:		Company:		Date/Time:		Received by:		Company:		Date/Time:					
Relinquished by:		Company:		Date/Time:		Received in Laboratory by: [Signature]		Company:		Date/Time: 7.17.25 845					

Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)		Sampler: N/A		Lab PM: Miller, Samuel		Carrier Tracking No(s): N/A		COC No: 310-85040.1					
Client Contact: Shipping/Receiving		Phone: N/A		E-Mail: Samuel.Miller@et.eurofinsus.com		State of Origin: Iowa		Page: Page 1 of 1					
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): State - Iowa; State Program - Iowa				Job #: 310-311167-2					
Address: 13715 Rider Trail North,		Due Date Requested: 8/11/2025		Analysis Requested						Preservation Codes:			
City: Earth City		TAT Requested (days): N/A											
State, Zip: MO, 63045		PO #: N/A		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 9315_Ra228/PrecSep_21Radium-226 (GFPC) 9320_Ra228/PrecSep_0Radium-228 (GFPC) Ra226Ra228_GFPCCombined Radium-226 and Radium-228		Total Number of containers						Other: N/A	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #: N/A											
Email: N/A		Project #: 31014495		Preservation Code:									
Project Name: City of Fremont Department of Utilities		SSOW#: N/A											
Site: N/A													
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)		Special Instructions/Note:			
MW-1 (310-311167-1)		7/16/25		11:59 Central		G		Water					
MW-2 (310-311167-2)		7/16/25		12:26 Central		G		Water					
MW-3 (310-311167-3)		7/16/25		12:55 Central		G		Water					
MW-4R (310-311167-4)		7/16/25		10:22 Central		G		Water					
MW-5 (310-311167-5)		7/16/25		11:05 Central		G		Water					
MW-6 (310-311167-6)		7/16/25		14:38 Central		G		Water					
MW-7 (310-311167-7)		7/16/25		14:02 Central		G		Water					
MW-8 (310-311167-8)		7/16/25		13:29 Central		G		Water					
Duplicate (310-311167-9)		7/16/25		23:59 Central		G		Water					
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.													
Possible Hazard Identification						Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)							
Unconfirmed						☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months							
Deliverable Requested: I, II, III, IV, Other (specify)						Special Instructions/QC Requirements:							
Empty Kit Relinquished by:				Date:		Time:		Method of Shipment:					
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:		Company			
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:		Company			
Relinquished by:		Date/Time:		Company		Received by:		Date/Time:		Company			
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:									
Δ Yes Δ No													

Ver: 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-311167-2

Login Number: 311167

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Hirsch, Preston

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-311167-2

Login Number: 311167

List Number: 2

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

List Creation: 07/18/25 11:49 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Cedar Falls

Tracer/Carrier Summary

Client: SCS Engineers
Project/Site: City of Fremont Department of Utilities

Job ID: 310-311167-2

Method: 9315 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	
Lab Sample ID	Client Sample ID	(30-110)	
310-311167-1	MW-1	83.1	
310-311167-1 DU	MW-1	75.1	
310-311167-2	MW-2	90.2	
310-311167-3	MW-3	87.4	
310-311167-4	MW-4R	95.5	
310-311167-5	MW-5	98.0	
310-311167-6	MW-6	93.2	
310-311167-7	MW-7	89.7	
310-311167-8	MW-8	90.7	
310-311167-9	Duplicate	80.9	
LCS 160-728157/2-A	Lab Control Sample	86.4	
MB 160-728157/1-A	Method Blank	88.2	
Tracer/Carrier Legend			
Ba = Ba Carrier			

Method: 9320 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-311167-1	MW-1	83.1	78.5
310-311167-1 DU	MW-1	75.1	77.4
310-311167-2	MW-2	90.2	81.5
310-311167-3	MW-3	87.4	78.5
310-311167-4	MW-4R	95.5	90.1
310-311167-5	MW-5	98.0	89.3
310-311167-6	MW-6	93.2	90.8
310-311167-7	MW-7	89.7	79.3
310-311167-8	MW-8	90.7	81.1
310-311167-9	Duplicate	80.9	80.7
LCS 160-728158/2-A	Lab Control Sample	86.4	84.1
MB 160-728158/1-A	Method Blank	88.2	83.4
Tracer/Carrier Legend			
Ba = Ba Carrier			
Y = Y Carrier			