

West Des Moines, IA

PROJECT: Cherokee Co, FY26 Env Comp, IA 27225283.26 DATE: 2/20/2026

SUBJECT: Cherokee County Sanitary Landfill - 18-SDP-01-75P - 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report TRANSMITTAL ID: 00001

PURPOSE: For your approval VIA: Info Exchange

FROM

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TO

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REMARKS: Alexis -

Please find for download the Cherokee County Sanitary Landfill 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report . Please let us know if you have any questions or comments.

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DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
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Transmittal

DATE: 2/20/2026
TRANSMITTAL ID: 00001

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February 20, 2026
File No. 27225283.26

Ms. Alexis Slade
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Cherokee County Sanitary Landfill
Closed MSWLF Unit & Open MSWLF Unit
Permit No. 18-SDP-01-75P

Dear Alexis:

SCS Engineers, on behalf of the Cherokee County Solid Waste Commission, has completed the required statistical analyses and reporting for the Closed municipal solid waste landfill (MSWLF) unit and Open MSWLF unit at the Cherokee County Sanitary Landfill (Landfill) for the year 2025. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan. Please find enclosed a copy of the 2025 Annual Water Quality Report.

Additionally, an evaluation of the leachate control system and gas monitoring results for the Landfill are included in accordance with IAC 567-113.7(5)"b"(14) and 113.9(2)"d", respectively. The 2025 Leachate Control System Performance Evaluation Report and 2024 Landfill Gas Annual Report are included as appendices to the Annual Water Quality Report.

If you have any questions regarding these reports, please contact Sean Marczewski at (712) 661-9682.

Sincerely,



Semir Omerovic
Associate Professional
SCS Engineers



Sean Marczewski
Senior Project Professional
SCS Engineers

SO/SAM

Copies: Mr. Tony Agnitsch, Cherokee County Sanitary Landfill





2025 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, & Landfill Gas Annual Report

Open & Closed MSWLF Units
Cherokee County Sanitary Landfill
Cherokee, Iowa
Solid Waste Permit No. 18-SDP-01-75P

Prepared for:

Cherokee County Solid Waste Commission

SCS ENGINEERS

27225283.26 | February 2026

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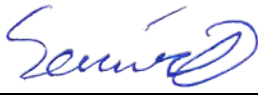
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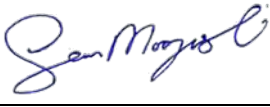
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CERTIFICATION

Prepared by:  Date: February 20, 2026

Typed: Semir Omerovic

Reviewed by:  Date: February 20, 2026

Typed: Sean Marczewski

Certification page (PE or ground water scientist signature) **113.10(1)"d"**

For the purposes of this rule, a "qualified groundwater scientist" means a scientist or an engineer who has received a baccalaureate or postgraduate degree in the natural sciences or engineering and has sufficient training and experience in groundwater hydrology and related fields demonstrated by state registration, professional certifications, or completion of accredited university programs that enable that individual to make sound professional judgments regarding groundwater monitoring, contaminant fate and transport, and corrective action.

EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

The period of report coverage is from January – December 2025 and includes the sampling events summarized in **Table 2**, Monitoring Program Implementation Schedule.

ES.2 REPORT PRIORITY

The following summarizes report priorities associated with groundwater compliance at the Cherokee County Sanitary Landfill (Landfill) Open and Closed municipal solid waste landfill (MSWLF) units:

- Department review urgency: None.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 SITE STATUS AND APPLICABLE RULES

- Landfill Status: Active (Open MSWLF unit) and closed (Closed MSWLF unit)
- Types of waste accepted: MSW, C&D, Special Waste
- Applicable IAC rules: 2009 567-113.10

ES.5 COMMENTS

The following summarizes points of special emphasis:

Closed MSWLF Unit

- There were two new and one ongoing well/detected constituents with indicated statistically significant increases (SSIs) above background for monitoring wells in the assessment monitoring program that are summarized in **Table 7**. The monitoring wells with SSIs are in the assessment monitoring program and do not require a resample; therefore, the SSIs were not confirmed.
- Site impact on groundwater found in the vicinity of monitoring wells MW-14R, MW-15R, and MW-39 is generally defined horizontally and vertically to background levels for the SSL parameters.
- Approximately 61 percent of the analyzed trends for Appendix I parameters for monitoring wells MW-14R, MW-15R, and MW-39 were stable or decreasing based on a less than or equal to zero Mann-Kendall statistic.

Open MSWLF Unit

- An SSI was indicated for chromium in monitoring well MW-27 during the November 2025 sampling event. A retest will occur prior to the 1st 2026 semi-annual sampling event.

ACRONYMS/ABBREVIATIONS

bgs = below ground surface

CAMP = Corrective Action Groundwater Monitoring Program

C&D = Construction and Demolition

DNR = Iowa Department of Natural Resources

GWPS = Groundwater Protection Standard

HMSP = Hydrologic Monitoring System Plan

IAC = Iowa Administrative Code

MSW = Municipal Solid Waste

MSWLF = Municipal Solid Waste Landfill

MCL = EPA Maximum Contaminant Level

QA = Quality Assurance

QC = Quality Control

SSI = Statistically Significant Increase above background

SSL = Statistically Significant Level above groundwater protection standard

TSS = Total Suspended Solids

VOC = Volatile Organic Compound

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Landfill property is depicted on **Figure 1**, Approved Monitoring Network. The Landfill is located north of Linden Street, adjacent to the southeastern city limits of the City of Cherokee, Iowa. The legal description is the W ½ of the SW ¼, Section 36, Township 92 North, Range 40 West, in Cherokee County, Iowa.

1.2 GEOLOGY AND HYDROGEOLOGY OF THE SITE

The Landfill is situated in the Northwest Iowa Plains, which is characterized by well-developed drainage and wide valleys due to several episodes of severe water and wind erosion. The overlying, unconsolidated soil consists of wind-deposited loess (3-6 feet thick silt with trace fine sand) and several episodes of Pleistocene glaciation including the youngest being the Wisconsinian. The Pleistocene glaciation period includes weathered till (6-18 feet thick, brown, lean clay with trace fine sand) and unweathered till (5-70 feet thick, gray to dark gray, lean clay with trace sand and gravel).

Bedrock beneath the Landfill is documented as the Cretaceous Dakota Sandstone, consisting of the Woodbury Member (interbedded shale, sandstone, and lignite) at an approximate depth of 110-200 feet below ground surface (bgs) and the Nishnabotna Member (medium to coarse sandstone with interbedded shale) at a depth of approximately 200 feet bgs. Data from the Iowa Geologic Survey indicate the bedrock surface is irregular and slopes to the west/northwest toward the Little Sioux River. Beneath the Dakota Sandstone lies generally Mississippian and Devonian-aged limestone.

Throughout the Landfill area, the glacial till is typically saturated below an approximate depth of 5 to 25 feet bgs. The shallow water table surface generally mimics the topography with groundwater flow in the northwest direction towards the Little Sioux River. Groundwater flow beneath most of the Landfill converges to the northwest, with a small component flowing towards a creek south of the Landfill.

Generally surface water in the southern portion of the site flows toward the road ditch along Linden Street which eventually flows west and south to Coonley Creek, then to the Little Sioux River. In the north portion of the Landfill surface water flows northwest to the ravines where an intermittent, seasonal creek continues to the Little Sioux River.

The 2002 Hydrogeologic Investigation Report by Fox Engineering indicated the glacial sediments are generally mostly clay and exhibit low hydraulic conductivities. Lateral movement is controlled by the predominately clay till although movement within the sand and silt seams is relatively accelerated. Low permeability of the glacial clays also controls the vertical groundwater flow which appears to have the greatest resistance to flow. The glacial till deposits in the area are considered to act as an aquitard.

Throughout the area, residential and commercial water supplies are within the Cretaceous Dakota Sandstone and the Devonian Limestone aquifers.

2.0 FIGURES DISCUSSION

The following figures are included in a **Figures** section following the **Tables** section of this report.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property, hydrologic monitoring system plan (HMSP) monitoring networks, and impact delineation monitoring points are depicted on **Figure 1**. **Figure 1** indicates the respective monitoring programs of the HMSP monitoring points for each MSWLF unit.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on the groundwater levels measured during the November 2025 sampling event is included as **Figure 2**. Water levels at the Landfill appear to be at the highest level northeast of the active area of the Open MSWLF unit. The groundwater appears to flow generally to the west beneath the undeveloped portions of the Open MSWLF unit, while the flow beneath the active cells is primarily to the southwest with convergence of flow toward the center of the area. Groundwater flow beneath the Closed MSWLF unit area is to the north beneath the Original Landfill Area, while the flow beneath Area A and Area B is generally northwesterly. Groundwater flow in the north central portion of the property in the vicinity of the sedimentation pond generally converges and exits to the north.

3.0 STANDARDS HISTORY GRAPHS

Standards history graphs for the Appendix I metals in the Closed MSWLF unit are included in **Appendix G**. The prediction limits were below the GWPSs with the following exceptions:

- For cadmium, cobalt, lead, thallium, and vanadium, the background prediction limits were higher than the MCLs or state-wide standards, so the prediction limits were used as the GWPSs.
- For beryllium, there were no quantified detections in the background.

Standard history graphs were not generated for the intrawell background datasets in the Closed and Open MSWLF units in accordance with recent DNR guidance for similar sites: *“Please note that when intrawell statistics are used, DNR has allowed use of tables as an alternative to the standards history graphs in order to reduce the overall report size.”* More information on prediction limits and GWPSs can be found in **Table 5**.

4.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Open and Closed MSWLF units follows similar protocols as included in the HMSP. Data validation procedures were performed on analytical results for laboratory quality control samples and a quality assurance assessment of the data was conducted as the data were generated. The QA review procedure provided documentation of the accuracy and precision of the analytical data and confirmed that the analyses were sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasible with the laboratory method utilized. SCS then conducted QA/QC data validation of the produced data, which included review of sample handling, analytical sensitivity, and blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation can be found in **Appendix B-1**, Laboratory Analytical Data Sheets, and **Appendix B-2**, Data Validation Documentation, respectively. The QA review indicated the data were acceptable.

5.0 DATA EVALUATION AND SUMMARY

Detection, assessment, and corrective action monitoring statistical evaluations in accordance with the requirements of Iowa Administrative Code (IAC) 567-113.10(5) and 113.10(6) were conducted for the groundwater analytical data collected during the 2025 reporting period. The statistical evaluations for samples collected during this reporting period are located in **Appendix D**, Statistical Method and Output, of this report.

5.1 DATA EVALUATION

Open MSWLF Unit

Groundwater monitoring for the Open MSWLF unit consists of samples from monitoring wells encompassing the downgradient MSWLF unit perimeters and one groundwater underdrain discharge point. The monitoring wells in the Open MSWLF unit monitoring network are analyzed by intrawell statistics.

During this reporting period, no volatile organic compounds (VOCs) were detected in the Open MSWLF unit monitoring network. No sample was obtained from groundwater underdrain GWD-2 due to insufficient water during this reporting period. Monitoring well MW-35 had two site-wide maximum concentrations for the Open MSWLF unit, while monitoring wells MW-16 and MW-27 each had one site-wide maximum concentration.

Closed MSWLF Unit

Groundwater monitoring for the Closed MSWLF unit consists of samples from monitoring wells encompassing the downgradient MSWLF unit perimeters. The background monitoring well for the Closed MSWLF unit monitoring network is MW-11. Historic data from monitoring wells MW-1 and MW-4 and historical and current data from monitoring well MW-11 is used to calculate background prediction limits.

The background concentration for arsenic is 0.0064 mg/L. Former arsenic SSLs at monitoring wells MW-15R and MW-39 are horizontally bracketed to the north by monitoring well MW-14R and downgradient to the southeast by APZOC monitoring well MW-15C. Arsenic is vertically bracketed by monitoring well MW-43.

The background concentration for barium is 0.1014 mg/L. The former barium SSL at monitoring well MW-39 is bracketed to the north by monitoring well MW-14R and northeast by AZPOC monitoring well MW-44. Barium measurements at vertical bracketing monitoring well MW-43 are above background. The barium concentration at AZPOC monitoring well MW-15C was below background during the June 2025 sampling event.

The background concentration for cobalt is 0.0074 mg/L. Former cobalt SSL concentrations at monitoring wells MW-14R, MW-15R, and MW-39 are bracketed to the southeast by AZPOC monitoring well MW-15C, AZPOC monitoring well MW-44 to the northeast, and by monitoring well MW-43 vertically. Elevated cobalt concentrations are bracketed to the west by monitoring well MW-40. The cobalt concentrations measured during the June 2025 sampling event for monitoring wells MW-14R, MW-15R, and MW-39 were below background.

The former vinyl chloride SSL at monitoring well MW-39 is bracketed by non-detect concentrations during both 2025 sampling events at AZPOC monitoring well MW-15C to the southeast, monitoring

well MW-14R to the north, AZPOC monitoring well MW-44 to the northeast, and monitoring well MW-40 to the southwest. These monitoring wells did not have a quantified detection of vinyl chloride from the 2020 to the 2025 reporting periods. Vinyl chloride was measured in monitoring well MW-43 during the November 2025 sampling event.

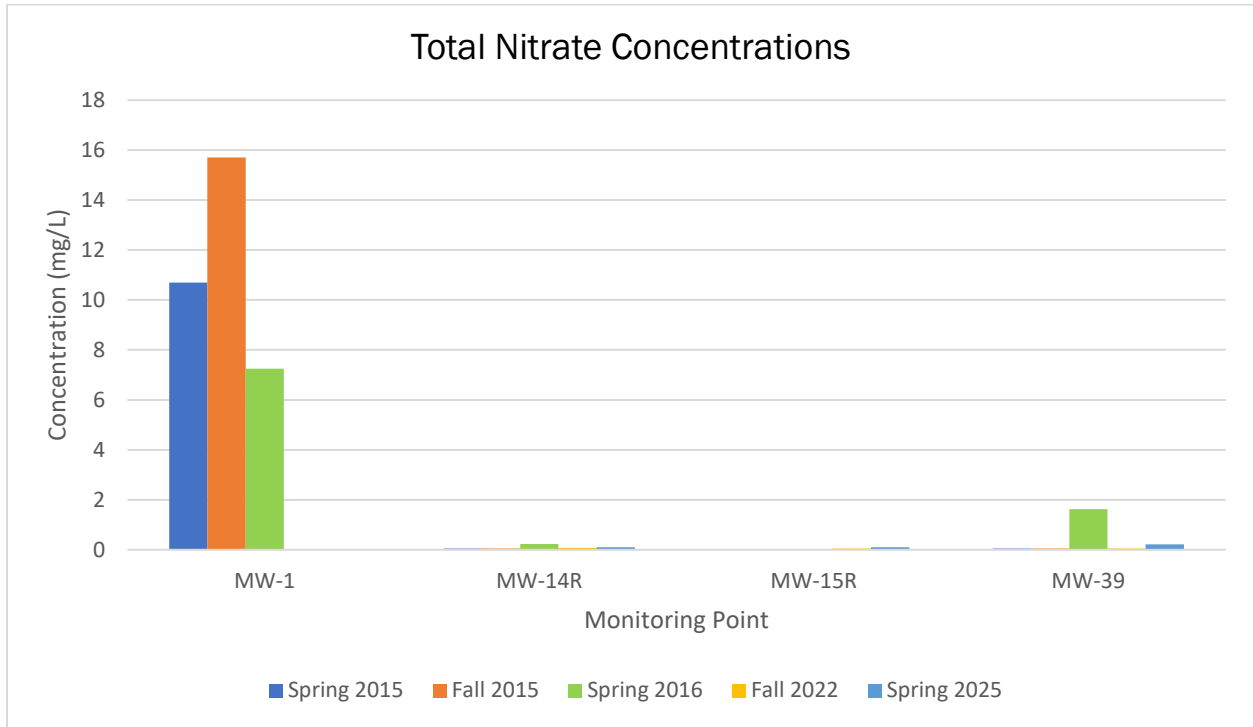
During this reporting period, trichloroethene was measured at a J flag concentration in monitoring well MW-7. Trichloroethene has been detected in this monitoring well since 2012. Additionally, sulfide was measured in monitoring wells MW-7 and MW-9R during the November 2025 sampling event.

5.2 CORRECTIVE ACTION

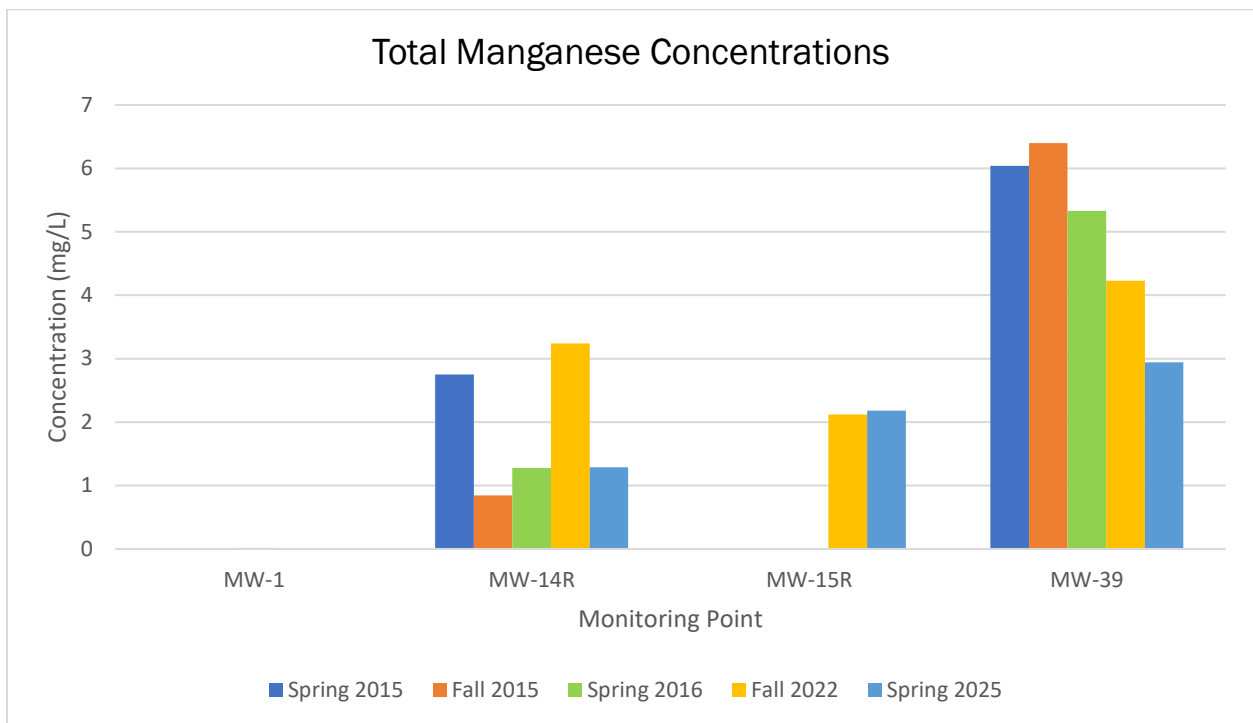
Trending of the Appendix I parameters in the source characterization monitoring wells MW-14R, MW-15R, and MW-39 was evaluated by Mann-Kendall evaluation. The evaluation indicated no statistically significant trends at 99 percent confidence ($\alpha = 0.01$). As shown in **Table 11**, of 28 total trends evaluated, there were 11 increasing trends indicated by a calculated Mann-Kendall statistic greater than zero and 17 stable or decreasing trends indicated by a Mann-Kendall statistic of zero or less, which calculated to approximately 61 percent of the constituent-monitoring wells trends as stable or decreasing. A summary table and graphs of the Mann-Kendall trending evaluation for the source wells are included in **Appendix H**. A summary of analytical results during this reporting period for the source wells is included in **Appendix C-1**.

As stated in the approved CAMP, natural attenuation parameters iron, manganese, nitrate, sulfate, and total organic carbon will be analyzed biennially in the source wells. Sampling for natural attenuation parameters occurred during the June 2025 sampling event. The following graphs illustrate total nitrate, total manganese, total iron, total sulfate, and total organic carbon concentrations in monitoring wells MW-14R, MW-15R, and MW-39, and upgradient monitoring well MW-1.

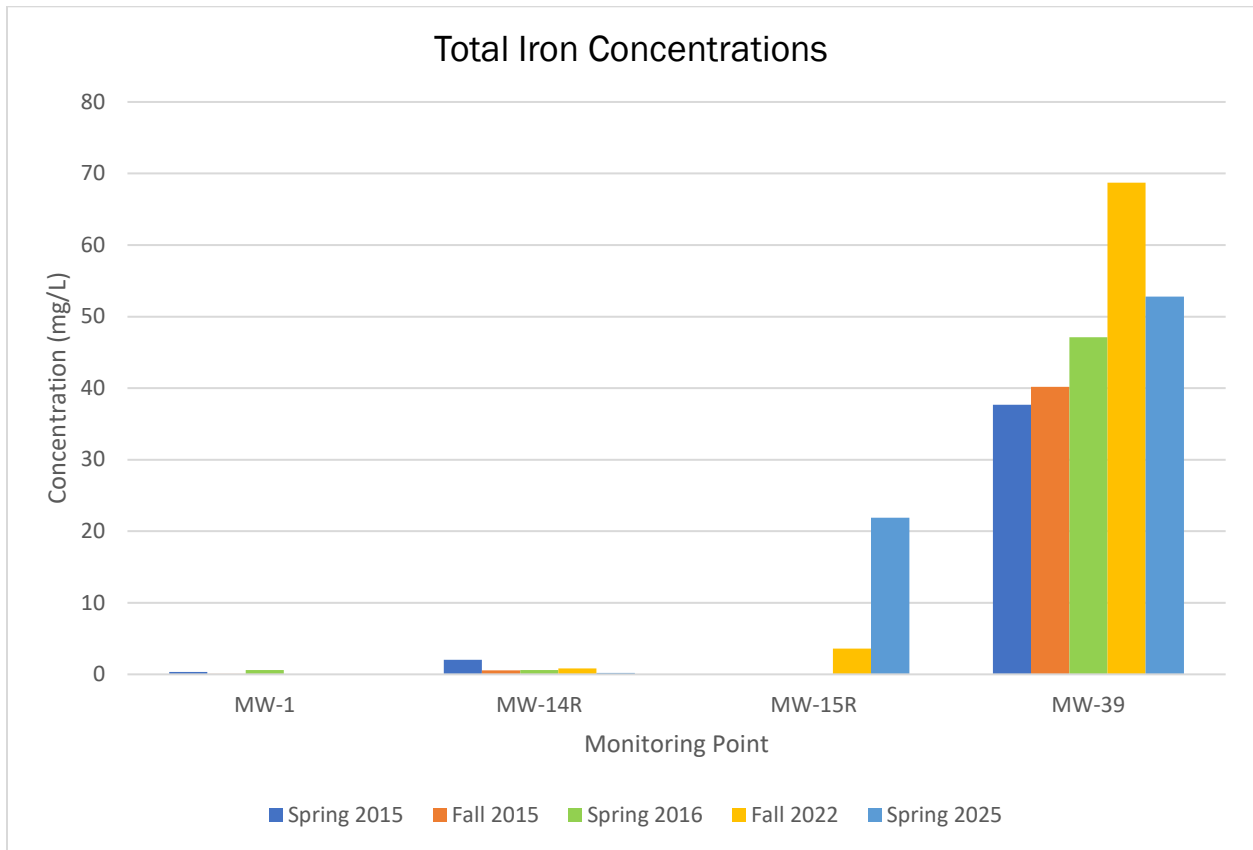
Nitrate would be expected to be the next most predominantly used electron acceptor after oxygen. Below is a graph of nitrate concentrations in monitoring wells MW-14R, MW-15R, and MW-39, and upgradient monitoring well MW-1.



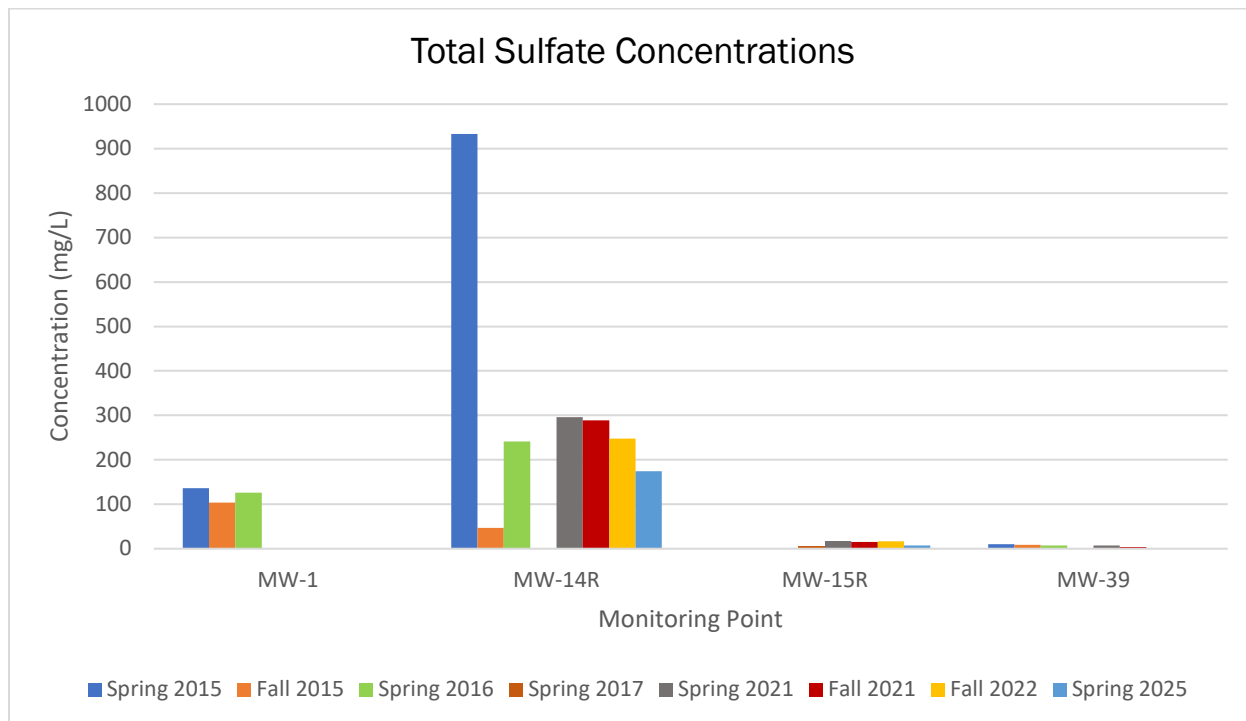
Manganese would be expected to be the next predominantly used electron acceptor after nitrate. A graph of manganese concentrations in monitoring wells MW-14R, MW-15R, MW-39, and upgradient monitoring well MW-1 is shown below.



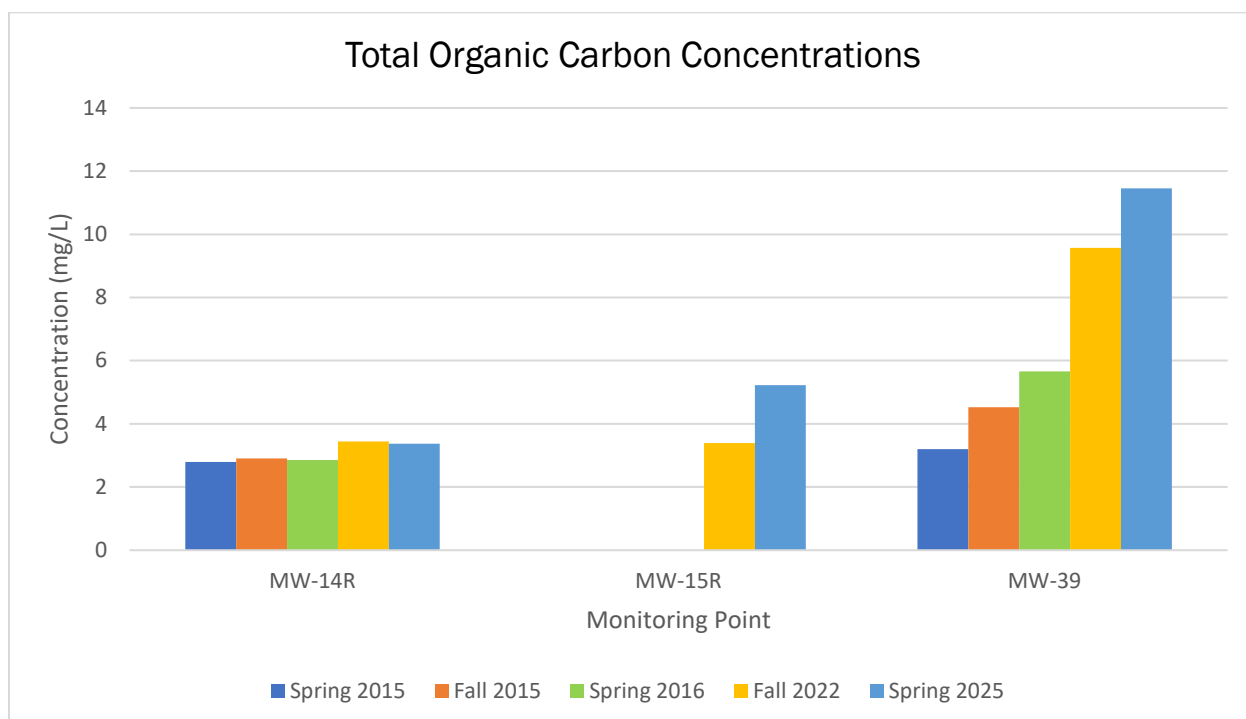
Iron would be expected to be the next predominantly used electron acceptor after manganese. A graph of iron concentrations in monitoring wells MW-14R, MW-15R, MW-39, and upgradient monitoring well MW-1 is shown below.



Sulfate would be expected to be the next predominantly used electron acceptor after iron. A graph of sulfate concentrations in monitoring wells MW-14R, MW-15R, MW-39, and upgradient monitoring well MW-1 is shown below.



To assess levels of organic in monitoring wells MW-14R, MW-15R, and MW-39, total organic carbon (TOC) sample analyses were performed. A graph of total organic carbon concentrations of the monitoring wells is shown below.



Natural Attenuation Discussion

The graphs indicate that natural attenuation is likely occurring in the area of monitoring wells MW-14R, MW-15R, and MW-39. Total manganese and total iron concentrations in monitoring wells MW-14R, MW-15R, and MW-39 were elevated, while nitrate concentrations were significantly lower compared to upgradient monitoring well MW-1. Sulfate in monitoring well MW-14R is elevated compared to the upgradient monitoring well MW-1. The elevated concentration may represent an influx of sulfate into the subsurface around monitoring well MW-14R. Borrow activities near MW-14R are likely exposing sulfide to oxygen, which is oxidized to sulfate. The groundwater gradient also flows from the borrow area towards MW-14R. Since nitrate is lower than the upgradient well and total manganese and total iron are elevated, it appears natural attenuation is occurring near monitoring well MW-14R in addition to the natural attenuation occurring near monitoring wells MW-15R and MW-39.

6.0 RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

Site impact on groundwater is measured in the vicinity of monitoring wells MW-14R, MW-15R, and MW-39 between the closed Original Landfill Area of the Closed MSWLF unit and the Open MSWLF unit. The area of impact is generally defined horizontally and vertically to background levels for the SSL parameters, except for barium to the southwest of and vertically below monitoring well MW-39 and vinyl chloride below monitoring well MW-39.

The corrective action remedy of source control via final cover and monitored natural attenuation is in place and will be monitored through routine monitoring, the concentrations measured from the AZPOC samples, and natural attenuation evaluation.

6.2 PROPOSED MONITORING

Anticipated groundwater sampling for the 2026 reporting period is shown in **Table 2**. No changes to the HMSP monitoring program are recommended at this time.

6.3 PROPOSED MONITORING WELL CHANGES

No changes to the monitoring wells are recommended at this time.

Tables

Table 1
Monitoring Program Summary Table
2025 Annual Water Quality Report
Cherokee County Landfill - Open & Closed MSWLF Units
Permit No. 18-SDP-01-75P

Monitoring Well	Formation ⁽¹⁾	Current Monitoring Program	Change for Next Sampling Event	Constituents with SSIs During the 2025 Reporting Period	Constituents with SSLs	Total # of Samples in each monitoring program		
						Detection	Assessment	Corrective Action or Other
HSMP Monitoring Points - Open MSWLF Unit								
MW-21 ⁽²⁾	Weathered Till	Background	No change	Not applicable	Not applicable	3		
MW-23 ⁽²⁾	Weathered Till	Background	No change	Not applicable	Not applicable	6		
MW-16	Loess	Detection	No change	None	Not applicable	41		
MW-27	Weathered Till/Loess	Detection	No change	Chromium*	Not applicable	35		
MW-35	Weathered Till	Detection	No change	None	Not applicable	33		
MW-42R	Unweathered Till	Detection	No change	None	Not applicable	16		
GWD-2	Not applicable	Detection	No change	None (no 2025 sample)	Not applicable	6		
HSMP Monitoring Wells - Closed MSWLF Unit								
MW-11	Till	Background	No change	Not applicable	Not applicable	31		
MW-7	Till	Assessment	No change	Sulfide	None		31	
MW-9R	Unweathered Till	Assessment	No change	Sulfide	None		31	
MW-10R	Unweathered Till/Sand	Assessment	No change	None	None		30	
MW-12	Till/Sand	Assessment	No change	None	None		30	
MW-13R	Weathered Till	Assessment	No change	Chlorobenzene	None		31	
Attenuation Zone Point of Compliance (AZPOC) Monitoring Wells								
MW-15C	Not available	AZPOC (Corrective Action)	No change	None	None			20
MW-44	Unweathered Till	AZPOC (Corrective Action)	No change	None	None			11
Source Characterization Monitoring Wells								
MW-14R	Unweathered Till	Source Characterization	No change					36
MW-15R	Weathered/Unweathered Till	Source Characterization	No change					36
MW-39	Unweathered Till	Source Characterization	No change					35
Corrective Action Bracketing Monitoring Wells								
MW-40	Loess	Horizontal impact delineation for SSL constituents.						13
MW-43	Weathered/Unweathered Till	Vertical impact delineation for SSL constituents.						6
Water Level Monitoring Points								
GWD-1 E	Not applicable	Water Level						
GWD-1 W	Not applicable	Water Level						
MW-1	Not available	Water Level						
MW-3	Weathered Till	Water Level						
MW-4	Not available	Water Level						
MW-15A	Not available	Water Level						
MW-15B	Not available	Water Level						
MW-32	Weathered/Unweathered Till	Water Level						
MW-34	Unweathered Till	Water Level						
MW-40A	Sand, Sandy Clay	Water Level						

Notes:

(1) Obtained from screened interval on boring logs or cross sections.

(2) Temporary suspension of HSMP groundwater monitoring as wells are not monitoring an active cell and intrawell statistics are used.

* - SSI not confirmed pending the results of retesting.

SSI = Statistically Significant Increase above background.

SSL = Statistically Significant Level above groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2025 Annual Water Quality Report
Cherokee County Landfill - Open & Closed MSWLF Units
Permit No. 18-SDP-01-75P

Monitoring Well	Recent Sampling Events and Constituents		Upcoming Sampling Event and Constituents			Full Appendix II Sample Dates	
	June 2025	November 2025	Retest	1 st 2026 Semi-Annual	2 nd 2026 Semi-Annual	Previously Collected	Next Event
Open MSWLF Unit							
MW-16	Appendix I, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	3/22/2017, 5/10/2022	Not applicable
MW-27	Appendix I, TSS	Appendix I, TSS	Chromium, TSS	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
MW-35	Appendix I, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	9/26/2016	Not applicable
MW-42R	Appendix I, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
GWD-2	No Sample (No Flow)	No Sample (No Flow)	-	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
Closed MSWLF Unit							
MW-11	-	Metals List, TSS, Sulfide	-	-	Metals List, TSS, Sulfide	Not applicable	Not applicable
MW-7	-	Appendix II, TSS	-	-	Appendix I, TSS, Sulfide	4/15/2015, 3/12/2020	2025
MW-9R	-	Metals List, TSS, Sulfide	-	-	Appendix II, TSS	9/26/2016, 3/24/2021	2026
MW-10R	-	No Sample (Dry)	-	-	Appendix II, TSS	4/15/2015, 3/12/2020	2026
MW-12	-	Metals List, TSS	-	-	Metals List, TSS	9/30/2014, 5/29/2019, 5/30/2024	2029
MW-13R	-	Metals List, TSS, Appendix I VOCs	-	-	Metals List, TSS, Appendix I VOCs	9/30/2014, 5/29/2019, 5/30/2024	2029
AZPOC							
MW-15C	Appendix I, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
MW-44	Appendix I, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	Not applicable	Not applicable
Source Characterization							
MW-14R	Appendix I, Natural Attenuation, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	4/15/2015, 3/11/2020	Not applicable
MW-15R	Appendix I, Natural Attenuation, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	4/15/2015, 3/11/2020	Not applicable
MW-39	Appendix I, Natural Attenuation, TSS	Appendix I, TSS	-	Appendix I, TSS	Appendix I, TSS	8/22/2018	Not applicable
Corrective Action - Bracketing							
MW-40	-	Arsenic, Barium, Cobalt, TSS, Vinyl Chloride	-	-	Arsenic, Barium, Cobalt, TSS, Vinyl Chloride	Not applicable	Not applicable
MW-43	-	Arsenic, Barium, Cobalt, TSS, Vinyl Chloride	-	-	Arsenic, Barium, Cobalt, TSS, Vinyl Chloride	Not applicable	Not applicable

Comments:

A sample was unable to be obtained from monitoring well MW-10R due to insufficient water; therefore, Appendix II parameters will be analyzed during the 2nd 2026 semi-annual sampling event.

"Metals List" includes arsenic, barium, cobalt, lead, and nickel.

"Natural Attenuation" includes iron, manganese, nitrate, sulfate, and total organic carbon.

TSS: Total Suspended Solids.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
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Compliance with:	2023	2024	2025	2026
567 IAC 113.10(2)"f"(1) high and low water levels (biennial)	Completed	Completed	Included	Scheduled
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths (biennial)	Completed	Completed	Included	Scheduled
567 IAC 113.10(2)"f"(3) well depths (annual or every 5 years for wells with dedicated sampling pumps)	Completed	Completed	Included	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)		Completed		Scheduled
Waste separation from ground water 113.6(2)"l"	Completed	Completed	Included	Scheduled

Notes:

* Verification of waste separation from groundwater is not required for cells A-1, A-2, A-3, and A-6 (Permit Amendment #13 (Doc #89223), 2016 AWQR (Doc #88165), Permit Revision dated January 20,201 (Doc #99582)). Separation data for Cells A-4 and A-5 is included in Table 4.

Table 4
Monitoring Well Performance and Maintenance Summary
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Cherokee County Landfill - Open MSWLF Unit
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Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)
					6/2025	11/2025	
Open MSWLF Unit							
MW-16	162.29	155.2	20.3	Groundwater Level (ft)	7.12	8.50	1.7
				Groundwater Elevation (Ft MSL)	155.17	153.79	
				Measured Well Depth (ft)	18.6	18.6	
				Submerged screen	N	N	
MW-27	167.66	147.0	30.7	Groundwater Level (ft)	12.11	12.80	-0.1
				Groundwater Elevation (Ft MSL)	155.55	154.86	
				Measured Well Depth (ft)	30.8	30.8	
				Submerged screen	Y	Y	
MW-35	166.90	150.1	28.0	Groundwater Level (ft)	9.02	10.05	0.0
				Groundwater Elevation (Ft MSL)	157.88	156.85	
				Measured Well Depth (ft)	28.0	28.0	
				Submerged screen	Y	Y	
MW-42R	158.89	135.7	33.3	Groundwater Level (ft)	17.00	14.90	0.8
				Groundwater Elevation (Ft MSL)	141.89	143.99	
				Measured Well Depth (ft)	32.5	32.6	
				Submerged screen	Y	Y	

Measured well depths were within one foot of the installed depths with the exception of monitoring well MW-16. The measured well depth for MW-16 has been consistent for several years. As the monitoring well produced samples, it appears siltation is not affecting the functionality of the well.

The groundwater levels at groundwater piezometers GWPZ-A4 and GWPZ-A5 and monitoring well MW-16 were used to gauge separation in Cells A-4 and A-5. A groundwater underdrain was not required for Cell A-6 (Doc #99582).

Well		Date of Measurements	
		6/2025	11/2025
GWPZ-A4	Bottom of waste (feet above site datum)	171	
	Groundwater Elevation (feet above site datum)	<165.6 (dry)	<165.6 (dry)
	Separation distance (feet)	>5.39	>5.39
GWPZ-A5	Bottom of waste (feet above site datum)	171	
	Groundwater Elevation (feet above site datum)	<167.2 (dry)	<167.2 (dry)
	Separation distance (feet)	>3.75	>3.75
MW-16	Bottom of waste (feet above site datum)	166	
	Groundwater Elevation (feet above site datum)	155.17	153.79
	Separation distance (feet)	10.83	12.21

Table 4
Monitoring Well Performance and Maintenance Summary
2025 Annual Water Quality Report
Cherokee County Landfill - Closed MSWLF Unit
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Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)
					6/2025	11/2025	
Closed MSWLF Unit							
MW-11	173.93	138.9	42.1	Groundwater Level (ft)	NM	21.60	0.7
				Groundwater Elevation (Ft MSL)	NA	152.33	
				Measured Well Depth (ft)	NM	41.4	
				Submerged screen	NA	Y	
MW-7	101.86	86.9	50.4	Groundwater Level (ft)	NM	14.54	-0.4
				Groundwater Elevation (Ft MSL)	NA	87.32	
				Measured Well Depth (ft)	NM	50.8	
				Submerged screen	NA	Y	
MW-9R	76.00	33.9	52.1	Groundwater Level (ft)	NM	20.60	-0.7
				Groundwater Elevation (Ft MSL)	NA	55.40	
				Measured Well Depth (ft)	NM	52.8	
				Submerged screen	NA	Y	
MW-10R	97.58	81.9	20.7	Groundwater Level (ft)	NM	12.80	2.1
				Groundwater Elevation (Ft MSL)	NA	84.78	
				Measured Well Depth (ft)	NM	18.6	
				Submerged screen	NA	Y	
MW-12	143.15	135.2	22.7	Groundwater Level (ft)	NM	7.58	0.4
				Groundwater Elevation (Ft MSL)	NA	135.57	
				Measured Well Depth (ft)	NM	22.3	
				Submerged screen	NA	Y	
MW-13R	172.96	161.6	26.3	Groundwater Level (ft)	NM	16.21	-0.1
				Groundwater Elevation (Ft MSL)	NA	156.75	
				Measured Well Depth (ft)	NM	26.4	
				Submerged screen	NA	N	
MW-14R	184.50	168.3	27.8	Groundwater Level (ft)	17.10	18.81	0.4
				Groundwater Elevation (Ft MSL)	167.40	165.69	
				Measured Well Depth (ft)	27.5	27.5	
				Submerged screen	N	N	
MW-15R	180.22	171.9	23.3	Groundwater Level (ft)	11.61	12.68	-0.1
				Groundwater Elevation (Ft MSL)	168.61	167.54	
				Measured Well Depth (ft)	23.4	23.5	
				Submerged screen	N	N	
MW-39	189.40	172.4	27.0	Groundwater Level (ft)	19.08	20.28	-0.6
				Groundwater Elevation (Ft MSL)	170.32	169.12	
				Measured Well Depth (ft)	27.6	27.6	
				Submerged screen	N	N	
MW-15C	172.66	NA	27.0	Groundwater Level (ft)	7.86	8.77	0.0
				Groundwater Elevation (Ft MSL)	164.80	163.89	
				Measured Well Depth (ft)	27.0	27.1	
				Submerged screen	NA	NA	
MW-44	166.38	144.3	42.1	Groundwater Level (ft)	6.00	4.61	3.9
				Groundwater Elevation (Ft MSL)	160.38	161.77	
				Measured Well Depth (ft)	38.2	38.5	
				Submerged screen	Y	Y	

Measured well depths were within 2.1 of the installed depths with the following exceptions:

Monitoring well MW-44, it is unknown why the measured depth is significantly shallower than the installed depth, however the measured depth has been consistent over several years. As the monitoring well produced samples, it appears not to be affecting the functionality of the well.

Table 5
Background and GWPS Summary Tables
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Interwell Background/GWPS Closed MSWLF Unit (MW-1, MW-4, and MW-11)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	80	5	0.000194*	0.005 (1/2 RL)	0.00120	0.005	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	82	8	0.000337*	0.0064	0.00174	0.0064	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	83	69	0.0122	0.143	0.03658	0.1014	PL (P)	2	MCL
Beryllium (Be)	mg/L	80	0	0.0005 (1/2 RL)	0.01 (1/2 RL)	0.00139	< 0.02	DQR	<0.02	SSS
Cadmium (Cd)	mg/L	80	39	0.000048*	0.0494	0.00173	0.0494	PL (NP)	0.0494	SSS
Chromium (Cr)	mg/L	80	9	0.000391*	0.014	0.00396	0.014	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	64	28	0.00003*	0.0074	0.00079	0.0074	PL (NP)	0.0074	SSS
Copper (Cu)	mg/L	80	21	0.000491*	0.0227	0.00376	0.0227	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	83	32	0.000111*	0.0222	0.00255	0.0222	PL (NP)	0.0222	SSS
Nickel (Ni)	mg/L	83	49	0.0005 (1/2 RL)	0.044	0.00677	0.028	PL (P)	0.1	SWS
Selenium (Se)	mg/L	80	24	0.001*	0.0188	0.00499	0.0188	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	80	5	0.000043*	0.01 (1/2 RL)	0.00137	0.01	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	80	15	0.000026*	0.01 (1/2 RL)	0.00087	0.01	PL (NP)	0.01	SSS
Vanadium (V)	mg/L	80	15	0.000453*	0.05 (1/2 RL)	0.00890	0.05	PL (NP)	0.05	SSS
Zinc (Zn)	mg/L	80	37	0.004 (1/2 RL)	1.3	0.03498	1.3	PL (NP)	2	SWS

Intrawell Background/GWPS Closed MSWLF Unit (MW-15C)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.001 (1/2 RL)	0.001 (1/2 RL)	0.00100	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	16	0	0.001 (1/2 RL)	0.002 (1/2 RL)	0.00119	< 0.004	DQR	0.01	MCL
Barium (Ba)	mg/L	14	14	0.0774	0.711	0.15498	0.711	PL (NP)	2	MCL
Beryllium (Be)	mg/L	8	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00106	< 0.004	DQR	0.004	MCL
Cadmium (Cd)	mg/L	8	6	0.00005 (1/2 RL)	0.007	0.00184	0.01272	PL (P)	0.01272	SSGWPS
Chromium (Cr)	mg/L	8	0	0.0025 (1/2 RL)	0.004 (1/2 RL)	0.00306	< 0.008	DQR	0.1	MCL
Cobalt (Co)	mg/L	17	15	0.000056*	0.002 (1/2 RL)	0.00054	0.002712	PL (P)	0.002712	SSGWPS
Copper (Cu)	mg/L	8	0	0.002 (1/2 RL)	0.0025 (1/2 RL)	0.00231	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	8	0	0.00025 (1/2 RL)	0.002 (1/2 RL)	0.00091	< 0.004	DQR	0.015	MCL
Nickel (Ni)	mg/L	11	11	0.00449*	0.0145	0.00784	0.01417	PL (P)	0.1	SWS
Selenium (Se)	mg/L	8	0	0.002 (1/2 RL)	0.0025 (1/2 RL)	0.00231	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00106	< 0.004	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00106	< 0.004	DQR	0.002	MCL
Vanadium (V)	mg/L	8	0	0.0025 (1/2 RL)	0.01 (1/2 RL)	0.00531	< 0.02	DQR	0.035	SWS
Zinc (Zn)	mg/L	8	2	0.004 (1/2 RL)	0.0426	0.01343	0.0426	PL (NP)	2	SWS

Intrawell Background/GWPS Closed MSWLF Unit (MW-44)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	8	0	0.001 (1/2 RL)	0.001 (1/2 RL)	0.00100	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	10	9	0.001 (1/2 RL)	0.0132	0.00730	0.0184	PL (P)	0.0184	SSGWPS
Barium (Ba)	mg/L	10	10	0.0151	0.0393	0.02284	0.0407	PL (P)	2	MCL
Beryllium (Be)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	8	0	0.00005 (1/2 RL)	0.0001 (1/2 RL)	0.00008	0.0002	DQR	0.005	MCL
Chromium (Cr)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.1	MCL
Cobalt (Co)	mg/L	10	10	0.000294*	0.00442	0.00120	0.004867	PL (P)	0.004867	SSGWPS
Copper (Cu)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	1.3	MCL
Lead (Pb)	mg/L	8	0	0.00025 (1/2 RL)	0.00025 (1/2 RL)	0.00025	0.0005	DQR	0.015	MCL
Nickel (Ni)	mg/L	8	1	0.00201*	0.0025 (1/2 RL)	0.00244	0.0025	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	8	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	8	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.035	SWS
Zinc (Zn)	mg/L	8	0	0.01 (1/2 RL)	0.01 (1/2 RL)	0.01000	< 0.02	DQR	2	SWS

Table 5
Background and GWPS Summary Tables
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Intrawell Background/GWPS Open MSWLF Unit (GWD-2)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	5	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00060	< 0.002	DQR	0.006	MCL
Arsenic (As)	mg/L	5	4	0.001 (1/2 RL)	0.0334	0.01097	0.07409	PL (P)	0.07409	SSGWPS
Barium (Ba)	mg/L	5	5	0.216	2.04	0.91400	5.524	PL (P)	5.524	SSGWPS
Beryllium (Be)	mg/L	5	1	0.000076*	0.0005 (1/2 RL)	0.00042	0.0005	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	5	3	0.00005 (1/2 RL)	0.00145	0.00060	0.003115	PL (P)	0.005	MCL
Chromium (Cr)	mg/L	5	1	0.000809*	0.0025 (1/2 RL)	0.00216	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	5	5	0.000068*	0.015	0.00581	0.03518	PL (P)	0.03518	SSGWPS
Copper (Cu)	mg/L	5	4	0.000706*	0.00455*	0.00262	0.01047	PL (P)	1.3	MCL
Lead (Pb)	mg/L	5	3	0.00025 (1/2 RL)	0.00168	0.00074	0.003501	PL (P)	0.015	MCL
Nickel (Ni)	mg/L	5	5	0.00157*	0.0276	0.01751	0.06688	PL (P)	0.1	SWS
Selenium (Se)	mg/L	5	2	0.000661*	0.0025 (1/2 RL)	0.00187	0.0025	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	5	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	5	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.002	MCL
Vanadium (V)	mg/L	5	4	0.000575*	0.00303*	0.00215	0.006855	PL (P)	0.035	SWS
Zinc (Zn)	mg/L	5	2	0.005 (1/2 RL)	0.0108*	0.00765	0.0108	PL (NP)	2	SWS

Intrawell Background/GWPS Open MSWLF Unit (MW-16)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	19	0	0.0005 (1/2 RL)	0.0015 (1/2 RL)	0.00076	< 0.003	DQR	0.006	MCL
Arsenic (As)	mg/L	19	1	0.000415*	0.001 (1/2 RL)	0.00094	0.001	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	19	19	0.245	0.377	0.30826	0.3962	PL (P)	2	MCL
Beryllium (Be)	mg/L	19	1	0.0002735*	0.0005 (1/2 RL)	0.00049	0.0005	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	19	7	0.00005 (1/2 RL)	0.0002835	0.00015	0.0002835	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	19	0	0.0025 (1/2 RL)	0.0025 (1/2 RL)	0.00250	< 0.005	DQR	0.1	MCL
Cobalt (Co)	mg/L	19	15	0.000099*	0.0005 (1/2 RL)	0.00025	0.0004544	PL (P)	0.0021	SWS
Copper (Cu)	mg/L	18	3	0.000517*	0.0025 (1/2 RL)	0.00213	0.0025	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	19	6	0.000135*	0.000478*	0.00027	0.000478	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	19	19	0.00348*	0.01275	0.00790	0.01394	PL (P)	0.1	SWS
Selenium (Se)	mg/L	19	0	0.00125 (1/2 RL)	0.0025 (1/2 RL)	0.00237	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	19	1	0.00025 (1/2 RL)	0.000752*	0.00049	0.000752	PL (NP)	0.1	SWS
Thallium (Tl)	mg/L	19	1	0.000029*	0.001 (1/2 RL)	0.00053	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	19	2	0.0002975*	0.0025 (1/2 RL)	0.00235	0.0025	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	19	1	0.005 (1/2 RL)	0.01 (1/2 RL)	0.00879	0.01	PL (NP)	2	SWS

Intrawell Background/GWPS Open MSWLF Unit (MW-27)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	14	1	0.000388*	0.0015 (1/2 RL)	0.00078	0.0015	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	14	1	0.000425*	0.001 (1/2 RL)	0.00096	0.001	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	14	14	0.0323	0.0379	0.03420	0.03802	PL (P)	2	MCL
Beryllium (Be)	mg/L	14	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	14	0	0.00005 (1/2 RL)	0.00025 (1/2 RL)	0.00013	0.0005	DQR	0.005	MCL
Chromium (Cr)	mg/L	14	2	0.000737*	0.0025 (1/2 RL)	0.00225	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	14	4	0.000046*	0.0005 (1/2 RL)	0.00024	0.0005	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	14	1	0.00102*	0.0025 (1/2 RL)	0.00239	0.0025	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	14	1	0.000239*	0.00025 (1/2 RL)	0.00025	0.00025	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	14	0	0.001 (1/2 RL)	0.0025 (1/2 RL)	0.00239	< 0.005	DQR	0.1	SWS
Selenium (Se)	mg/L	14	0	0.00125 (1/2 RL)	0.0025 (1/2 RL)	0.00241	< 0.005	DQR	0.05	MCL
Silver (Ag)	mg/L	14	0	0.00025 (1/2 RL)	0.0005 (1/2 RL)	0.00048	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	14	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00054	< 0.002	DQR	0.002	MCL
Vanadium (V)	mg/L	14	6	0.000674*	0.0025 (1/2 RL)	0.00188	0.0025	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	14	0	0.01 (1/2 RL)	0.01 (1/2 RL)	0.01000	< 0.02	DQR	2	SWS

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Intrawell Background/GWPS Open MSWLF Unit (MW-35)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	25	7	0.0004655*	0.0034	0.00108	0.004	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	28	16	0.0006945*	0.0116	0.00298	0.0116	PL (NP)	0.0116	SSGWPS
Barium (Ba)	mg/L	28	27	0.01685	0.1	0.03024	0.1	PL (NP)	2	MCL
Beryllium (Be)	mg/L	28	0	0.0005 (1/2 RL)	0.002 (1/2 RL)	0.00090	< 0.004	DQR	0.004	MCL
Cadmium (Cd)	mg/L	28	7	0.00005 (1/2 RL)	0.0004 (1/2 RL)	0.00020	0.0004	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	28	2	0.000441*	0.005 (1/2 RL)	0.00302	0.005	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	25	25	0.000683	0.0505	0.01373	0.05224	PL (P)	0.05224	SSGWPS
Copper (Cu)	mg/L	29	4	0.00131*	0.0212	0.00342	0.0212	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	28	4	0.000126*	0.002 (1/2 RL)	0.00067	0.002	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	28	26	0.0005 (1/2 RL)	0.227	0.05247	0.1929	PL (P)	0.1929	SSGWPS
Selenium (Se)	mg/L	28	1	0.00125 (1/2 RL)	0.00288*	0.00236	0.00288	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	28	0	0.00025 (1/2 RL)	0.004 (1/2 RL)	0.00091	< 0.008	DQR	0.1	SWS
Thallium (Tl)	mg/L	28	3	0.000045*	0.002 (1/2 RL)	0.00068	0.002	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	28	6	0.00107*	0.01 (1/2 RL)	0.00513	0.01	PL (NP)	0.035	SWS
Zinc (Zn)	mg/L	29	7	0.004 (1/2 RL)	0.147	0.01584	0.147	PL (NP)	2	SWS

Intrawell Background/GWPS Open MSWLF Unit (MW-42R)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	11	5	0.001 (1/2 RL)	0.00423	0.00160	0.00423	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	11	8	0.0008455*	0.00129	0.00102	0.001429	PL (P)	0.01	MCL
Barium (Ba)	mg/L	11	11	0.01905	0.0315	0.02443	0.03738	PL (P)	2	MCL
Beryllium (Be)	mg/L	11	1	0.000474*	0.0005 (1/2 RL)	0.00050	0.0005	PL (NP)	0.004	MCL
Cadmium (Cd)	mg/L	11	9	0.000058*	0.000389	0.00020	0.0004256	PL (P)	0.005	MCL
Chromium (Cr)	mg/L	11	1	0.00138*	0.0025 (1/2 RL)	0.00240	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	12	12	0.003425	0.00819	0.00474	0.0081	PL (P)	0.0081	SSGWPS
Copper (Cu)	mg/L	11	6	0.00219*	0.00905	0.00337	0.00905	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	11	2	0.00025 (1/2 RL)	0.000635	0.00029	0.000635	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	11	11	0.0143	0.0469	0.02061	0.05051	PL (P)	0.1	SWS
Selenium (Se)	mg/L	11	8	0.00112*	0.0114	0.00393	0.01389	PL (P)	0.05	MCL
Silver (Ag)	mg/L	11	0	0.00025 (1/2 RL)	0.0005 (1/2 RL)	0.00048	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	11	1	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00056	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	11	7	0.00111*	0.0025 (1/2 RL)	0.00185	0.002226	PL (P)	0.035	SWS
Zinc (Zn)	mg/L	11	5	0.00651*	0.0191*	0.01111	0.0191	PL (NP)	2	SWS

Notes:

Background levels are the calculated prediction limits or one-half of the reporting limit, as applicable.

*- J flag; concentration is below the reporting limit but above the method detection limit. The concentration is estimated.

Acronyms/Abbreviations:

RL = Reporting Limit	PL = Prediction Limit
GWPS = Groundwater Protection Standard (mg/L)	MCL = EPA Maximum Contaminant Level
DQR = Double Quantification Rule	NP = Non-Parametric
SSS = Site-Specific GWPS	P = Parametric
SWS = Statewide Standard	

- 1) Water quality results and effectiveness of the statistical data evaluation criteria: Statistical evaluations consist of prediction limits, double quantification rule, and confidence intervals/confidence bands, as appropriate. Data from the background wells is not used for development of the confidence intervals or confidence bands.
- 2) Changes to the previous statistical method during reporting period: There were no changes to the statistical method during the 2025 reporting period.
- 3) Re-sampling strategy: Retesting is performed using a 1-of-2 scheme.

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2025 Annual Water Quality Report
Cherokee County Landfill - Open and Closed MSWLF Units
Permit No. 18-SDP-01-75P

Well	Constituent	Units	Most recent result	Background Standard
Open MSWLF Unit				
MW-27**	Chromium	mg/L	0.00971	0.0025
Closed MSWLF Unit				
MW-7R	Sulfide	mg/L	1.46	<1
MW-9R	Sulfide	mg/L	9.44	<1

Comments:

This table represents constituent/well pairs with indicated SSIs during the 2025 reporting period that did not have indicated SSIs during the 2024 reporting period.

** - SSI not confirmed pending the results of retesting.

- 1) Problems with the current detection network: None.
- 2) Schedule to implement remedies: Not applicable.
- 3) Alternative constituent or sample frequency changes: None.
- 4) Significant changes to calculated prediction limits: None.
- 5) Resampling strategy: Retesting is performed on a 1-of-2 retesting scheme.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2025 Annual Water Quality Report
Cherokee County Landfill - Open & Closed MSWLF Units
Permit No. 18-SDP-01-75P

Well	Constituent	Units	Most recent result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5 th background sample
Open MSWLF Unit									
MW-16	None								
MW-27	Chromium*	mg/L	0.00971	0.0025	Detection	0.1	11/24/2025	Pending	5/29/2019
MW-35	None								
MW-42R	None								
GWD-2	None								
Closed MSWLF Unit									
MW-7	Sulfide	mg/L	1.46	<1	0.05	1	11/24/2025	NA	11/24/2025
MW-9R	Sulfide	mg/L	9.44	<1	0.5	1	11/24/2025	NA	9/22/2016
MW-10R	None								
MW-12	None								
MW-13R	Chlorobenzene	µg/L	1.22	<1	0.5764	100	5/29/2024	NA	10/1/2010
MW-15C	None								
MW-44	None								

Comments:

Shaded rows denote constituent/well pairs with SSIs indicated in 2025 but not in 2024. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2024 and 2025 reporting periods.

*- An SSI was indicated during the 2nd 2025 statistical evaluation. Retesting will occur prior to the 1st 2026 semi-annual sampling event.

"Detection" indicates the monitoring well is in the detection monitoring program and therefore confidence limits were not calculated.

NA - Not Applicable; Monitoring well is in assessment monitoring and does not require a resample.

- 1) Problems with the current assessment network: None.
- 2) Proposed remedies: Not applicable.
- 3) Alternative constituent or sample frequency changes: None.
- 4) Plume delineation strategies: Not applicable.
- 5) Property owner notifications: Not applicable.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2025 Annual Water Quality Report
Cherokee County Landfill - Open and Closed MSWLF Units
Permit No. 18-SDP-01-75P

[illegible]

Table 9
Summary of Groundwater Chemistry
2025 Annual Water Quality Report
Cherokee County Landfill - Open and Closed MSWLF Units
Permit No. 18-SDP-01-75P

The Summary of Groundwater Chemistry for the Closed MSWLF unit is located in Appendix C-1.
The Summary of Groundwater Chemistry for the Open MSWLF unit is located in Appendix C-2.

Table 10
Historical SSI and SSL
2025 Annual Water Quality Report
Cherokee County Landfill - Open and Closed MSWLF Units
Permit No. 18-SDP-01-75P

Key

	SSI - Statistically Significant Increase above background
	SSL - Statistically Significant Level above groundwater protection standard

Well	Constituent	S p r i n g 2018	F a l l 2018	S p r i n g 2019	F a l l 2019	S p r i n g 2020	F a l l 2020	S p r i n g 2021	F a l l 2021	S p r i n g 2022	F a l l 2022	S p r i n g 2023	F a l l 2023	S p r i n g 2024	F a l l 2024	S p r i n g 2025	F a l l 2025
Open MSWLF Unit																	
MW-16	None																
MW-27**	Chromium																
MW-35	None																
MW-42R	Toluene																
GWD-2	None	NS	NS	NS	NS		NS		NS	NS	NS	NS	NS		NS	NS	NS
Closed MSWLF Unit																	
MW-7	Sulfide										NS		NS		NS	NS	
	Trichloroethene										NS		NS		NS	NS	
	cis-1,2-Dichloroethene										NS		NS		NS	NS	
MW-9R	Cobalt														NS	NS	
	Acrylonitrile									NS			NS		NS	NS	
	Carbon Disulfide									NS			NS		NS	NS	
	Styrene									NS			NS		NS	NS	
MW-10R	Sulfide									NS			NS		NS	NS	
	Barium														NS	NS	
	cis-1,2-Dichloroethene										NS		NS		NS	NS	
MW-12	Arsenic														NS	NS	
	Barium														NS	NS	
	Cobalt														NS	NS	
MW-13R	Barium														NS	NS	
	1,1-Dichloroethane										NS		NS		NS	NS	
	Acetone										NS		NS		NS	NS	
	Chlorobenzene										NS		NS		NS	NS	
MW-14R*	Cobalt																
MW-15R*	Arsenic																
	Cobalt																
MW-39*	Arsenic																
	Barium																
	Cobalt																
	Nickel																
	Vinyl Chloride																
MW-15C	None																
MW-44	None																

Comments:

Indicated SSIs during this reporting period occurred in monitoring wells in the assessment monitoring program and do not require a resample.

NS - Not Sampled. The monitoring well is sampled on an annual frequency beginning with the 2022 reporting period.

A detection of a VOC is considered an SSI for the purposes of this table.

* - Monitoring well was converted to a source characterization monitoring well on May 16, 2022 (Doc #103224).

** - SSI not confirmed pending the results of retesting.

Table 11
Corrective Action Trend Analysis
2025 Annual Water Quality Report
Cherokee County Landfill - Open and Closed MSWLF Units
Permit No. 18-SDP-01-75P

Statistically Significant Trends in Source Wells
None

Overall Trends of Detected Appendix I Constituents in Source Wells

	MW-14R	MW-15R	MW-39	Total
Increasing ($S = >0$):	1	8	2	11
Decreasing ($S = \leq 0$):	6	2	9	17

Three-fifths of the trends are stable or decreasing.

A summary table and graphs are included in Appendix H.

Notes:

S - Mann-Kendall Statistic

Figures

Monitoring Well	Monitoring Program
Open MSWLF Unit	
MW-21	Background
MW-23	Background
MW-16	Assessment
MW-27	Detection
MW-35	Assessment
MW-42R	Detection
GWD-2	Detection
Closed MSWLF Unit	
MW-11	Background
MW-7	Assessment
MW-9R	Assessment
MW-10R	Assessment
MW-12	Assessment
MW-13R	Assessment
MW-15C	AZPOC
MW-44	AZPOC
MW-14R	Corrective Action
MW-15R	Corrective Action
MW-39	Corrective Action

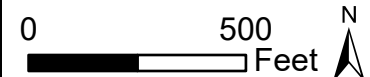
	HMSP Monitoring Well - Closed		Landfill Gas Monitoring Well
	HMSP Monitoring Well - Open		Leachate Extraction Well
	Monitoring Well		Approximate Waste Boundary
	Leachate Monitoring Location		Approximate Future Waste Boundary
			Approximate Property Boundary

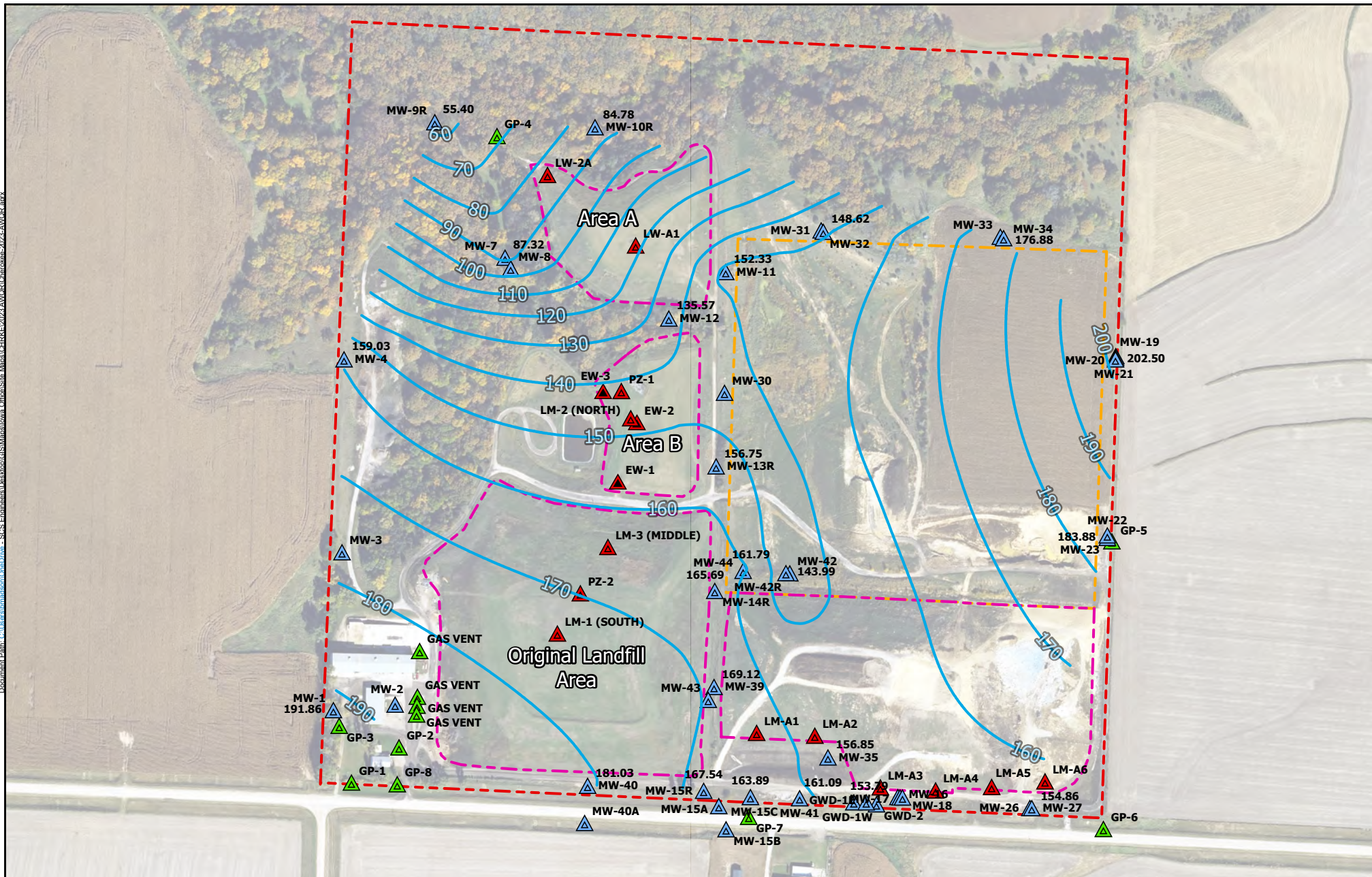
FIGURE 1
Cherokee County Sanitary Landfill
Approved Monitoring Network
Cherokee, Iowa

SCS ENGINEERS

27225283.26

February 2026





Legend

Approximate Groundwater Contour Based on Field Measurements Taken November 24-25, 2025

- ▲ Leachate Monitoring Location
- ▲ Landfill Gas Monitoring Well
- ▲ Leachate Extraction Well
- Approximate Waste Boundary

- Approximate Future Waste Boundary
- Approximate Property Boundary

▲ Monitoring Well

FIGURE 1
Cherokee County Sanitary Landfill
Groundwater Contours
Cherokee, Iowa

SCS ENGINEERS

27225283.26

February 2026

0 500 Feet





Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-16	Date: 6/17/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.6
Initial Static Water Level (feet):	7.12
Initial Groundwater Elevation (ft-amsl):	155.17
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:45 AM	Purging start time.						
9:48 AM	14.3	0.6	1572.6	6.47	220.7	6.2	
9:51 AM	14.1	0.4	1574.4	6.47	217.0	5.7	
9:54 AM	13.9	0.3	1573.2	6.47	213.1	5.1	
9:57 AM	13.9	0.2	1572.2	6.47	209.4	5.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None Hard to find when vegetation is overgrown, straight across from mulberry tree.

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-27	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	30.8
Initial Static Water Level (feet):	12.11
Initial Groundwater Elevation (ft-amsl):	155.55
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
4:08 PM	Purging start time.						
4:11 PM	20.6	3.6	1172.1	7.04	-32.5	12.3	
4:14 PM	20.5	3.4	1171.4	7.06	9.5	9.3	
4:17 PM	21.0	3.4	1168.8	7.06	42.4	11.2	
4:20 PM	20.3	3.4	1173.5	7.07	64.6	6.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-35	Date: 6/17/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.0
Initial Static Water Level (feet):	9.02
Initial Groundwater Elevation (ft-amsl):	157.88
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:22 AM	Purging start time.						
10:25 AM	15.8	0.5	3451.6	6.42	33.4	35.6	
10:28 AM	16.0	0.3	3456.9	6.41	17.6	46.2	
10:31 AM	15.6	0.3	3450.0	6.42	13.5	44.2	
10:34 AM	15.8	0.2	3398.4	6.43	21.4	27.9	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	Yes
If yes, explain:	Well will probably need dug out again in future
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-42R	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	32.5
Initial Static Water Level (feet):	17.00
Initial Groundwater Elevation (ft-amsl):	141.89
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:42 PM	Purging start time.						
2:45 PM	19.8	1.2	3567.0	6.57	22.9	3.8	
2:48 PM	20.0	0.6	3559.3	6.56	57.8	3.7	
2:51 PM	18.5	0.3	3559.6	6.56	72.7	3.2	
2:54 PM	18.2	0.2	3553.2	6.57	82.1	3.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-14R	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.5
Initial Static Water Level (feet):	17.10
Initial Groundwater Elevation (ft-amsl):	167.40
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:54 PM	Purging start time.						
12:57 PM	19.4	0.4	2217.4	6.27	32.7	54.3	
1:00 PM	19.2	0.2	2145.6	6.26	29.3	35.3	
1:03 PM	19.1	0.2	2022.0	6.24	30.7	23.0	
1:06 PM	18.9	0.2	1906.0	6.25	25.2	22.0	
1:09 PM	18.7	0.3	1835.1	6.27	27.5	21.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.5
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	Cherokee County Landfill - Closed MSWLF		
Monitoring Well/Piezometer ID:	MW-15C	Date:	6/16/2025
Gradient:	Down	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.0
Initial Static Water Level (feet):	7.86
Initial Groundwater Elevation (ft-amsl):	164.80
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
5:04 PM	Purging start time.						
5:07 PM	19.0	0.4	2383.0	6.64	142.3	7.7	
5:10 PM	19.1	0.3	1921.0	6.69	128.6	15.9	
5:13 PM	19.3	0.4	1705.5	6.71	120.5	22.4	
5:16 PM	19.4	0.8	1626.7	6.70	120.9	17.0	
5:19 PM	19.2	0.9	1630.5	6.70	122.7	17.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	180.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-15R	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	23.4
Initial Static Water Level (feet):	11.61
Initial Groundwater Elevation (ft-amsl):	168.61
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:36 PM	Purging start time.						
3:39 PM	16.0	0.5	1268.6	6.43	-61.1	31.1	
3:42 PM	15.5	0.2	1182.2	6.45	-66.7	23.7	
3:45 PM	15.7	0.2	1176.8	6.45	-69.7	20.5	
3:48 PM	15.7	0.2	1181.3	6.44	-72.0	28.8	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Slight Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-39	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.6
Initial Static Water Level (feet):	19.08
Initial Groundwater Elevation (ft-amsl):	170.32
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:34 PM	Purging start time.						
1:37 PM	21.8	0.2	2479.9	6.24	-93.4	7.2	
1:40 PM	20.8	0.1	2483.5	6.27	-96.3	7.7	
1:43 PM	20.8	0.1	2471.6	6.28	-98.6	10.3	
1:46 PM	20.1	0.1	2469.3	6.30	-99.3	11.5	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Sulfur/Landfill

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-44	Date: 6/16/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	38.2
Initial Static Water Level (feet):	6.00
Initial Groundwater Elevation (ft-amsl):	160.38
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:08 PM	Purging start time.						
2:11 PM	15.3	0.3	3389.4	6.74	-65.5	27.2	
2:14 PM	15.2	0.1	3381.6	6.75	-68.8	26.9	
2:17 PM	15.3	0.1	3375.9	6.75	-70.6	28.4	
2:20 PM	15.7	0.1	3380.9	6.75	-72.2	24.2	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR SURFACE WATER SAMPLING

Site Name Cherokee County Sanitary Landfill Permit No. 18-SDP-01-75P
 Surface Monitoring Point No. GWD-2 Date 6.17.25

Name of Person Sampling _____

A. TYPE OF MOINITORING POINT

Stream	☐	Open Tile	☐
Road Ditch	☐	Tile with Riser	☒
Drainage Ditch	☐	Other	☐

B. PURPOSE OF MONITORING POINT

Upstream	☐	Downstream	☐
Within Landfill	☒	Other	☐

C. MONITORING POINT CONDITIONS/LOCATION

Located east of GWD-1E

Was monitoring point dry?	<u>NO</u>	_____
Was water flowing?	<u>NO</u>	_____
Standing Water?	<u>yes</u>	_____
Was water discolored?	<u>NO</u>	_____
Does water have odor?	<u>NO</u>	_____
Was ground discolored?	<u>NO</u>	_____
Litter present?	<u>NO</u>	_____

D. FIELD MEASUREMENTS

Weather Conditions: _____

Time: _____

Field Measurements:

Temperature	_____	Units	<u>Celsius</u>
Equipment Used	_____		
pH	_____	Units	<u>Standard units</u>
Equipment Used	_____		
Spec. Conductance	_____	Units	<u>uS/cm</u>
Equipment Used	_____		

COMMENTS Not enough water for sample

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-16	Date: 11/24/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.6
Initial Static Water Level (feet):	8.50
Initial Groundwater Elevation (ft-amsl):	153.79
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:50 PM	Purging start time.						
3:53 PM	13.1	0.6	1417.8	6.59	97.2	2.6	
3:56 PM	13.2	0.2	1416.9	6.58	88.4	2.1	
3:59 PM	13.3	0.2	1417.2	6.58	82.4	2.3	
4:02 PM	13.3	0.1	1419.0	6.58	78.8	2.4	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-27	Date: 11/24/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	30.8
Initial Static Water Level (feet):	12.80
Initial Groundwater Elevation (ft-amsl):	154.86
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:23 PM	Purging start time.						
3:26 PM	11.5	1.5	1118.7	7.12	29.1	5.6	
3:29 PM	11.5	1.1	1096.9	7.10	29.1	4.1	
3:32 PM	11.6	1.0	1087.2	7.10	29.3	8.2	
3:35 PM	11.7	0.9	1082.4	7.09	30.8	13.5	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.2
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	183.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

[illegible]

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Open MSWLF	
Monitoring Well/Piezometer ID: MW-42R	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	32.6
Initial Static Water Level (feet):	14.90
Initial Groundwater Elevation (ft-amsl):	143.99
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:14 AM	Purging start time.						
11:17 AM	10.2	0.5	3357.4	6.67	-30.8	3.0	
11:20 AM	10.2	0.2	3361.8	6.65	-10.7	4.3	
11:23 AM	10.3	0.1	3366.9	6.64	3.1	7.1	
11:26 AM	10.3	0.1	3367.9	6.64	13.3	12.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project:	Cherokee County Landfill - Closed MSWLF		
Monitoring Well/Piezometer ID:	MW-7	Date:	11/25/2025
Gradient:	Down	Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS			
Well/Piezometer Capped?	Yes		
Litter/Standing Water?	No		

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)			
Measured Well Total Depth (feet):	50.8		
Initial Static Water Level (feet):	14.54		
Initial Groundwater Elevation (ft-amsl):	87.32		
Equipment Used:	Dedicated Tubing – Peristaltic Pump		

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:30 PM	Purging start time.						
2:33 PM	9.1	0.5	1905.7	7.24	-197.1	2.9	
2:36 PM	9.1	0.2	1893.0	7.22	-228.7	2.9	
2:39 PM	9.1	0.1	1894.5	7.21	-243.2	4.0	
2:42 PM	9.0	0.0	1869.9	7.20	-249.1	5.2	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-9R	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	52.8
Initial Static Water Level (feet):	20.60
Initial Groundwater Elevation (ft-amsl):	55.40
Equipment Used:	Dedicated Submersible

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:00 PM	Purging start time.						
1:03 PM	9.1	0.8	2466.3	7.41	-219.0	6.0	
1:06 PM	9.1	0.3	2462.0	7.41	-261.7	4.8	
1:09 PM	9.3	0.2	2445.8	7.43	-287.2	4.2	
1:12 PM	9.1	0.1	2426.2	7.46	-300.9	2.4	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear with black particles Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-10R	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	18.6
Initial Static Water Level (feet):	12.80
Initial Groundwater Elevation (ft-amsl):	84.78
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	NM
Was well pumped/bailed dry?	Yes
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	NM

D. WELL MAINTENANCE

Does the well require any future maintenance?		No
If yes, explain:		
Additional Comments:	Color-Yellow Tint Odor-Landfill Went dry during sample collection.	

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-11	Date: 11/25/2025
Gradient: Up	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	41.4
Initial Static Water Level (feet):	21.60
Initial Groundwater Elevation (ft-amsl):	152.33
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
12:16 PM	Purging start time.						
12:19 PM	11.4	0.9	2692.5	6.64	-24.3	3.5	
12:22 PM	11.8	0.4	2734.5	6.65	-71.1	3.4	
12:25 PM	11.6	0.3	2744.3	6.66	-96.5	3.5	
12:28 PM	11.7	0.2	2748.5	6.67	-110.4	3.9	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-12	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	22.3
Initial Static Water Level (feet):	7.58
Initial Groundwater Elevation (ft-amsl):	135.57
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
3:50 PM	Purging start time.						
3:53 PM	10.9	224.6	4390.0	6.76	-155.2	3.5	
3:56 PM	10.9	212.1	4380.0	6.76	-156.2	3.6	
3:59 PM	10.8	199.9	4372.0	6.77	-157.1	4.0	
4:02 PM	10.8	154.3	4368.0	6.78	-160.2	4.0	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.8
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	150.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Brown/Orange Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-13R	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	26.4
Initial Static Water Level (feet):	16.21
Initial Groundwater Elevation (ft-amsl):	156.75
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
11:41 AM	Purging start time.						
11:44 AM	10.6	0.7	1255.6	6.50	84.8	50.2	
11:47 AM	10.8	0.3	1233.7	6.49	84.1	49.1	
11:50 AM	10.7	0.2	1226.3	6.49	82.7	44.4	
11:53 AM	10.8	0.1	1220.9	6.49	81.8	42.8	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Yellow Tint Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-14R	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.5
Initial Static Water Level (feet):	18.81
Initial Groundwater Elevation (ft-amsl):	165.69
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:23 AM	Purging start time.						
9:26 AM	11.2	0.7	2046.2	6.48	211.2	9.1	
9:29 AM	11.2	0.4	1846.5	6.42	185.0	9.5	
9:32 AM	11.2	0.3	1816.0	6.40	169.2	6.8	
9:35 AM	11.0	0.2	1715.6	6.41	146.4	5.8	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-15C	Date: 11/24/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.1
Initial Static Water Level (feet):	8.77
Initial Groundwater Elevation (ft-amsl):	163.89
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
2:17 PM	Purging start time.						
2:20 PM	12.1	0.6	2479.7	6.71	-36.2	5.1	
2:23 PM	12.2	0.3	1722.0	6.75	-22.8	11.1	
2:26 PM	12.3	0.2	1651.5	6.75	-12.6	12.9	
2:29 PM	12.4	0.1	1579.5	6.70	-2.8	12.4	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	1.9
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	158.33

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None Duplicate

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-15R	Date: 11/24/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	23.5
Initial Static Water Level (feet):	12.68
Initial Groundwater Elevation (ft-amsl):	167.54
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:49 PM	Purging start time.						
1:52 PM	12.2	0.7	1172.5	6.48	-48.3	1.7	
1:55 PM	12.2	0.3	1172.0	6.47	-46.0	1.6	
1:58 PM	12.3	0.2	1172.3	6.47	-47.4	1.6	
2:01 PM	12.4	0.2	1172.3	6.48	-49.1	1.6	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-39	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	27.6
Initial Static Water Level (feet):	20.28
Initial Groundwater Elevation (ft-amsl):	169.12
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
9:50 AM	Purging start time.						
9:53 AM	10.4	0.9	2198.4	6.40	-31.3	12.1	
9:56 AM	10.6	0.3	2220.4	6.41	-46.5	7.0	
9:59 AM	10.8	0.2	2209.1	6.42	-54.5	5.4	
10:02 AM	10.8	0.1	2202.4	6.43	-59.2	5.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-40	Date: 11/24/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	24.9
Initial Static Water Level (feet):	15.74
Initial Groundwater Elevation (ft-amsl):	181.03
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING							
FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
1:24 PM	Purging start time.						
1:27 PM	14.5	0.6	1033.6	6.40	-14.9	9.9	
1:30 PM	14.3	0.4	1090.0	6.39	-35.5	9.6	
1:33 PM	13.8	0.2	1096.6	6.41	-47.3	7.3	
1:36 PM	14.1	0.1	1180.6	6.43	-56.2	5.4	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-Sulfur

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-43	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped?	Yes
Litter/Standing Water?	No

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	46.6
Initial Static Water Level (feet):	22.61
Initial Groundwater Elevation (ft-amsl):	168.12
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:19 AM	Purging start time.						
10:22 AM	10.2	0.9	2495.1	6.50	-33.5	7.4	
10:25 AM	10.3	0.9	2162.6	6.61	-17.5	3.9	
10:28 AM	10.2	2.0	2068.8	6.70	-6.8	3.3	
10:31 AM	10.1	2.2	2102.2	6.69	5.0	3.7	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	166.67

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR GROUNDWATER SAMPLING

Project: Cherokee County Landfill - Closed MSWLF	
Monitoring Well/Piezometer ID: MW-44	Date: 11/25/2025
Gradient: Down	Sampler: Konner Roth

A. MW/PIEZOMETER CONDITIONS	
Well/Piezometer Capped? Yes	
Litter/Standing Water? No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	28.5
Initial Static Water Level (feet):	4.61
Initial Groundwater Elevation (ft-amsl):	161.77
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES							
Time	Temperature (°C) 10%	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (NTU)	
10:48 AM	Purging start time.						
10:51 AM	10.4	0.7	3154.1	6.90	-19.6	13.3	
10:54 AM	10.3	0.2	3170.0	6.89	-40.4	28.5	
10:57 AM	10.3	0.1	3175.7	6.89	-49.2	33.7	
11:00 AM	10.4	0.1	3178.2	6.88	-54.1	36.1	
Parameters stabilized, sample collected.							

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	175.00

D. WELL MAINTENANCE	
Does the well require any future maintenance?	No
If yes, explain:	
Additional Comments:	Color-Clear Odor-None

FORM FOR SURFACE WATER SAMPLING

Site Name Cherokee County Sanitary Landfill Permit No. 18-SDP-01-75P
 Surface Monitoring Point No. GWD-2 Date 11-24-25
 Name of Person Sampling Homer Both

A. TYPE OF MONITORING POINT

Stream ☐ Open Tile ☐
 Road Ditch ☐ Tile with Riser ☒
 Drainage Ditch ☐ Other ☐

B. PURPOSE OF MONITORING POINT

Upstream ☐ Downstream ☐
 Within Landfill ☒ Other ☐

C. MONITORING POINT CONDITIONS/LOCATION

Located east of GWD-1E

Was monitoring point dry? NO
 Was water flowing? NO
 Standing Water? YES
 Was water discolored? NO
 Does water have odor? NO
 Was ground discolored? NO
 Litter present? NO

D. FIELD MEASUREMENTS

Weather Conditions: _____
 Time: _____
 Field Measurements: _____

Temperature _____ Units Celsius
 Equipment Used _____
 pH _____ Units Standard units
 Equipment Used _____
 Spec. Conductance _____ Units uS/cm
 Equipment Used _____

COMMENTS Not enough water to sample.

Appendix B-1
Laboratory Analytical Data Sheets

ANALYTICAL REPORT

PREPARED FOR

Attn: Sean Marczewski
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

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JOB DESCRIPTION

Cherokee Landfill

JOB NUMBER

310-309086-1

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
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Case Narrative

Client: SCS Engineers
Project: Cherokee Landfill

Job ID: 310-309086-1

Job ID: 310-309086-1

Eurofins Cedar Falls

Job Narrative 310-309086-1

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 6/18/2025 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C.

GC/MS VOA

Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container: Trip Blank (310-309086-6).

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

HPLC/IC

Method 9056A_ORGFM_48H: The following samples were received outside of holding time: MW-14R (310-309086-3), MW-15R (310-309086-4) and MW-39 (310-309086-5).

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: Cherokee Landfill

Job ID: 310-309086-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-309086-1	MW-15C	Water	06/16/25 17:42	06/18/25 16:30
310-309086-2	MW-44	Water	06/16/25 14:33	06/18/25 16:30
310-309086-3	MW-14R	Water	06/16/25 13:23	06/18/25 16:30
310-309086-4	MW-15R	Water	06/16/25 15:00	06/18/25 16:30
310-309086-5	MW-39	Water	06/16/25 14:01	06/18/25 16:30
310-309086-6	Trip Blank	Water	06/16/25 00:00	06/18/25 16:30

Detection Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000534	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0722		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000281	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00693		0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00221		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0151		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000359	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	28.0	J	30.0	21.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.278	J	1.00	0.220	ug/L	1		8260D	Total/NA
Sulfate	174		10.0	4.20	mg/L	10		9056A	Total/NA
Antimony	0.00105	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.000637	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0881		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000139	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00378		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0225		0.00500	0.00230	mg/L	1		6020B	Total/NA
Iron	0.190		0.100	0.0500	mg/L	1		6020B	Total/NA
Manganese	1.29		0.0100	0.00360	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.75	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.40		1.00	0.230	ug/L	1		8260D	Total/NA
Benzene	0.637		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	1.33		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.307	J	1.00	0.210	ug/L	1		8260D	Total/NA
Vinyl chloride	0.344	J	1.00	0.180	ug/L	1		8260D	Total/NA
Sulfate	6.93		1.00	0.420	mg/L	1		9056A	Total/NA
Arsenic	0.0898		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.453		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00922		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000337	J	0.000500	0.000330	mg/L	1		6020B	Total/NA
Nickel	0.0114		0.00500	0.00230	mg/L	1		6020B	Total/NA
Iron	21.9		0.100	0.0500	mg/L	1		6020B	Total/NA
Manganese	2.18		0.0100	0.00360	mg/L	1		6020B	Total/NA
Total Suspended Solids	70.0		30.0	21.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.245	J	1.00	0.220	ug/L	1		8260D	Total/NA
1,4-Dichlorobenzene	6.09		1.00	0.230	ug/L	1		8260D	Total/NA
Acetone	5.17	J	10.0	3.10	ug/L	1		8260D	Total/NA
Benzene	0.778		0.500	0.220	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39 (Continued)

Lab Sample ID: 310-309086-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	6.06		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.496	J	1.00	0.210	ug/L	1		8260D	Total/NA
Vinyl chloride	1.21		1.00	0.180	ug/L	1		8260D	Total/NA
Nitrate as N	0.218	H H3	0.200	0.0780	mg/L	1		9056A	Total/NA
Sulfate	0.545	J	1.00	0.420	mg/L	1		9056A	Total/NA
Arsenic	0.0211		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	2.45		0.00800	0.00264	mg/L	4		6020B	Total/NA
Cobalt	0.00721		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0135		0.00500	0.00230	mg/L	1		6020B	Total/NA
Iron	52.8		0.100	0.0500	mg/L	1		6020B	Total/NA
Manganese	2.94		0.0100	0.00360	mg/L	1		6020B	Total/NA
Total Suspended Solids	104		60.0	42.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 04:21	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 04:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 04:21	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 04:21	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 04:21	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 04:21	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 04:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 04:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 04:21	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 04:21	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 04:21	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 04:21	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 04:21	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 04:21	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 04:21	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 04:21	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 04:21	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 04:21	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 04:21	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 04:21	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 04:21	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 04:21	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 04:21	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 04:21	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 04:21	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 04:21	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 04:21	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 04:21	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 04:21	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 04:21	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 04:21	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 04:21	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 04:21	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 04:21	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 04:21	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 04:21	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 04:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 04:21	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 04:21	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 04:21	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 04:21	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 04:21	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 04:21	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 04:21	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 04:21	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 04:21	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 04:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		06/20/25 04:21	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 04:21	1
4-Bromofluorobenzene (Surr)	107		80 - 120		06/20/25 04:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:30	1
Arsenic	0.000534	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:30	1
Barium	0.0722		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:30	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:30	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:17	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:30	1
Cobalt	0.000281	J	0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:30	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:30	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:30	1
Nickel	0.00693		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:30	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:30	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:30	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:30	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:30	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 04:44	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 04:44	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 04:44	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 04:44	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 04:44	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 04:44	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 04:44	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 04:44	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 04:44	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 04:44	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 04:44	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 04:44	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 04:44	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 04:44	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 04:44	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 04:44	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 04:44	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 04:44	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 04:44	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 04:44	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 04:44	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 04:44	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 04:44	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 04:44	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 04:44	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 04:44	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 04:44	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 04:44	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 04:44	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 04:44	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 04:44	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 04:44	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 04:44	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 04:44	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 04:44	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 04:44	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 04:44	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 04:44	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 04:44	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 04:44	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 04:44	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 04:44	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 04:44	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 04:44	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 04:44	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 04:44	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130		06/20/25 04:44	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		06/20/25 04:44	1
4-Bromofluorobenzene (Surr)	105		80 - 120		06/20/25 04:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:32	1
Arsenic	0.00221		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:32	1
Barium	0.0151		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:32	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:32	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:19	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:32	1
Cobalt	0.000359	J	0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:32	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:32	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:32	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:32	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:32	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:32	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:32	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:32	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	28.0	J	30.0	21.0	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:06	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:06	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:06	1
1,1-Dichloroethane	0.278	J	1.00	0.220	ug/L			06/20/25 05:06	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:06	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:06	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:06	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:06	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:06	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 05:06	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:06	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:06	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 05:06	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:06	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 05:06	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:06	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:06	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:06	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:06	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:06	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:06	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 05:06	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:06	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:06	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:06	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:06	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 05:06	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:06	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:06	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:06	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:06	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:06	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:06	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:06	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:06	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:06	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:06	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:06	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:06	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:06	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 05:06	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		76 - 130		06/20/25 05:06	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		80 - 120		06/20/25 05:06	1
4-Bromofluorobenzene (Surr)	104		80 - 120		06/20/25 05:06	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H H3	0.200	0.0780	mg/L			06/19/25 09:39	1
Sulfate	174		10.0	4.20	mg/L			06/19/25 10:28	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00105	J	0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:43	1
Arsenic	0.000637	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:43	1
Barium	0.0881		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:43	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:43	1
Cadmium	0.000139	J	0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:24	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:43	1
Cobalt	0.00378		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:43	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:43	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:43	1
Nickel	0.0225		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:43	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:43	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:43	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:43	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:43	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:43	1
Iron	0.190		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:43	1
Manganese	1.29		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	1.75	J	1.88	1.31	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:29	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:29	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:29	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 05:29	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:29	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:29	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:29	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:29	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:29	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:29	1
1,4-Dichlorobenzene	1.40		1.00	0.230	ug/L			06/20/25 05:29	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:29	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:29	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:29	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 05:29	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:29	1
Benzene	0.637		0.500	0.220	ug/L			06/20/25 05:29	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:29	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:29	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:29	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:29	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:29	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:29	1
Chlorobenzene	1.33		1.00	0.400	ug/L			06/20/25 05:29	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:29	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:29	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:29	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:29	1
cis-1,2-Dichloroethene	0.307 J		1.00	0.210	ug/L			06/20/25 05:29	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:29	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:29	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:29	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:29	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:29	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:29	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:29	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:29	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:29	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:29	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:29	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:29	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:29	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:29	1
Vinyl chloride	0.344 J		1.00	0.180	ug/L			06/20/25 05:29	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130		06/20/25 05:29	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 05:29	1
4-Bromofluorobenzene (Surr)	101		80 - 120		06/20/25 05:29	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H H3	0.200	0.0780	mg/L			06/19/25 09:52	1
Sulfate	6.93		1.00	0.420	mg/L			06/19/25 09:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:35	1
Arsenic	0.0898		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:35	1
Barium	0.453		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:35	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:35	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:22	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:35	1
Cobalt	0.00922		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:35	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:35	1
Lead	0.000337 J		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:35	1
Nickel	0.0114		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:35	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:35	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:35	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:35	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:35	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:35	1
Iron	21.9		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:35	1
Manganese	2.18		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	70.0		30.0	21.0	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Date Collected: 06/16/25 14:01

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:52	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:52	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:52	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:52	1
1,1-Dichloroethane	0.245	J	1.00	0.220	ug/L			06/20/25 05:52	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:52	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:52	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:52	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:52	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:52	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:52	1
1,4-Dichlorobenzene	6.09		1.00	0.230	ug/L			06/20/25 05:52	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:52	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:52	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:52	1
Acetone	5.17	J	10.0	3.10	ug/L			06/20/25 05:52	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:52	1
Benzene	0.778		0.500	0.220	ug/L			06/20/25 05:52	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:52	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:52	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:52	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:52	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:52	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:52	1
Chlorobenzene	6.06		1.00	0.400	ug/L			06/20/25 05:52	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:52	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:52	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:52	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:52	1
cis-1,2-Dichloroethene	0.496	J	1.00	0.210	ug/L			06/20/25 05:52	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:52	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:52	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:52	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:52	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:52	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:52	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:52	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:52	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:52	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:52	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:52	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:52	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:52	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:52	1
Vinyl chloride	1.21		1.00	0.180	ug/L			06/20/25 05:52	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/20/25 05:52	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Date Collected: 06/16/25 14:01

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 05:52	1
4-Bromofluorobenzene (Surr)	104		80 - 120		06/20/25 05:52	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.218	H H3	0.200	0.0780	mg/L			06/19/25 10:05	1
Sulfate	0.545	J	1.00	0.420	mg/L			06/19/25 10:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:45	1
Arsenic	0.0211		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:45	1
Barium	2.45		0.00800	0.00264	mg/L		06/20/25 09:00	07/02/25 14:27	4
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:45	1
Cadmium	<0.000800		0.000800	0.000400	mg/L		06/20/25 09:00	07/02/25 14:27	4
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:45	1
Cobalt	0.00721		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:45	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:45	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:45	1
Nickel	0.0135		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:45	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:45	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:45	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:45	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:45	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:45	1
Iron	52.8		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:45	1
Manganese	2.94		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	104		60.0	42.0	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 02:06	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 02:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 02:06	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 02:06	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 02:06	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 02:06	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 02:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 02:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 02:06	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 02:06	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 02:06	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 02:06	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 02:06	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 02:06	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 02:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 02:06	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 02:06	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 02:06	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 02:06	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 02:06	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 02:06	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 02:06	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 02:06	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 02:06	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 02:06	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 02:06	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 02:06	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 02:06	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 02:06	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 02:06	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 02:06	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 02:06	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 02:06	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 02:06	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 02:06	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 02:06	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 02:06	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 02:06	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 02:06	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 02:06	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 02:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 02:06	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 02:06	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 02:06	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 02:06	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 02:06	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 02:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/20/25 02:06	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 02:06	1
4-Bromofluorobenzene (Surr)	106		80 - 120		06/20/25 02:06	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Qualifiers

GC/MS VOA

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

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-309086-1	MW-15C	111	90	107
310-309086-1 MS	MW-15C	98	96	102
310-309086-1 MSD	MW-15C	97	97	101
310-309086-2	MW-44	106	91	105
310-309086-3	MW-14R	108	89	104
310-309086-4	MW-15R	106	90	101
310-309086-5	MW-39	109	90	104
310-309086-6	Trip Blank	109	90	106
LCS 310-458106/11	Lab Control Sample	109	92	104
LCS 310-458106/9	Lab Control Sample	101	97	101
MB 310-458106/8	Method Blank	111	90	106

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-458106/8

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/19/25 23:50	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/19/25 23:50	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/19/25 23:50	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/19/25 23:50	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/19/25 23:50	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/19/25 23:50	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/19/25 23:50	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/19/25 23:50	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/19/25 23:50	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/19/25 23:50	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/19/25 23:50	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/19/25 23:50	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/19/25 23:50	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/19/25 23:50	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/19/25 23:50	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/19/25 23:50	1
Acetone	<10.0		10.0	3.10	ug/L			06/19/25 23:50	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/19/25 23:50	1
Benzene	<0.500		0.500	0.220	ug/L			06/19/25 23:50	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/19/25 23:50	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/19/25 23:50	1
Bromoform	<5.00		5.00	0.780	ug/L			06/19/25 23:50	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/19/25 23:50	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/19/25 23:50	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/19/25 23:50	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/19/25 23:50	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/19/25 23:50	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/19/25 23:50	1
Chloroform	<3.00		3.00	1.30	ug/L			06/19/25 23:50	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/19/25 23:50	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/19/25 23:50	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/19/25 23:50	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/19/25 23:50	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/19/25 23:50	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/19/25 23:50	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/19/25 23:50	1
Styrene	<1.00		1.00	0.370	ug/L			06/19/25 23:50	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/19/25 23:50	1
Toluene	<1.00		1.00	0.430	ug/L			06/19/25 23:50	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/19/25 23:50	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/19/25 23:50	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/19/25 23:50	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/19/25 23:50	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/19/25 23:50	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/19/25 23:50	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/19/25 23:50	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/19/25 23:50	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-458106/8

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		06/19/25 23:50	1
Toluene-d8 (Surr)	90		80 - 120		06/19/25 23:50	1
4-Bromofluorobenzene (Surr)	106		80 - 120		06/19/25 23:50	1

Lab Sample ID: LCS 310-458106/11

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	15.60		ug/L		78	33 - 138
Chloroethane	20.0	17.08		ug/L		85	59 - 139
Chloromethane	20.0	16.09		ug/L		80	52 - 146
Trichlorofluoromethane	20.0	16.85		ug/L		84	55 - 150
Vinyl chloride	20.0	16.74		ug/L		84	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	109		76 - 130
Toluene-d8 (Surr)	92		80 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120

Lab Sample ID: LCS 310-458106/9

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.03		ug/L		95	70 - 121
1,1,1-Trichloroethane	20.0	21.96		ug/L		110	69 - 130
1,1,2,2-Tetrachloroethane	20.0	18.58		ug/L		93	70 - 122
1,1,2-Trichloroethane	20.0	19.79		ug/L		99	75 - 121
1,1-Dichloroethane	20.0	20.42		ug/L		102	69 - 127
1,1-Dichloroethene	20.0	22.12		ug/L		111	64 - 134
1,2,3-Trichloropropane	20.0	18.63		ug/L		93	70 - 122
1,2-Dibromo-3-chloropropane	20.0	17.98		ug/L		90	62 - 132
1,2-Dibromoethane (EDB)	20.0	20.07		ug/L		100	74 - 122
1,2-Dichlorobenzene	20.0	18.99		ug/L		95	74 - 120
1,2-Dichloroethane	20.0	18.74		ug/L		94	68 - 125
1,2-Dichloropropane	20.0	21.67		ug/L		108	72 - 128
1,4-Dichlorobenzene	20.0	18.31		ug/L		92	72 - 120
2-Butanone (MEK)	40.0	40.86		ug/L		102	60 - 134
2-Hexanone	40.0	38.83		ug/L		97	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	37.19		ug/L		93	62 - 136
Acetone	40.0	38.83		ug/L		97	59 - 136
Acrylonitrile	200	211.3		ug/L		106	50 - 150
Benzene	20.0	21.53		ug/L		108	71 - 125
Bromochloromethane	20.0	22.99		ug/L		115	69 - 131
Bromodichloromethane	20.0	19.62		ug/L		98	70 - 122
Bromoform	20.0	16.89		ug/L		84	62 - 122
Carbon disulfide	20.0	20.62		ug/L		103	58 - 137

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-458106/9

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon tetrachloride	20.0	21.46		ug/L		107	63 - 136
Chlorobenzene	20.0	19.69		ug/L		98	74 - 120
Chlorodibromomethane	20.0	16.76		ug/L		84	69 - 121
Chloroform	20.0	19.61		ug/L		98	72 - 122
cis-1,2-Dichloroethene	20.0	21.15		ug/L		106	72 - 123
cis-1,3-Dichloropropene	20.0	16.90		ug/L		84	72 - 123
Dibromomethane	20.0	20.45		ug/L		102	72 - 122
Ethylbenzene	20.0	20.05		ug/L		100	75 - 120
Iodomethane	20.0	16.69		ug/L		83	18 - 150
Methylene chloride	20.0	23.97		ug/L		120	72 - 128
Styrene	20.0	21.35		ug/L		107	74 - 122
Tetrachloroethene	20.0	21.24		ug/L		106	70 - 128
Toluene	20.0	20.45		ug/L		102	74 - 120
trans-1,2-Dichloroethene	20.0	20.85		ug/L		104	67 - 127
trans-1,3-Dichloropropene	20.0	16.30		ug/L		82	67 - 123
trans-1,4-Dichloro-2-butene	20.0	15.74		ug/L		79	50 - 150
Trichloroethene	20.0	21.61		ug/L		108	70 - 128
Vinyl acetate	40.0	37.66		ug/L		94	50 - 150
Xylenes, Total	40.0	42.26		ug/L		106	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		76 - 130
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: 310-309086-1 MS

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	<1.00		25.0	22.20		ug/L		89	55 - 121
1,1,1-Trichloroethane	<1.00		25.0	23.99		ug/L		96	53 - 130
1,1,2,2-Tetrachloroethane	<1.00		25.0	23.32		ug/L		93	55 - 123
1,1,2-Trichloroethane	<1.00		25.0	22.75		ug/L		91	60 - 121
1,1-Dichloroethane	<1.00		25.0	22.88		ug/L		92	53 - 127
1,1-Dichloroethene	<2.00		25.0	25.13		ug/L		101	51 - 134
1,2,3-Trichloropropane	<1.00		25.0	22.48		ug/L		90	56 - 122
1,2-Dibromo-3-chloropropane	<5.00		25.0	23.26		ug/L		93	44 - 138
1,2-Dibromoethane (EDB)	<1.00		25.0	23.80		ug/L		95	60 - 122
1,2-Dichlorobenzene	<1.00		25.0	23.36		ug/L		93	60 - 120
1,2-Dichloroethane	<1.00		25.0	21.34		ug/L		85	48 - 128
1,2-Dichloropropane	<1.00		25.0	24.82		ug/L		99	59 - 128
1,4-Dichlorobenzene	<1.00		25.0	22.97		ug/L		92	58 - 120
2-Butanone (MEK)	<10.0		50.0	43.51		ug/L		87	46 - 134
2-Hexanone	<10.0		50.0	46.32		ug/L		93	46 - 141
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	45.86		ug/L		92	49 - 138
Acetone	<10.0		50.0	45.88		ug/L		92	39 - 141
Acrylonitrile	<5.00		250	234.5		ug/L		94	41 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309086-1 MS

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.500		25.0	24.27		ug/L		97	48 - 125
Bromochloromethane	<5.00		25.0	25.95		ug/L		104	55 - 131
Bromodichloromethane	<1.00		25.0	21.80		ug/L		87	53 - 122
Bromoform	<5.00		25.0	21.36		ug/L		85	47 - 122
Carbon disulfide	<1.00		25.0	26.73		ug/L		107	45 - 137
Carbon tetrachloride	<2.00		25.0	23.58		ug/L		94	45 - 136
Chlorobenzene	<1.00		25.0	22.38		ug/L		90	59 - 120
Chlorodibromomethane	<5.00		25.0	19.28		ug/L		77	53 - 121
Chloroform	<3.00		25.0	21.80		ug/L		87	52 - 122
cis-1,2-Dichloroethene	<1.00		25.0	23.95		ug/L		96	51 - 123
cis-1,3-Dichloropropene	<5.00		25.0	19.14		ug/L		77	55 - 123
Dibromomethane	<1.00		25.0	22.69		ug/L		91	57 - 122
Ethylbenzene	<1.00		25.0	22.49		ug/L		90	53 - 120
Iodomethane	<10.0		25.0	19.94		ug/L		80	18 - 150
Methylene chloride	<5.00		25.0	26.56		ug/L		106	59 - 128
Styrene	<1.00		25.0	24.38		ug/L		98	50 - 125
Tetrachloroethene	<1.00		25.0	24.39		ug/L		98	51 - 128
Toluene	<1.00		25.0	22.38		ug/L		90	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	25.32		ug/L		101	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	18.06		ug/L		72	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	18.53		ug/L		74	28 - 150
Trichloroethene	<1.00		25.0	24.09		ug/L		96	50 - 128
Vinyl acetate	<10.0		50.0	39.56		ug/L		79	31 - 150
Xylenes, Total	<3.00		50.0	46.78		ug/L		94	50 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	98		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120

Lab Sample ID: 310-309086-1 MSD

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.30		ug/L		85	55 - 121	4	20
1,1,1-Trichloroethane	<1.00		25.0	21.94		ug/L		88	53 - 130	9	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	21.45		ug/L		86	55 - 123	8	20
1,1,2-Trichloroethane	<1.00		25.0	21.70		ug/L		87	60 - 121	5	20
1,1-Dichloroethane	<1.00		25.0	20.72		ug/L		83	53 - 127	10	20
1,1-Dichloroethene	<2.00		25.0	22.25		ug/L		89	51 - 134	12	20
1,2,3-Trichloropropane	<1.00		25.0	20.93		ug/L		84	56 - 122	7	21
1,2-Dibromo-3-chloropropane	<5.00		25.0	22.46		ug/L		90	44 - 138	4	24
1,2-Dibromoethane (EDB)	<1.00		25.0	22.50		ug/L		90	60 - 122	6	20
1,2-Dichlorobenzene	<1.00		25.0	21.74		ug/L		87	60 - 120	7	20
1,2-Dichloroethane	<1.00		25.0	19.07		ug/L		76	48 - 128	11	20
1,2-Dichloropropane	<1.00		25.0	22.41		ug/L		90	59 - 128	10	20
1,4-Dichlorobenzene	<1.00		25.0	20.69		ug/L		83	58 - 120	10	20

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309086-1 MSD

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	43.63		ug/L		87	46 - 134	0	23
2-Hexanone	<10.0		50.0	44.25		ug/L		89	46 - 141	5	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	43.17		ug/L		86	49 - 138	6	20
Acetone	<10.0		50.0	41.52		ug/L		83	39 - 141	10	23
Acrylonitrile	<5.00		250	215.1		ug/L		86	41 - 150	9	20
Benzene	<0.500		25.0	21.92		ug/L		88	48 - 125	10	20
Bromochloromethane	<5.00		25.0	23.59		ug/L		94	55 - 131	10	21
Bromodichloromethane	<1.00		25.0	20.26		ug/L		81	53 - 122	7	20
Bromoform	<5.00		25.0	20.17		ug/L		81	47 - 122	6	20
Carbon disulfide	<1.00		25.0	21.86		ug/L		87	45 - 137	20	24
Carbon tetrachloride	<2.00		25.0	22.22		ug/L		89	45 - 136	6	20
Chlorobenzene	<1.00		25.0	20.71		ug/L		83	59 - 120	8	20
Chlorodibromomethane	<5.00		25.0	18.75		ug/L		75	53 - 121	3	20
Chloroform	<3.00		25.0	20.00		ug/L		80	52 - 122	9	20
cis-1,2-Dichloroethene	<1.00		25.0	21.55		ug/L		86	51 - 123	11	20
cis-1,3-Dichloropropene	<5.00		25.0	17.89		ug/L		72	55 - 123	7	20
Dibromomethane	<1.00		25.0	21.38		ug/L		86	57 - 122	6	20
Ethylbenzene	<1.00		25.0	20.96		ug/L		84	53 - 120	7	20
Iodomethane	<10.0		25.0	21.76		ug/L		87	18 - 150	9	32
Methylene chloride	<5.00		25.0	24.18		ug/L		97	59 - 128	9	20
Styrene	<1.00		25.0	22.35		ug/L		89	50 - 125	9	20
Tetrachloroethene	<1.00		25.0	22.82		ug/L		91	51 - 128	7	20
Toluene	<1.00		25.0	20.50		ug/L		82	52 - 120	9	20
trans-1,2-Dichloroethene	<1.00		25.0	22.57		ug/L		90	53 - 127	11	20
trans-1,3-Dichloropropene	<5.00		25.0	17.09		ug/L		68	50 - 123	6	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	17.24		ug/L		69	28 - 150	7	24
Trichloroethene	<1.00		25.0	21.88		ug/L		88	50 - 128	10	20
Vinyl acetate	<10.0		50.0	40.30		ug/L		81	31 - 150	2	25
Xylenes, Total	<3.00		50.0	43.59		ug/L		87	50 - 122	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	97		76 - 130
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-458159/3

Matrix: Water

Analysis Batch: 458159

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00	0.420	mg/L			06/18/25 13:00	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-458159/4

Matrix: Water

Analysis Batch: 458159

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	10.48		mg/L		105	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-458185/1-A

Matrix: Water

Analysis Batch: 459363

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:15	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:15	1
Barium	<0.00200		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:15	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:15	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:15	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:15	1
Iron	<0.100		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:15	1
Manganese	<0.0100		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:15	1

Lab Sample ID: MB 310-458185/1-A

Matrix: Water

Analysis Batch: 459455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 13:59	1

Lab Sample ID: LCS 310-458185/2-A

Matrix: Water

Analysis Batch: 459363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2107		mg/L		105	80 - 120
Arsenic	0.200	0.2014		mg/L		101	80 - 120
Barium	0.100	0.09831		mg/L		98	80 - 120
Beryllium	0.100	0.09342		mg/L		93	80 - 120
Chromium	0.100	0.09733		mg/L		97	80 - 120
Cobalt	0.100	0.09729		mg/L		97	80 - 120
Copper	0.200	0.2028		mg/L		101	80 - 120
Lead	0.200	0.1963		mg/L		98	80 - 120
Nickel	0.200	0.2000		mg/L		100	80 - 120
Selenium	0.400	0.3775		mg/L		94	80 - 120
Silver	0.100	0.1115		mg/L		112	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

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

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.09327		mg/L		93	80 - 120
Vanadium	0.100	0.09737		mg/L		97	80 - 120
Zinc	0.200	0.1909		mg/L		95	80 - 120
Iron	0.200	0.1992		mg/L		100	80 - 120
Manganese	0.100	0.09702		mg/L		97	80 - 120

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.100	0.09253		mg/L		93	80 - 120

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-458081/1
Matrix: Water
Analysis Batch: 458081

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			06/19/25 08:31	1

Lab Sample ID: LCS 310-458081/2
Matrix: Water
Analysis Batch: 458081

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	109.0		mg/L		109	82 - 117

Lab Sample ID: 310-309086-5 DU
Matrix: Water
Analysis Batch: 458081

Client Sample ID: MW-39
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	104		112.0		mg/L		7	35

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

GC/MS VOA

Analysis Batch: 458106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	8260D	
310-309086-2	MW-44	Total/NA	Water	8260D	
310-309086-3	MW-14R	Total/NA	Water	8260D	
310-309086-4	MW-15R	Total/NA	Water	8260D	
310-309086-5	MW-39	Total/NA	Water	8260D	
310-309086-6	Trip Blank	Total/NA	Water	8260D	
MB 310-458106/8	Method Blank	Total/NA	Water	8260D	
LCS 310-458106/11	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-458106/9	Lab Control Sample	Total/NA	Water	8260D	
310-309086-1 MS	MW-15C	Total/NA	Water	8260D	
310-309086-1 MSD	MW-15C	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 458159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-3	MW-14R	Total/NA	Water	9056A	
310-309086-3	MW-14R	Total/NA	Water	9056A	
310-309086-4	MW-15R	Total/NA	Water	9056A	
310-309086-5	MW-39	Total/NA	Water	9056A	
MB 310-458159/3	Method Blank	Total/NA	Water	9056A	
LCS 310-458159/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 458185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	3005A	
310-309086-2	MW-44	Total/NA	Water	3005A	
310-309086-3	MW-14R	Total/NA	Water	3005A	
310-309086-4	MW-15R	Total/NA	Water	3005A	
310-309086-5	MW-39	Total/NA	Water	3005A	
MB 310-458185/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 459363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	6020B	458185
310-309086-2	MW-44	Total/NA	Water	6020B	458185
310-309086-3	MW-14R	Total/NA	Water	6020B	458185
310-309086-4	MW-15R	Total/NA	Water	6020B	458185
310-309086-5	MW-39	Total/NA	Water	6020B	458185
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185

Analysis Batch: 459455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	6020B	458185
310-309086-2	MW-44	Total/NA	Water	6020B	458185
310-309086-3	MW-14R	Total/NA	Water	6020B	458185
310-309086-4	MW-15R	Total/NA	Water	6020B	458185
310-309086-5	MW-39	Total/NA	Water	6020B	458185

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Metals (Continued)

Analysis Batch: 459455 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185

General Chemistry

Analysis Batch: 458081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	I-3765-85	
310-309086-2	MW-44	Total/NA	Water	I-3765-85	
310-309086-3	MW-14R	Total/NA	Water	I-3765-85	
310-309086-4	MW-15R	Total/NA	Water	I-3765-85	
310-309086-5	MW-39	Total/NA	Water	I-3765-85	
MB 310-458081/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-458081/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-309086-5 DU	MW-39	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 04:21
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:30
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:17
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 04:44
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:32
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:19
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:06
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 09:39
Total/NA	Analysis	9056A		10	458159	QTZ5	EET CF	06/19/25 10:28
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:43
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:24
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:29
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 09:52
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:35
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:22

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Date Collected: 06/16/25 14:01

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:52
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 10:05
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:45
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		4	459455	NFT2	EET CF	07/02/25 14:27
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 02:06

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: Cherokee Landfill

Job ID: 310-309086-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

1
2
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Method Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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



Environment Testing
America



310-309086 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State.	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>6.16.25</u>	TIME <u>1630</u>	Received By: <u>PH</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 # _____ of _____			
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? <u>↓</u> <u>All</u>			
Temperature Record			
Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>AX</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):		Corrected Temp (°C):	
• Sample Container Temperature			
Container(s)-used:	CONTAINER 1 <u>PL 12</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>5.5</u>		
Corrected Temp (°C):	<u>5.5</u>		
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			

Project Manager: Sean Marczewski Email: smarczewski@gmail.com Cell: 712-661-9682		Site Contact: Tony Agnitsch Lab Contact: Sam Miller Carrier:		COC No: _____ of _____ COCs	
Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS Other: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Filtered Sample (Y/N)		Appendix I	
Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Sample Identification		Matrix		# of Cont.	
MW-15C		H ₂ O			
MW-44		H ₂ O			
MW-14R		H ₂ O			
MW-15R		H ₂ O			
MW-39		H ₂ O			
Trip Blank					
Total Suspended Solids		Natural Attenuation		Trip Blank	
Perform MS/MSD (Y/N)		Appendix I			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return to Client		Disposal by Lab	
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4= HNO ₃ ; 5= NaOH; 6= Other		Flammable		Skin Irritant	
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		Poison B	
Special Instructions/QC Requirements & Comments: Natural Attenuation Parameters: Iron, Manganese, Nitrate, Sulfate, and Total Organic Carbon		Cooler Temp (°C)		Obs'd	
Custody Seal No		Company		Received by	
Relinquished by: <i>Sean Marczewski</i>		Date/Time: 6/18/25 - 1400		Company:	
Relinquished by:		Date/Time:		Company:	
Relinquished by:		Date/Time:		Company:	

Eurofins Cedar Falls

3019 Venture Way
Cedar Falls, IA 50613
Phone 319-277-2401 Fax 319-277-2425

Chain of Custody Record



eurofins

Client Information (Sub Contract Lab)		Sampler N/A		Lab PM Miller, Samuel		Carrier Tracking No(s) N/A		COC No: 310-84193 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: Eurofins Environment Testing North Centr				Accreditations Required (See note): State - Iowa, State Program - Iowa				Job #: 310-309086-1					
Address: 18410 Crossing Drive, Suite E,		Due Date Requested 7/1/2025		Analysis Request						Preservation Codes: -			
City: Tinley Park		TAT Requested (days) N/A		 310-309086 COC						Total Number of containers N/A			
State Zip: IL, 60487													
Phone: 708-534-5200(Tel) 708-534-5211(Fax)		PO #: N/A											
Email: N/A		WO #: N/A											
Project Name: Cherokee Landfill		Project #: 31006308											
Site: 310-SCS Cherokee County Landfill		SSOW#: 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)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9060A TOC Duplicates			Special Instructions/Note:		
MW-14R (310-309086-3)		6/16/25	13 23 Central	G	Water		X					3	
MW-15R (310-309086-4)		6/16/25	15 00 Central	G	Water		X					3	
MW-39 (310-309086-5)		6/16/25	14 01 Central	G	Water		X					3	
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 6/19/25 12:55		Company		Received by:		Company	
Relinquished by						Date/Time		Company		Received by:		Company	
Relinquished by						Date/Time		Company		Received by:		Company	
Custody Seals Intact Δ Yes Δ No						Custody Seal No		Cooler Temperature(s) °C and Other Remarks 1.5 → 2.1					30qt

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-309086-1

Login Number: 309086

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Cappi, Sage

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.	N/A	
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	

ANALYTICAL REPORT

PREPARED FOR

Attn: Sean Marczewski
SCS Engineers
1690 All State Court
Suite 100
West Des Moines, Iowa 50265

Generated 7/2/2025 4:39:06 PM

JOB DESCRIPTION

Cherokee Open - Spring 2025 - HMSP
Cherokee County Landfill - Open Unit

JOB NUMBER

310-309093-1

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
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Case Narrative

Client: SCS Engineers
Project: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1

Job ID: 310-309093-1

Eurofins Cedar Falls

Job Narrative 310-309093-1

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 6/18/2025 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.8°C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-458256 recovered outside of the control limits for trans-1,2-Dichloropropene (-21.3%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-458256/3).

Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container: Trip Blank (310-309093-6).

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: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1

SDG: Cherokee County Landfill - Open Unit

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-309093-1	MW-16	Water	06/17/25 10:07	06/18/25 16:30
310-309093-2	MW-27	Water	06/16/25 16:32	06/18/25 16:30
310-309093-3	MW-35	Water	06/17/25 10:43	06/18/25 16:30
310-309093-4	MW-42R	Water	06/16/25 15:07	06/18/25 16:30
310-309093-5	MW-D	Water	06/16/25 17:42	06/18/25 16:30
310-309093-6	Trip Blank	Water	06/17/25 00:00	06/18/25 16:30

Detection Summary

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-16

Lab Sample ID: 310-309093-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.143		0.00200	0.000660	mg/L	1		6020B	Total/NA
Nickel	0.0109		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.88		1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-27

Lab Sample ID: 310-309093-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0309		0.00200	0.000660	mg/L	1		6020B	Total/NA

Client Sample ID: MW-35

Lab Sample ID: 310-309093-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000689	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0203		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00622		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0165		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	28.3		3.75	2.63	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-42R

Lab Sample ID: 310-309093-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000543	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0239		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00365		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00952		0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-D

Lab Sample ID: 310-309093-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0546		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000309	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00761		0.00500	0.00230	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.38	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-309093-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-16

Lab Sample ID: 310-309093-1

Date Collected: 06/17/25 10:07

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 14:56	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 14:56	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 14:56	1
Benzene	<0.500		0.500	0.220	ug/L			06/26/25 15:33	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 14:56	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 14:56	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 14:56	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 14:56	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 14:56	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 14:56	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 14:56	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 14:56	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 14:56	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 14:56	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 14:56	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 14:56	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 14:56	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 14:56	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 14:56	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 14:56	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 14:56	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 14:56	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 14:56	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 14:56	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 14:56	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 14:56	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 14:56	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 14:56	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 14:56	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 14:56	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 14:56	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 14:56	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 14:56	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 14:56	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 14:56	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 14:56	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 14:56	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 14:56	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 14:56	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 14:56	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 14:56	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 14:56	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 14:56	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 14:56	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 14:56	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 14:56	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 14:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		80 - 120		06/26/25 15:33	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-16

Lab Sample ID: 310-309093-1

Date Collected: 06/17/25 10:07

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		76 - 130		06/26/25 15:33	1
Toluene-d8 (Surr)	97		80 - 120		06/26/25 15:33	1
Dibromofluoromethane (Surr)	108		76 - 130		06/20/25 14:56	1
Toluene-d8 (Surr)	91		80 - 120		06/20/25 14:56	1
4-Bromofluorobenzene (Surr)	108		80 - 120		06/20/25 14:56	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:48	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:48	1
Barium	0.143		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:48	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:48	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:29	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:48	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:48	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:48	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:48	1
Nickel	0.0109		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:48	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:48	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:48	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:48	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:48	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	1.88		1.88	1.31	mg/L			06/19/25 09:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-27

Lab Sample ID: 310-309093-2

Date Collected: 06/16/25 16:32

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 15:18	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 15:18	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 15:18	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 15:18	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 15:18	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 15:18	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 15:18	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 15:18	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 15:18	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 15:18	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 15:18	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 15:18	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 15:18	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 15:18	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 15:18	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 15:18	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 15:18	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 15:18	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 15:18	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 15:18	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 15:18	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 15:18	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 15:18	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 15:18	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 15:18	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 15:18	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 15:18	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 15:18	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 15:18	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 15:18	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 15:18	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 15:18	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 15:18	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 15:18	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 15:18	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 15:18	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 15:18	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 15:18	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 15:18	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 15:18	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 15:18	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 15:18	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 15:18	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 15:18	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 15:18	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 15:18	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 15:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		76 - 130		06/20/25 15:18	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-27

Lab Sample ID: 310-309093-2

Date Collected: 06/16/25 16:32

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		06/20/25 15:18	1
4-Bromofluorobenzene (Surr)	104		80 - 120		06/20/25 15:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:50	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:50	1
Barium	0.0309		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:50	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:50	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:32	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:50	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:50	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:50	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:50	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:50	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:50	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:50	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:50	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:50	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			06/19/25 09:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-35

Lab Sample ID: 310-309093-3

Date Collected: 06/17/25 10:43

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 15:41	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 15:41	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 15:41	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 15:41	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 15:41	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 15:41	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 15:41	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 15:41	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 15:41	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 15:41	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 15:41	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 15:41	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 15:41	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 15:41	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 15:41	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 15:41	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 15:41	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 15:41	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 15:41	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 15:41	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 15:41	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 15:41	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 15:41	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 15:41	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 15:41	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 15:41	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 15:41	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 15:41	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 15:41	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 15:41	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 15:41	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 15:41	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 15:41	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 15:41	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 15:41	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 15:41	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 15:41	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 15:41	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 15:41	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 15:41	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 15:41	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 15:41	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 15:41	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 15:41	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 15:41	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 15:41	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 15:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		06/20/25 15:41	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-35

Lab Sample ID: 310-309093-3

Date Collected: 06/17/25 10:43

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		80 - 120		06/20/25 15:41	1
4-Bromofluorobenzene (Surr)	105		80 - 120		06/20/25 15:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:53	1
Arsenic	0.000689	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:53	1
Barium	0.0203		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:53	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:53	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:40	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:53	1
Cobalt	0.00622		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:53	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:53	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:53	1
Nickel	0.0165		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:53	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:53	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:53	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:53	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:53	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	28.3		3.75	2.63	mg/L			06/19/25 09:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-42R

Lab Sample ID: 310-309093-4

Date Collected: 06/16/25 15:07

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 16:04	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 16:04	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 16:04	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 16:04	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 16:04	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 16:04	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 16:04	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 16:04	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 16:04	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 16:04	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 16:04	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 16:04	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 16:04	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 16:04	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 16:04	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 16:04	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 16:04	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 16:04	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 16:04	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 16:04	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 16:04	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 16:04	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 16:04	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 16:04	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 16:04	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 16:04	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 16:04	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 16:04	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 16:04	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 16:04	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 16:04	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 16:04	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 16:04	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 16:04	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 16:04	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 16:04	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 16:04	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 16:04	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 16:04	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 16:04	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 16:04	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 16:04	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 16:04	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 16:04	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 16:04	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 16:04	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 16:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/20/25 16:04	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-42R

Lab Sample ID: 310-309093-4

Date Collected: 06/16/25 15:07

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		06/20/25 16:04	1
4-Bromofluorobenzene (Surr)	107		80 - 120		06/20/25 16:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:55	1
Arsenic	0.000543	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:55	1
Barium	0.0239		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:55	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:55	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:42	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:55	1
Cobalt	0.00365		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:55	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:55	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:55	1
Nickel	0.00952		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:55	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:55	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:55	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:55	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:55	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			06/19/25 09:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-D

Lab Sample ID: 310-309093-5

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 16:26	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 16:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 16:26	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 16:26	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 16:26	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 16:26	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 16:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 16:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 16:26	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 16:26	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 16:26	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 16:26	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 16:26	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 16:26	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 16:26	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 16:26	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 16:26	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 16:26	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 16:26	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 16:26	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 16:26	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 16:26	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 16:26	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 16:26	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 16:26	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 16:26	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 16:26	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 16:26	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 16:26	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 16:26	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 16:26	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 16:26	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 16:26	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 16:26	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 16:26	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 16:26	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 16:26	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 16:26	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 16:26	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 16:26	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 16:26	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 16:26	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 16:26	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 16:26	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 16:26	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 16:26	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 16:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		76 - 130		06/20/25 16:26	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-D

Lab Sample ID: 310-309093-5

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	88		80 - 120		06/20/25 16:26	1
4-Bromofluorobenzene (Surr)	106		80 - 120		06/20/25 16:26	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:58	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:58	1
Barium	0.0546		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:58	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:58	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:45	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:58	1
Cobalt	0.000309	J	0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:58	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:58	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:58	1
Nickel	0.00761		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:58	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:58	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:58	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:58	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:58	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	1.38	J	1.88	1.31	mg/L			06/19/25 09:09	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: Trip Blank

Lab Sample ID: 310-309093-6

Date Collected: 06/17/25 00:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 13:48	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 13:48	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 13:48	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 13:48	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 13:48	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 13:48	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 13:48	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 13:48	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 13:48	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 13:48	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 13:48	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 13:48	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 13:48	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 13:48	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 13:48	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 13:48	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 13:48	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 13:48	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 13:48	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 13:48	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 13:48	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 13:48	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 13:48	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 13:48	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 13:48	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 13:48	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 13:48	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 13:48	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 13:48	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 13:48	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 13:48	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 13:48	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 13:48	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 13:48	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 13:48	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 13:48	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 13:48	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 13:48	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 13:48	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 13:48	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 13:48	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 13:48	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 13:48	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 13:48	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 13:48	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 13:48	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 13:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		76 - 130		06/20/25 13:48	1

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Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: Trip Blank
Date Collected: 06/17/25 00:00
Date Received: 06/18/25 16:30

Lab Sample ID: 310-309093-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 13:48	1
4-Bromofluorobenzene (Surr)	105		80 - 120		06/20/25 13:48	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Qualifiers

Metals

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

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-309093-1	MW-16	108	91	108
310-309093-1	MW-16	110	97	105
310-309093-1 MS	MW-16	99	96	102
310-309093-1 MSD	MW-16	96	96	101
310-309093-2	MW-27	105	91	104
310-309093-3	MW-35	111	88	105
310-309093-4	MW-42R	109	91	107
310-309093-5	MW-D	107	88	106
310-309093-6	Trip Blank	110	90	105
LCS 310-458256/7	Lab Control Sample	98	96	105
LCS 310-458256/8	Lab Control Sample	112	92	106
LCS 310-458851/6	Lab Control Sample	98	102	102
LCS 310-458851/7	Lab Control Sample	109	96	102
MB 310-458256/6	Method Blank	107	90	107
MB 310-458851/5	Method Blank	109	95	105

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-458256/6

Matrix: Water

Analysis Batch: 458256

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 11:55	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 11:55	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 11:55	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 11:55	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 11:55	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 11:55	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 11:55	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 11:55	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 11:55	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 11:55	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 11:55	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 11:55	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 11:55	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 11:55	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 11:55	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 11:55	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 11:55	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 11:55	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 11:55	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 11:55	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 11:55	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 11:55	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 11:55	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 11:55	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 11:55	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 11:55	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 11:55	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 11:55	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 11:55	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 11:55	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 11:55	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 11:55	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 11:55	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 11:55	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 11:55	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 11:55	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 11:55	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 11:55	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 11:55	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 11:55	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 11:55	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 11:55	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 11:55	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 11:55	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 11:55	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 11:55	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 11:55	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-458256/6

Matrix: Water

Analysis Batch: 458256

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	107		76 - 130		06/20/25 11:55	1
Toluene-d8 (Surr)	90		80 - 120		06/20/25 11:55	1
4-Bromofluorobenzene (Surr)	107		80 - 120		06/20/25 11:55	1

Lab Sample ID: LCS 310-458256/7

Matrix: Water

Analysis Batch: 458256

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	35.08		ug/L		88	60 - 134
Acetone	40.0	34.71		ug/L		87	59 - 136
Acrylonitrile	200	186.3		ug/L		93	50 - 150
1,2-Dibromo-3-chloropropane	20.0	17.79		ug/L		89	62 - 132
Benzene	20.0	19.21		ug/L		96	71 - 125
1,2-Dibromoethane (EDB)	20.0	18.69		ug/L		93	74 - 122
Bromochloromethane	20.0	19.87		ug/L		99	69 - 131
Bromodichloromethane	20.0	17.34		ug/L		87	70 - 122
Bromoform	20.0	16.50		ug/L		83	62 - 122
1,2-Dichlorobenzene	20.0	18.51		ug/L		93	74 - 120
1,4-Dichlorobenzene	20.0	17.98		ug/L		90	72 - 120
Carbon disulfide	20.0	17.85		ug/L		89	58 - 137
1,1-Dichloroethane	20.0	18.15		ug/L		91	69 - 127
Carbon tetrachloride	20.0	19.25		ug/L		96	63 - 136
1,2-Dichloroethane	20.0	16.69		ug/L		83	68 - 125
Chlorobenzene	20.0	17.95		ug/L		90	74 - 120
1,1-Dichloroethene	20.0	19.80		ug/L		99	64 - 134
Chlorodibromomethane	20.0	16.01		ug/L		80	69 - 121
1,2-Dichloropropane	20.0	19.38		ug/L		97	72 - 128
Chloroform	20.0	17.20		ug/L		86	72 - 122
2-Hexanone	40.0	37.27		ug/L		93	62 - 139
cis-1,2-Dichloroethene	20.0	19.31		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	16.15		ug/L		81	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	34.94		ug/L		87	62 - 136
Dibromomethane	20.0	17.71		ug/L		89	72 - 122
Ethylbenzene	20.0	18.62		ug/L		93	75 - 120
Iodomethane	20.0	15.19		ug/L		76	18 - 150
1,1,1,2-Tetrachloroethane	20.0	17.84		ug/L		89	70 - 121
Methylene chloride	20.0	20.51		ug/L		103	72 - 128
1,1,1,2,2-Tetrachloroethane	20.0	17.85		ug/L		89	70 - 122
Styrene	20.0	19.35		ug/L		97	74 - 122
Tetrachloroethene	20.0	20.54		ug/L		103	70 - 128
Toluene	20.0	18.33		ug/L		92	74 - 120
trans-1,2-Dichloroethene	20.0	19.25		ug/L		96	67 - 127
trans-1,3-Dichloropropene	20.0	15.49		ug/L		77	67 - 123
trans-1,4-Dichloro-2-butene	20.0	16.20		ug/L		81	50 - 150
1,1,1-Trichloroethane	20.0	19.53		ug/L		98	69 - 130
1,1,2-Trichloroethane	20.0	17.49		ug/L		87	75 - 121
Trichloroethene	20.0	19.74		ug/L		99	70 - 128

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-458256/7

Matrix: Water

Analysis Batch: 458256

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	17.32		ug/L		87	70 - 122
Vinyl acetate	40.0	36.04		ug/L		90	50 - 150
Xylenes, Total	40.0	38.60		ug/L		97	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	98		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	105		80 - 120

Lab Sample ID: LCS 310-458256/8

Matrix: Water

Analysis Batch: 458256

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	15.78		ug/L		79	33 - 138
Chloroethane	20.0	16.43		ug/L		82	59 - 139
Chloromethane	20.0	16.63		ug/L		83	52 - 146
Trichlorofluoromethane	20.0	16.65		ug/L		83	55 - 150
Vinyl chloride	20.0	16.20		ug/L		81	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	112		76 - 130
Toluene-d8 (Surr)	92		80 - 120
4-Bromofluorobenzene (Surr)	106		80 - 120

Lab Sample ID: 310-309093-1 MS

Matrix: Water

Analysis Batch: 458256

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	<10.0		50.0	45.22		ug/L		90	46 - 134
Acetone	<10.0		50.0	45.71		ug/L		91	39 - 141
Acrylonitrile	<5.00		250	228.7		ug/L		91	41 - 150
1,2-Dibromo-3-chloropropane	<5.00		25.0	25.54		ug/L		102	44 - 138
Benzene	0.296	J	25.0	22.83		ug/L		90	48 - 125
1,2-Dibromoethane (EDB)	<1.00		25.0	23.84		ug/L		95	60 - 122
Bromochloromethane	<5.00		25.0	24.62		ug/L		98	55 - 131
Bromodichloromethane	<1.00		25.0	21.70		ug/L		87	53 - 122
Bromoform	<5.00		25.0	21.33		ug/L		85	47 - 122
1,2-Dichlorobenzene	<1.00		25.0	24.03		ug/L		96	60 - 120
1,4-Dichlorobenzene	<1.00		25.0	22.76		ug/L		91	58 - 120
Carbon disulfide	<1.00		25.0	23.58		ug/L		94	45 - 137
1,1-Dichloroethane	<1.00		25.0	21.16		ug/L		85	53 - 127
Carbon tetrachloride	<2.00		25.0	21.15		ug/L		85	45 - 136
1,2-Dichloroethane	<1.00		25.0	20.37		ug/L		81	48 - 128
Chlorobenzene	<1.00		25.0	22.29		ug/L		89	59 - 120
1,1-Dichloroethene	<2.00		25.0	22.93		ug/L		92	51 - 134
Chlorodibromomethane	<5.00		25.0	19.58		ug/L		78	53 - 121

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309093-1 MS

Matrix: Water

Analysis Batch: 458256

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichloropropane	<1.00		25.0	23.67		ug/L		95	59 - 128
Chloroform	<3.00		25.0	20.96		ug/L		84	52 - 122
2-Hexanone	<10.0		50.0	49.53		ug/L		99	46 - 141
cis-1,2-Dichloroethene	<1.00		25.0	22.58		ug/L		90	51 - 123
cis-1,3-Dichloropropene	<5.00		25.0	19.02		ug/L		76	55 - 123
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	46.48		ug/L		93	49 - 138
Dibromomethane	<1.00		25.0	21.92		ug/L		88	57 - 122
Ethylbenzene	<1.00		25.0	21.75		ug/L		87	53 - 120
Iodomethane	<10.0		25.0	18.93		ug/L		76	18 - 150
1,1,1,2-Tetrachloroethane	<1.00		25.0	22.41		ug/L		90	55 - 121
Methylene chloride	<5.00		25.0	24.91		ug/L		100	59 - 128
1,1,2,2-Tetrachloroethane	<1.00		25.0	24.09		ug/L		96	55 - 123
Styrene	<1.00		25.0	24.21		ug/L		97	50 - 125
Tetrachloroethene	<1.00		25.0	22.43		ug/L		90	51 - 128
Toluene	<1.00		25.0	21.81		ug/L		87	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	22.93		ug/L		92	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	18.14		ug/L		73	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	21.54		ug/L		86	28 - 150
1,1,1-Trichloroethane	<1.00		25.0	21.63		ug/L		87	53 - 130
1,1,2-Trichloroethane	<1.00		25.0	23.29		ug/L		93	60 - 121
Trichloroethene	<1.00		25.0	22.78		ug/L		91	50 - 128
1,2,3-Trichloropropane	<1.00		25.0	23.14		ug/L		93	56 - 122
Vinyl acetate	<10.0		50.0	41.45		ug/L		83	31 - 150
Xylenes, Total	<3.00		50.0	46.60		ug/L		93	50 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	99		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120

Lab Sample ID: 310-309093-1 MSD

Matrix: Water

Analysis Batch: 458256

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	45.18		ug/L		90	46 - 134	0	23
Acetone	<10.0		50.0	47.11		ug/L		94	39 - 141	3	23
Acrylonitrile	<5.00		250	228.7		ug/L		91	41 - 150	0	20
1,2-Dibromo-3-chloropropane	<5.00		25.0	25.44		ug/L		102	44 - 138	0	24
Benzene	0.296	J	25.0	22.49		ug/L		89	48 - 125	2	20
1,2-Dibromoethane (EDB)	<1.00		25.0	22.98		ug/L		92	60 - 122	4	20
Bromochloromethane	<5.00		25.0	25.00		ug/L		100	55 - 131	2	21
Bromodichloromethane	<1.00		25.0	21.60		ug/L		86	53 - 122	0	20
Bromoform	<5.00		25.0	21.13		ug/L		85	47 - 122	1	20
1,2-Dichlorobenzene	<1.00		25.0	24.02		ug/L		96	60 - 120	0	20
1,4-Dichlorobenzene	<1.00		25.0	22.54		ug/L		90	58 - 120	1	20
Carbon disulfide	<1.00		25.0	21.11		ug/L		84	45 - 137	11	24
1,1-Dichloroethane	<1.00		25.0	21.03		ug/L		84	53 - 127	1	20

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QC Sample Results

Client: SCS Engineers

Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1

SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309093-1 MSD

Matrix: Water

Analysis Batch: 458256

Client Sample ID: MW-16

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Carbon tetrachloride	<2.00		25.0	21.34		ug/L		85	45 - 136	1	20
1,2-Dichloroethane	<1.00		25.0	20.04		ug/L		80	48 - 128	2	20
Chlorobenzene	<1.00		25.0	21.58		ug/L		86	59 - 120	3	20
1,1-Dichloroethene	<2.00		25.0	21.97		ug/L		88	51 - 134	4	20
Chlorodibromomethane	<5.00		25.0	19.37		ug/L		77	53 - 121	1	20
1,2-Dichloropropane	<1.00		25.0	23.32		ug/L		93	59 - 128	2	20
Chloroform	<3.00		25.0	20.62		ug/L		82	52 - 122	2	20
2-Hexanone	<10.0		50.0	48.15		ug/L		96	46 - 141	3	20
cis-1,2-Dichloroethene	<1.00		25.0	22.49		ug/L		90	51 - 123	0	20
cis-1,3-Dichloropropene	<5.00		25.0	18.84		ug/L		75	55 - 123	1	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	45.23		ug/L		90	49 - 138	3	20
Dibromomethane	<1.00		25.0	22.14		ug/L		89	57 - 122	1	20
Ethylbenzene	<1.00		25.0	21.38		ug/L		86	53 - 120	2	20
Iodomethane	<10.0		25.0	21.79		ug/L		87	18 - 150	14	32
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.47		ug/L		86	55 - 121	4	20
Methylene chloride	<5.00		25.0	24.13		ug/L		97	59 - 128	3	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	23.76		ug/L		95	55 - 123	1	20
Styrene	<1.00		25.0	23.60		ug/L		94	50 - 125	3	20
Tetrachloroethene	<1.00		25.0	22.25		ug/L		89	51 - 128	1	20
Toluene	<1.00		25.0	21.29		ug/L		85	52 - 120	2	20
trans-1,2-Dichloroethene	<1.00		25.0	22.60		ug/L		90	53 - 127	1	20
trans-1,3-Dichloropropene	<5.00		25.0	17.86		ug/L		71	50 - 123	2	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	19.84		ug/L		79	28 - 150	8	24
1,1,1-Trichloroethane	<1.00		25.0	21.62		ug/L		86	53 - 130	0	20
1,1,2-Trichloroethane	<1.00		25.0	22.19		ug/L		89	60 - 121	5	20
Trichloroethene	<1.00		25.0	22.23		ug/L		89	50 - 128	2	20
1,2,3-Trichloropropane	<1.00		25.0	22.69		ug/L		91	56 - 122	2	21
Vinyl acetate	<10.0		50.0	41.69		ug/L		83	31 - 150	1	25
Xylenes, Total	<3.00		50.0	45.33		ug/L		91	50 - 122	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	96		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: MB 310-458851/5

Matrix: Water

Analysis Batch: 458851

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/26/25 14:26	1
Acetone	<10.0		10.0	3.10	ug/L			06/26/25 14:26	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/26/25 14:26	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/26/25 14:26	1
Benzene	<0.500		0.500	0.220	ug/L			06/26/25 14:26	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/26/25 14:26	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/26/25 14:26	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/26/25 14:26	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-458851/5

Matrix: Water

Analysis Batch: 458851

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	<5.00		5.00	0.780	ug/L			06/26/25 14:26	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/26/25 14:26	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/26/25 14:26	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/26/25 14:26	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/26/25 14:26	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/26/25 14:26	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/26/25 14:26	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/26/25 14:26	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/26/25 14:26	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/26/25 14:26	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/26/25 14:26	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/26/25 14:26	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/26/25 14:26	1
Chloroform	<3.00		3.00	1.30	ug/L			06/26/25 14:26	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/26/25 14:26	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/26/25 14:26	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/26/25 14:26	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/26/25 14:26	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/26/25 14:26	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/26/25 14:26	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/26/25 14:26	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/26/25 14:26	1
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/26/25 14:26	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/26/25 14:26	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/26/25 14:26	1
Styrene	<1.00		1.00	0.370	ug/L			06/26/25 14:26	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/26/25 14:26	1
Toluene	<1.00		1.00	0.430	ug/L			06/26/25 14:26	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/26/25 14:26	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/26/25 14:26	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/26/25 14:26	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/26/25 14:26	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/26/25 14:26	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/26/25 14:26	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/26/25 14:26	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/26/25 14:26	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/26/25 14:26	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/26/25 14:26	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/26/25 14:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/26/25 14:26	1
Toluene-d8 (Surr)	95		80 - 120		06/26/25 14:26	1
4-Bromofluorobenzene (Surr)	105		80 - 120		06/26/25 14:26	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-458851/6

Matrix: Water

Analysis Batch: 458851

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Butanone (MEK)	40.0	40.70		ug/L		102	60 - 134
Acetone	40.0	45.63		ug/L		114	59 - 136
Acrylonitrile	200	215.3		ug/L		108	50 - 150
1,2-Dibromo-3-chloropropane	20.0	20.03		ug/L		100	62 - 132
Benzene	20.0	19.82		ug/L		99	71 - 125
1,2-Dibromoethane (EDB)	20.0	20.21		ug/L		101	74 - 122
Bromochloromethane	20.0	20.24		ug/L		101	69 - 131
Bromodichloromethane	20.0	19.63		ug/L		98	70 - 122
Bromoform	20.0	18.35		ug/L		92	62 - 122
1,2-Dichlorobenzene	20.0	19.02		ug/L		95	74 - 120
1,4-Dichlorobenzene	20.0	19.53		ug/L		98	72 - 120
Carbon disulfide	20.0	18.46		ug/L		92	58 - 137
1,1-Dichloroethane	20.0	18.60		ug/L		93	69 - 127
Carbon tetrachloride	20.0	20.54		ug/L		103	63 - 136
1,2-Dichloroethane	20.0	20.82		ug/L		104	68 - 125
Chlorobenzene	20.0	18.54		ug/L		93	74 - 120
1,1-Dichloroethene	20.0	18.20		ug/L		91	64 - 134
Chlorodibromomethane	20.0	17.60		ug/L		88	69 - 121
1,2-Dichloropropane	20.0	20.56		ug/L		103	72 - 128
Chloroform	20.0	20.56		ug/L		103	72 - 122
2-Hexanone	40.0	45.14		ug/L		113	62 - 139
cis-1,2-Dichloroethene	20.0	19.31		ug/L		97	72 - 123
cis-1,3-Dichloropropene	20.0	18.71		ug/L		94	72 - 123
4-Methyl-2-pentanone (MIBK)	40.0	43.77		ug/L		109	62 - 136
Dibromomethane	20.0	19.20		ug/L		96	72 - 122
Ethylbenzene	20.0	19.00		ug/L		95	75 - 120
Iodomethane	20.0	11.73		ug/L		59	18 - 150
1,1,1,2-Tetrachloroethane	20.0	21.18		ug/L		106	70 - 121
Methylene chloride	20.0	20.63		ug/L		103	72 - 128
1,1,2,2-Tetrachloroethane	20.0	19.56		ug/L		98	70 - 122
Styrene	20.0	19.86		ug/L		99	74 - 122
Tetrachloroethene	20.0	18.58		ug/L		93	70 - 128
Toluene	20.0	18.82		ug/L		94	74 - 120
trans-1,2-Dichloroethene	20.0	18.62		ug/L		93	67 - 127
trans-1,3-Dichloropropene	20.0	18.82		ug/L		94	67 - 123
trans-1,4-Dichloro-2-butene	20.0	21.25		ug/L		106	50 - 150
1,1,1-Trichloroethane	20.0	20.75		ug/L		104	69 - 130
1,1,2-Trichloroethane	20.0	19.75		ug/L		99	75 - 121
Trichloroethene	20.0	19.08		ug/L		95	70 - 128
1,2,3-Trichloropropane	20.0	20.39		ug/L		102	70 - 122
Vinyl acetate	40.0	38.42		ug/L		96	50 - 150
Xylenes, Total	40.0	38.49		ug/L		96	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	98		76 - 130
Toluene-d8 (Surr)	102		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-458851/7

Matrix: Water

Analysis Batch: 458851

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	17.26		ug/L		86	33 - 138
Chloroethane	20.0	19.27		ug/L		96	59 - 139
Chloromethane	20.0	20.92		ug/L		105	52 - 146
Trichlorofluoromethane	20.0	19.91		ug/L		100	55 - 150
Vinyl chloride	20.0	18.86		ug/L		94	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	109		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-458185/1-A

Matrix: Water

Analysis Batch: 459363

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:15	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:15	1
Barium	<0.00200		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:15	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:15	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:15	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:15	1

Lab Sample ID: MB 310-458185/1-A

Matrix: Water

Analysis Batch: 459455

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 13:59	1

Lab Sample ID: LCS 310-458185/2-A

Matrix: Water

Analysis Batch: 459363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2107		mg/L		105	80 - 120
Arsenic	0.200	0.2014		mg/L		101	80 - 120
Barium	0.100	0.09831		mg/L		98	80 - 120
Beryllium	0.100	0.09342		mg/L		93	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

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

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.100	0.09733		mg/L		97	80 - 120
Cobalt	0.100	0.09729		mg/L		97	80 - 120
Copper	0.200	0.2028		mg/L		101	80 - 120
Lead	0.200	0.1963		mg/L		98	80 - 120
Nickel	0.200	0.2000		mg/L		100	80 - 120
Selenium	0.400	0.3775		mg/L		94	80 - 120
Silver	0.100	0.1115		mg/L		112	80 - 120
Thallium	0.100	0.09327		mg/L		93	80 - 120
Vanadium	0.100	0.09737		mg/L		97	80 - 120
Zinc	0.200	0.1909		mg/L		95	80 - 120

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.100	0.09253		mg/L		93	80 - 120

Lab Sample ID: 310-309093-5 DU
Matrix: Water
Analysis Batch: 459363

Client Sample ID: MW-D
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Antimony	<0.00200		<0.00200		mg/L		NC	20
Arsenic	<0.00200		<0.00200		mg/L		NC	20
Barium	0.0546		0.05371		mg/L		2	20
Beryllium	<0.00100		<0.00100		mg/L		NC	20
Chromium	<0.00500		<0.00500		mg/L		NC	20
Cobalt	0.000309	J	0.0002900	J	mg/L		6	20
Copper	<0.00500		<0.00500		mg/L		NC	20
Lead	<0.000500		<0.000500		mg/L		NC	20
Nickel	0.00761		0.007500		mg/L		1	20
Selenium	<0.00500		<0.00500		mg/L		NC	20
Silver	<0.00100		<0.00100		mg/L		NC	20
Thallium	<0.00100		<0.00100		mg/L		NC	20
Vanadium	<0.00500		<0.00500		mg/L		NC	20
Zinc	<0.0200		<0.0200		mg/L		NC	20

Lab Sample ID: 310-309093-5 DU
Matrix: Water
Analysis Batch: 459455

Client Sample ID: MW-D
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cadmium	<0.000200		<0.000200		mg/L		NC	20

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-458092/1					Client Sample ID: Method Blank				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 458092									
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			06/19/25 09:09	1

Lab Sample ID: LCS 310-458092/2					Client Sample ID: Lab Control Sample				
Matrix: Water					Prep Type: Total/NA				
Analysis Batch: 458092									
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids	100	99.00		mg/L		99	82 - 117		

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

GC/MS VOA

Analysis Batch: 458256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	8260D	
310-309093-2	MW-27	Total/NA	Water	8260D	
310-309093-3	MW-35	Total/NA	Water	8260D	
310-309093-4	MW-42R	Total/NA	Water	8260D	
310-309093-5	MW-D	Total/NA	Water	8260D	
310-309093-6	Trip Blank	Total/NA	Water	8260D	
MB 310-458256/6	Method Blank	Total/NA	Water	8260D	
LCS 310-458256/7	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-458256/8	Lab Control Sample	Total/NA	Water	8260D	
310-309093-1 MS	MW-16	Total/NA	Water	8260D	
310-309093-1 MSD	MW-16	Total/NA	Water	8260D	

Analysis Batch: 458851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	8260D	
MB 310-458851/5	Method Blank	Total/NA	Water	8260D	
LCS 310-458851/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-458851/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 458185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	3005A	
310-309093-2	MW-27	Total/NA	Water	3005A	
310-309093-3	MW-35	Total/NA	Water	3005A	
310-309093-4	MW-42R	Total/NA	Water	3005A	
310-309093-5	MW-D	Total/NA	Water	3005A	
MB 310-458185/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-309093-5 DU	MW-D	Total/NA	Water	3005A	

Analysis Batch: 459363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	6020B	458185
310-309093-2	MW-27	Total/NA	Water	6020B	458185
310-309093-3	MW-35	Total/NA	Water	6020B	458185
310-309093-4	MW-42R	Total/NA	Water	6020B	458185
310-309093-5	MW-D	Total/NA	Water	6020B	458185
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185
310-309093-5 DU	MW-D	Total/NA	Water	6020B	458185

Analysis Batch: 459455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	6020B	458185
310-309093-2	MW-27	Total/NA	Water	6020B	458185
310-309093-3	MW-35	Total/NA	Water	6020B	458185
310-309093-4	MW-42R	Total/NA	Water	6020B	458185
310-309093-5	MW-D	Total/NA	Water	6020B	458185
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Metals (Continued)

Analysis Batch: 459455 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185
310-309093-5 DU	MW-D	Total/NA	Water	6020B	458185

General Chemistry

Analysis Batch: 458092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309093-1	MW-16	Total/NA	Water	I-3765-85	
310-309093-2	MW-27	Total/NA	Water	I-3765-85	
310-309093-3	MW-35	Total/NA	Water	I-3765-85	
310-309093-4	MW-42R	Total/NA	Water	I-3765-85	
310-309093-5	MW-D	Total/NA	Water	I-3765-85	
MB 310-458092/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-458092/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-16

Lab Sample ID: 310-309093-1

Date Collected: 06/17/25 10:07

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 14:56
Total/NA	Analysis	8260D		1	458851	WSE8	EET CF	06/26/25 15:33
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:48
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:29
Total/NA	Analysis	I-3765-85		1	458092	E6KR	EET CF	06/19/25 09:09

Client Sample ID: MW-27

Lab Sample ID: 310-309093-2

Date Collected: 06/16/25 16:32

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 15:18
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:50
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:32
Total/NA	Analysis	I-3765-85		1	458092	E6KR	EET CF	06/19/25 09:09

Client Sample ID: MW-35

Lab Sample ID: 310-309093-3

Date Collected: 06/17/25 10:43

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 15:41
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:53
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:40
Total/NA	Analysis	I-3765-85		1	458092	E6KR	EET CF	06/19/25 09:09

Client Sample ID: MW-42R

Lab Sample ID: 310-309093-4

Date Collected: 06/16/25 15:07

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 16:04
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:55
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:42
Total/NA	Analysis	I-3765-85		1	458092	E6KR	EET CF	06/19/25 09:09

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Client Sample ID: MW-D
Date Collected: 06/16/25 17:42
Date Received: 06/18/25 16:30

Lab Sample ID: 310-309093-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 16:26
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:58
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:45
Total/NA	Analysis	I-3765-85		1	458092	E6KR	EET CF	06/19/25 09:09

Client Sample ID: Trip Blank
Date Collected: 06/17/25 00:00
Date Received: 06/18/25 16:30

Lab Sample ID: 310-309093-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458256	WSE8	EET CF	06/20/25 13:48

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: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1
SDG: Cherokee County Landfill - Open Unit

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: SCS Engineers

Project/Site: Cherokee Open - Spring 2025 - HMSP

Job ID: 310-309093-1

SDG: Cherokee County Landfill - Open Unit

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

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

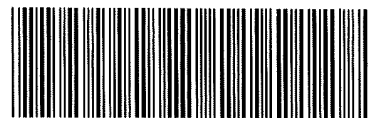
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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



Environment Testing
America



310-309093 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>SCS</u>			
City/State:	CITY	STATE	Project:
Receipt Information			
Date/Time Received.	DATE <u>6-16-25</u>	TIME <u>1630</u>	Received By <u>PH</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 # _____ of _____			
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? ↓			
<u>All in cooler</u>			
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>2.8</u>		Corrected Temp (°C): <u>2.8</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			

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-309093-1

SDG Number: Cherokee County Landfill - Open Unit

Login Number: 309093

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.	N/A	
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	

ANALYTICAL REPORT

PREPARED FOR

Attn: Sean Marczewski
SCS Engineers
1690 All State Court
Suite 100

West Des Moines, Iowa 50265

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JOB DESCRIPTION

Cherokee Landfill

JOB NUMBER

310-309086-1

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



Authorized for release by
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Revision 1

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Case Narrative

Client: SCS Engineers
Project: Cherokee Landfill

Job ID: 310-309086-1

Job ID: 310-309086-1

Eurofins Cedar Falls

Job Narrative 310-309086-1

REVISION

The report being provided is a revision of the original report sent on 7/2/2025. The report (revision 1) is being revised due to Revised to include TOC results.

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 6/18/2025 4:30 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.5°C.

GC/MS VOA

Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container: Trip Blank (310-309086-6).

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

HPLC/IC

Method 9056A_ORGFM_48H: The following samples were received outside of holding time: MW-14R (310-309086-3), MW-15R (310-309086-4) and MW-39 (310-309086-5).

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: Cherokee Landfill

Job ID: 310-309086-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
310-309086-1	MW-15C	Water	06/16/25 17:42	06/18/25 16:30	Iowa
310-309086-2	MW-44	Water	06/16/25 14:33	06/18/25 16:30	Iowa
310-309086-3	MW-14R	Water	06/16/25 13:23	06/18/25 16:30	Iowa
310-309086-4	MW-15R	Water	06/16/25 15:00	06/18/25 16:30	Iowa
310-309086-5	MW-39	Water	06/16/25 14:01	06/18/25 16:30	Iowa
310-309086-6	Trip Blank	Water	06/16/25 00:00	06/18/25 16:30	Iowa

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- 14
- 15

Detection Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000534	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0722		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000281	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00693		0.00500	0.00230	mg/L	1		6020B	Total/NA

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00221		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0151		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000359	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	28.0	J	30.0	21.0	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.278	J	1.00	0.220	ug/L	1		8260D	Total/NA
Sulfate	174		10.0	4.20	mg/L	10		9056A	Total/NA
Antimony	0.00105	J	0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.000637	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0881		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000139	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00378		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0225		0.00500	0.00230	mg/L	1		6020B	Total/NA
Iron	0.190		0.100	0.0500	mg/L	1		6020B	Total/NA
Manganese	1.29		0.0100	0.00360	mg/L	1		6020B	Total/NA
TOC Result 1	3.44		1.00	0.470	mg/L	1		9060A	Total/NA
TOC Result 2	3.30		1.00	0.470	mg/L	1		9060A	Total/NA
Total Suspended Solids	1.75	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dichlorobenzene	1.40		1.00	0.230	ug/L	1		8260D	Total/NA
Benzene	0.637		0.500	0.220	ug/L	1		8260D	Total/NA
Chlorobenzene	1.33		1.00	0.400	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.307	J	1.00	0.210	ug/L	1		8260D	Total/NA
Vinyl chloride	0.344	J	1.00	0.180	ug/L	1		8260D	Total/NA
Sulfate	6.93		1.00	0.420	mg/L	1		9056A	Total/NA
Arsenic	0.0898		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.453		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00922		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000337	J	0.000500	0.000330	mg/L	1		6020B	Total/NA
Nickel	0.0114		0.00500	0.00230	mg/L	1		6020B	Total/NA
Iron	21.9		0.100	0.0500	mg/L	1		6020B	Total/NA
Manganese	2.18		0.0100	0.00360	mg/L	1		6020B	Total/NA
TOC Result 1	5.30		1.00	0.470	mg/L	1		9060A	Total/NA
TOC Result 2	5.14		1.00	0.470	mg/L	1		9060A	Total/NA
Total Suspended Solids	70.0		30.0	21.0	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Detection Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
1,1-Dichloroethane	0.245	J	1.00	0.220	ug/L	1			8260D	Total/NA
1,4-Dichlorobenzene	6.09		1.00	0.230	ug/L	1			8260D	Total/NA
Acetone	5.17	J	10.0	3.10	ug/L	1			8260D	Total/NA
Benzene	0.778		0.500	0.220	ug/L	1			8260D	Total/NA
Chlorobenzene	6.06		1.00	0.400	ug/L	1			8260D	Total/NA
cis-1,2-Dichloroethene	0.496	J	1.00	0.210	ug/L	1			8260D	Total/NA
Vinyl chloride	1.21		1.00	0.180	ug/L	1			8260D	Total/NA
Nitrate as N	0.218	H H3	0.200	0.0780	mg/L	1			9056A	Total/NA
Sulfate	0.545	J	1.00	0.420	mg/L	1			9056A	Total/NA
Arsenic	0.0211		0.00200	0.000530	mg/L	1			6020B	Total/NA
Barium	2.45		0.00800	0.00264	mg/L	4			6020B	Total/NA
Cobalt	0.00721		0.000500	0.000170	mg/L	1			6020B	Total/NA
Nickel	0.0135		0.00500	0.00230	mg/L	1			6020B	Total/NA
Iron	52.8		0.100	0.0500	mg/L	1			6020B	Total/NA
Manganese	2.94		0.0100	0.00360	mg/L	1			6020B	Total/NA
TOC Result 1	11.6		1.00	0.470	mg/L	1			9060A	Total/NA
TOC Result 2	11.3		1.00	0.470	mg/L	1			9060A	Total/NA
Total Suspended Solids	104		60.0	42.0	mg/L	1			I-3765-85	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 04:21	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 04:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 04:21	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 04:21	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 04:21	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 04:21	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 04:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 04:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 04:21	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 04:21	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 04:21	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 04:21	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 04:21	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 04:21	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 04:21	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 04:21	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 04:21	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 04:21	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 04:21	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 04:21	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 04:21	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 04:21	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 04:21	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 04:21	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 04:21	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 04:21	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 04:21	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 04:21	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 04:21	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 04:21	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 04:21	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 04:21	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 04:21	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 04:21	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 04:21	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 04:21	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 04:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 04:21	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 04:21	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 04:21	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 04:21	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 04:21	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 04:21	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 04:21	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 04:21	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 04:21	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 04:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		06/20/25 04:21	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 04:21	1
4-Bromofluorobenzene (Surr)	107		80 - 120		06/20/25 04:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:30	1
Arsenic	0.000534	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:30	1
Barium	0.0722		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:30	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:30	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:17	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:30	1
Cobalt	0.000281	J	0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:30	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:30	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:30	1
Nickel	0.00693		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:30	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:30	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:30	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:30	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:30	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 04:44	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 04:44	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 04:44	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 04:44	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 04:44	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 04:44	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 04:44	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 04:44	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 04:44	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 04:44	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 04:44	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 04:44	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 04:44	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 04:44	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 04:44	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 04:44	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 04:44	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 04:44	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 04:44	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 04:44	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 04:44	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 04:44	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 04:44	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 04:44	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 04:44	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 04:44	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 04:44	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 04:44	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 04:44	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 04:44	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 04:44	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 04:44	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 04:44	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 04:44	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 04:44	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 04:44	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 04:44	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 04:44	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 04:44	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 04:44	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 04:44	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 04:44	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 04:44	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 04:44	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 04:44	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 04:44	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 04:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130		06/20/25 04:44	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	91		80 - 120		06/20/25 04:44	1
4-Bromofluorobenzene (Surr)	105		80 - 120		06/20/25 04:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:32	1
Arsenic	0.00221		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:32	1
Barium	0.0151		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:32	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:32	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:19	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:32	1
Cobalt	0.000359	J	0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:32	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:32	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:32	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:32	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:32	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:32	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:32	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:32	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	28.0	J	30.0	21.0	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:06	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:06	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:06	1
1,1-Dichloroethane	0.278	J	1.00	0.220	ug/L			06/20/25 05:06	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:06	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:06	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:06	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:06	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:06	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 05:06	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:06	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:06	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 05:06	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:06	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 05:06	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:06	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:06	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:06	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:06	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:06	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:06	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 05:06	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:06	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:06	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:06	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:06	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 05:06	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:06	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:06	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:06	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:06	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:06	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:06	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:06	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:06	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:06	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:06	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:06	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:06	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:06	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 05:06	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		76 - 130		06/20/25 05:06	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	89		80 - 120		06/20/25 05:06	1
4-Bromofluorobenzene (Surr)	104		80 - 120		06/20/25 05:06	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H H3	0.200	0.0780	mg/L			06/19/25 09:39	1
Sulfate	174		10.0	4.20	mg/L			06/19/25 10:28	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00105	J	0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:43	1
Arsenic	0.000637	J	0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:43	1
Barium	0.0881		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:43	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:43	1
Cadmium	0.000139	J	0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:24	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:43	1
Cobalt	0.00378		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:43	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:43	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:43	1
Nickel	0.0225		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:43	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:43	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:43	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:43	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:43	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:43	1
Iron	0.190		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:43	1
Manganese	1.29		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (SW846 9060A)	3.44		1.00	0.470	mg/L			06/24/25 10:37	1
TOC Result 2 (SW846 9060A)	3.30		1.00	0.470	mg/L			06/24/25 10:37	1
Total Suspended Solids (USGS I-3765-85)	1.75	J	1.88	1.31	mg/L			06/19/25 08:31	1

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:29	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:29	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:29	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 05:29	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:29	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:29	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:29	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:29	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:29	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:29	1
1,4-Dichlorobenzene	1.40		1.00	0.230	ug/L			06/20/25 05:29	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:29	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:29	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:29	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 05:29	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:29	1
Benzene	0.637		0.500	0.220	ug/L			06/20/25 05:29	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:29	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:29	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:29	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:29	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:29	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:29	1
Chlorobenzene	1.33		1.00	0.400	ug/L			06/20/25 05:29	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:29	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:29	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:29	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:29	1
cis-1,2-Dichloroethene	0.307 J		1.00	0.210	ug/L			06/20/25 05:29	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:29	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:29	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:29	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:29	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:29	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:29	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:29	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:29	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:29	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:29	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:29	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:29	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:29	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:29	1
Vinyl chloride	0.344 J		1.00	0.180	ug/L			06/20/25 05:29	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	106		76 - 130		06/20/25 05:29	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 05:29	1
4-Bromofluorobenzene (Surr)	101		80 - 120		06/20/25 05:29	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.200	H H3	0.200	0.0780	mg/L			06/19/25 09:52	1
Sulfate	6.93		1.00	0.420	mg/L			06/19/25 09:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:35	1
Arsenic	0.0898		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:35	1
Barium	0.453		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:35	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:35	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 14:22	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:35	1
Cobalt	0.00922		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:35	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:35	1
Lead	0.000337 J		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:35	1
Nickel	0.0114		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:35	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:35	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:35	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:35	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:35	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:35	1
Iron	21.9		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:35	1
Manganese	2.18		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (SW846 9060A)	5.30		1.00	0.470	mg/L			06/24/25 11:06	1
TOC Result 2 (SW846 9060A)	5.14		1.00	0.470	mg/L			06/24/25 11:06	1
Total Suspended Solids (USGS I-3765-85)	70.0		30.0	21.0	mg/L			06/19/25 08:31	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39

Lab Sample ID: 310-309086-5

Date Collected: 06/16/25 14:01

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 05:52	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 05:52	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 05:52	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 05:52	1
1,1-Dichloroethane	0.245	J	1.00	0.220	ug/L			06/20/25 05:52	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 05:52	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 05:52	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 05:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 05:52	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 05:52	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 05:52	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 05:52	1
1,4-Dichlorobenzene	6.09		1.00	0.230	ug/L			06/20/25 05:52	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 05:52	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 05:52	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 05:52	1
Acetone	5.17	J	10.0	3.10	ug/L			06/20/25 05:52	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 05:52	1
Benzene	0.778		0.500	0.220	ug/L			06/20/25 05:52	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 05:52	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 05:52	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 05:52	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 05:52	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 05:52	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 05:52	1
Chlorobenzene	6.06		1.00	0.400	ug/L			06/20/25 05:52	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 05:52	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 05:52	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 05:52	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 05:52	1
cis-1,2-Dichloroethene	0.496	J	1.00	0.210	ug/L			06/20/25 05:52	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 05:52	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 05:52	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 05:52	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 05:52	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 05:52	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 05:52	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 05:52	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 05:52	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 05:52	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 05:52	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 05:52	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 05:52	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 05:52	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 05:52	1
Vinyl chloride	1.21		1.00	0.180	ug/L			06/20/25 05:52	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 05:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/20/25 05:52	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-39

Date Collected: 06/16/25 14:01

Date Received: 06/18/25 16:30

Lab Sample ID: 310-309086-5

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 05:52	1
4-Bromofluorobenzene (Surr)	104		80 - 120		06/20/25 05:52	1

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.218	H H3	0.200	0.0780	mg/L			06/19/25 10:05	1
Sulfate	0.545	J	1.00	0.420	mg/L			06/19/25 10:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:45	1
Arsenic	0.0211		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:45	1
Barium	2.45		0.00800	0.00264	mg/L		06/20/25 09:00	07/02/25 14:27	4
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:45	1
Cadmium	<0.000800		0.000800	0.000400	mg/L		06/20/25 09:00	07/02/25 14:27	4
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:45	1
Cobalt	0.00721		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:45	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:45	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:45	1
Nickel	0.0135		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:45	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:45	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:45	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:45	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:45	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:45	1
Iron	52.8		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:45	1
Manganese	2.94		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1 (SW846 9060A)	11.6		1.00	0.470	mg/L			06/24/25 12:03	1
TOC Result 2 (SW846 9060A)	11.3		1.00	0.470	mg/L			06/24/25 12:03	1
Total Suspended Solids (USGS I-3765-85)	104		60.0	42.0	mg/L			06/19/25 08:31	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: Trip Blank

Lab Sample ID: 310-309086-6

Date Collected: 06/16/25 00:00

Matrix: Water

Date Received: 06/18/25 16:30

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/20/25 02:06	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/20/25 02:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/20/25 02:06	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/20/25 02:06	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/20/25 02:06	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/20/25 02:06	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/20/25 02:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/20/25 02:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/20/25 02:06	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/20/25 02:06	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/20/25 02:06	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/20/25 02:06	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/20/25 02:06	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/20/25 02:06	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/20/25 02:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/20/25 02:06	1
Acetone	<10.0		10.0	3.10	ug/L			06/20/25 02:06	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/20/25 02:06	1
Benzene	<0.500		0.500	0.220	ug/L			06/20/25 02:06	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/20/25 02:06	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/20/25 02:06	1
Bromoform	<5.00		5.00	0.780	ug/L			06/20/25 02:06	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/20/25 02:06	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/20/25 02:06	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/20/25 02:06	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/20/25 02:06	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/20/25 02:06	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/20/25 02:06	1
Chloroform	<3.00		3.00	1.30	ug/L			06/20/25 02:06	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/20/25 02:06	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/20/25 02:06	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/20/25 02:06	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/20/25 02:06	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/20/25 02:06	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/20/25 02:06	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/20/25 02:06	1
Styrene	<1.00		1.00	0.370	ug/L			06/20/25 02:06	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/20/25 02:06	1
Toluene	<1.00		1.00	0.430	ug/L			06/20/25 02:06	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/20/25 02:06	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/20/25 02:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/20/25 02:06	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/20/25 02:06	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/20/25 02:06	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/20/25 02:06	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/20/25 02:06	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/20/25 02:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		06/20/25 02:06	1

Eurofins Cedar Falls

Client Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: Trip Blank
Date Collected: 06/16/25 00:00
Date Received: 06/18/25 16:30

Lab Sample ID: 310-309086-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	90		80 - 120		06/20/25 02:06	1
4-Bromofluorobenzene (Surr)	106		80 - 120		06/20/25 02:06	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Qualifiers

GC/MS VOA

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

HPLC/IC

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

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

General Chemistry

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

Glossary

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

Surrogate Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-309086-1	MW-15C	111	90	107
310-309086-1 MS	MW-15C	98	96	102
310-309086-1 MSD	MW-15C	97	97	101
310-309086-2	MW-44	106	91	105
310-309086-3	MW-14R	108	89	104
310-309086-4	MW-15R	106	90	101
310-309086-5	MW-39	109	90	104
310-309086-6	Trip Blank	109	90	106
LCS 310-458106/11	Lab Control Sample	109	92	104
LCS 310-458106/9	Lab Control Sample	101	97	101
MB 310-458106/8	Method Blank	111	90	106

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-458106/8

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/19/25 23:50	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/19/25 23:50	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/19/25 23:50	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/19/25 23:50	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/19/25 23:50	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/19/25 23:50	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/19/25 23:50	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/19/25 23:50	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/19/25 23:50	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/19/25 23:50	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/19/25 23:50	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/19/25 23:50	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/19/25 23:50	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/19/25 23:50	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/19/25 23:50	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/19/25 23:50	1
Acetone	<10.0		10.0	3.10	ug/L			06/19/25 23:50	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/19/25 23:50	1
Benzene	<0.500		0.500	0.220	ug/L			06/19/25 23:50	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/19/25 23:50	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/19/25 23:50	1
Bromoform	<5.00		5.00	0.780	ug/L			06/19/25 23:50	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/19/25 23:50	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/19/25 23:50	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/19/25 23:50	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/19/25 23:50	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/19/25 23:50	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/19/25 23:50	1
Chloroform	<3.00		3.00	1.30	ug/L			06/19/25 23:50	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/19/25 23:50	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/19/25 23:50	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/19/25 23:50	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/19/25 23:50	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/19/25 23:50	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/19/25 23:50	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/19/25 23:50	1
Styrene	<1.00		1.00	0.370	ug/L			06/19/25 23:50	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/19/25 23:50	1
Toluene	<1.00		1.00	0.430	ug/L			06/19/25 23:50	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/19/25 23:50	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/19/25 23:50	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/19/25 23:50	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/19/25 23:50	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/19/25 23:50	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/19/25 23:50	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/19/25 23:50	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/19/25 23:50	1

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-458106/8

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		06/19/25 23:50	1
Toluene-d8 (Surr)	90		80 - 120		06/19/25 23:50	1
4-Bromofluorobenzene (Surr)	106		80 - 120		06/19/25 23:50	1

Lab Sample ID: LCS 310-458106/11

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	15.60		ug/L		78	33 - 138
Chloroethane	20.0	17.08		ug/L		85	59 - 139
Chloromethane	20.0	16.09		ug/L		80	52 - 146
Trichlorofluoromethane	20.0	16.85		ug/L		84	55 - 150
Vinyl chloride	20.0	16.74		ug/L		84	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	109		76 - 130
Toluene-d8 (Surr)	92		80 - 120
4-Bromofluorobenzene (Surr)	104		80 - 120

Lab Sample ID: LCS 310-458106/9

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.03		ug/L		95	70 - 121
1,1,1-Trichloroethane	20.0	21.96		ug/L		110	69 - 130
1,1,1,2,2-Tetrachloroethane	20.0	18.58		ug/L		93	70 - 122
1,1,2-Trichloroethane	20.0	19.79		ug/L		99	75 - 121
1,1-Dichloroethane	20.0	20.42		ug/L		102	69 - 127
1,1-Dichloroethene	20.0	22.12		ug/L		111	64 - 134
1,2,3-Trichloropropane	20.0	18.63		ug/L		93	70 - 122
1,2-Dibromo-3-chloropropane	20.0	17.98		ug/L		90	62 - 132
1,2-Dibromoethane (EDB)	20.0	20.07		ug/L		100	74 - 122
1,2-Dichlorobenzene	20.0	18.99		ug/L		95	74 - 120
1,2-Dichloroethane	20.0	18.74		ug/L		94	68 - 125
1,2-Dichloropropane	20.0	21.67		ug/L		108	72 - 128
1,4-Dichlorobenzene	20.0	18.31		ug/L		92	72 - 120
2-Butanone (MEK)	40.0	40.86		ug/L		102	60 - 134
2-Hexanone	40.0	38.83		ug/L		97	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	37.19		ug/L		93	62 - 136
Acetone	40.0	38.83		ug/L		97	59 - 136
Acrylonitrile	200	211.3		ug/L		106	50 - 150
Benzene	20.0	21.53		ug/L		108	71 - 125
Bromochloromethane	20.0	22.99		ug/L		115	69 - 131
Bromodichloromethane	20.0	19.62		ug/L		98	70 - 122
Bromoform	20.0	16.89		ug/L		84	62 - 122
Carbon disulfide	20.0	20.62		ug/L		103	58 - 137

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-458106/9

Matrix: Water

Analysis Batch: 458106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon tetrachloride	20.0	21.46		ug/L		107	63 - 136
Chlorobenzene	20.0	19.69		ug/L		98	74 - 120
Chlorodibromomethane	20.0	16.76		ug/L		84	69 - 121
Chloroform	20.0	19.61		ug/L		98	72 - 122
cis-1,2-Dichloroethene	20.0	21.15		ug/L		106	72 - 123
cis-1,3-Dichloropropene	20.0	16.90		ug/L		84	72 - 123
Dibromomethane	20.0	20.45		ug/L		102	72 - 122
Ethylbenzene	20.0	20.05		ug/L		100	75 - 120
Iodomethane	20.0	16.69		ug/L		83	18 - 150
Methylene chloride	20.0	23.97		ug/L		120	72 - 128
Styrene	20.0	21.35		ug/L		107	74 - 122
Tetrachloroethene	20.0	21.24		ug/L		106	70 - 128
Toluene	20.0	20.45		ug/L		102	74 - 120
trans-1,2-Dichloroethene	20.0	20.85		ug/L		104	67 - 127
trans-1,3-Dichloropropene	20.0	16.30		ug/L		82	67 - 123
trans-1,4-Dichloro-2-butene	20.0	15.74		ug/L		79	50 - 150
Trichloroethene	20.0	21.61		ug/L		108	70 - 128
Vinyl acetate	40.0	37.66		ug/L		94	50 - 150
Xylenes, Total	40.0	42.26		ug/L		106	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	101		76 - 130
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Lab Sample ID: 310-309086-1 MS

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	<1.00		25.0	22.20		ug/L		89	55 - 121
1,1,1-Trichloroethane	<1.00		25.0	23.99		ug/L		96	53 - 130
1,1,2,2-Tetrachloroethane	<1.00		25.0	23.32		ug/L		93	55 - 123
1,1,2-Trichloroethane	<1.00		25.0	22.75		ug/L		91	60 - 121
1,1-Dichloroethane	<1.00		25.0	22.88		ug/L		92	53 - 127
1,1-Dichloroethene	<2.00		25.0	25.13		ug/L		101	51 - 134
1,2,3-Trichloropropane	<1.00		25.0	22.48		ug/L		90	56 - 122
1,2-Dibromo-3-chloropropane	<5.00		25.0	23.26		ug/L		93	44 - 138
1,2-Dibromoethane (EDB)	<1.00		25.0	23.80		ug/L		95	60 - 122
1,2-Dichlorobenzene	<1.00		25.0	23.36		ug/L		93	60 - 120
1,2-Dichloroethane	<1.00		25.0	21.34		ug/L		85	48 - 128
1,2-Dichloropropane	<1.00		25.0	24.82		ug/L		99	59 - 128
1,4-Dichlorobenzene	<1.00		25.0	22.97		ug/L		92	58 - 120
2-Butanone (MEK)	<10.0		50.0	43.51		ug/L		87	46 - 134
2-Hexanone	<10.0		50.0	46.32		ug/L		93	46 - 141
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	45.86		ug/L		92	49 - 138
Acetone	<10.0		50.0	45.88		ug/L		92	39 - 141
Acrylonitrile	<5.00		250	234.5		ug/L		94	41 - 150

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309086-1 MS

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.500		25.0	24.27		ug/L		97	48 - 125
Bromochloromethane	<5.00		25.0	25.95		ug/L		104	55 - 131
Bromodichloromethane	<1.00		25.0	21.80		ug/L		87	53 - 122
Bromoform	<5.00		25.0	21.36		ug/L		85	47 - 122
Carbon disulfide	<1.00		25.0	26.73		ug/L		107	45 - 137
Carbon tetrachloride	<2.00		25.0	23.58		ug/L		94	45 - 136
Chlorobenzene	<1.00		25.0	22.38		ug/L		90	59 - 120
Chlorodibromomethane	<5.00		25.0	19.28		ug/L		77	53 - 121
Chloroform	<3.00		25.0	21.80		ug/L		87	52 - 122
cis-1,2-Dichloroethene	<1.00		25.0	23.95		ug/L		96	51 - 123
cis-1,3-Dichloropropene	<5.00		25.0	19.14		ug/L		77	55 - 123
Dibromomethane	<1.00		25.0	22.69		ug/L		91	57 - 122
Ethylbenzene	<1.00		25.0	22.49		ug/L		90	53 - 120
Iodomethane	<10.0		25.0	19.94		ug/L		80	18 - 150
Methylene chloride	<5.00		25.0	26.56		ug/L		106	59 - 128
Styrene	<1.00		25.0	24.38		ug/L		98	50 - 125
Tetrachloroethene	<1.00		25.0	24.39		ug/L		98	51 - 128
Toluene	<1.00		25.0	22.38		ug/L		90	52 - 120
trans-1,2-Dichloroethene	<1.00		25.0	25.32		ug/L		101	53 - 127
trans-1,3-Dichloropropene	<5.00		25.0	18.06		ug/L		72	50 - 123
trans-1,4-Dichloro-2-butene	<10.0		25.0	18.53		ug/L		74	28 - 150
Trichloroethene	<1.00		25.0	24.09		ug/L		96	50 - 128
Vinyl acetate	<10.0		50.0	39.56		ug/L		79	31 - 150
Xylenes, Total	<3.00		50.0	46.78		ug/L		94	50 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	98		76 - 130
Toluene-d8 (Surr)	96		80 - 120
4-Bromofluorobenzene (Surr)	102		80 - 120

Lab Sample ID: 310-309086-1 MSD

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	21.30		ug/L		85	55 - 121	4	20
1,1,1-Trichloroethane	<1.00		25.0	21.94		ug/L		88	53 - 130	9	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	21.45		ug/L		86	55 - 123	8	20
1,1,2-Trichloroethane	<1.00		25.0	21.70		ug/L		87	60 - 121	5	20
1,1-Dichloroethane	<1.00		25.0	20.72		ug/L		83	53 - 127	10	20
1,1-Dichloroethene	<2.00		25.0	22.25		ug/L		89	51 - 134	12	20
1,2,3-Trichloropropane	<1.00		25.0	20.93		ug/L		84	56 - 122	7	21
1,2-Dibromo-3-chloropropane	<5.00		25.0	22.46		ug/L		90	44 - 138	4	24
1,2-Dibromoethane (EDB)	<1.00		25.0	22.50		ug/L		90	60 - 122	6	20
1,2-Dichlorobenzene	<1.00		25.0	21.74		ug/L		87	60 - 120	7	20
1,2-Dichloroethane	<1.00		25.0	19.07		ug/L		76	48 - 128	11	20
1,2-Dichloropropane	<1.00		25.0	22.41		ug/L		90	59 - 128	10	20
1,4-Dichlorobenzene	<1.00		25.0	20.69		ug/L		83	58 - 120	10	20

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 310-309086-1 MSD

Matrix: Water

Analysis Batch: 458106

Client Sample ID: MW-15C

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Butanone (MEK)	<10.0		50.0	43.63		ug/L		87	46 - 134	0	23
2-Hexanone	<10.0		50.0	44.25		ug/L		89	46 - 141	5	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	43.17		ug/L		86	49 - 138	6	20
Acetone	<10.0		50.0	41.52		ug/L		83	39 - 141	10	23
Acrylonitrile	<5.00		250	215.1		ug/L		86	41 - 150	9	20
Benzene	<0.500		25.0	21.92		ug/L		88	48 - 125	10	20
Bromochloromethane	<5.00		25.0	23.59		ug/L		94	55 - 131	10	21
Bromodichloromethane	<1.00		25.0	20.26		ug/L		81	53 - 122	7	20
Bromoform	<5.00		25.0	20.17		ug/L		81	47 - 122	6	20
Carbon disulfide	<1.00		25.0	21.86		ug/L		87	45 - 137	20	24
Carbon tetrachloride	<2.00		25.0	22.22		ug/L		89	45 - 136	6	20
Chlorobenzene	<1.00		25.0	20.71		ug/L		83	59 - 120	8	20
Chlorodibromomethane	<5.00		25.0	18.75		ug/L		75	53 - 121	3	20
Chloroform	<3.00		25.0	20.00		ug/L		80	52 - 122	9	20
cis-1,2-Dichloroethene	<1.00		25.0	21.55		ug/L		86	51 - 123	11	20
cis-1,3-Dichloropropene	<5.00		25.0	17.89		ug/L		72	55 - 123	7	20
Dibromomethane	<1.00		25.0	21.38		ug/L		86	57 - 122	6	20
Ethylbenzene	<1.00		25.0	20.96		ug/L		84	53 - 120	7	20
Iodomethane	<10.0		25.0	21.76		ug/L		87	18 - 150	9	32
Methylene chloride	<5.00		25.0	24.18		ug/L		97	59 - 128	9	20
Styrene	<1.00		25.0	22.35		ug/L		89	50 - 125	9	20
Tetrachloroethene	<1.00		25.0	22.82		ug/L		91	51 - 128	7	20
Toluene	<1.00		25.0	20.50		ug/L		82	52 - 120	9	20
trans-1,2-Dichloroethene	<1.00		25.0	22.57		ug/L		90	53 - 127	11	20
trans-1,3-Dichloropropene	<5.00		25.0	17.09		ug/L		68	50 - 123	6	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	17.24		ug/L		69	28 - 150	7	24
Trichloroethene	<1.00		25.0	21.88		ug/L		88	50 - 128	10	20
Vinyl acetate	<10.0		50.0	40.30		ug/L		81	31 - 150	2	25
Xylenes, Total	<3.00		50.0	43.59		ug/L		87	50 - 122	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	97		76 - 130
Toluene-d8 (Surr)	97		80 - 120
4-Bromofluorobenzene (Surr)	101		80 - 120

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-458159/3

Matrix: Water

Analysis Batch: 458159

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.00		1.00	0.420	mg/L			06/18/25 13:00	1

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QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: 9056A - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 310-458159/4
Matrix: Water
Analysis Batch: 458159

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfate	10.0	10.48		mg/L		105	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-458185/1-A
Matrix: Water
Analysis Batch: 459363

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/20/25 09:00	07/01/25 13:15	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/20/25 09:00	07/01/25 13:15	1
Barium	<0.00200		0.00200	0.000660	mg/L		06/20/25 09:00	07/01/25 13:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Chromium	<0.00500		0.00500	0.00180	mg/L		06/20/25 09:00	07/01/25 13:15	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Copper	<0.00500		0.00500	0.00320	mg/L		06/20/25 09:00	07/01/25 13:15	1
Lead	<0.000500		0.000500	0.000330	mg/L		06/20/25 09:00	07/01/25 13:15	1
Nickel	<0.00500		0.00500	0.00230	mg/L		06/20/25 09:00	07/01/25 13:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/20/25 09:00	07/01/25 13:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/20/25 09:00	07/01/25 13:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/20/25 09:00	07/01/25 13:15	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		06/20/25 09:00	07/01/25 13:15	1
Zinc	<0.0200		0.0200	0.0130	mg/L		06/20/25 09:00	07/01/25 13:15	1
Iron	<0.100		0.100	0.0500	mg/L		06/20/25 09:00	07/01/25 13:15	1
Manganese	<0.0100		0.0100	0.00360	mg/L		06/20/25 09:00	07/01/25 13:15	1

Lab Sample ID: MB 310-458185/1-A
Matrix: Water
Analysis Batch: 459455

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458185

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/20/25 09:00	07/02/25 13:59	1

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2107		mg/L		105	80 - 120
Arsenic	0.200	0.2014		mg/L		101	80 - 120
Barium	0.100	0.09831		mg/L		98	80 - 120
Beryllium	0.100	0.09342		mg/L		93	80 - 120
Chromium	0.100	0.09733		mg/L		97	80 - 120
Cobalt	0.100	0.09729		mg/L		97	80 - 120
Copper	0.200	0.2028		mg/L		101	80 - 120
Lead	0.200	0.1963		mg/L		98	80 - 120
Nickel	0.200	0.2000		mg/L		100	80 - 120
Selenium	0.400	0.3775		mg/L		94	80 - 120
Silver	0.100	0.1115		mg/L		112	80 - 120

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

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

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459363

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.09327		mg/L		93	80 - 120
Vanadium	0.100	0.09737		mg/L		97	80 - 120
Zinc	0.200	0.1909		mg/L		95	80 - 120
Iron	0.200	0.1992		mg/L		100	80 - 120
Manganese	0.100	0.09702		mg/L		97	80 - 120

Lab Sample ID: LCS 310-458185/2-A
Matrix: Water
Analysis Batch: 459455

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458185

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cadmium	0.100	0.09253		mg/L		93	80 - 120

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-823200/30
Matrix: Water
Analysis Batch: 823200

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TOC Result 1	<1.00		1.00	0.470	mg/L			06/24/25 04:06	1
TOC Result 2	<1.00		1.00	0.470	mg/L			06/24/25 04:06	1

Lab Sample ID: LCS 500-823200/31
Matrix: Water
Analysis Batch: 823200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
TOC Result 1	50.0	48.29		mg/L		97	86 - 116
TOC Result 2	50.0	47.54		mg/L		95	86 - 116

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-458081/1
Matrix: Water
Analysis Batch: 458081

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			06/19/25 08:31	1

Lab Sample ID: LCS 310-458081/2
Matrix: Water
Analysis Batch: 458081

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	109.0		mg/L		109	82 - 117

Eurofins Cedar Falls

QC Sample Results

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method: I-3765-85 - Residue, Non-filterable (TSS) (Continued)

Lab Sample ID: 310-309086-5 DU				Client Sample ID: MW-39			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 458081							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Total Suspended Solids	104		112.0		mg/L		7 35

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

GC/MS VOA

Analysis Batch: 458106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	8260D	
310-309086-2	MW-44	Total/NA	Water	8260D	
310-309086-3	MW-14R	Total/NA	Water	8260D	
310-309086-4	MW-15R	Total/NA	Water	8260D	
310-309086-5	MW-39	Total/NA	Water	8260D	
310-309086-6	Trip Blank	Total/NA	Water	8260D	
MB 310-458106/8	Method Blank	Total/NA	Water	8260D	
LCS 310-458106/11	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-458106/9	Lab Control Sample	Total/NA	Water	8260D	
310-309086-1 MS	MW-15C	Total/NA	Water	8260D	
310-309086-1 MSD	MW-15C	Total/NA	Water	8260D	

HPLC/IC

Analysis Batch: 458159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-3	MW-14R	Total/NA	Water	9056A	
310-309086-3	MW-14R	Total/NA	Water	9056A	
310-309086-4	MW-15R	Total/NA	Water	9056A	
310-309086-5	MW-39	Total/NA	Water	9056A	
MB 310-458159/3	Method Blank	Total/NA	Water	9056A	
LCS 310-458159/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 458185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	3005A	
310-309086-2	MW-44	Total/NA	Water	3005A	
310-309086-3	MW-14R	Total/NA	Water	3005A	
310-309086-4	MW-15R	Total/NA	Water	3005A	
310-309086-5	MW-39	Total/NA	Water	3005A	
MB 310-458185/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 459363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	6020B	458185
310-309086-2	MW-44	Total/NA	Water	6020B	458185
310-309086-3	MW-14R	Total/NA	Water	6020B	458185
310-309086-4	MW-15R	Total/NA	Water	6020B	458185
310-309086-5	MW-39	Total/NA	Water	6020B	458185
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185

Analysis Batch: 459455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	6020B	458185
310-309086-2	MW-44	Total/NA	Water	6020B	458185
310-309086-3	MW-14R	Total/NA	Water	6020B	458185
310-309086-4	MW-15R	Total/NA	Water	6020B	458185
310-309086-5	MW-39	Total/NA	Water	6020B	458185

Eurofins Cedar Falls

QC Association Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Metals (Continued)

Analysis Batch: 459455 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-458185/1-A	Method Blank	Total/NA	Water	6020B	458185
LCS 310-458185/2-A	Lab Control Sample	Total/NA	Water	6020B	458185

General Chemistry

Analysis Batch: 458081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-1	MW-15C	Total/NA	Water	I-3765-85	
310-309086-2	MW-44	Total/NA	Water	I-3765-85	
310-309086-3	MW-14R	Total/NA	Water	I-3765-85	
310-309086-4	MW-15R	Total/NA	Water	I-3765-85	
310-309086-5	MW-39	Total/NA	Water	I-3765-85	
MB 310-458081/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-458081/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-309086-5 DU	MW-39	Total/NA	Water	I-3765-85	

Analysis Batch: 823200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-309086-3	MW-14R	Total/NA	Water	9060A	
310-309086-4	MW-15R	Total/NA	Water	9060A	
310-309086-5	MW-39	Total/NA	Water	9060A	
MB 500-823200/30	Method Blank	Total/NA	Water	9060A	
LCS 500-823200/31	Lab Control Sample	Total/NA	Water	9060A	

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15C

Lab Sample ID: 310-309086-1

Date Collected: 06/16/25 17:42

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 04:21
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:30
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:17
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-44

Lab Sample ID: 310-309086-2

Date Collected: 06/16/25 14:33

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 04:44
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:32
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:19
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-14R

Lab Sample ID: 310-309086-3

Date Collected: 06/16/25 13:23

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:06
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 09:39
Total/NA	Analysis	9056A		10	458159	QTZ5	EET CF	06/19/25 10:28
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:43
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:24
Total/NA	Analysis	9060A		1	823200	TR	EET CHI	06/24/25 10:37
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-15R

Lab Sample ID: 310-309086-4

Date Collected: 06/16/25 15:00

Matrix: Water

Date Received: 06/18/25 16:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:29
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 09:52
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:35

Eurofins Cedar Falls

Lab Chronicle

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Client Sample ID: MW-15R

Date Collected: 06/16/25 15:00

Date Received: 06/18/25 16:30

Lab Sample ID: 310-309086-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459455	NFT2	EET CF	07/02/25 14:22
Total/NA	Analysis	9060A		1	823200	TR	EET CHI	06/24/25 11:06
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: MW-39

Date Collected: 06/16/25 14:01

Date Received: 06/18/25 16:30

Lab Sample ID: 310-309086-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 05:52
Total/NA	Analysis	9056A		1	458159	QTZ5	EET CF	06/19/25 10:05
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		1	459363	NFT2	EET CF	07/01/25 13:45
Total/NA	Prep	3005A			458185	WK2X	EET CF	06/20/25 09:00
Total/NA	Analysis	6020B		4	459455	NFT2	EET CF	07/02/25 14:27
Total/NA	Analysis	9060A		1	823200	TR	EET CHI	06/24/25 12:03
Total/NA	Analysis	I-3765-85		1	458081	E6KR	EET CF	06/19/25 08:31

Client Sample ID: Trip Blank

Date Collected: 06/16/25 00:00

Date Received: 06/18/25 16:30

Lab Sample ID: 310-309086-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	458106	WSE8	EET CF	06/20/25 02:06

Laboratory References:

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

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	07-10-25

Laboratory: Eurofins Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Iowa	State	082	05-01-26

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
9060A		Water	TOC Result 1
9060A		Water	TOC Result 2

Method Summary

Client: SCS Engineers
Project/Site: Cherokee Landfill

Job ID: 310-309086-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
9060A	Organic Carbon, Total (TOC)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

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

USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

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

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200



Environment Testing
America



310-309086 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client <u>ScS</u>			
City/State.	CITY <u>W. Des Moines</u>	STATE <u>IA</u>	Project:
Receipt Information			
Date/Time Received:	DATE <u>6.16.25</u>	TIME <u>1630</u>	Received By: <u>PH</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 # _____ of _____			
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? <u>↓</u> <u>All</u>			
Temperature Record			
Coolant. ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>AX</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):		Corrected Temp (°C):	
• Sample Container Temperature			
Container(s)-used:	CONTAINER 1 <u>PL 12</u>	CONTAINER 2	
Uncorrected Temp (°C):	<u>5.5</u>		
Corrected Temp (°C):	<u>5.5</u>		
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			

Project Manager: Sean Marczewski Email: smarczewski@gmail.com Cell: 712-661-9682		Site Contact: Tony Agnitsch Lab Contact: Sam Miller Carrier:		COC No: _____ of _____ COCs	
Analysis Turnaround Time ☐ CALENDAR DAYS ☐ WORKING DAYS Other: ☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day		Filtered Sample (Y/N)		Appendix I	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix
MW-15C	6-16-25	1742	G	H ₂ O	
MW-44	6-16-25	1433	G	H ₂ O	
MW-14R	6-16-25	1323	G	H ₂ O	
MW-15R	6-16-25	1800	G	H ₂ O	
MW-39	6-16-25	1401	G	H ₂ O	
Trip Blank					
Preservation Used: 1= Ice, 2= HCl; 3= H ₂ SO ₄ ; 4=HNO ₃ ; 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.		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Special Instructions/QC Requirements & Comments: Natural Attenuation Parameters: Iron, Manganese, Nitrate, Sulfate, and Total Organic Carbon		Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months			
Custody Seal No		Cooler Temp (°C)		Therm ID No	
Relinquished by: <i>Sean Marczewski</i>		Received by:		Date/Time:	
Relinquished by:		Received by:		Date/Time:	
Relinquished by:		Received in Laboratory by: <i>SC</i>		Date/Time: <i>6/18/25 1030</i>	

3019 Venture Way
Cedar Falls, IA 50613
Phone 319-277-2401 Fax 319-277-2425

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309-10/13/2025 (Rev. 1)

Ver 10/10/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-309086-1

Login Number: 309086

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Cappi, Sage

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.	N/A	
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	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-309086-1

Login Number: 309086

List Number: 2

Creator: Knox, Angel

List Source: Eurofins Chicago

List Creation: 06/20/25 12:19 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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
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.	True	



Appendix B-2

Data Validation Documentation

Completed by: Michael Morgan
Sample Date: 6/16/2025
Lab Report Date: 7/2/2025
Site Name: Cherokee County Sanitary Landfill
Project Type: 1st 2025 Open Unit HMSP
Lab Report Number: 310-309093-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody

Temperature

Preservation

Condition

Case Narrative

Holding Times

Analytical Sensitivity and Blanks

Method Blank Detections

Trip Blank Detections

Accuracy

ICV/CCV

LCS/LCSD

MS/MSD

Surrogates (organics only)

Other QA QC samples

Precision

QA/QC Sample RPDs

Field Duplicates

X			
X			
X			
X			
	X		Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container: Trip Blank (310-309093-6).
X			

X			No detections.
X			No detections.

	X		Method 8260D: The continuing calibration verification (CCV) associated with batch 310-458256 recovered outside of the control limits for trans-1,2 Dichloropropene (-21.3%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: (CCV 310-458256/3).
X			
X			
X			
X			

X			
		X	Duplicate samplae was not connected for the Open Unit for this sampling event.

Completed by: Michael Morgan

Sample Date: 6/16/2025

Lab Report Date: 7/2/2025

Site Name: Cherokee County Sanitary Landfill

Project Type: 1st 2025 Closed Unit HMSP

Lab Report Number: 310-309086-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody

Temperature

Preservation

Condition

Case Narrative

Holding Times

X			
	X		Temperature of the cooler upon arrival was 5.5°C.
X			
X			
	X		Method 8260D: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container: Trip Blank (310-309086-6).
	X		Method 9056A_ORGFM_48H: The following samples were received outside of holding time: MW-14R (310-309086-3), MW-15R (310-309086-4) and MW-39 (310-309086-5).

Analytical Sensitivity and Blanks

Method Blank Detections

Trip Blank Detections

X			No detections.
X			No detections.

Accuracy

ICV/CCV

LCS/LCSD

MS/MSD

Surrogates (organics only)

Other QA QC samples

X			
X			
X			
X			
X			

Precision

QA/QC Sample RPDs

Field Duplicates

X			
X			Sample MW-15C and duplicate sample MW-DO had <50% RPD for analyzed parameters .

Completed by: Michael Morgan

Sample Date: 11/24/2025

Lab Report Date: 12/15/2025

Site Name: Cherokee County Sanitary Landfill

Project Type: 2nd 2025 Open & Closed Units

Lab Report Number: 310-321513-1

OK NO N/A NOTES

Sample Collection and Sample Handling

Chain of Custody
Temperature

Preservation

Condition

Case Narrative

Holding Times

X			
X			
	X		The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW-39 (310-321513-14). The sample(s) was preserved to the appropriate pH in the laboratory. The reference method requires samples to be preserved to a pH of <2. The following sample was received with insufficient preservation at a pH of >2: MW-43 (310-321513-16). The sample(s) was preserved to the appropriate pH in the laboratory.
X			
	X		Method 8260D: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container: Trip Blank 1 (310-321513-18), Trip Blank 2 (310-321513-19) and Trip Blank 3 (310-321513-20).
	X		The following sample(s) was received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: MW-7 (310-321513-6). The following samples were received at the Chicago Lab outside of holding time: MW-11 (310-321513-5), MW-7 (310-321513-6) and MW-9R (310-321513-7).

Analytical Sensitivity and Blanks

Method Blank Detections
Trip Blank Detections

X			No detections.
X			No detections.

Completed by: Michael Morgan

Sample Date: 11/24/2025

Lab Report Date: 12/15/2025

Site Name: Cherokee County Sanitary Landfill

Project Type: 2nd 2025 Open & Closed Units

Lab Report Number: 310-321513-1

OK NO N/A NOTES

Accuracy

ICV/CCV

			Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475656 recovered above the upper control limit for Vinyl chloride (26%D). The LCS associated with this CCV passed CCV criteria for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-475656/4). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475713 recovered above the upper control limit for Carbon tetrachloride (29%D), cis-1,3-Dichloropropene (23%D), and 1,1,2 Trichloroethane (29%D). The LCS associated with this CCV passed CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-475713/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475115 recovered above the upper control limit for Carbon tetrachloride (30%D) and 2,2-Dichloropropane (27%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-475115/3). Method 8260D: The continuing calibration verification (CCV) associated with batch 310-475233 recovered above the upper control limit for Carbon tetrachloride (22%D). The LCS associated with this CCV passed CCV criteria for the affected analyte; therefore, the data have been reported. The associated sample is:(CCV 310-475233/3).

Completed by: Michael Morgan

Sample Date: 11/24/2025

Lab Report Date: 12/15/2025

Site Name: Cherokee County Sanitary Landfill

Project Type: 2nd 2025 Open & Closed Units

Lab Report Number: 310-321513-1

	OK	NO	N/A	NOTES
ICV/CCV				Method 8270E: The continuing calibration verification (CCV) associated with batch 310-475460 recovered above the upper control limit for Dinoseb(24%D), Hexachloropropene(25%D) and 2,4,6-Tribromophenol (Surr)(23%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV310-475460/12). Method 8270E: The continuing calibration verification (CCV) analyzed in batch 310-475460 was outside the method criteria for the following analyte(s): 1,4 Phenylenediamine(-57%D) and 4-Nitrophenol(-25%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated. Method 8270E: The continuing calibration verification (CCV) analyzed in batch 310-475460 was outside the method criteria for the following analyte(s): 1,4 Phenylenediamine(-57%D) and 4-Nitrophenol(-25%D). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.
LCS/LCSD		X		Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 310-475159 and analytical batch 310-475460 recovered outside control limits for the following analytes: 1,4-Phenylenediamine and Methapyrilene.
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples		X		Method 8270E: Internal standard (ISTD) response for the following samples were outside of acceptance limits: MW-7 (310-321513-6) and (MB 310-475159/1-A). The ISTD failed low causing the data to be biased high. The affected analytes were non-detects therefore the data has been reported.
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-15C and duplicate sample MW-DC had <50% RPD for analyzed parameters.

Appendix C-1

Summary of Groundwater Chemistry – Closed MSWLF Unit

SCS ENGINEERS

Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
Total Metals Constituents													
Antimony, mg/L (CAS NO - 7440-36-0)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.00105	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.002	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.000637	< 0.002	0.0898	0.0211	N/A	N/A	0.00221
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.000534	N/A	N/A	N/A	N/A	N/A
	11/24/2025	0.00115*	0.000769*	0.00137*	0.00757	0.00363	0.00127*	0.000696*	0.101	0.0339	0.0325	0.0013*	0.00532
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.00071*	N/A	N/A	N/A	N/A	N/A
Barium, mg/L (CAS NO - 7440-39-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.0881	0.0546	0.453	2.45	N/A	N/A	0.0151
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.0722	N/A	N/A	N/A	N/A	N/A
	11/24/2025	0.0151	0.0177	0.066	0.125	0.0661	0.0657	0.103	0.47	2.57	0.958	0.518	0.019
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.102	N/A	N/A	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.000139	< 0.0002	< 0.0002	< 0.0008	N/A	N/A	< 0.0002
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.0002	N/A	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	< 0.0002
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.00378	0.000309	0.00922	0.00721	N/A	N/A	0.000359
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.000281	N/A	N/A	N/A	N/A	N/A
	11/24/2025	0.000297*	< 0.0005	< 0.0005	0.0547	0.00302	0.0144	0.00028*	0.00889	0.0128	0.00099	0.000665	0.000328*
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.00029*	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Lead, mg/L (CAS NO - 7439-92-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	0.000337	< 0.0005	N/A	N/A	< 0.0005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	11/24/2025	< 0.0005	< 0.0005	< 0.0005	0.00582	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
Mercury, mg/L (CAS NO - 7439-97-6)	11/24/2025	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.0225	0.00693	0.0114	0.0135	N/A	N/A	< 0.005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.00761	N/A	N/A	N/A	N/A	N/A
	11/24/2025	0.00448*	< 0.005	< 0.005	0.0715	0.00941	0.0408	0.00756	0.008	0.0217	N/A	N/A	< 0.005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	0.00874	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
Tin, mg/L (CAS NO - 7440-31-5)	11/24/2025	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	0.00188*	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	< 0.02
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	< 0.02
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	6/16/2025	N/A	N/A	N/A	N/A	N/A	1.75	1.38	70	104	N/A	N/A	28
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A	N/A
	11/24/2025	10	3.5	5.37	834	6	4.25	< 1.88	54	118	N/A	N/A	35
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1.88	N/A	N/A	N/A	N/A	N/A

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.



Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
Appendix I VOC Constituents													
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.278	< 1	< 1	0.245	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	0.704*	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	< 2
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 2	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	0.431*	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	1.4	6.09	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	1.41	8.05	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Acetone, ug/L (CAS NO - 67-64-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	5.17	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	7.11*	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
Benzene, ug/L (CAS NO - 71-43-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.5	< 0.5	0.637	0.778	N/A	N/A	< 0.5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 0.5	N/A	N/A	< 0.5	0.481*	< 0.5	0.842	1.42	N/A	N/A	< 0.5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A



Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
Appendix I VOC Constituents													
Bromomethane, ug/L (CAS NO - 74-83-9)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 4	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	< 2
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 2	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
Chlorobenzene, ug/L (CAS NO - 108-90-7)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	1.33	6.06	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	1.22	< 1	< 1	1.89	7.74	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 4	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 3	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 3	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	0.307	0.496	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
Ethylbenzene, ug/L (CAS NO - 100-41-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Methylene Bromide, ug/L (CAS NO - 74-95-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	0.563*	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 5	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	0.924*	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 4	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A



Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
Appendix I VOC Constituents													
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 10	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 1	< 1	0.344	1.21	N/A	N/A	< 1
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 1	N/A	N/A	< 1	< 1	< 1	0.691*	1.27	< 1	1.06	< 1
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	6/16/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/24/2025	N/A	< 3	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3
	11/24/2025	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.



Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

Other Constituents	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	11/24/2025	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	11/24/2025	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	11/24/2025	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	11/24/2025	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	11/24/2025	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	11/24/2025	N/A	< 0.153	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	11/24/2025	N/A	< 0.051	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	11/24/2025	N/A	< 0.612	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	11/24/2025	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	11/24/2025	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDD, ug/L (CAS NO - 72-54-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDE, ug/L (CAS NO - 72-55-9)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDT, ug/L (CAS NO - 50-29-3)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthene, ug/L (CAS NO - 83-32-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthylene, ug/L (CAS NO - 208-96-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acetonitrile, ug/L (CAS NO - 75-05-8)	11/24/2025	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acetophenone, ug/L (CAS NO - 98-86-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrolein, ug/L (CAS NO - 107-02-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin, ug/L (CAS NO - 309-00-2)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Anthracene, ug/L (CAS NO - 120-12-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alpha-BHC, ug/L (CAS NO - 319-84-6)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beta-BHC, ug/L (CAS NO - 319-85-7)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Delta-BHC, ug/L (CAS NO - 319-86-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlordane, ug/L (CAS NO - 57-74-9)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroprene, ug/L (CAS NO - 126-99-8)	11/24/2025	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene, ug/L (CAS NO - 218-01-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide, mg/L (CAS NO - 57-12-5)	11/24/2025	N/A	< 0.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenzofuran, ug/L (CAS NO - 132-64-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	11/24/2025	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin, ug/L (CAS NO - 60-57-1)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dimethoate, ug/L (CAS NO - 60-51-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	11/24/2025	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dinoseb, ug/L (CAS NO - 88-85-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diphenylamine, ug/L (CAS NO - 122-39-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Disulfoton, ug/L (CAS NO - 298-04-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A



Summary of Groundwater Chemistry
Cherokee County Solid Waste Commission - 18-SDP-01-75P

	Sample Date	MW-11 UPG	MW-7 DNG	MW-9R DNG	MW-12 DNG	MW-13R DNG	MW-14R DNG	MW-15C DNG	MW-15R DNG	MW-39 DNG	MW-40 DNG	MW-43 DNG	MW-44 DNG
Other Constituents													
Endosulfan I, ug/L (CAS NO - 959-98-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan II, ug/L (CAS NO - 33213-65-9)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin, ug/L (CAS NO - 72-20-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	11/24/2025	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Famphur, ug/L (CAS NO - 52-85-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene, ug/L (CAS NO - 206-44-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluorene, ug/L (CAS NO - 86-73-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor, ug/L (CAS NO - 76-44-8)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachloroethane, ug/L (CAS NO - 67-72-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isobutanol, mg/L (CAS NO - 78-83-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isodrin, ug/L (CAS NO - 465-73-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isophorone, ug/L (CAS NO - 78-59-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isosafrole, ug/L (CAS NO - 120-58-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kepone, ug/L (CAS NO - 143-50-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methapyrilene, ug/L (CAS NO - 91-80-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methoxychlor, ug/L (CAS NO - 72-43-5)	11/24/2025	N/A	< 0.0916	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	11/24/2025	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Naphthalene, ug/L (CAS NO - 91-20-3)	11/24/2025	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene, ug/L (CAS NO - 98-95-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
O-Toluidine, ug/L (CAS NO - 95-53-4)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1016, ug/L (CAS NO - 12674-11-2)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1221, ug/L (CAS NO - 11104-28-2)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1232, ug/L (CAS NO - 11141-16-5)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1242, ug/L (CAS NO - 53469-21-9)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1248, ug/L (CAS NO - 12672-29-6)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1254, ug/L (CAS NO - 11097-69-1)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCB-1260, ug/L (CAS NO - 11096-82-5)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenanthrene, ug/L (CAS NO - 85-01-8)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenol, ug/L (CAS NO - 108-95-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phorate, ug/L (CAS NO - 298-02-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pronamide, ug/L (CAS NO - 23950-58-5)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Propionitrile, ug/L (CAS NO - 107-12-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene, ug/L (CAS NO - 129-00-0)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Safrole, ug/L (CAS NO - 94-59-7)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sulfide, mg/L (CAS NO - 18496-25-8)	11/24/2025	3.44	1.46	9.44	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thionazin, ug/L (CAS NO - 297-97-2)	11/24/2025	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene, ug/L (CAS NO - 8001-35-2)	11/24/2025	N/A	< 1.83	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron, Total, mg/L (CAS NO - 7439-89-6)	6/16/2025	N/A	N/A	N/A	N/A	N/A	0.19	N/A	21.9	52.8	N/A	N/A	N/A
Manganese, mg/L (CAS NO - 7439-96-5)	6/16/2025	N/A	N/A	N/A	N/A	N/A	1.29	N/A	2.18	2.94	N/A	N/A	N/A
Nitrate (NO3), mg/L (CAS NO - 14797-55-8)	6/16/2025	N/A	N/A	N/A	N/A	N/A	< 0.2	N/A	< 0.2	0.218	N/A	N/A	N/A
Sulfate, mg/L (CAS NO - 14808-79-8)	6/16/2025	N/A	N/A	N/A	N/A	N/A	174	N/A	6.93	0.545	N/A	N/A	N/A
Total Organic Carbon, mg/L (CAS NO - TOC)	6/16/2025	N/A	N/A	N/A	N/A	N/A	3.37	N/A	5.22	11.45	N/A	N/A	N/A

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.

Appendix C-2

Summary of Groundwater Chemistry – Open MSWLF Unit

SCS ENGINEERS

Summary of Groundwater Chemistry

Cherokee County Solid Waste Commission - 18-SDP-01-75P

Total Metals Constituents	Sample Date	MW-16 DNG	MW-27 DNG	MW-35 DNG	MW-42R DNG
Antimony, mg/L (CAS NO - 7440-36-0)	6/16/2025	< 0.002	< 0.002	< 0.002	< 0.002
	11/24/2025	< 0.002	< 0.002	< 0.002	< 0.002
Arsenic, mg/L (CAS NO - 7440-38-2)	6/16/2025	< 0.002	< 0.002	0.000689*	0.000543*
	11/24/2025	0.000568*	0.000609*	0.00127*	0.0013*
Barium, mg/L (CAS NO - 7440-39-3)	6/16/2025	0.143	0.0309	0.0203	0.0239
	11/24/2025	0.132	0.0306	0.0192	0.016
Beryllium, mg/L (CAS NO - 7440-41-7)	6/16/2025	< 0.001	< 0.001	< 0.001	< 0.001
	11/24/2025	< 0.001	< 0.001	< 0.001	< 0.001
Cadmium, mg/L (CAS NO - 7440-43-9)	6/16/2025	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	11/24/2025	< 0.0002	< 0.0002	< 0.0002	0.000101*
Chromium, mg/L (CAS NO - 7440-47-3)	6/16/2025	< 0.005	< 0.005	< 0.005	< 0.005
	11/24/2025	< 0.005	0.00971	< 0.005	< 0.005
Cobalt, mg/L (CAS NO - 7440-48-4)	6/16/2025	< 0.0005	< 0.0005	0.00622	0.00365
	11/24/2025	0.000186*	< 0.0005	0.00563	0.00444
Copper, mg/L (CAS NO - 7440-50-8)	6/16/2025	< 0.005	< 0.005	< 0.005	< 0.005
	11/24/2025	< 0.005	< 0.005	< 0.005	< 0.005
Lead, mg/L (CAS NO - 7439-92-1)	6/16/2025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/24/2025	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Nickel, mg/L (CAS NO - 7440-02-0)	6/16/2025	0.0109	< 0.005	0.0165	0.00952
	11/24/2025	0.00945	< 0.005	0.0163	0.0123
Selenium, mg/L (CAS NO - 7782-49-2)	6/16/2025	< 0.005	< 0.005	< 0.005	< 0.005
	11/24/2025	< 0.005	< 0.005	< 0.005	< 0.005
Silver, mg/L (CAS NO - 7440-22-4)	6/16/2025	< 0.001	< 0.001	< 0.001	< 0.001
	11/24/2025	< 0.001	< 0.001	< 0.001	< 0.001
Thallium, mg/L (CAS NO - 7440-28-0)	6/16/2025	< 0.001	< 0.001	< 0.001	< 0.001
	11/24/2025	< 0.001	< 0.001	< 0.001	< 0.001
Vanadium, mg/L (CAS NO - 7440-62-2)	6/16/2025	< 0.005	< 0.005	< 0.005	< 0.005
	11/24/2025	< 0.005	< 0.005	< 0.005	< 0.005
Zinc, mg/L (CAS NO - 7440-66-6)	6/16/2025	< 0.02	< 0.02	< 0.02	< 0.02
	11/24/2025	< 0.02	< 0.02	< 0.02	< 0.02
Total Suspended Solids, mg/L (CAS NO - TSS)	6/16/2025	1.88	< 1.88	28.3	< 1.88
	11/24/2025	< 1.88	< 1.88	9.5	< 1.88

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.

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Summary of Groundwater Chemistry

Cherokee County Solid Waste Commission - 18-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-16 DNG	MW-27 DNG	MW-35 DNG	MW-42R DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	6/16/2025	< 2	< 2	< 2	< 2
	11/24/2025	< 2	< 2	< 2	< 2
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
2-Butanone, ug/L (CAS NO - 78-93-3)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
2-Hexanone, ug/L (CAS NO - 591-78-6)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
Acetone, ug/L (CAS NO - 67-64-1)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
Acrylonitrile, ug/L (CAS NO - 107-13-1)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Benzene, ug/L (CAS NO - 71-43-2)	6/16/2025	< 0.5	< 0.5	< 0.5	< 0.5
	11/24/2025	< 0.5	< 0.5	< 0.5	< 0.5
Bromochloromethane, ug/L (CAS NO - 74-97-5)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Bromoform, ug/L (CAS NO - 75-25-2)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Bromomethane, ug/L (CAS NO - 74-83-9)	6/16/2025	< 4	< 4	< 4	< 4
	11/24/2025	< 4	< 4	< 4	< 4
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	6/16/2025	< 2	< 2	< 2	< 2
	11/24/2025	< 2	< 2	< 2	< 2
Chlorobenzene, ug/L (CAS NO - 108-90-7)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Cherokee County Solid Waste Commission - 18-SDP-01-75P

Appendix I VOC Constituents	Sample Date	MW-16 DNG	MW-27 DNG	MW-35 DNG	MW-42R DNG
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Chloroethane, ug/L (CAS NO - 75-00-3)	6/16/2025	< 4	< 4	< 4	< 4
	11/24/2025	< 4	< 4	< 4	< 4
Chloroform, ug/L (CAS NO - 67-66-3)	6/16/2025	< 3	< 3	< 3	< 3
	11/24/2025	< 3	< 3	< 3	< 3
Chloromethane, ug/L (CAS NO - 74-87-3)	6/16/2025	< 3	< 3	< 3	< 3
	11/24/2025	< 3	< 3	< 3	< 3
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Ethylbenzene, ug/L (CAS NO - 100-41-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Iodomethane, ug/L (CAS NO - 74-88-4)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
Methylene Bromide, ug/L (CAS NO - 74-95-3)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Methylene Chloride, ug/L (CAS NO - 75-09-2)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
Styrene, ug/L (CAS NO - 100-42-5)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Toluene, ug/L (CAS NO - 108-88-3)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	6/16/2025	< 5	< 5	< 5	< 5
	11/24/2025	< 5	< 5	< 5	< 5
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
Trichloroethene, ug/L (CAS NO - 79-01-6)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	6/16/2025	< 4	< 4	< 4	< 4
	11/24/2025	< 4	< 4	< 4	< 4
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	6/16/2025	< 10	< 10	< 10	< 10
	11/24/2025	< 10	< 10	< 10	< 10
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	6/16/2025	< 1	< 1	< 1	< 1
	11/24/2025	< 1	< 1	< 1	< 1
Xylenes, total, ug/L (CAS NO - 1330-20-7)	6/16/2025	< 3	< 3	< 3	< 3
	11/24/2025	< 3	< 3	< 3	< 3

Note: * indicates 'J flag'. Detection is below the reporting limit, but greater than the MDL (Method Detection Limit). The concentration is estimated.

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.



Appendix D

Statistical Method and Output

Statistical Method and Output

Purpose

The purpose of this document is to provide the statistical evaluation of groundwater analytical data collected from the groundwater monitoring networks of both the Closed municipal solid waste landfill (MSWLF) unit and the Open MSWLF unit at the Cherokee County Sanitary Landfill (Landfill).

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The detection and assessment/corrective action monitoring statistical programs include diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset are managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data are non-detect, simple substitution is used, where non-detect values are assigned a concentration of one-half ($\frac{1}{2}$) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data are non-detect, the Kaplan-Meier estimator is used to define the distribution for the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

Background datasets are evaluated for outliers using the Ohio EPA Method as included in the Sanitas™ statistical software program and described below, which includes the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contain less than 75% of the measured concentrations below the PQL. Outliers are not confirmed unless a physical cause or explanation for the outlier is determined.

Management of Data (ND data < 75%)

If less than 75% of the background dataset is below the PQL, outliers are statistically evaluated using the following guidelines.

- A parametric dataset with $n < 20$ was evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ was evaluated with the Rosner's outlier test.
- A non-parametric dataset was evaluated with the Tukey's outlier test.

In accordance with the Ohio EPA Method, if a statistically significant outlier is not found using the above tests, but the highest value data point exceeds the second highest data point by an order of magnitude, the highest point is considered an outlier.

Management of Data (ND data $\geq$ 75%)

If greater than or equal to 75% of the background dataset is less than the PQL, outliers are statistically evaluated using the following guidelines.

- Single detection $\geq$ the PQL:
 - o If $\geq 50\%$ of the background dataset has detections $\geq$ the method detection limit (MDL), any value $\geq$ two times the PQL of background is considered an outlier.
 - o If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ the PQL of background is considered an outlier.
- Two or more detections $\geq$ the PQL:
 - o If $\geq 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ three times the PQL of background is considered an outlier.
 - o If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ two times the PQL of background is considered an outlier.

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Management of Data (ND data $\geq 75\%$)

If greater than or equal to 75% of the background dataset is less than the PQL, outliers are statistically evaluated using the following guidelines.

- Single detection $\geq$ the PQL:
 - o If $\geq 50\%$ of the background dataset has detections $\geq$ the method detection limit (MDL), any value $\geq$ two times the PQL of background is considered an outlier.
 - o If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ the PQL of background is considered an outlier.
- Two or more detections $\geq$ the PQL:
 - o If $\geq 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ three times the PQL of background is considered an outlier.
 - o If $< 50\%$ of the background dataset has detections $\geq$ the MDL, any value $\geq$ two times the PQL of background is considered an outlier.

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program

Closed MSWLF Unit

The detection monitoring statistical program for the Closed MSWLF unit is defined by Iowa Administrative Code (IAC) 567-113.10(4)“g”. Interwell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in background. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric

interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).

- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Double Quantification Method

The quasi-statistical “double quantification” method is used for constituents not detected in the associated background data set. If a constituent is detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Open MSWLF Unit

The detection monitoring statistical program for the Open MSWLF unit is defined by Iowa Administrative Code (IAC) 567-113.10(4)“g.” Intrawell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in the background dataset. Monitoring well MW-15C in the Closed MSWLF unit is also evaluated with intrawell prediction limits. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Intrawell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric intrawell prediction limits are calculated if at least six datasets have been collected.
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric intrawell prediction limits are calculated if at least six datasets have been collected.
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point should be placed into the assessment monitoring program or the discharge treated with the leachate for groundwater underdrain discharge points. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Updating the Background Dataset for Intrawell Prediction Limits

If no SSI is confirmed for any two-year period, the intrawell background dataset will be updated using the following procedure:

- Test for normality (normal distribution) of the dataset either outright or through a transformation using Ladder of Powers:
 - o Shapiro-Wilk test
- Test for statistically significant trends:
 - o Mann-Kendall/Sen's Slope trend test

If an increasing trend is detected, the monitoring point will be placed into the assessment monitoring program or the discharge treated with the leachate for groundwater underdrain discharge points.

- If the dataset has a normal distribution and no trend is present, conduct a two-sample Welch's t-test at a 0.01 significance level to compare current background to the most recent two years of detection monitoring data.

If Welch's t-test test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.

- If the dataset does not have a normal distribution and no trend is present, conduct a two-sample non-parametric Wilcoxon rank-sum test (also known as the Mann-Whitney test) at a 0.01 significance level to compare current background to the most recent two years of detection monitoring data.

If the Wilcoxon rank-sum test is significant and shows that the most recent two years of concentration data appear to be increasing, the background will not be updated.

- If the Welch's t-test and the Wilcoxon rank-sum test are not significant, the most recent two years of detection monitoring data will be added to the intrawell background dataset.
- Establish prediction limits based on the updated intrawell background dataset.

The process will repeat every two years in which an SSI is not confirmed.

Double Quantification Method

The quasi-statistical "double quantification" method is used for constituents not detected in the associated background data set. If a constituent is detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/Corrective Action Statistical Program

Closed and Open MSWLF Units

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment monitoring/corrective action statistical evaluations are performed using the most recent eight samples or all samples if less than eight samples were available. The confidence intervals or confidence bands used for the assessment monitoring/ corrective action statistical evaluation are established using the process below. Transformation of the distribution is not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean is calculated if the dataset has a normal distribution and no statistically significant trend is present.

- A non-parametric confidence interval around a median is calculated if the dataset does not have a normal distribution and no statistically significant trend is present.
- Non-parametric confidence bands around a Theil-Sen trend line are calculated if the dataset has a statistically significant trend.

If the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required. An ACM for the Closed MSWLF unit was approved in the revised permit dated March 31, 2021 (Doc #100117).

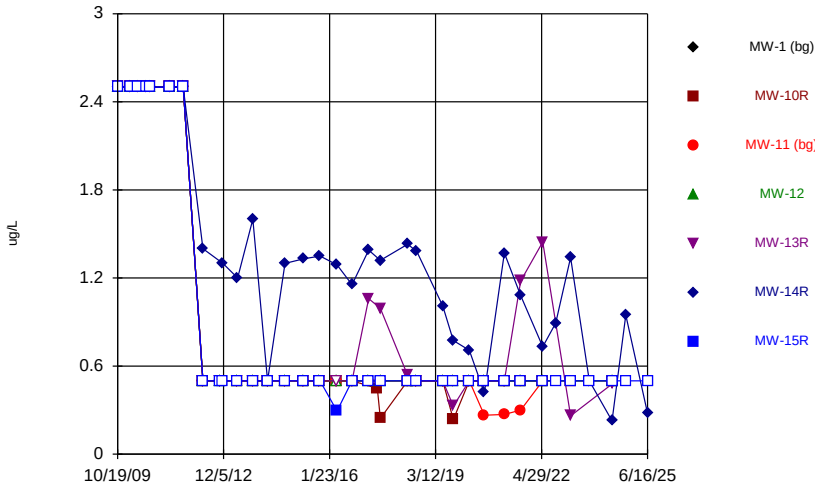
Statistical Software Output

Sanitas™ statistical software was used to perform the statistical evaluations. The statistical outputs for the 1st and 2nd 2025 statistical evaluations are included in Attachments A and B of this appendix, respectively.

1st 2025 Statistical Evaluation

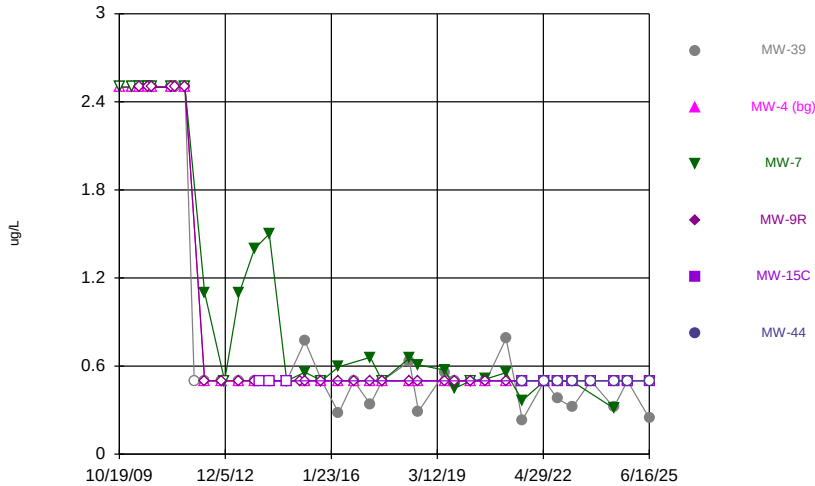
Time Series Plots – Closed MSWLF Unit

Time Series



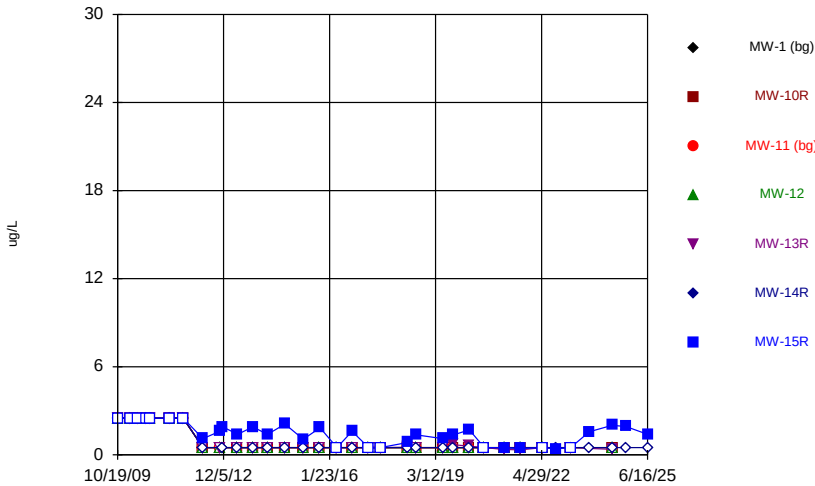
Constituent: 1,1-Dichloroethane Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



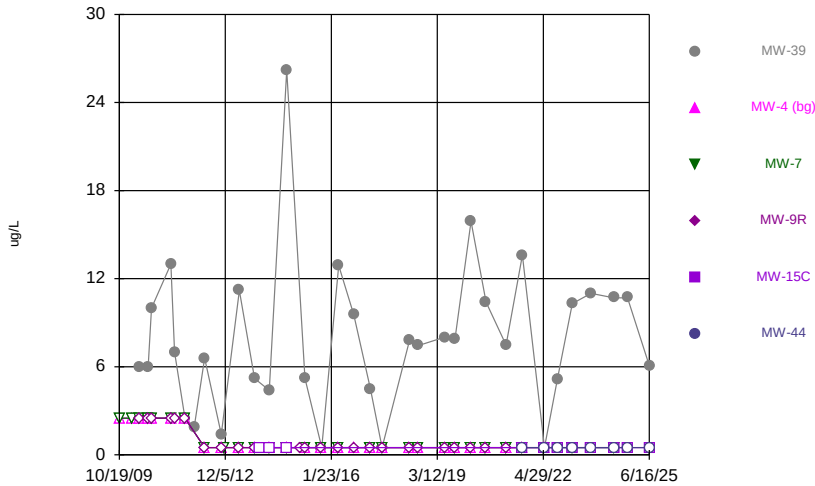
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



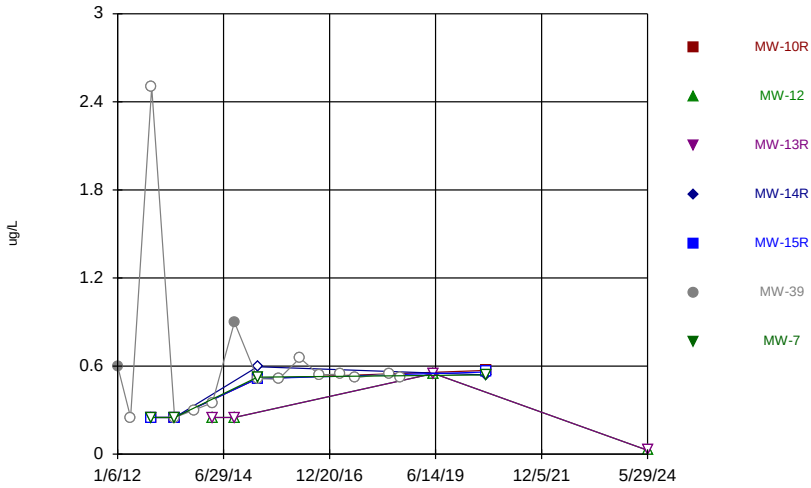
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



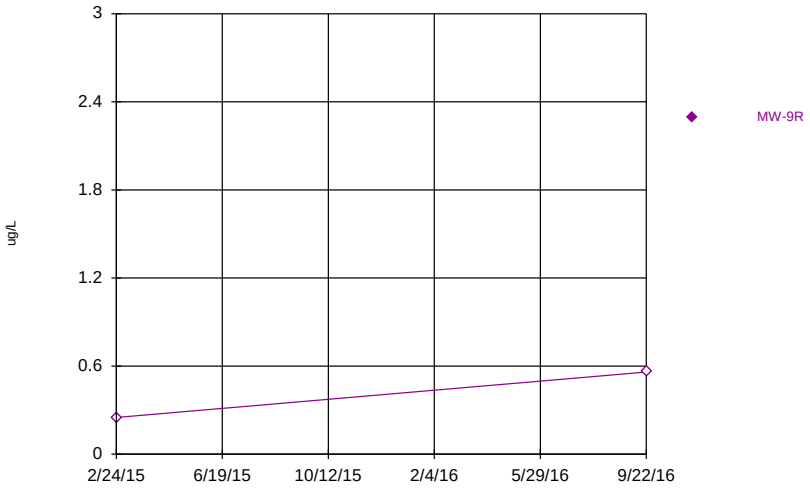
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



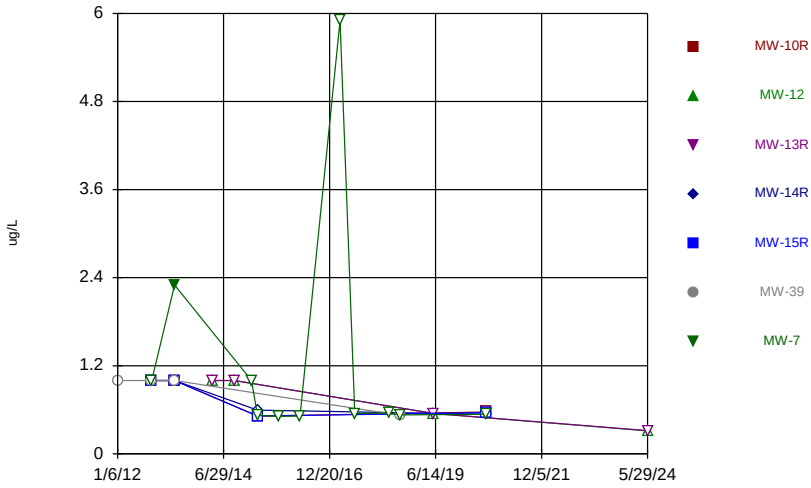
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



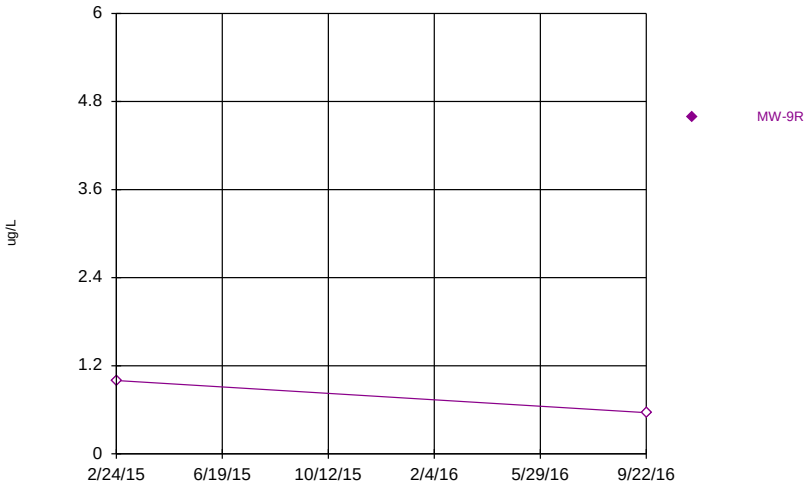
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



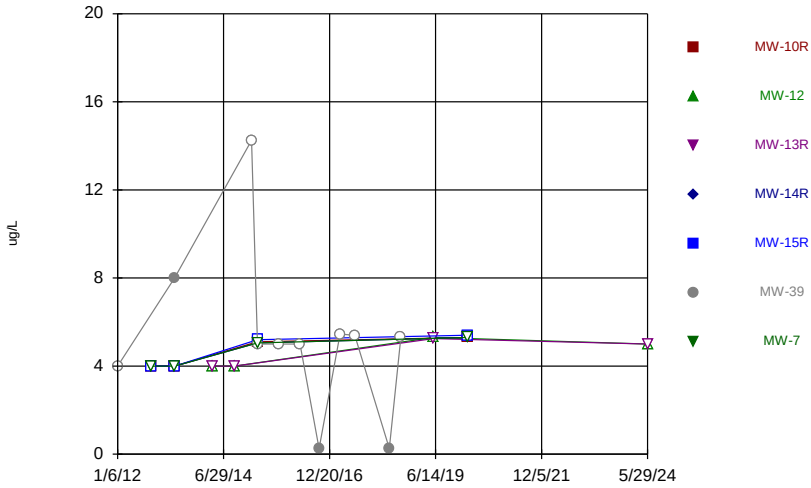
Constituent: 2,4-D [2C] Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



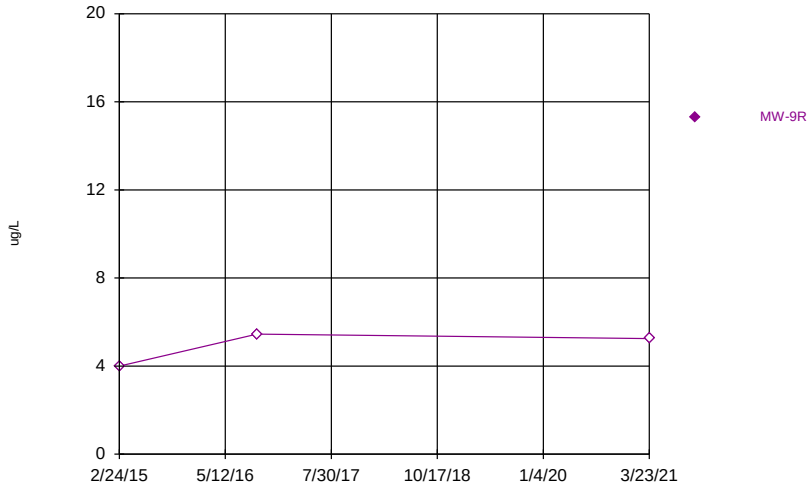
Constituent: 2,4-D [2C] Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



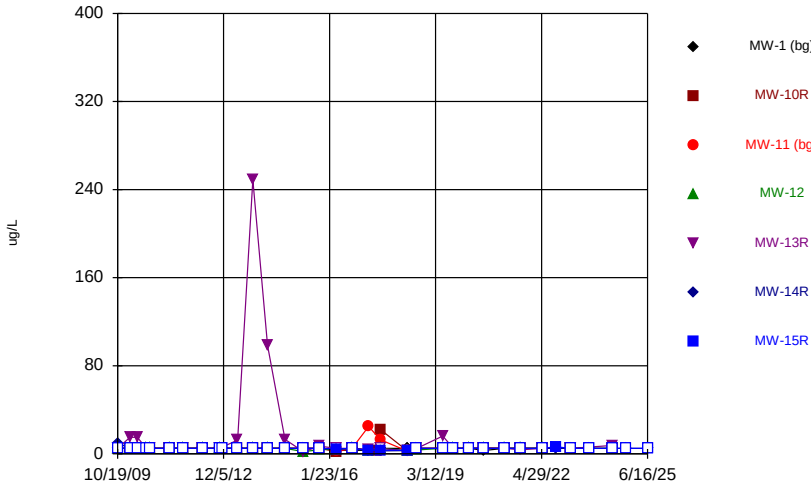
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



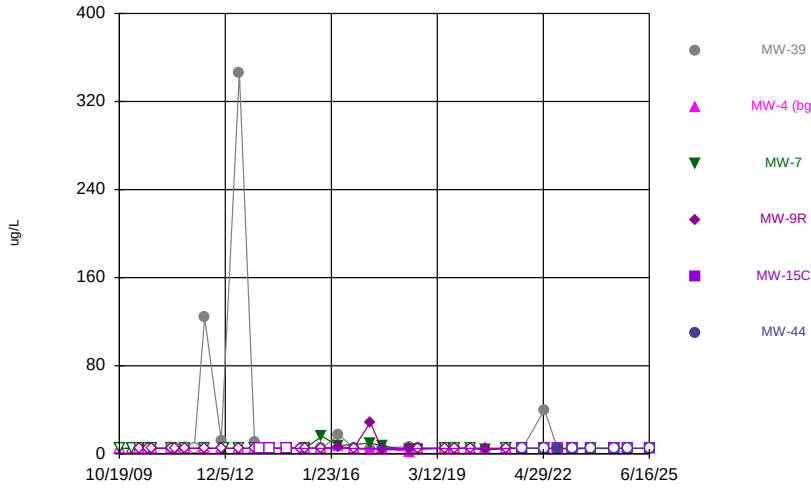
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



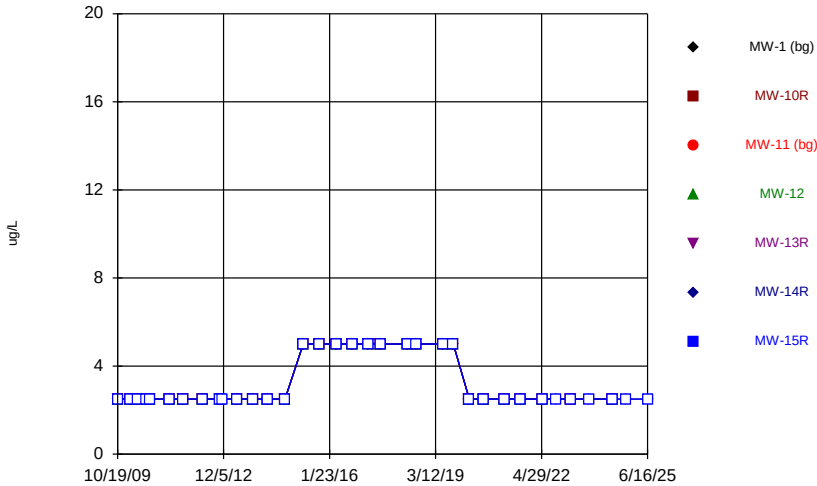
Constituent: Acetone Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



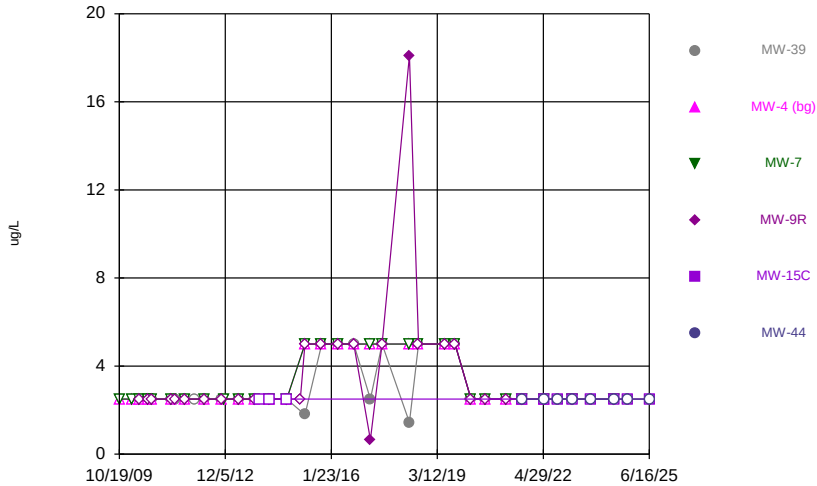
Constituent: Acetone Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



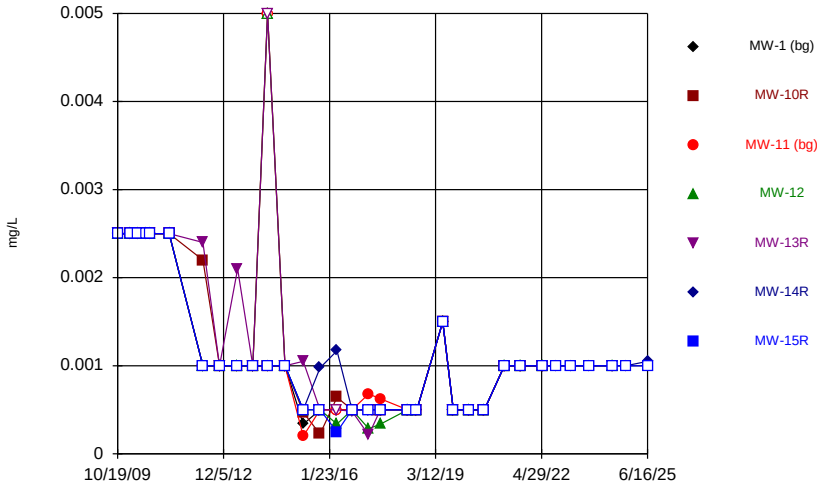
Constituent: Acrylonitrile Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



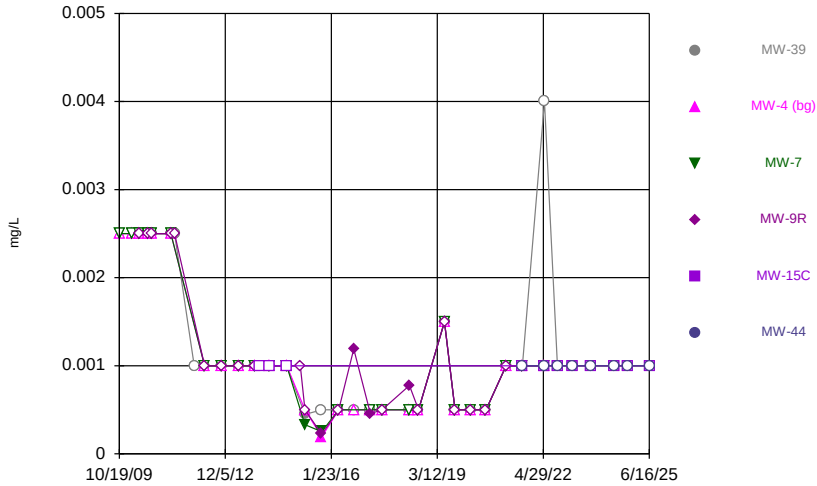
Constituent: Acrylonitrile Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



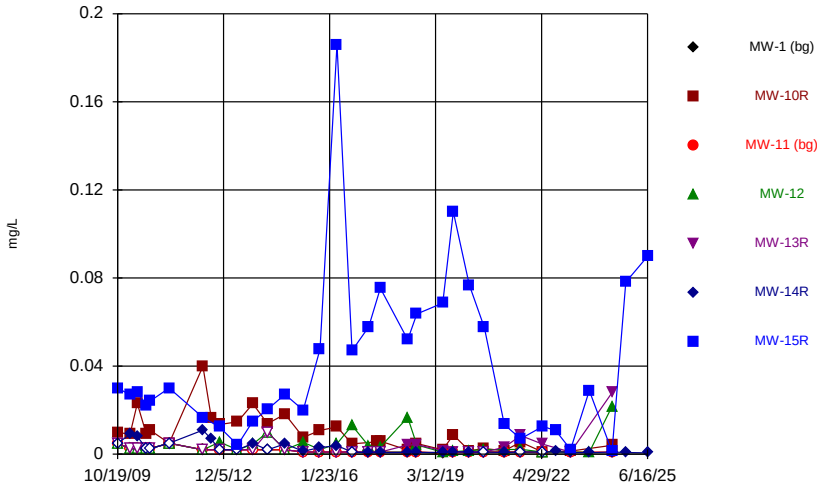
Constituent: Antimony Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



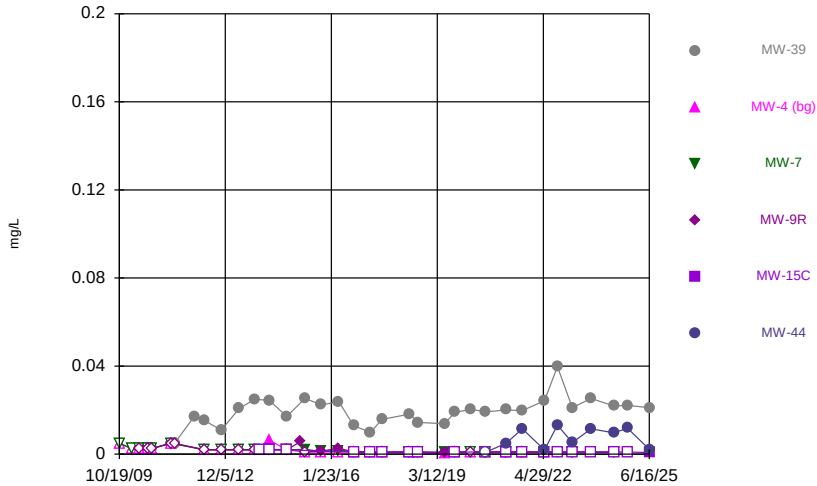
Constituent: Antimony Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



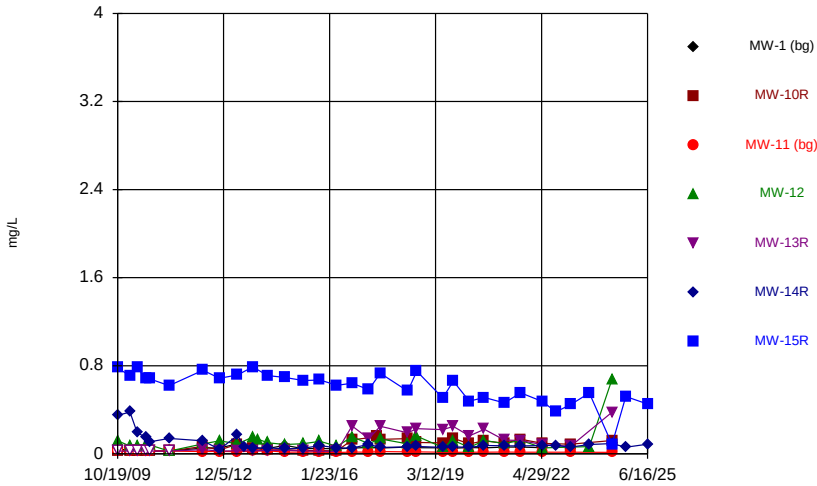
Constituent: Arsenic Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



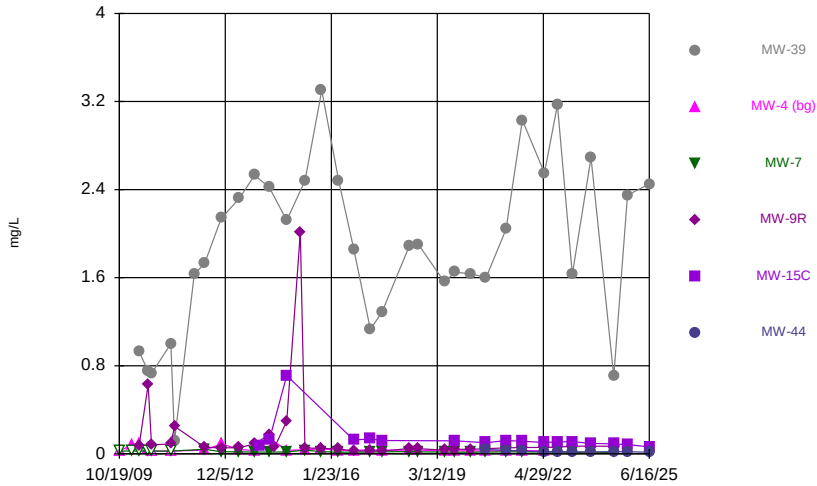
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



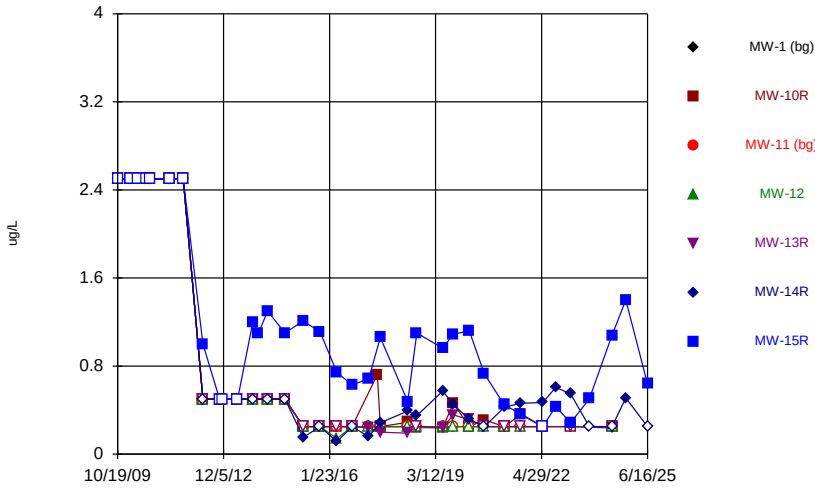
Constituent: Barium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

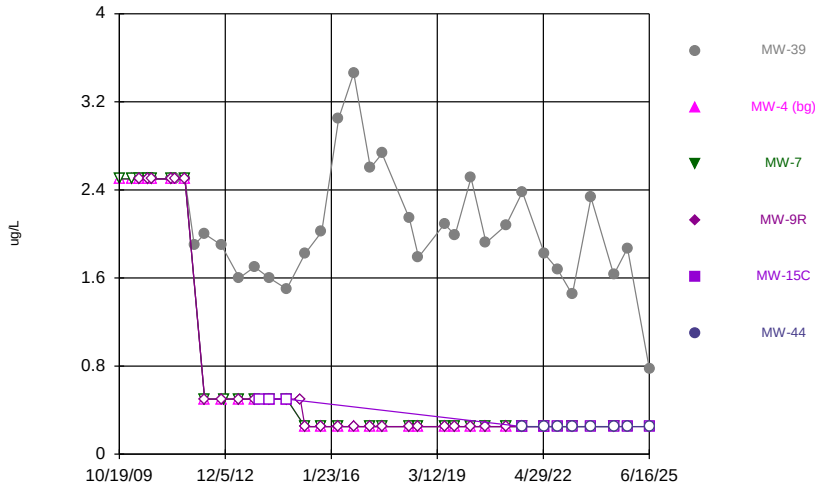


Constituent: Barium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

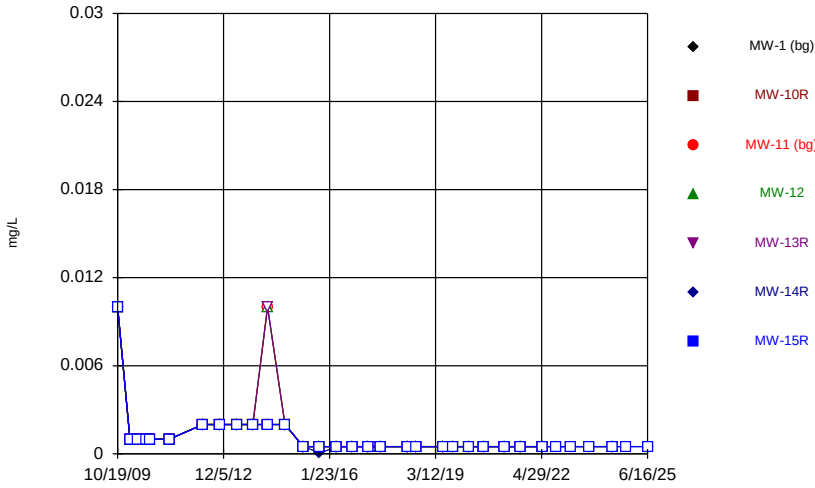
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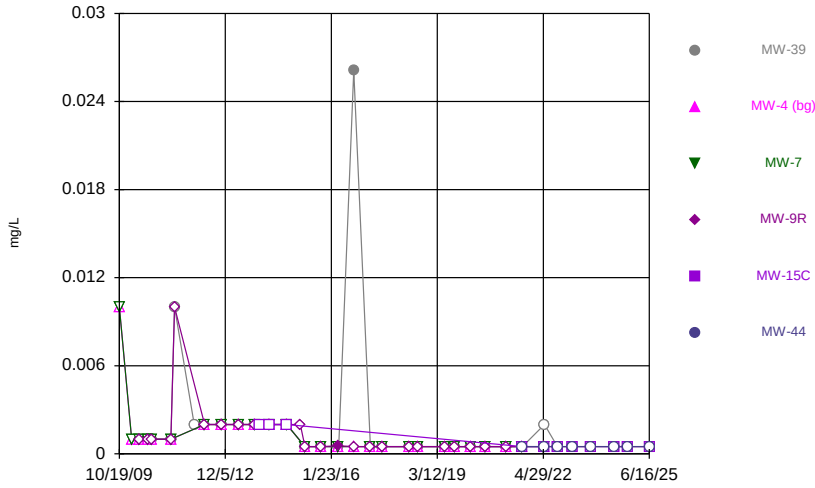
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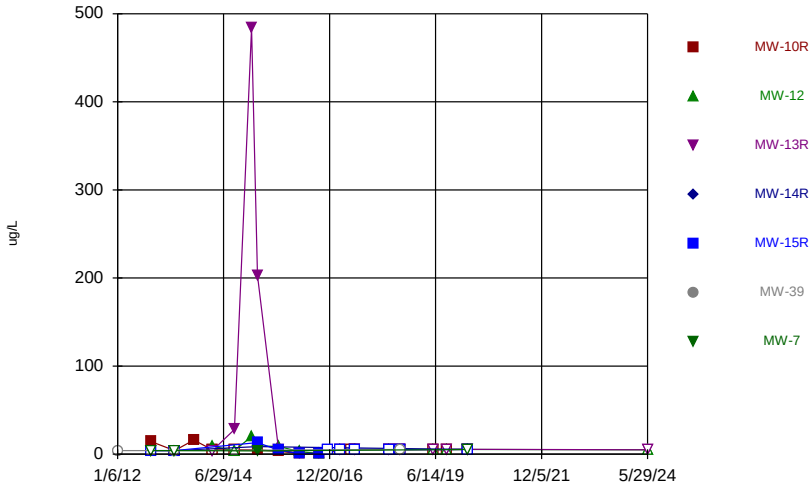
Time Series



Time Series

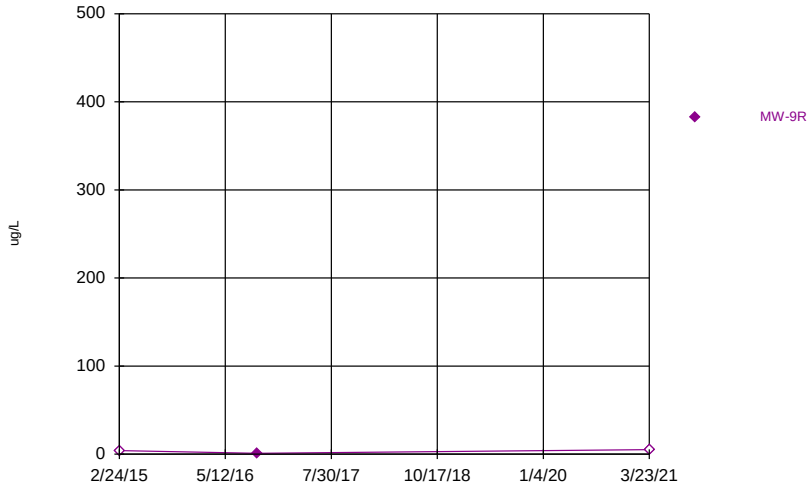


Time Series



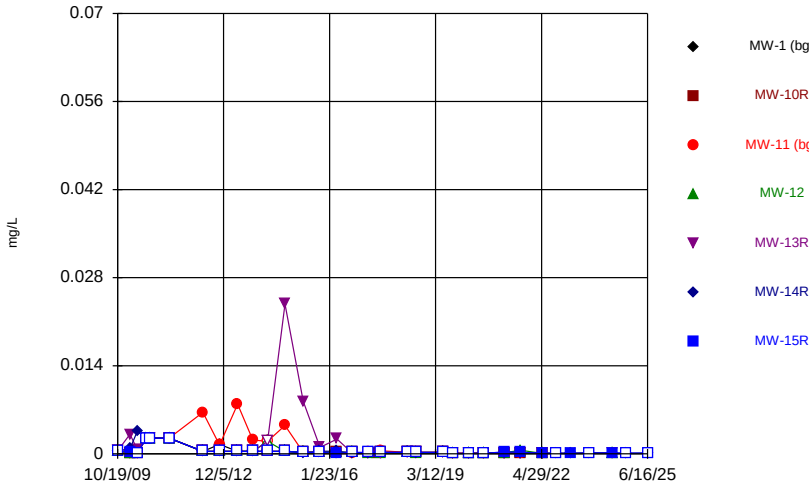
Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



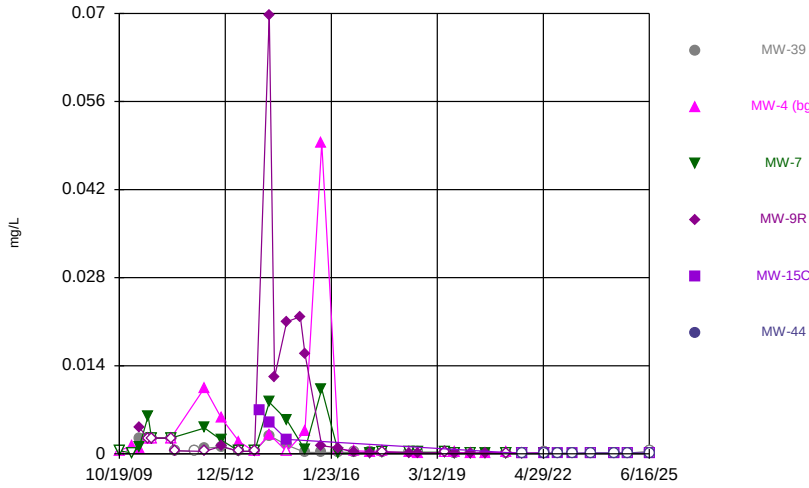
Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



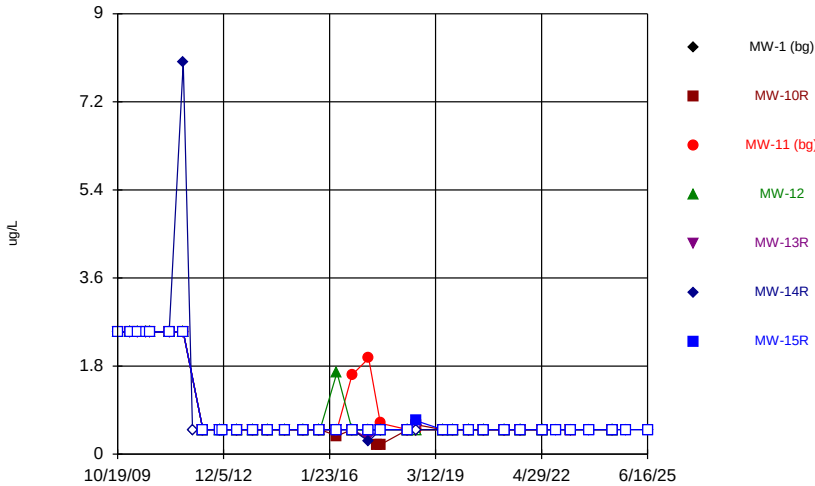
Constituent: Cadmium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



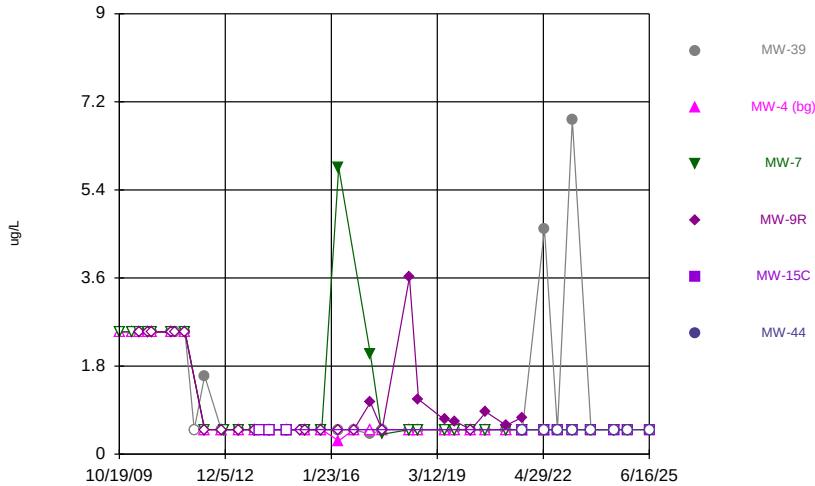
Constituent: Cadmium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



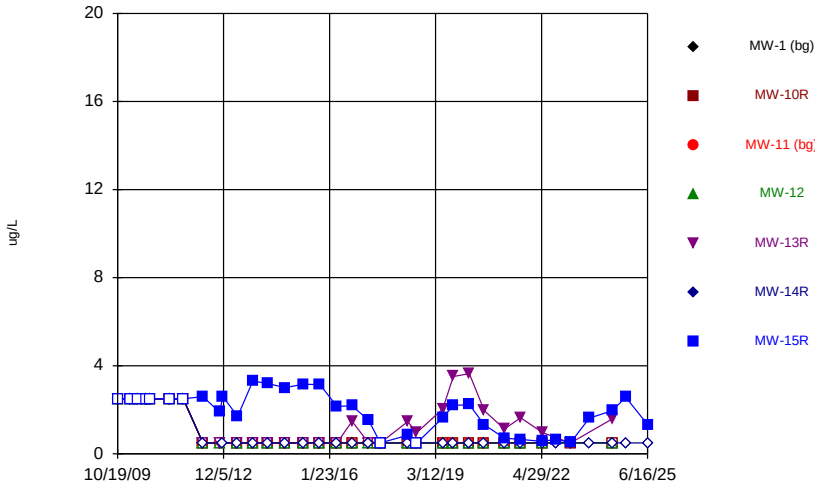
Constituent: Carbon Disulfide Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



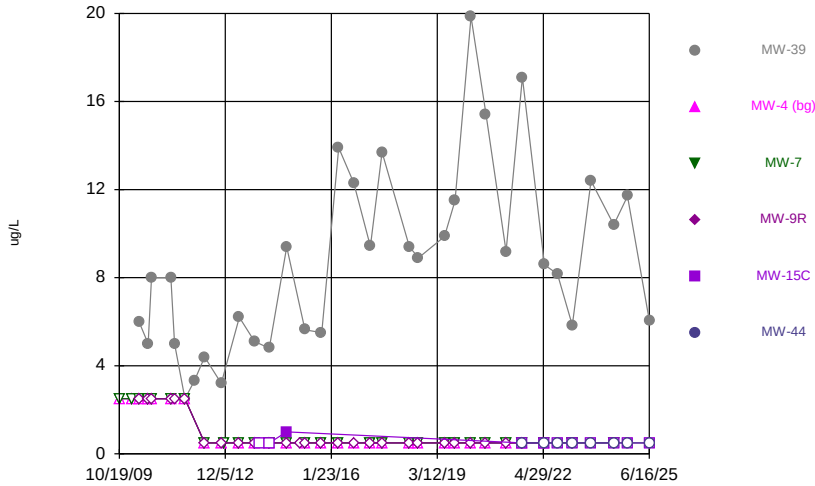
Constituent: Carbon Disulfide Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



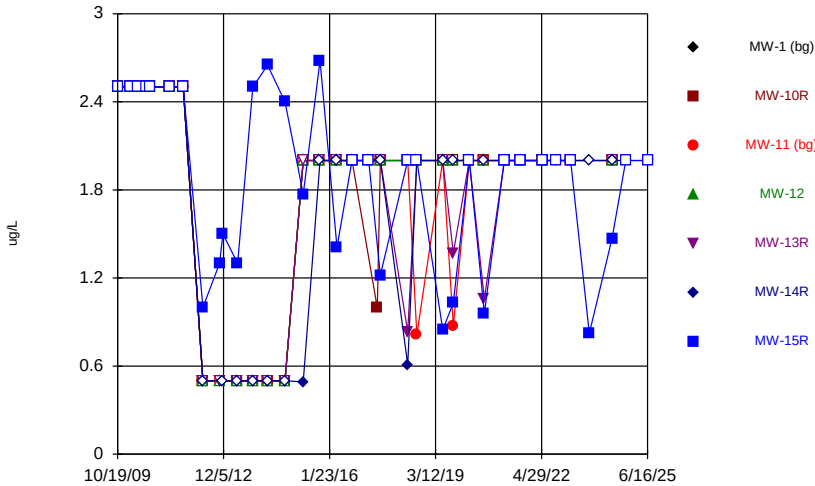
Constituent: Chlorobenzene Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



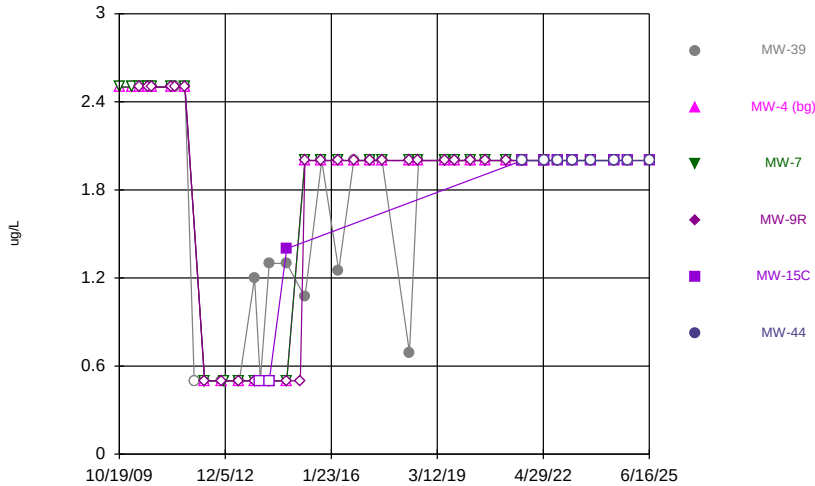
Constituent: Chlorobenzene Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



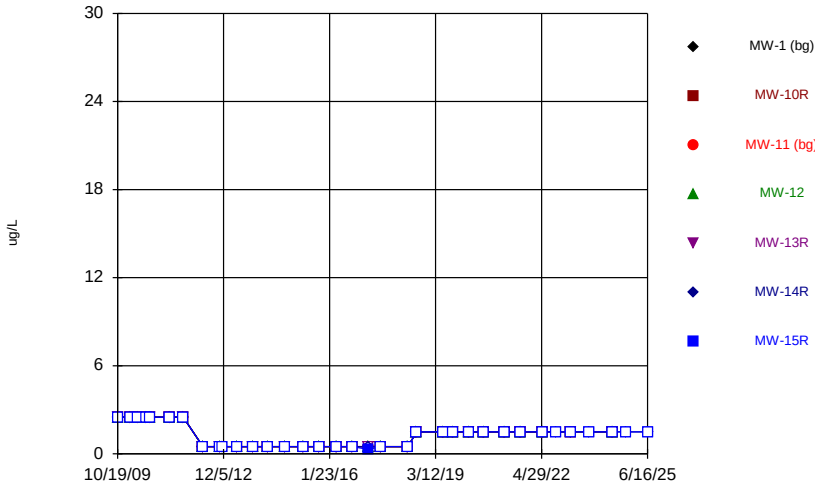
Constituent: Chloroethane Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



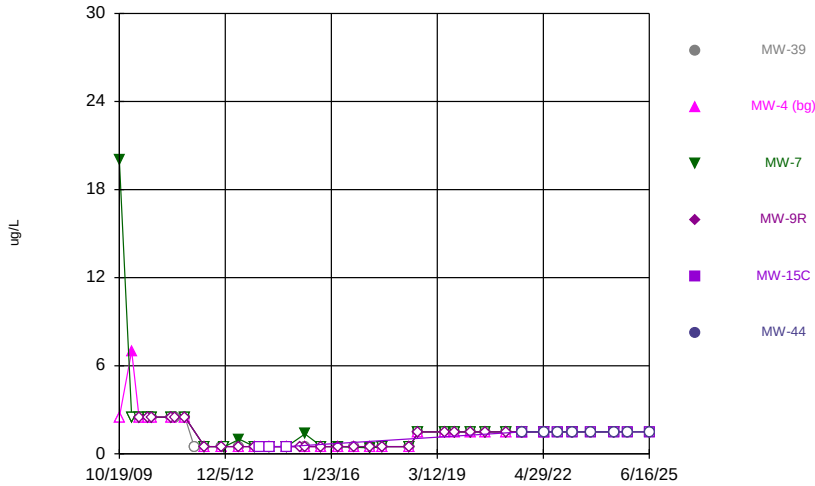
Constituent: Chloroethane Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



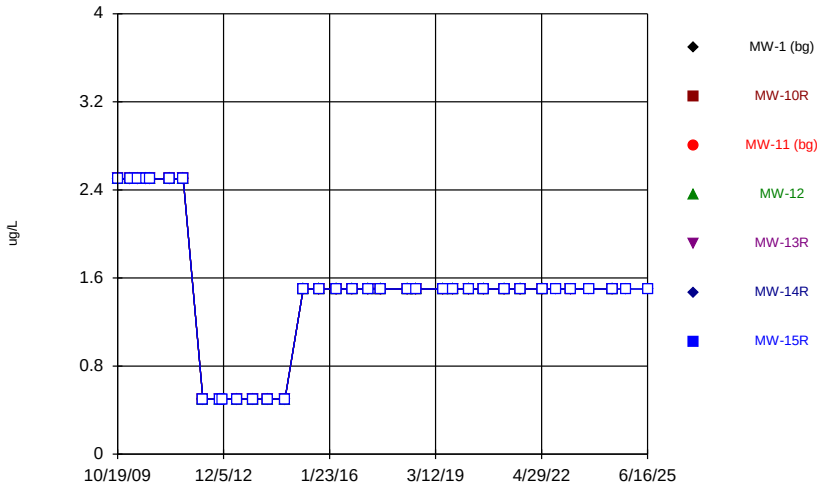
Constituent: Chloroform Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



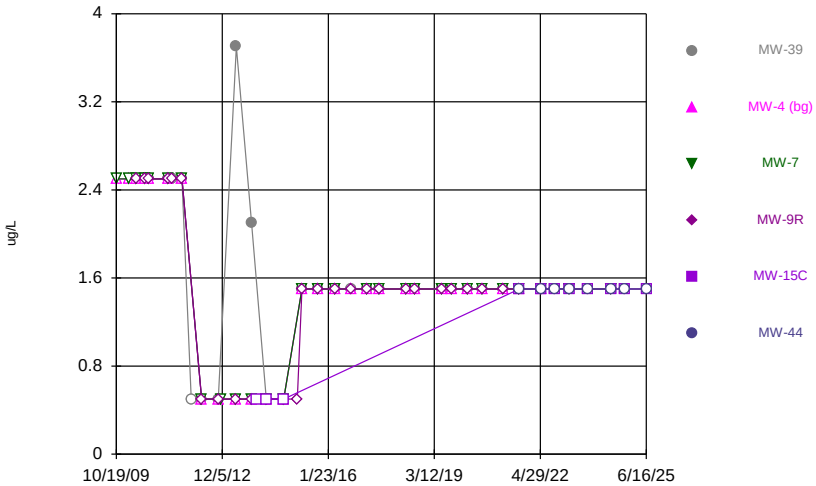
Constituent: Chloroform Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



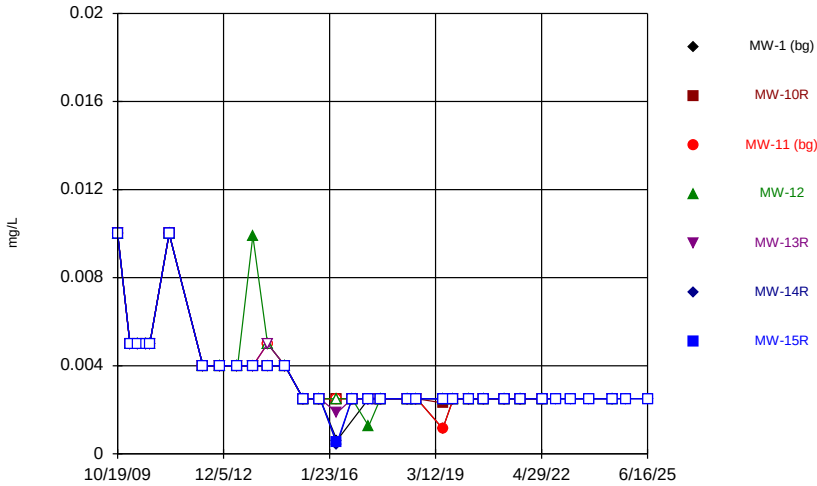
Constituent: Chloromethane Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



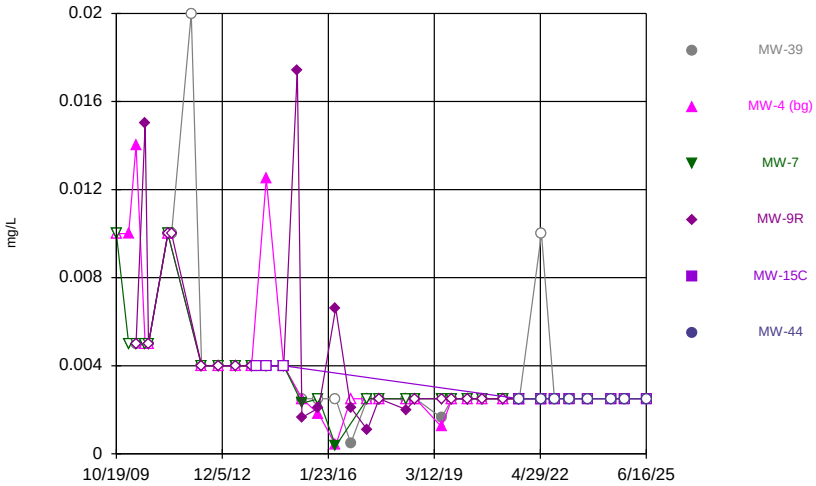
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



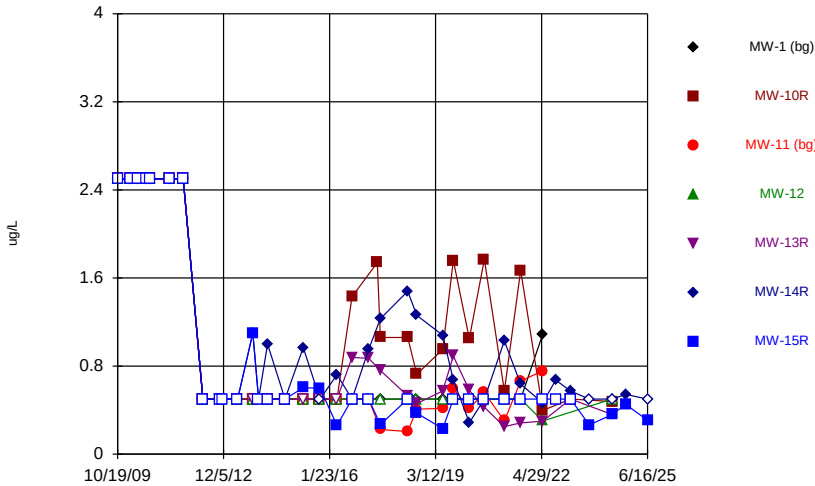
Constituent: Chromium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



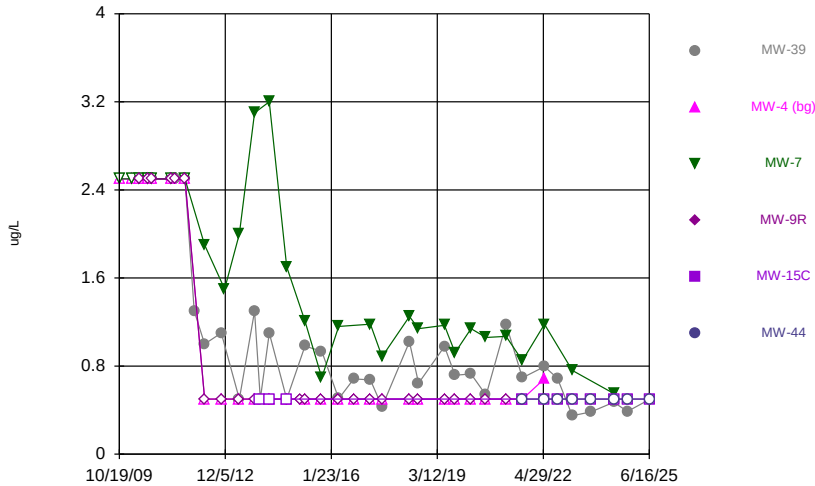
Constituent: Chromium Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



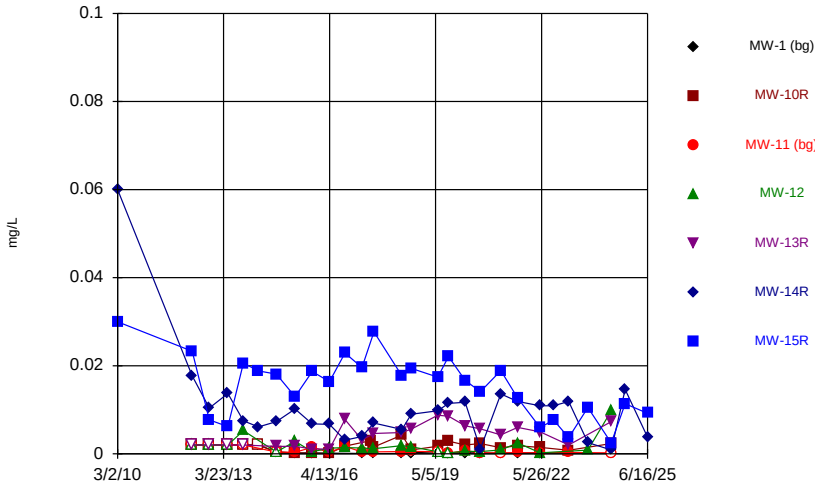
Constituent: cis-1,2-Dichloroethene Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



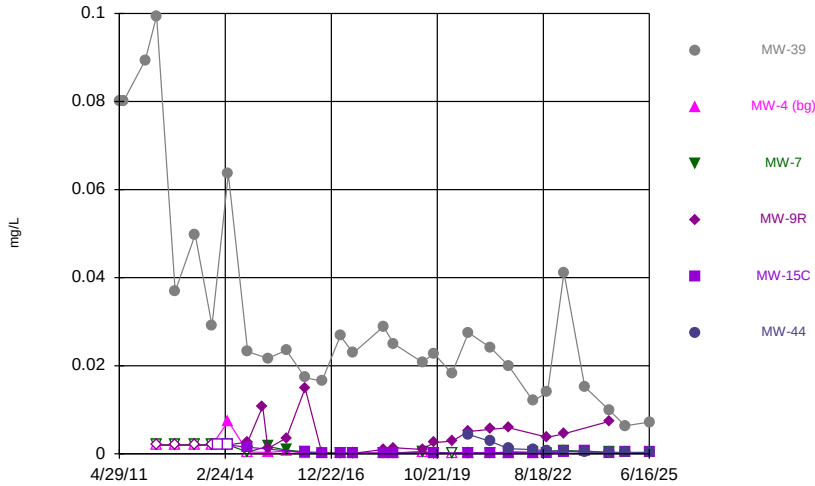
Constituent: cis-1,2-Dichloroethene Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



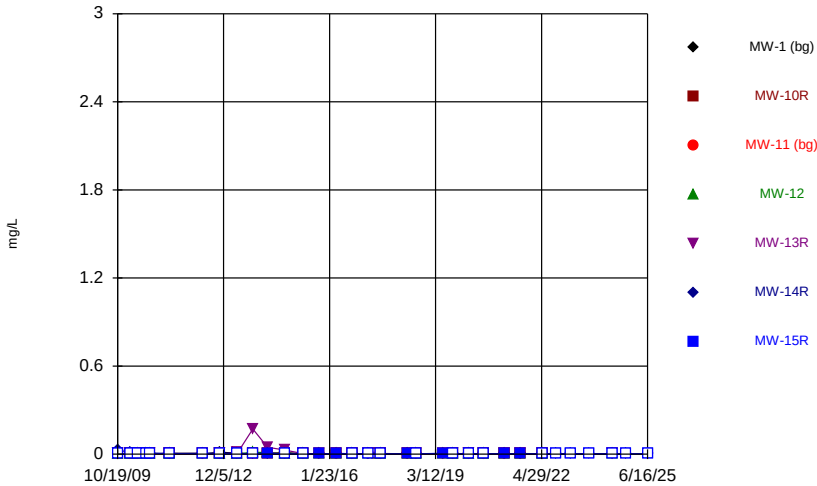
Constituent: Cobalt Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

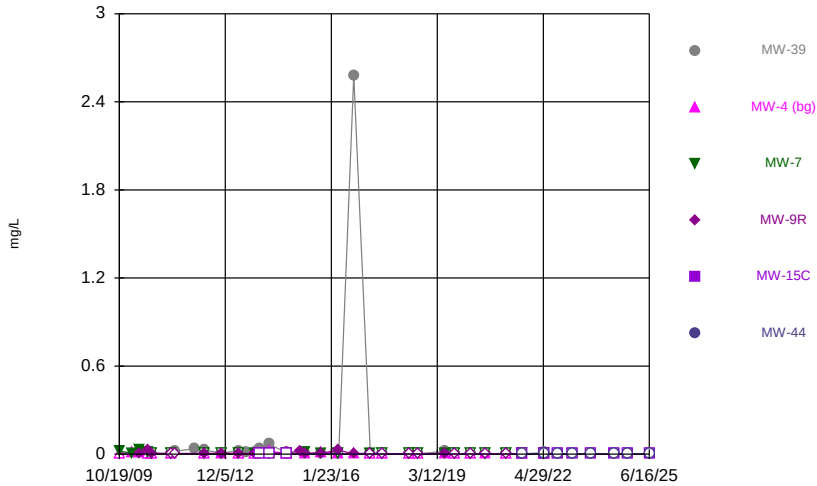


Constituent: Cobalt Analysis Run 10/24/2025 1:20 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

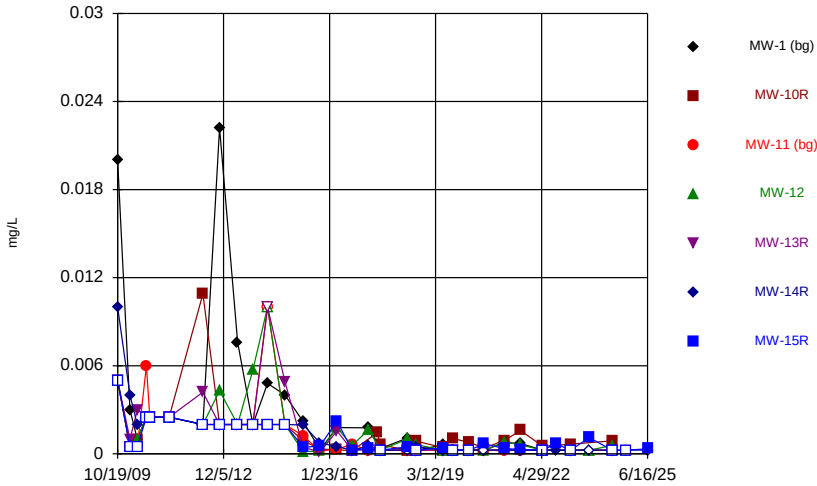
Time Series



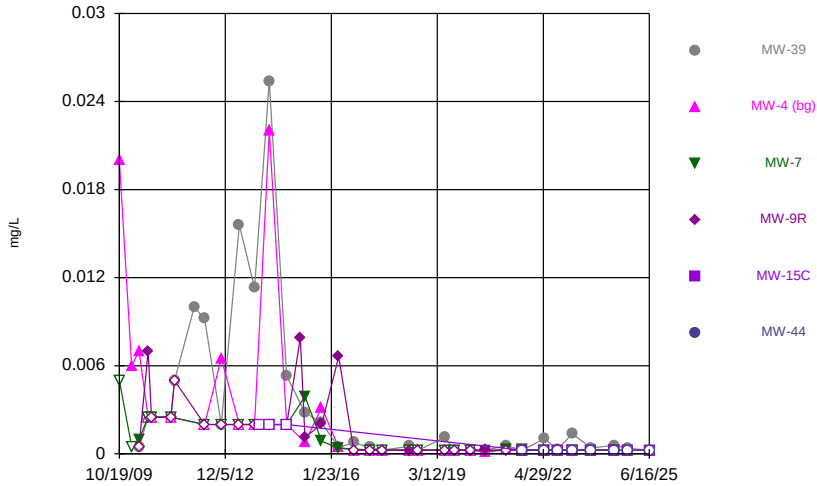
Time Series



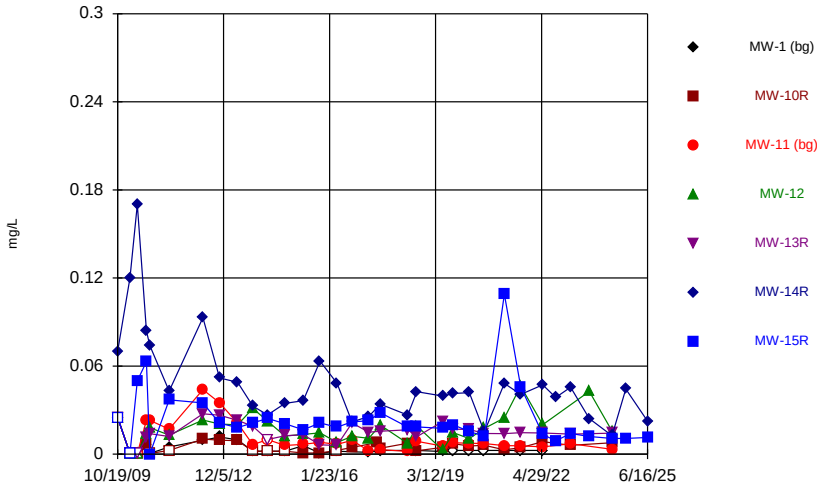
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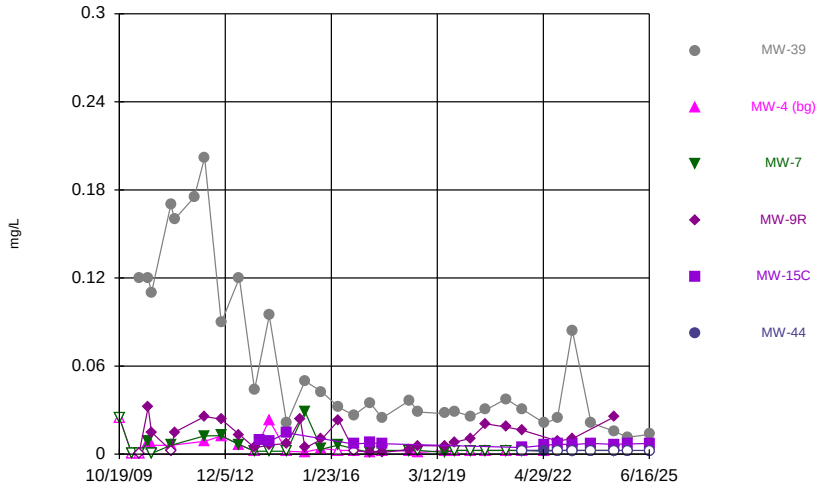
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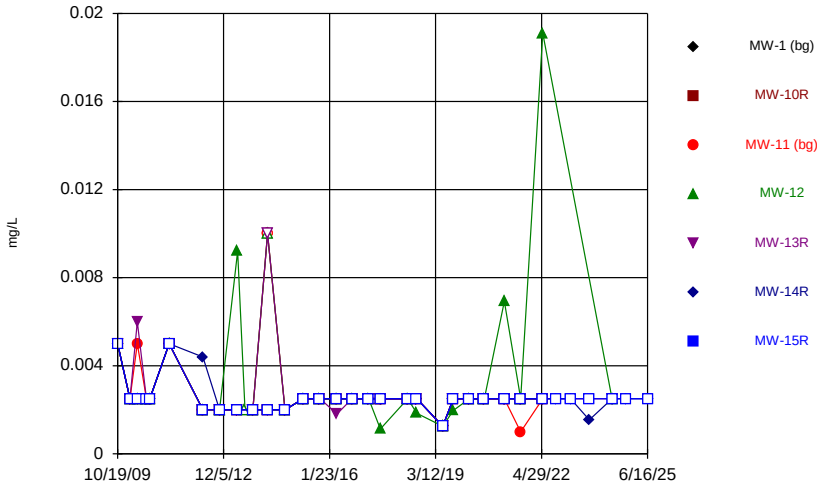
Time Series



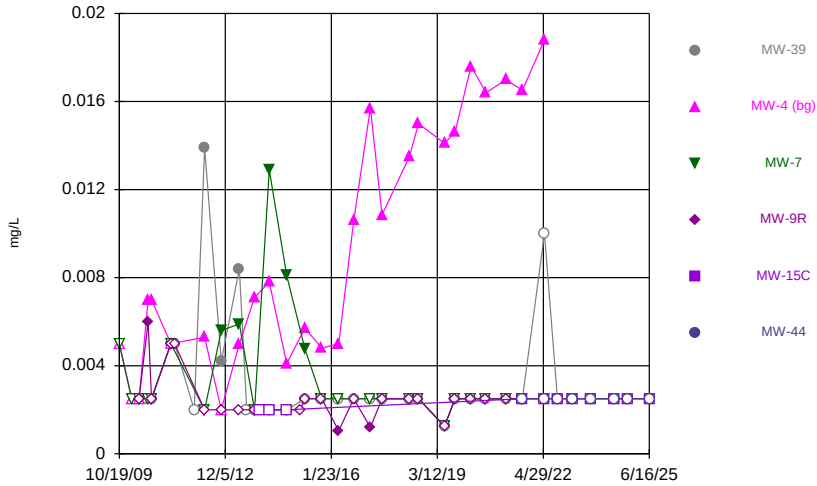
Time Series



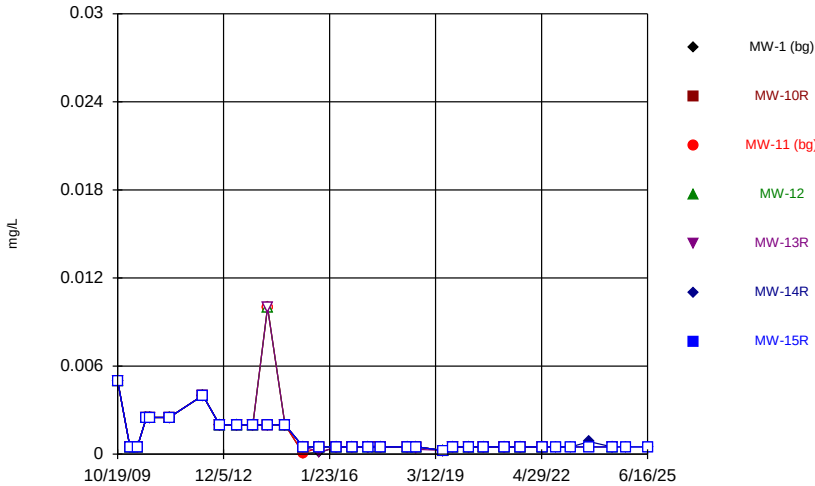
Time Series



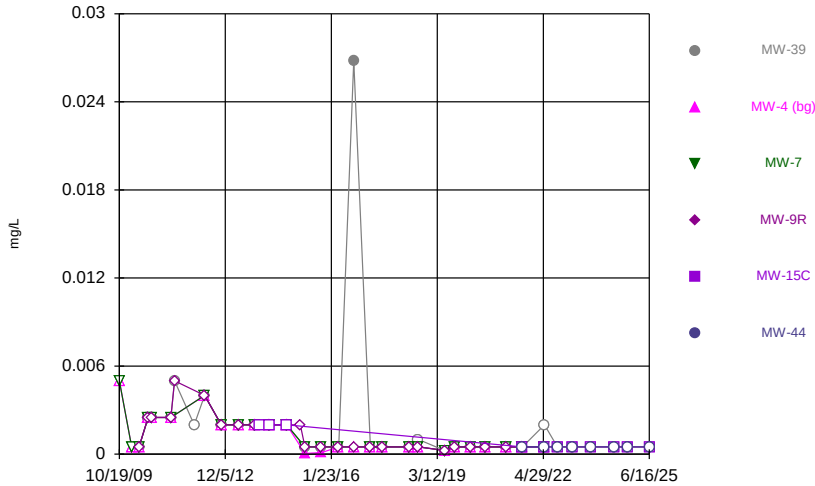
Time Series



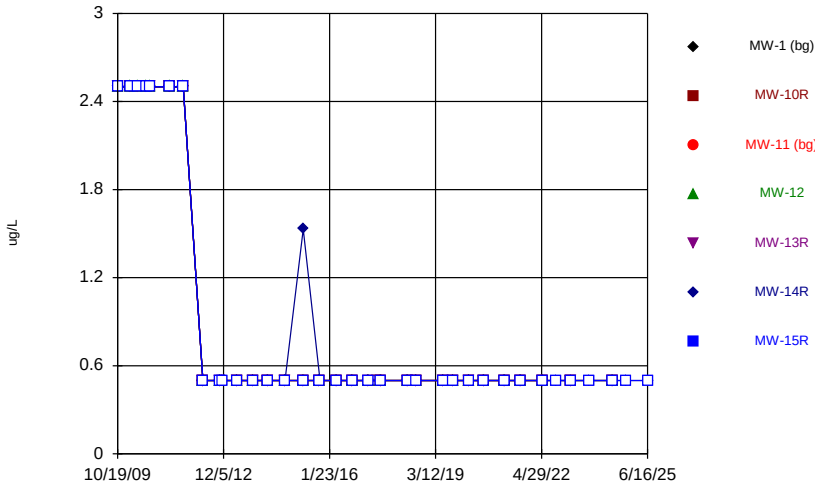
Time Series



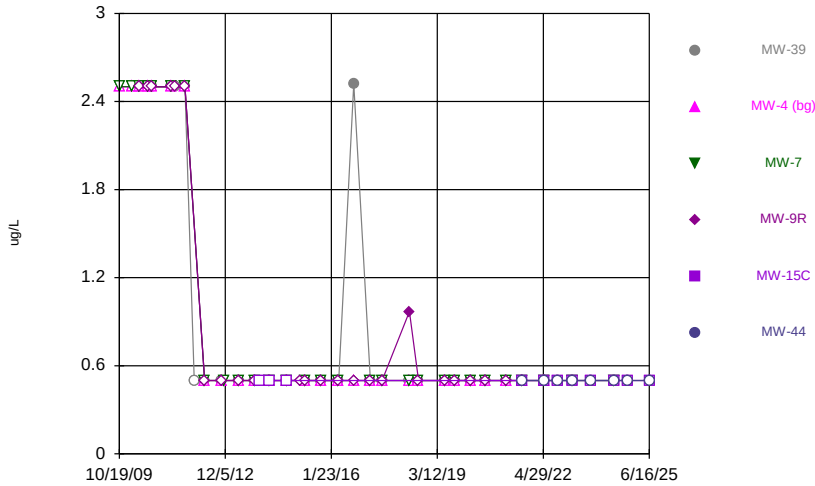
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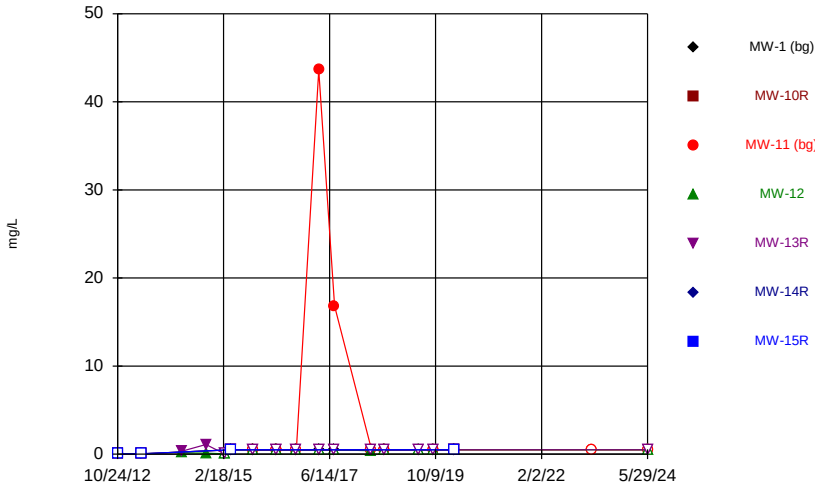
Time Series



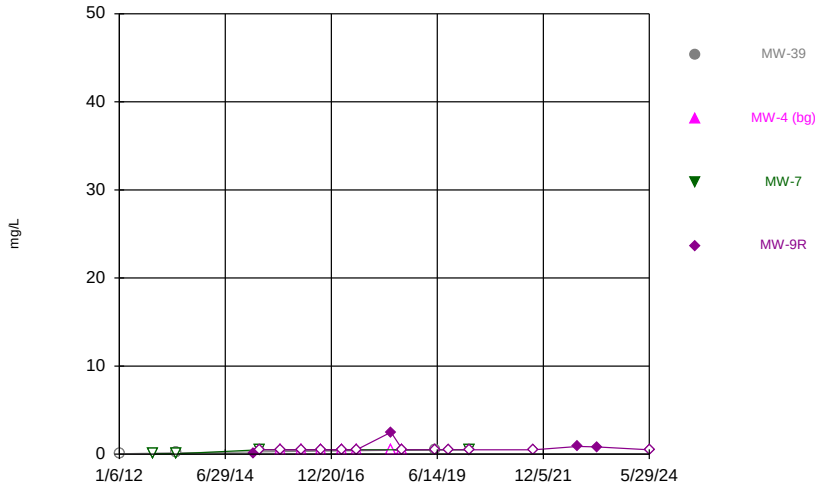
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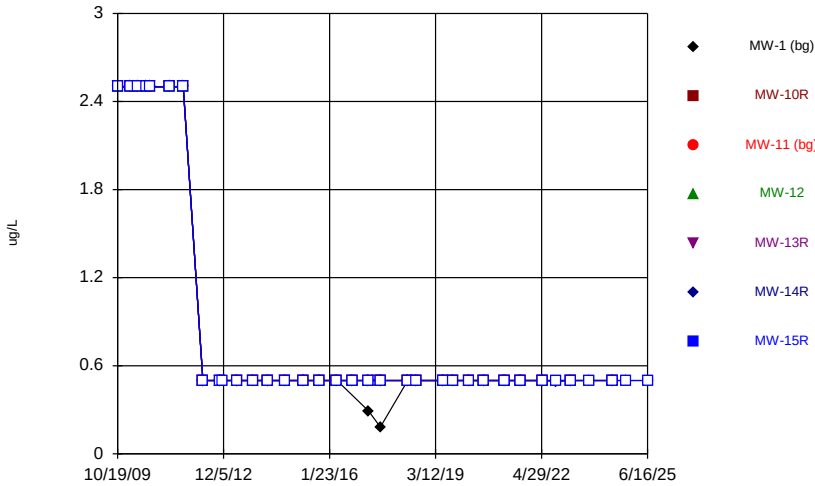
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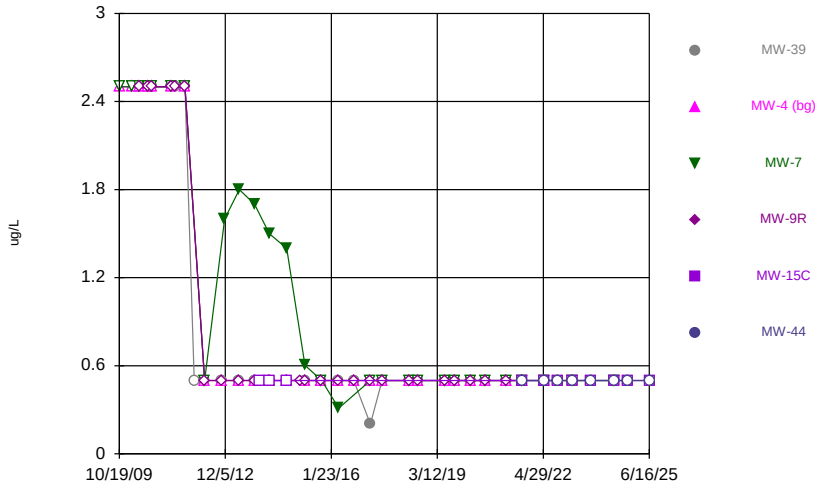
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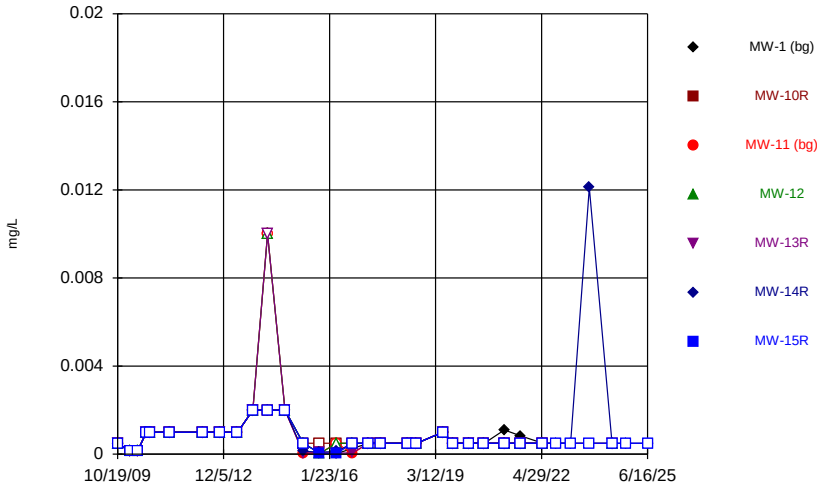
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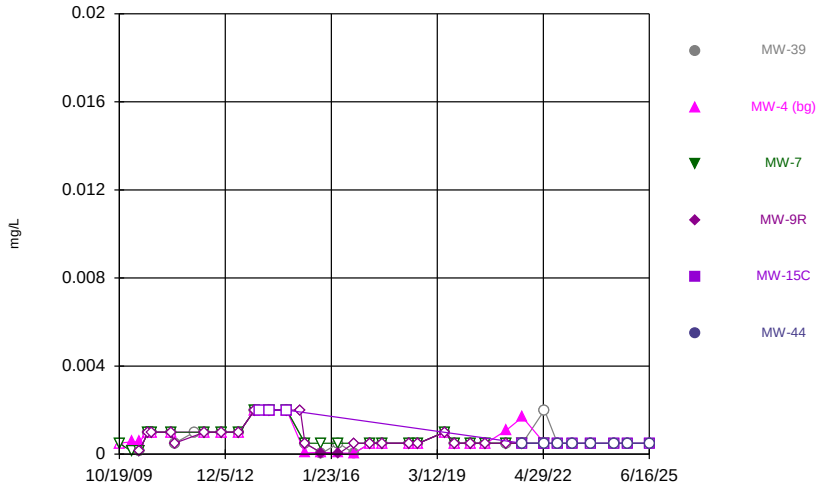
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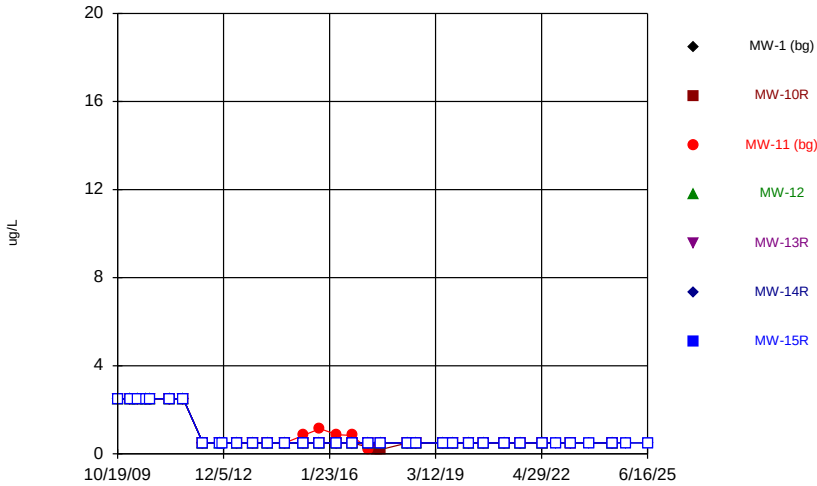
Time Series



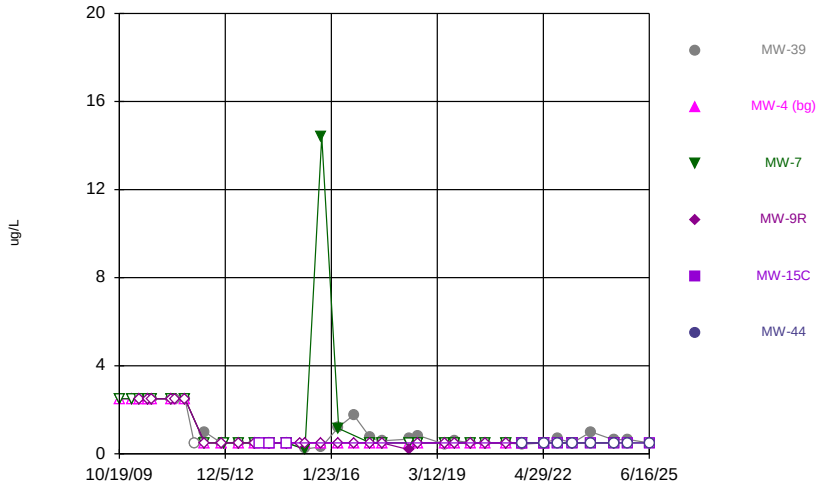
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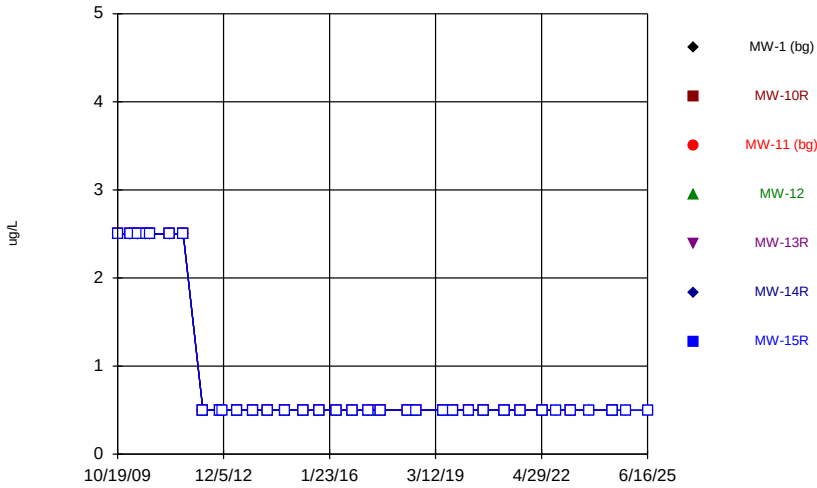
Time Series



Time Series

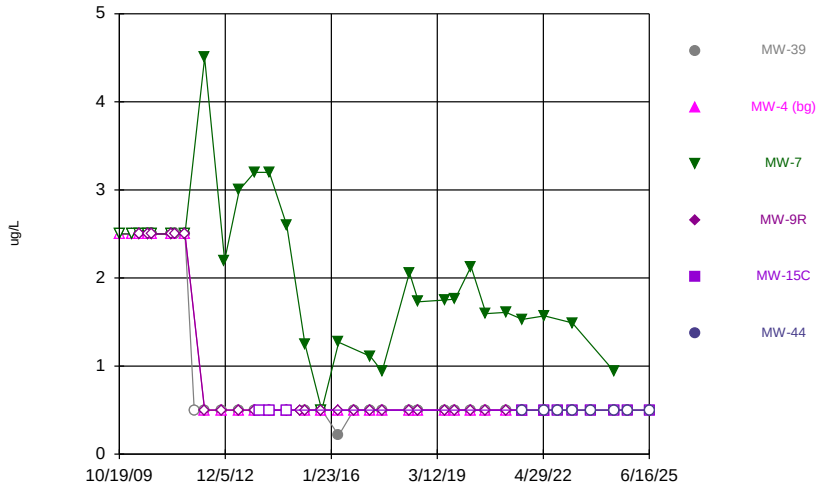


Time Series



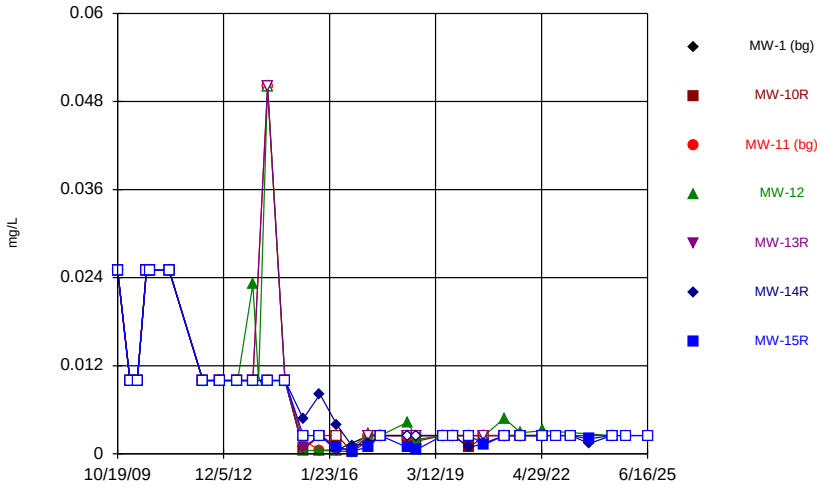
Constituent: Trichloroethene Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



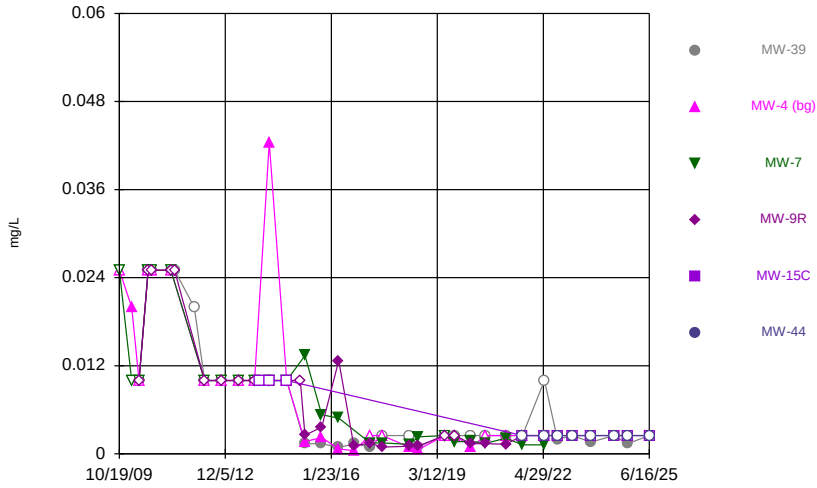
Constituent: Trichloroethene Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



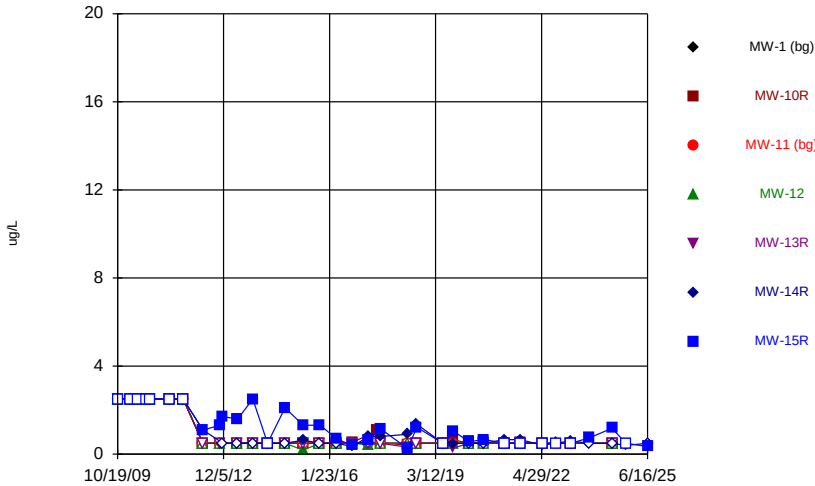
Constituent: Vanadium Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



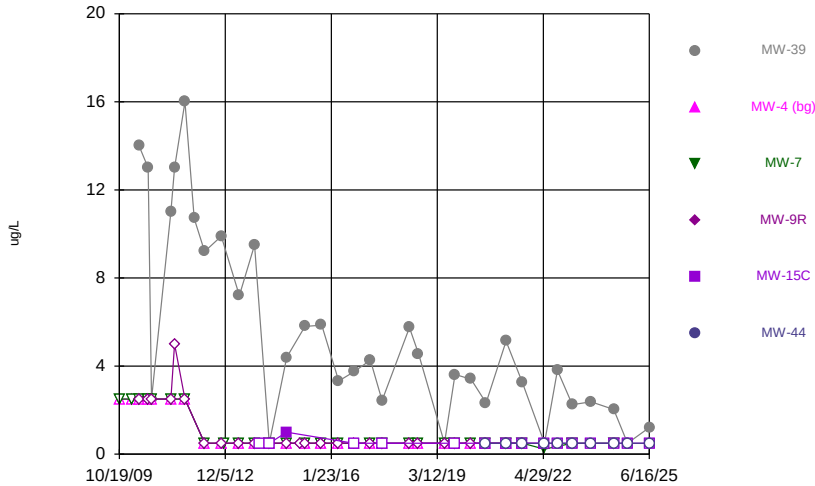
Constituent: Vanadium Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



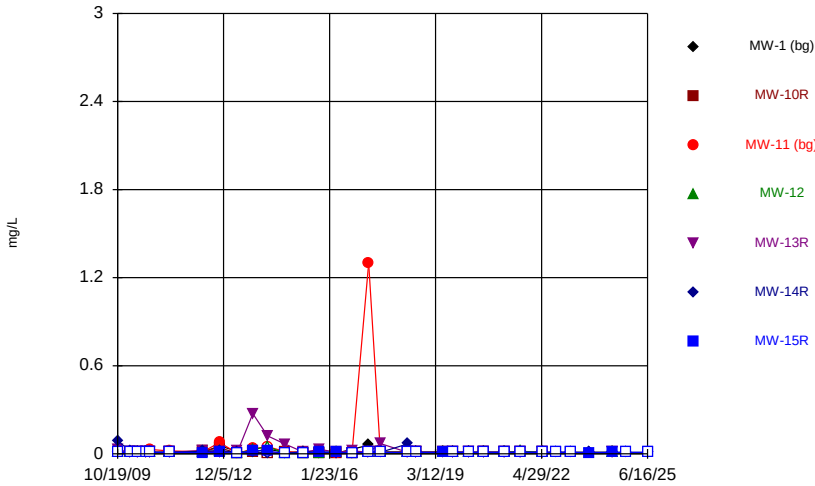
Constituent: Vinyl Chloride Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



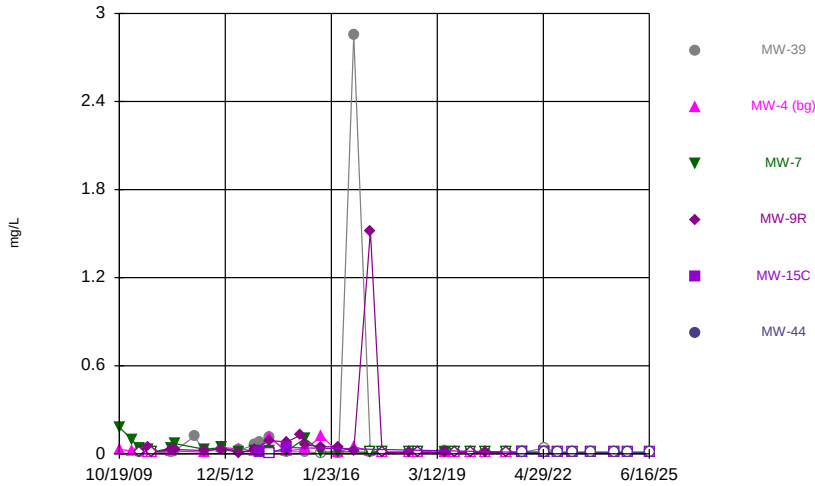
Constituent: Vinyl Chloride Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



Constituent: Zinc Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

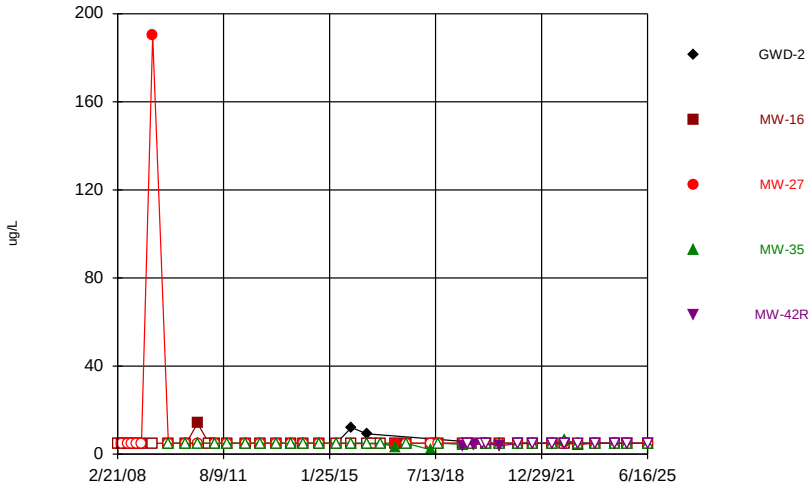
Time Series



Constituent: Zinc Analysis Run 10/24/2025 1:21 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

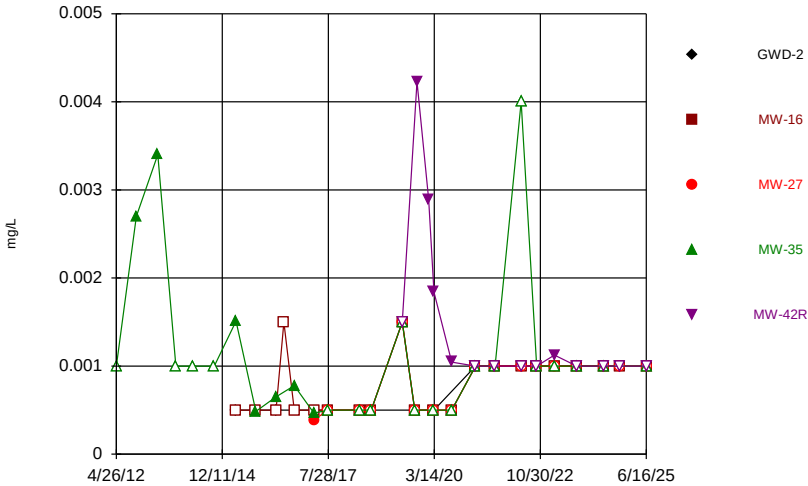
Time Series Plots – Open MSWLF Unit

Time Series



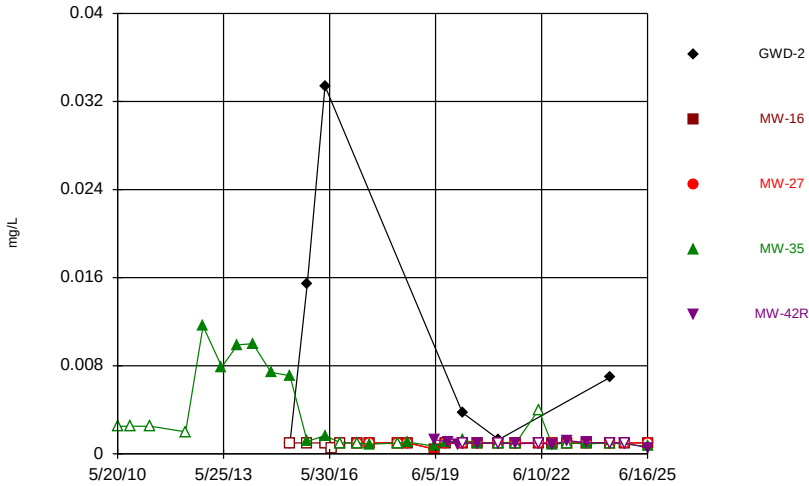
Constituent: Acetone Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series

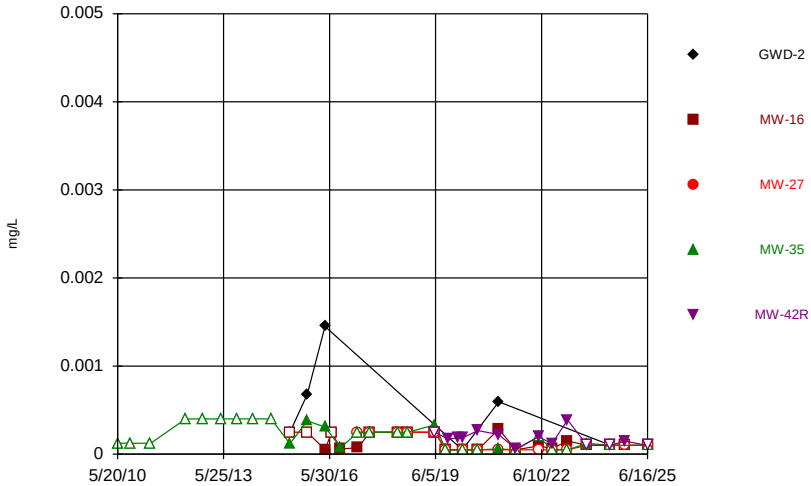


Constituent: Antimony Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

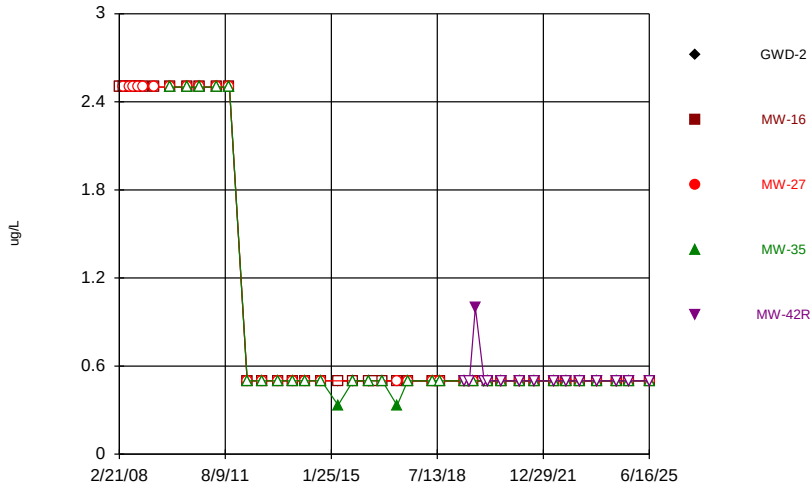
Time Series



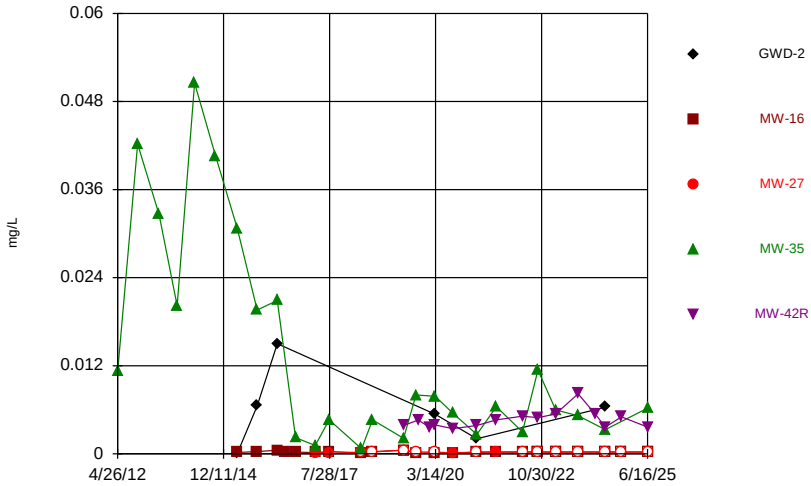
Time Series



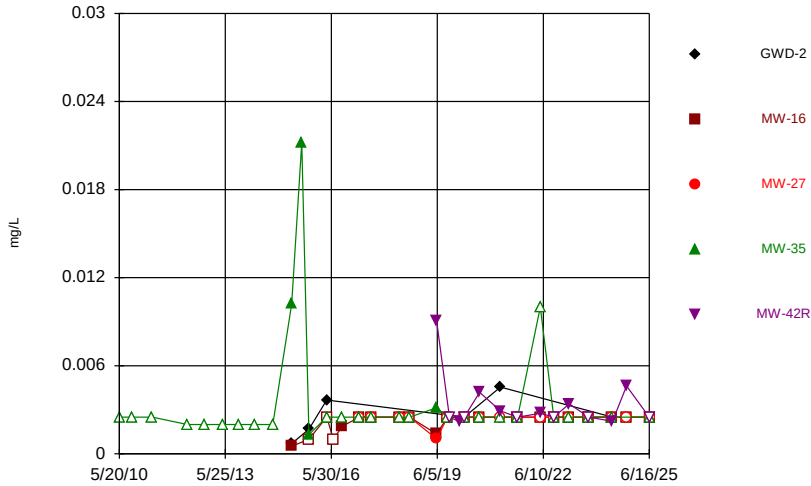
Time Series



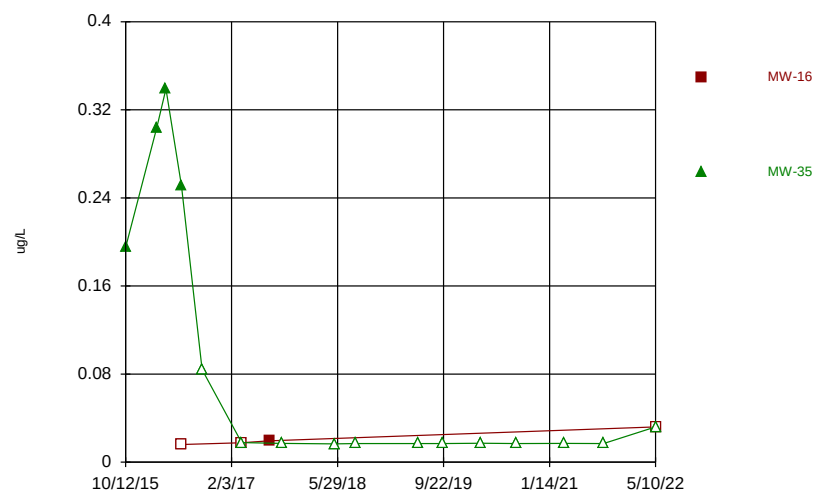
Time Series



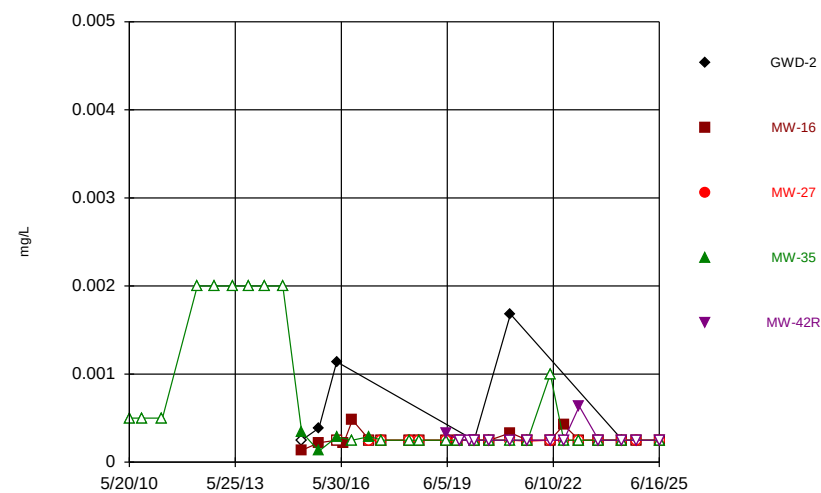
Time Series



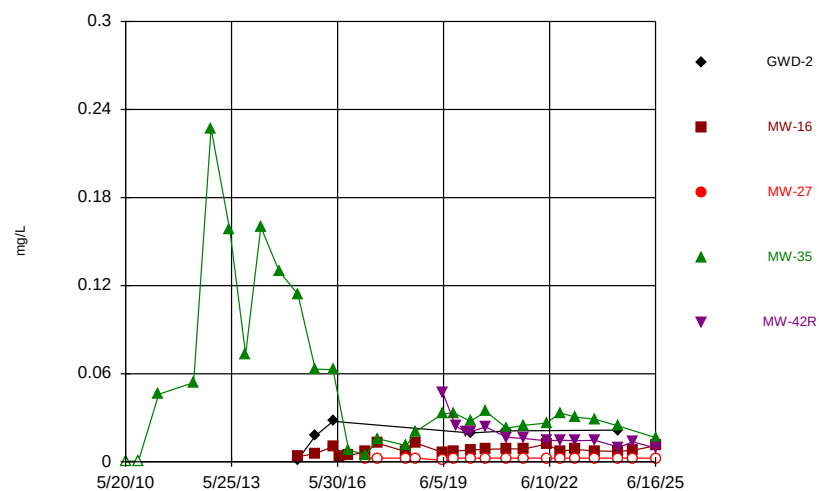
Time Series



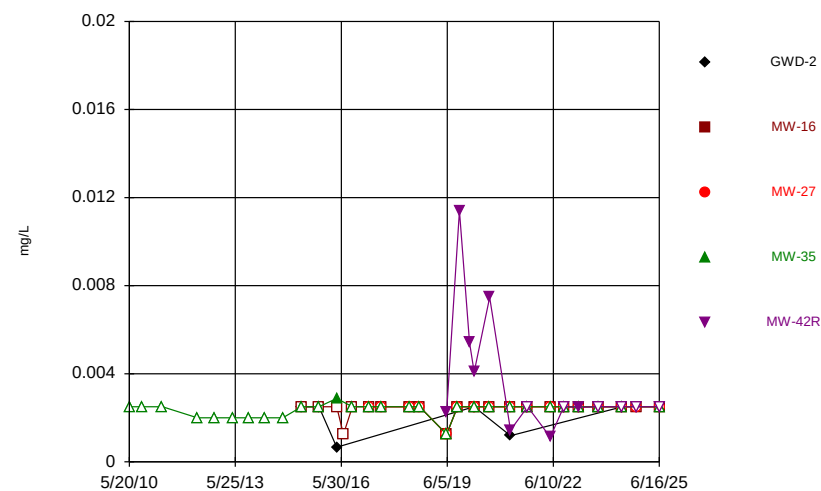
Time Series



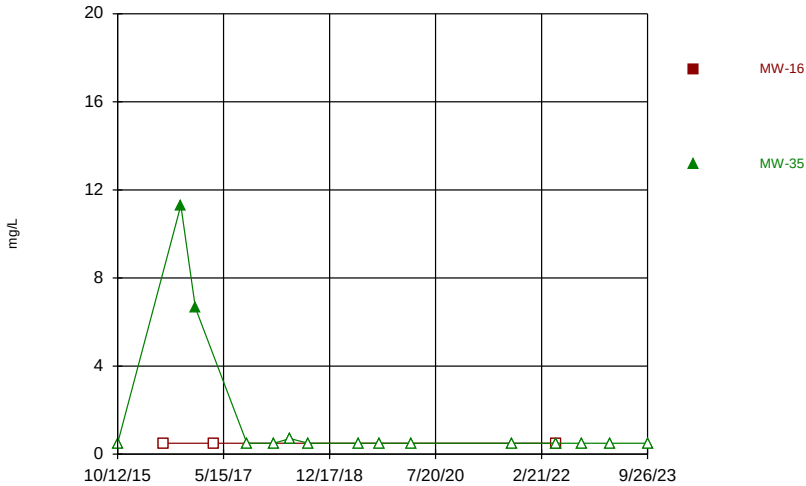
Time Series



Time Series

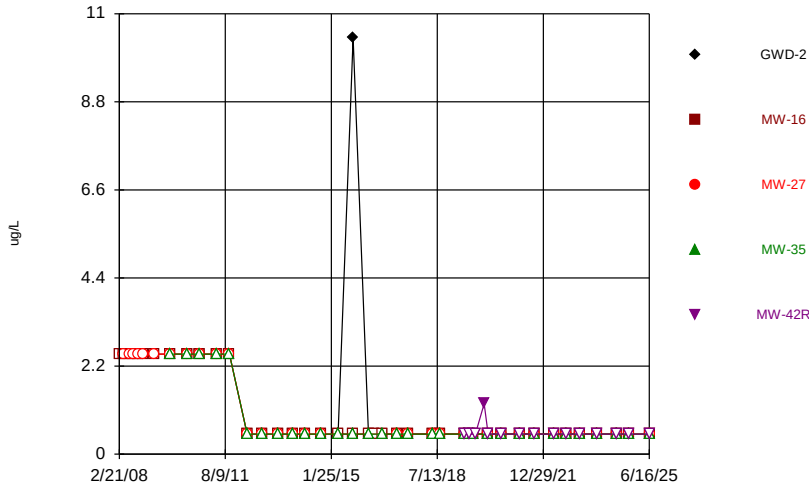


Time Series



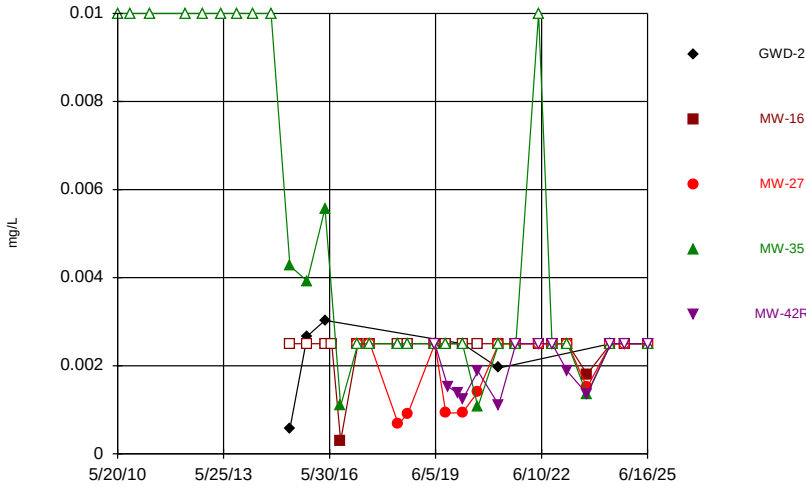
Constituent: Sulfide Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



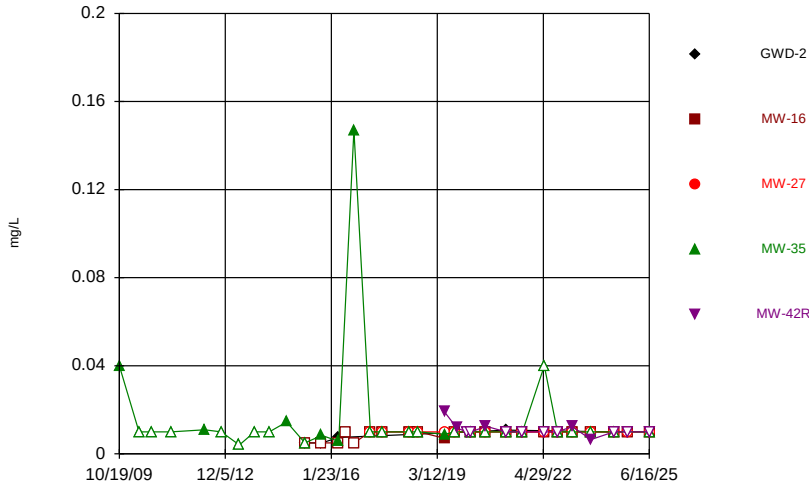
Constituent: Toluene Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



Constituent: Vanadium Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



Constituent: Zinc Analysis Run 10/27/2025 3:06 PM View: 2025_SSN-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

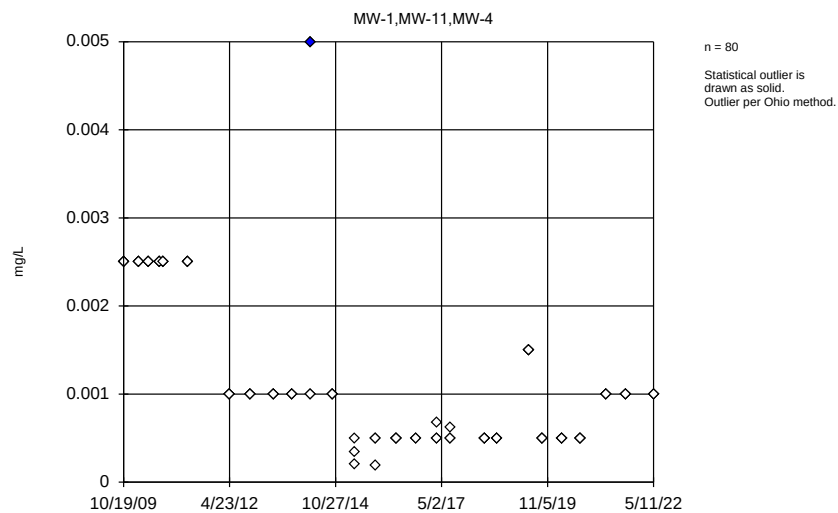
Outlier Test Summary Table and Graphs – Closed MSWLF Unit

BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 10/24/2025, 3:42 PM

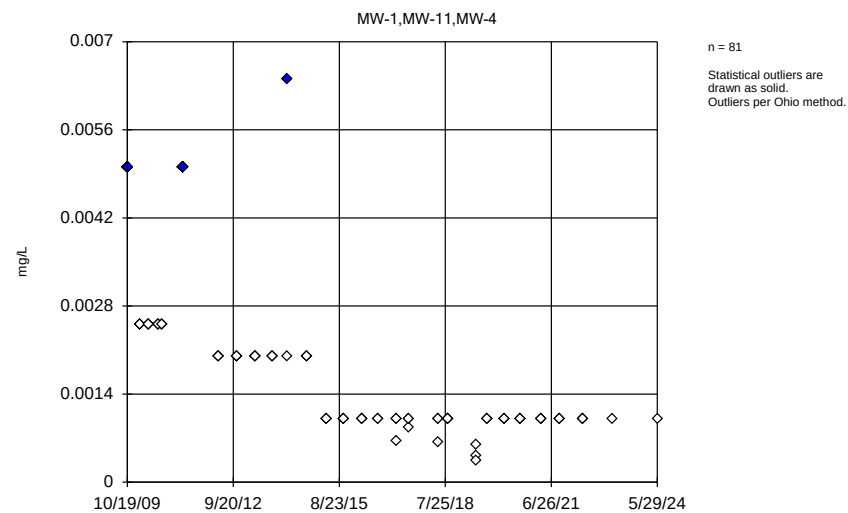
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-1,MW-11,MW-4	Yes	0.005	n/a w/combined bg	OH	NaN	80	0.0012	0.0008913	n/a	n/a
Arsenic (mg/L)	MW-1,MW-11,MW-4	Yes	0.0064,0.005,0.005	n/a w/combined bg	OH	NaN	81	0.001752	0.001243	n/a	n/a
Cadmium (mg/L)	MW-1,MW-11,MW-4	Yes	0.0066,0.0079,0.0105,0.0494	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.001727	0.005707	unknown	ShapiroFrancia
Chromium (mg/L)	MW-1,MW-11,MW-4	Yes	0.014,0.0125,0.01,0.01,0.01	n/a w/combined bg	OH	NaN	80	0.00396	0.002695	n/a	n/a
Cobalt (mg/L)	MW-1,MW-11,MW-4	Yes	0.0074	n/a w/combined bg	NP (nrm)/OH	NaN	63	0.0007968	0.001114	unknown	ShapiroFrancia
Copper (mg/L)	MW-1,MW-11,MW-4	Yes	0.005,0.005,0.005,0.0133,0.0068,0.0051,0.0111,0.0	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.003762	0.00356	unknown	ShapiroFrancia
Silver (mg/L)	MW-1,MW-11,MW-4	Yes	0.01,0.005,0.004,0.0025,0.0025,0.0025	n/a w/combined bg	OH	NaN	80	0.001371	0.001574	n/a	n/a
Thallium (mg/L)	MW-1,MW-11,MW-4	Yes	0.01,0.002,0.002	n/a w/combined bg	OH	NaN	80	0.0008656	0.001166	n/a	n/a
Vanadium (mg/L)	MW-1,MW-11,MW-4	Yes	0.05,0.0424	n/a w/combined bg	OH	NaN	80	0.008904	0.01017	n/a	n/a
Zinc (mg/L)	MW-1,MW-11,MW-4	Yes	0.0551,0.0598,0.0772,0.05,1.3,0.113,0.119	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.03498	0.1447	unknown	ShapiroFrancia

Ohio EPA 0715 Outlier Algorithm, Pooled Background



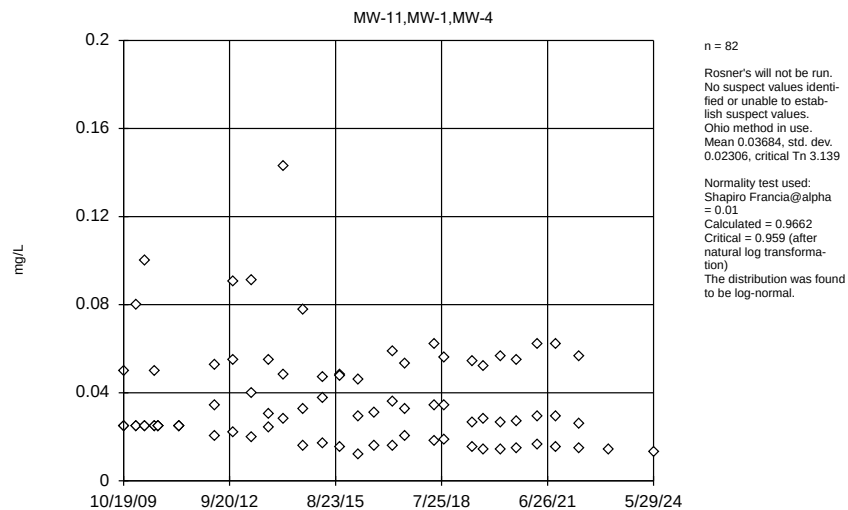
Constituent: Antimony Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



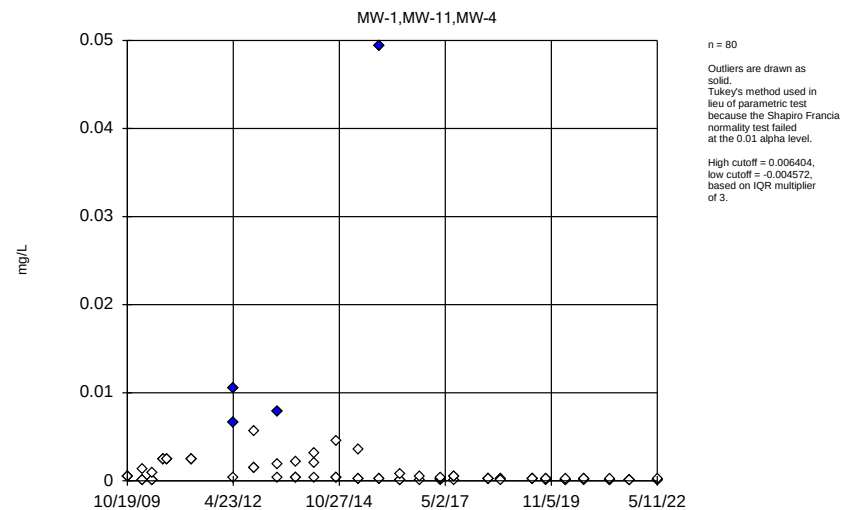
Constituent: Arsenic Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Rosner's Test)



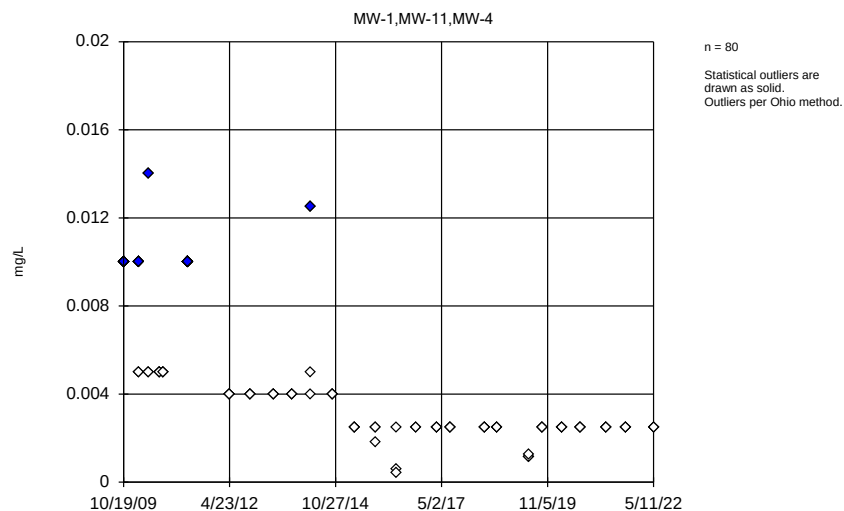
Constituent: Barium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



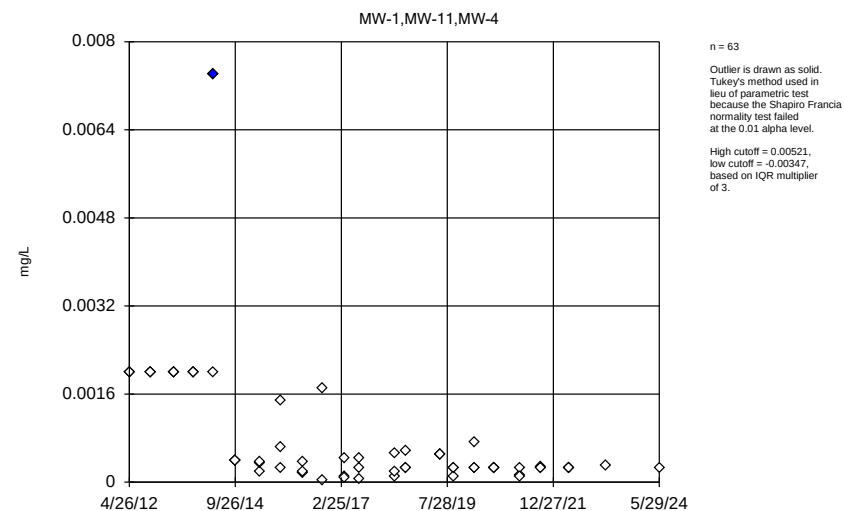
Constituent: Cadmium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



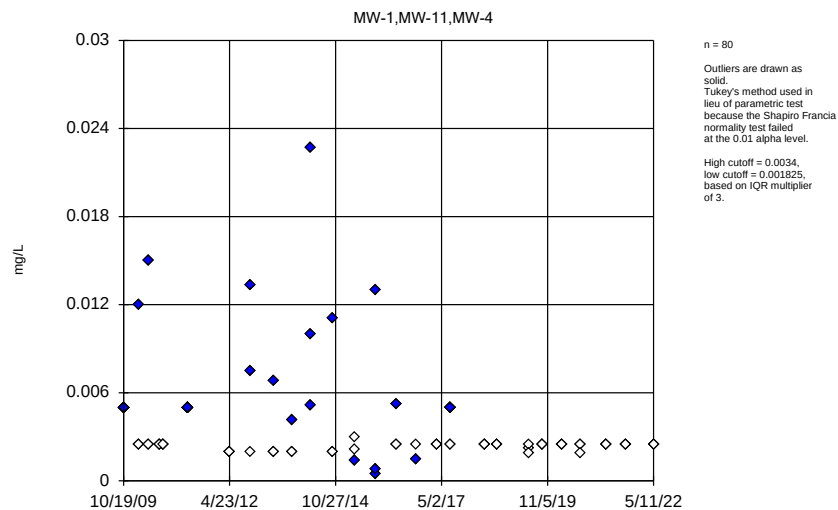
Constituent: Chromium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



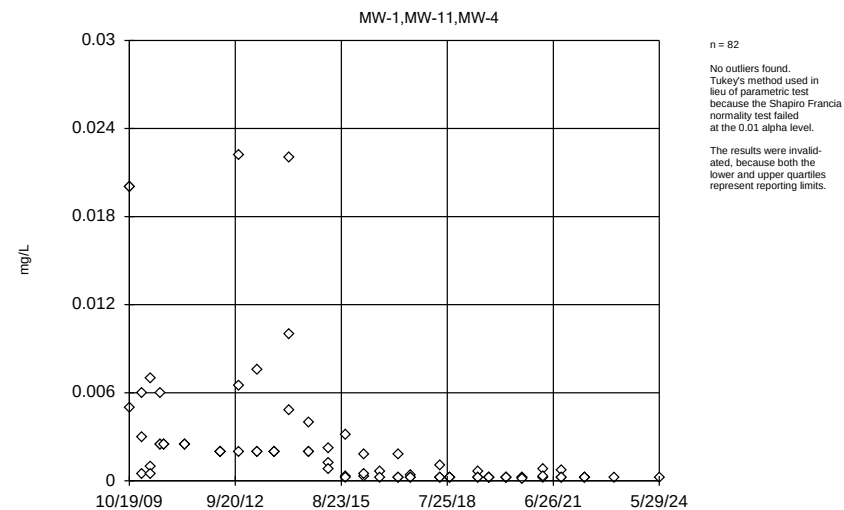
Constituent: Cobalt Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



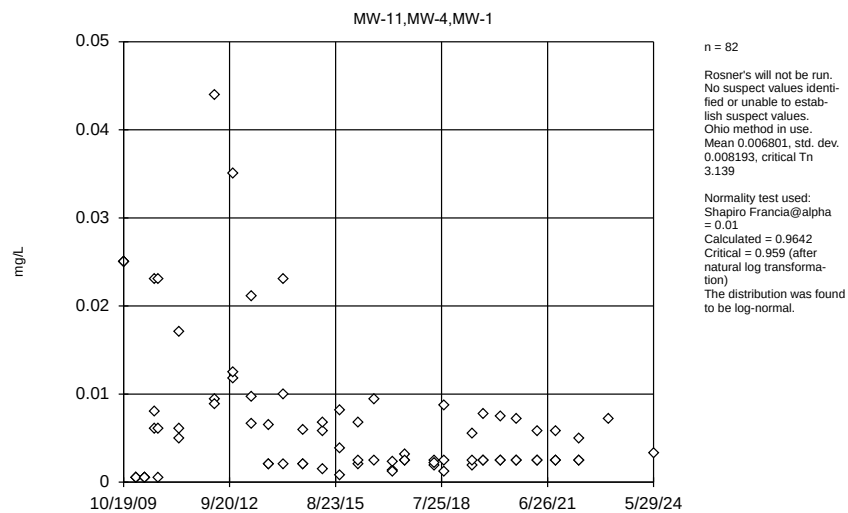
Constituent: Copper Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



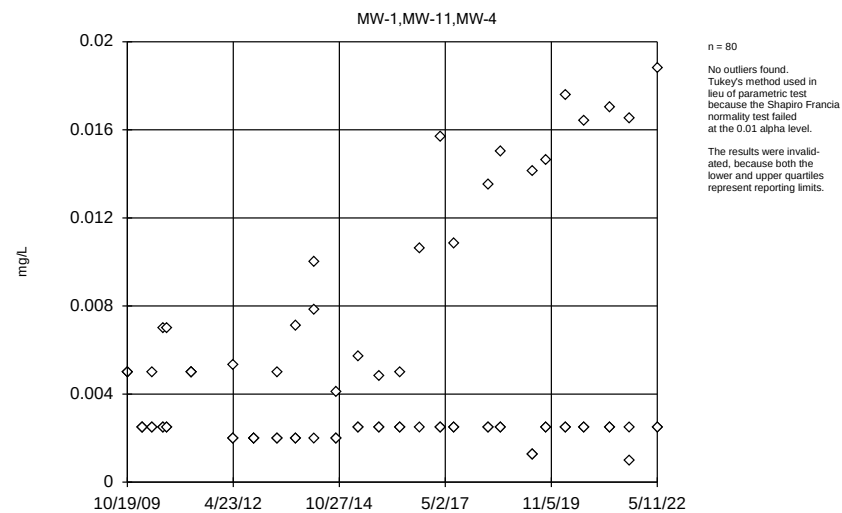
Constituent: Lead Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Rosner's Test)



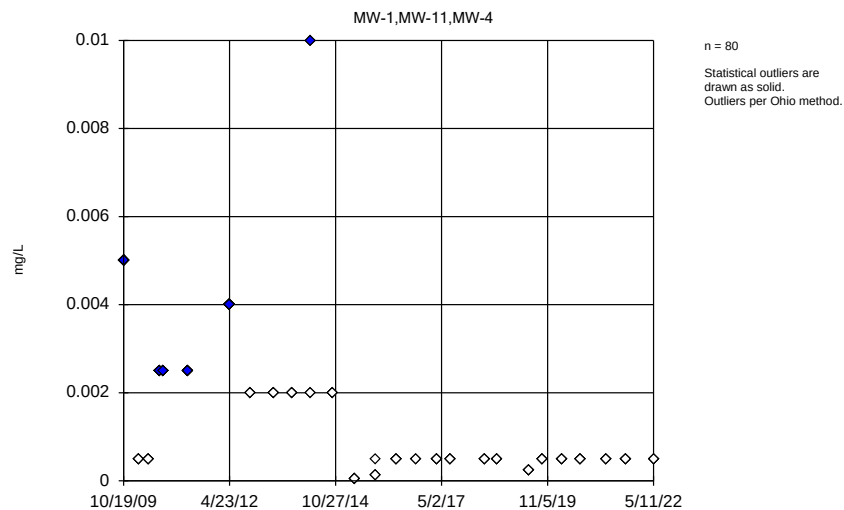
Constituent: Nickel Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



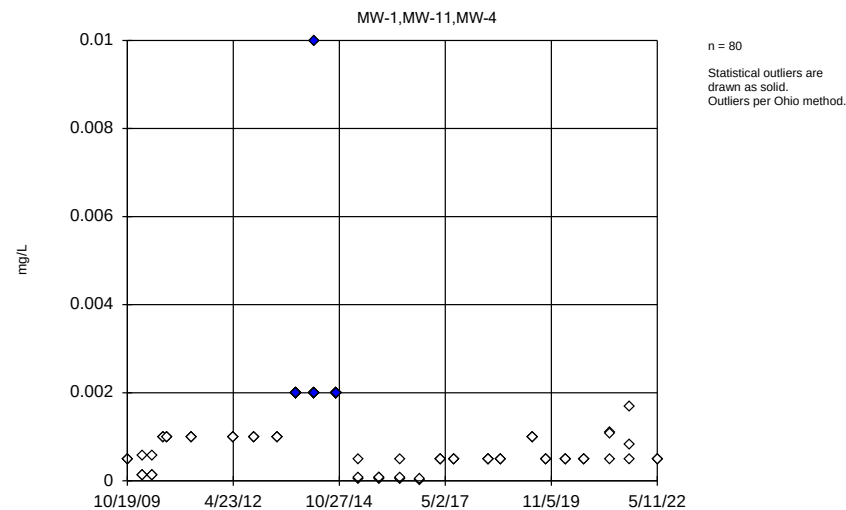
Constituent: Selenium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background

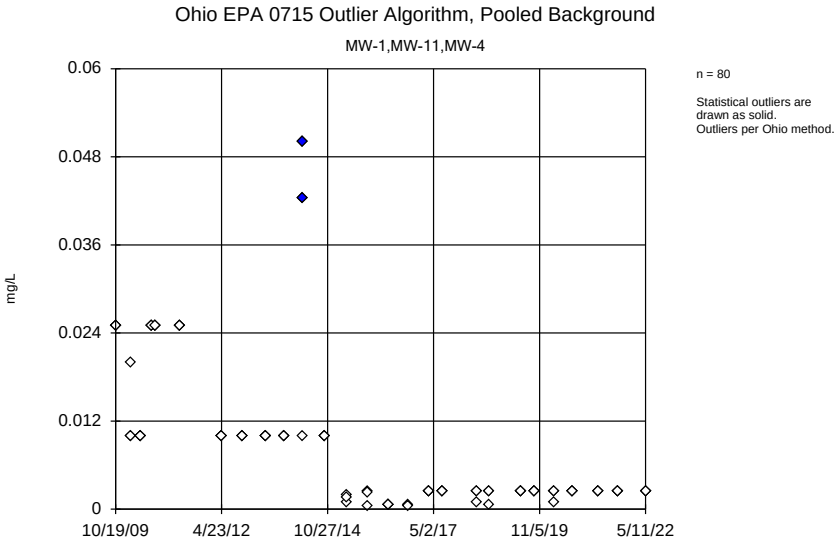


Constituent: Silver Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

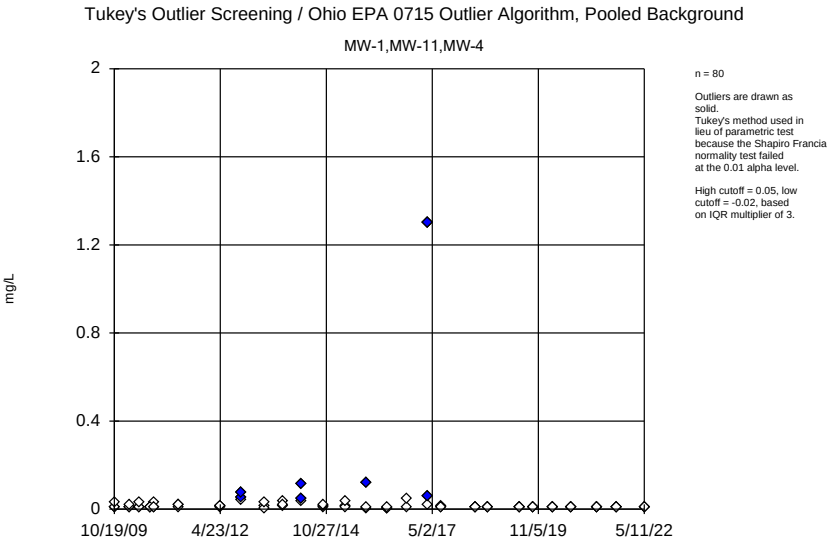
Ohio EPA 0715 Outlier Algorithm, Pooled Background



Constituent: Thallium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master



Constituent: Vanadium Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master



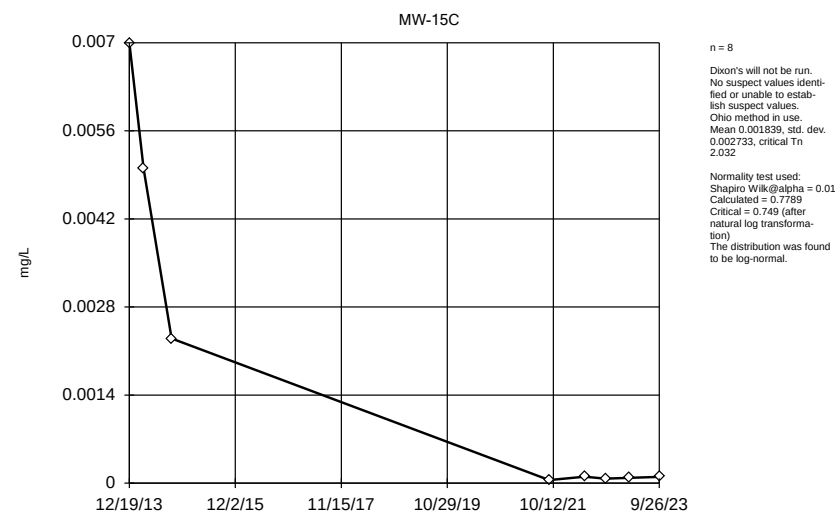
Constituent: Zinc Analysis Run 10/24/2025 3:40 PM View: 2025_SSN-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

MW-15C BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 10/24/2025, 3:31 PM

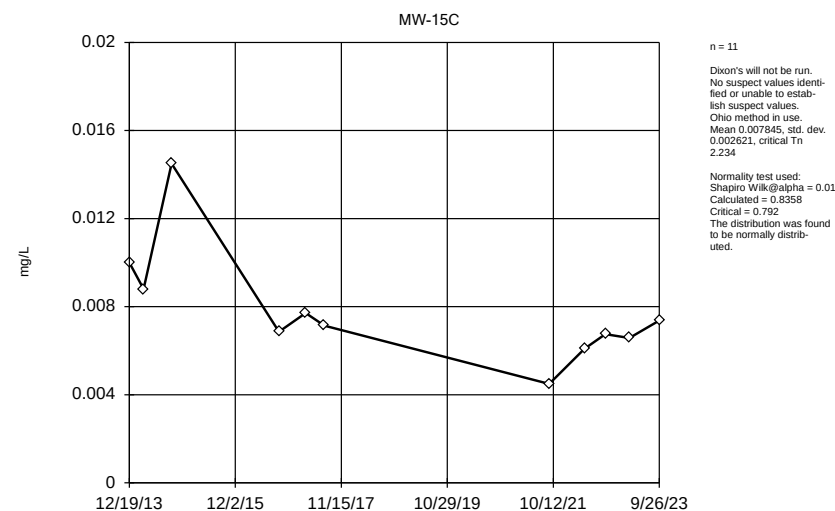
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Barium (mg/L)	MW-15C	Yes	0.711	9/30/2014	Dixon/OH	0.01	14	0.155	0.1607	normal	ShapiroWilk
Cadmium (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	8	0.001839	0.002733	ln(x)	ShapiroWilk
Cobalt (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	17	0.0005391	0.0006417	ln(x)	ShapiroWilk
Nickel (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	11	0.007845	0.002621	normal	ShapiroWilk
Zinc (mg/L)	MW-15C	Yes	0.0426	9/30/2014	OH	NaN	8	0.01342	0.01199	n/a	n/a

EPA Screening (suspected outliers for Dixon's Test)

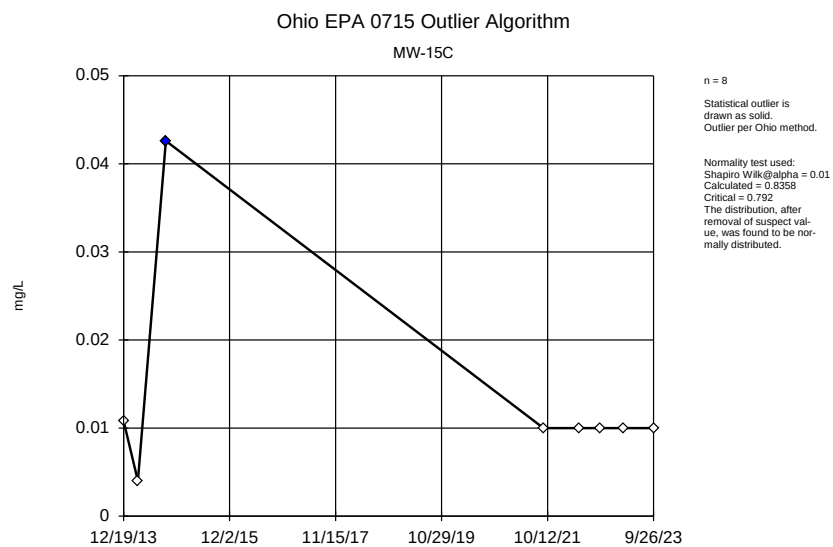


Constituent: Cadmium Analysis Run 10/24/2025 3:29 PM View: 2025_SSN-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Nickel Analysis Run 10/24/2025 3:29 PM View: 2025_SSN-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master



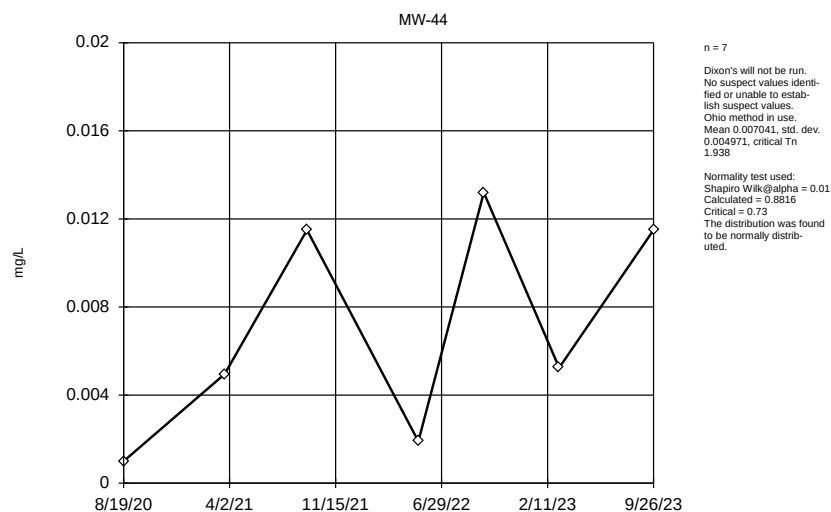
Constituent: Zinc Analysis Run 10/24/2025 3:29 PM View: 2025_SSN-MW-15C_Outliers
 Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

MW-44 BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 10/24/2025, 4:23 PM

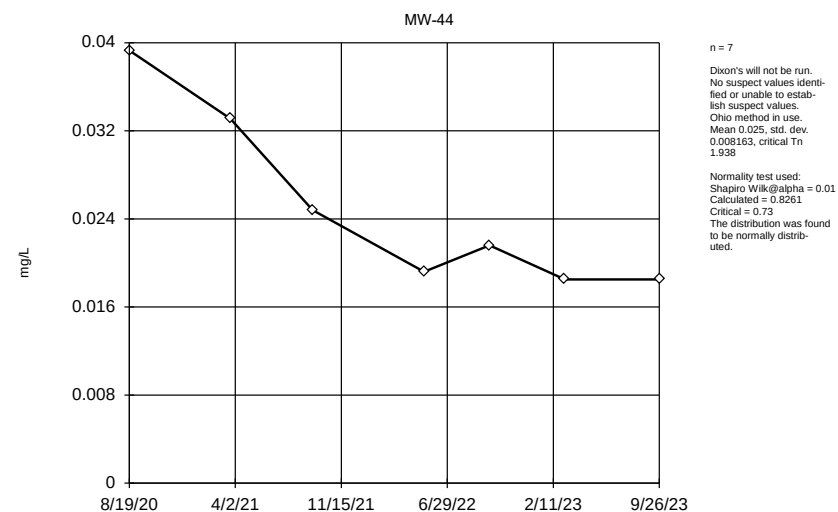
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	7	0.007041	0.004971	normal	ShapiroWilk
Barium (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	7	0.025	0.008163	normal	ShapiroWilk
Cobalt (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	7	0.001564	0.001503	normal	ShapiroWilk
Nickel (mg/L)	MW-44	No	n/a	n/a	OH	NaN	5	0.002402	0.0002191	n/a	n/a

EPA Screening (suspected outliers for Dixon's Test)



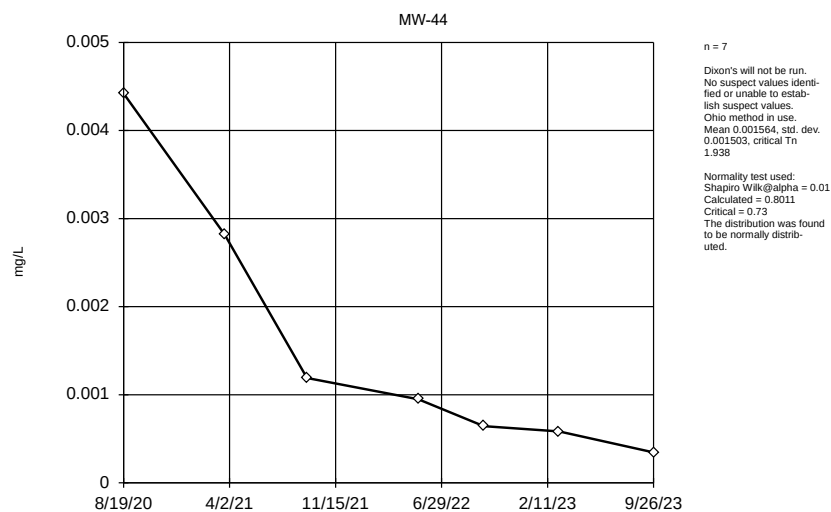
Constituent: Arsenic Analysis Run 10/24/2025 4:21 PM View: 2025_SSN-MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



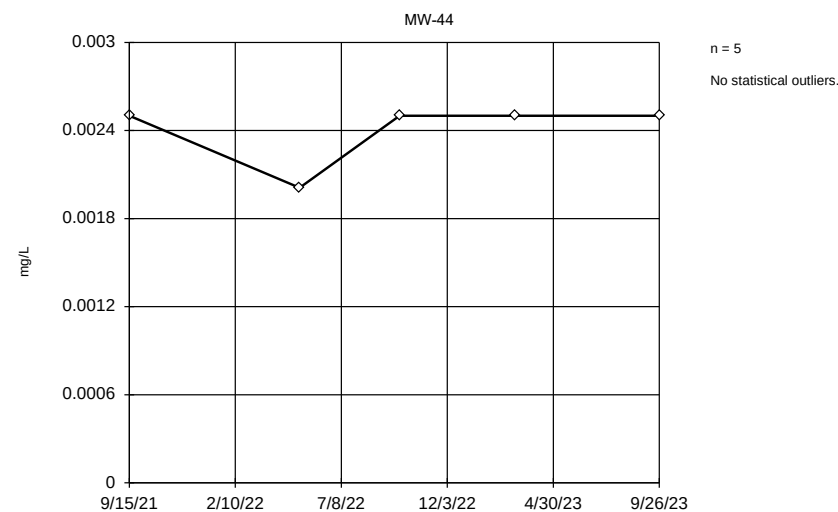
Constituent: Barium Analysis Run 10/24/2025 4:21 PM View: 2025_SSN-MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Cobalt Analysis Run 10/24/2025 4:21 PM View: 2025_SSN-MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Nickel Analysis Run 10/24/2025 4:21 PM View: 2025_SSN-MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

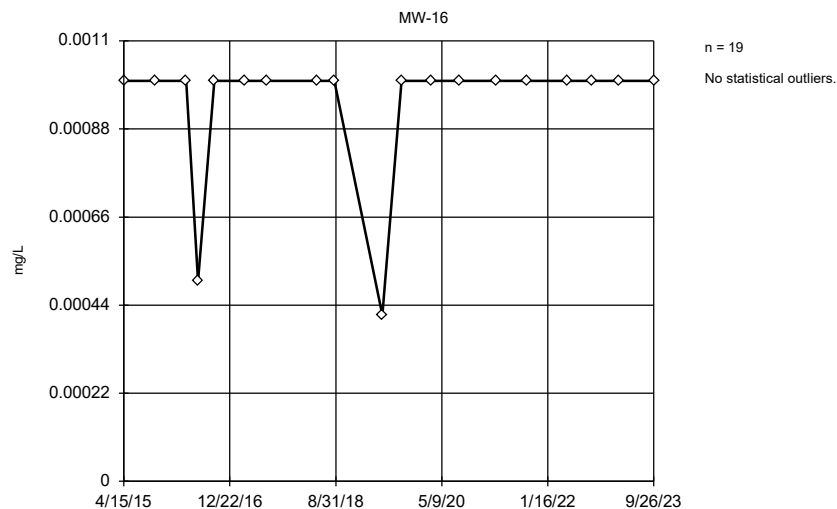
Outlier Test Summary Table and Graphs – Open MSWLF Unit

MW-16 BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 2/27/2025, 5:00 PM

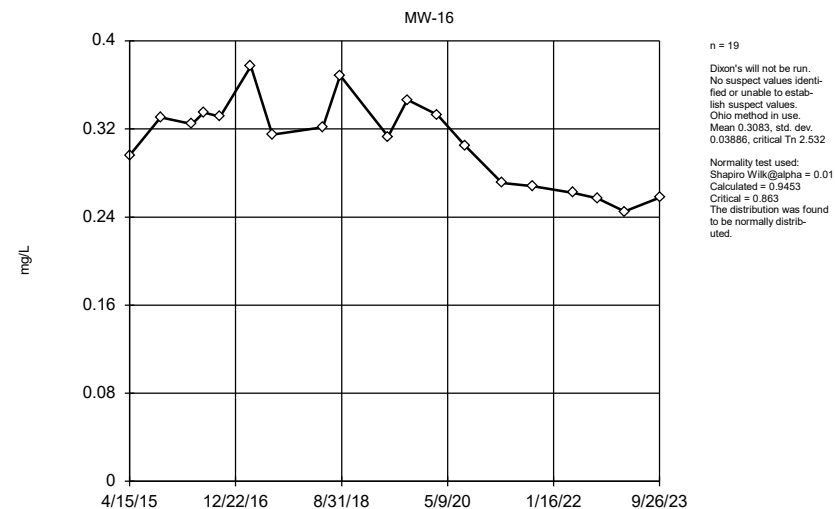
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0009429	0.0001716	n/a	n/a
Barium (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.3083	0.03886	normal	ShapiroWilk
Beryllium (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0004881	0.00005196	n/a	n/a
Cadmium (mg/L)	MW-16	No	n/a	n/a	NP (nrm)/OH	NaN	19	0.0001486	0.00009572	unknown	ShapiroWilk
Cobalt (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.0002472	0.0001096	normal	ShapiroWilk
Copper (mg/L)	MW-16	No	n/a	n/a	OH	NaN	18	0.002126	0.000668	n/a	n/a
Lead (mg/L)	MW-16	No	n/a	n/a	NP (nrm)/OH	NaN	19	0.0002657	0.00007454	unknown	ShapiroWilk
Nickel (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.007898	0.002671	normal	ShapiroWilk
Silver (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0004869	0.0001015	n/a	n/a
Thallium (mg/L)	MW-16	Yes	0.001,0.001	6/21/2016,5/29/2019	OH	NaN	19	0.0005278	0.0001982	n/a	n/a
Vanadium (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.002348	0.000521	n/a	n/a
Zinc (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.008794	0.00212	n/a	n/a

Ohio EPA 0715 Outlier Algorithm



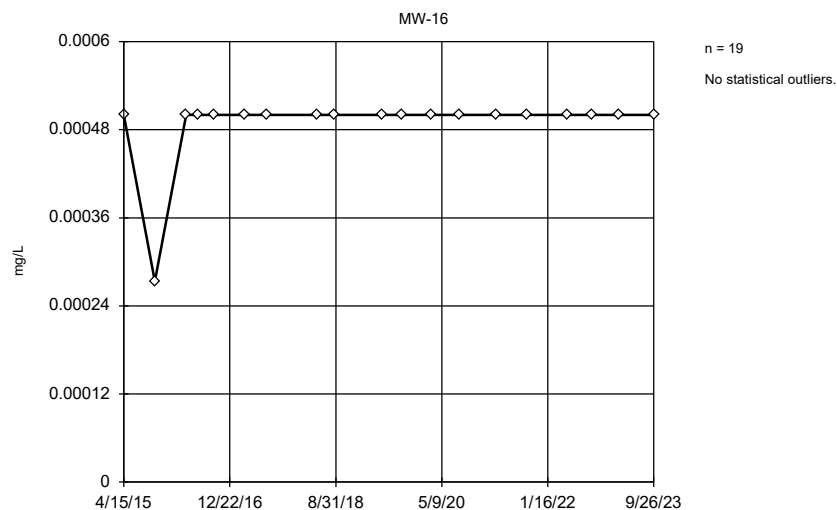
Constituent: Arsenic Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



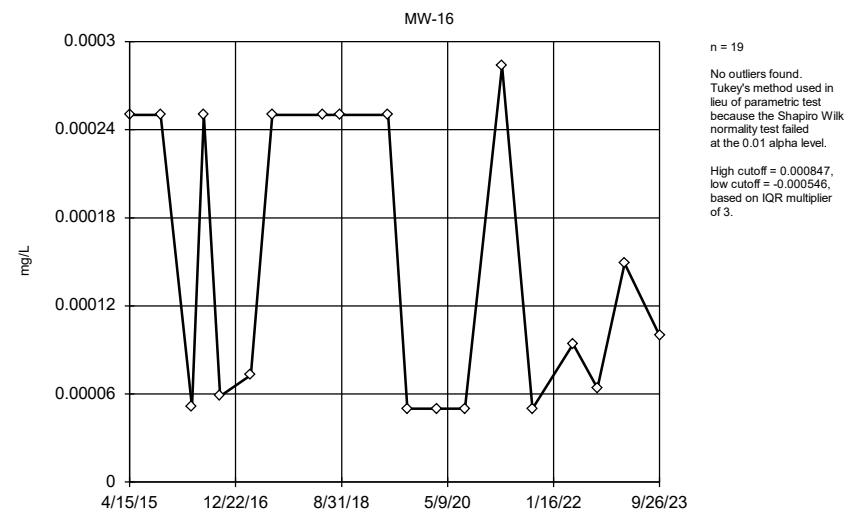
Constituent: Barium Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



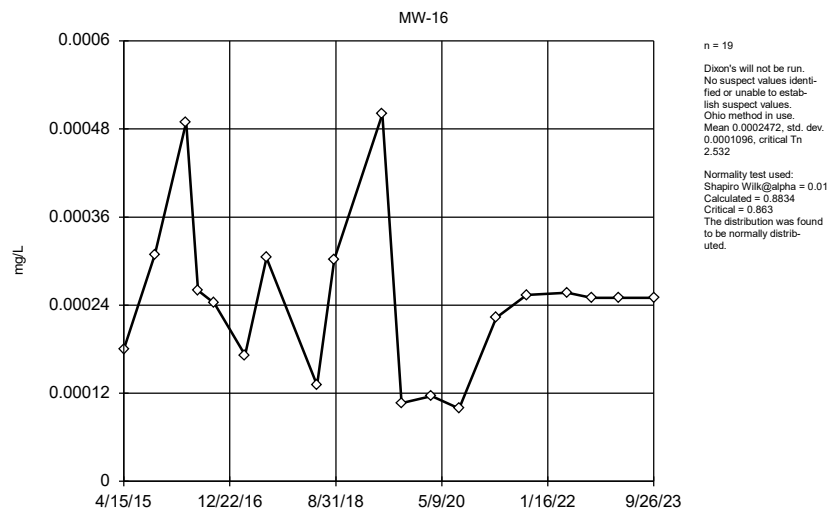
Constituent: Beryllium Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



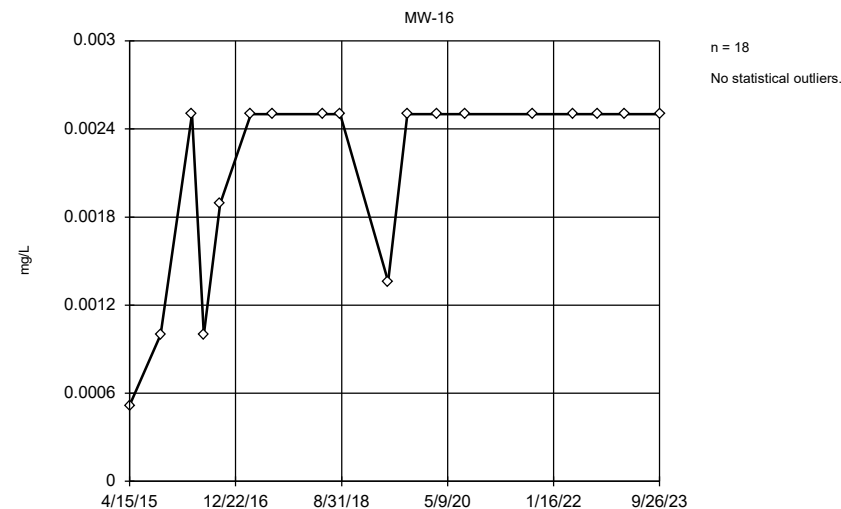
Constituent: Cadmium Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



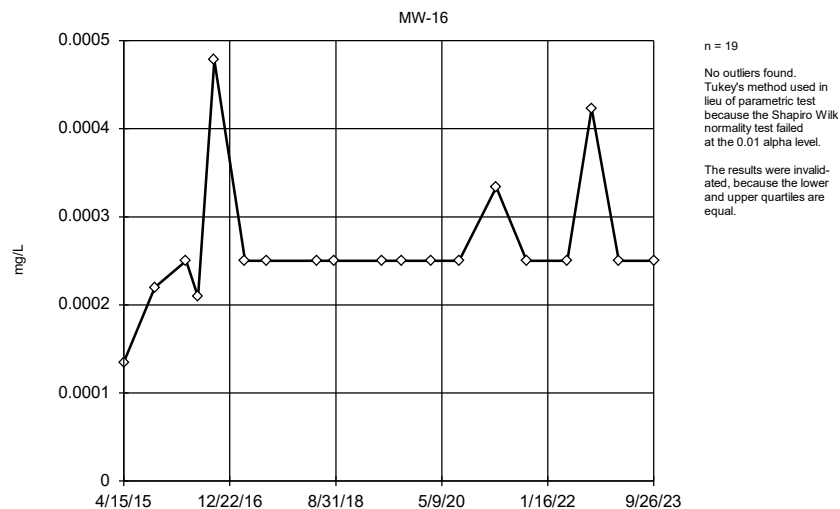
Constituent: Cobalt Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



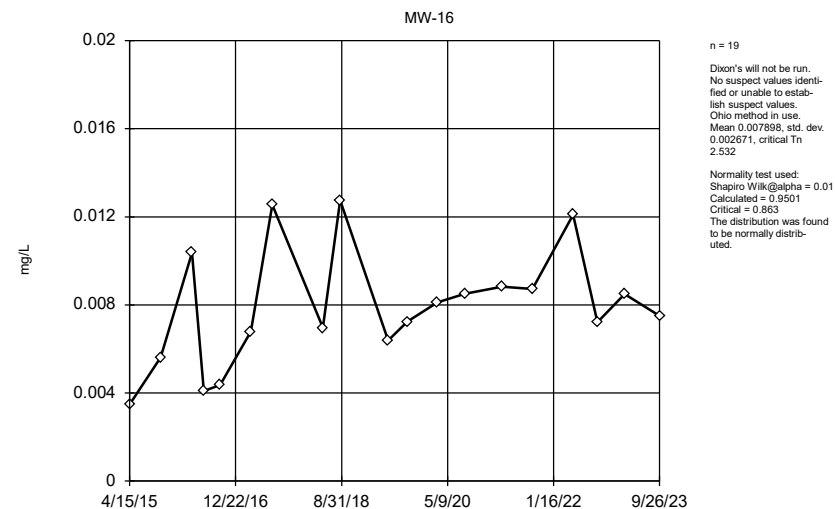
Constituent: Copper Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



Constituent: Lead Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

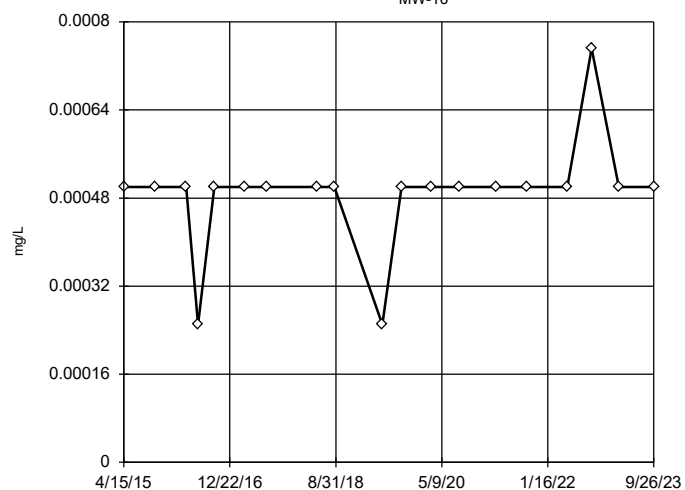
EPA Screening (suspected outliers for Dixon's Test)



Constituent: Nickel Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-16



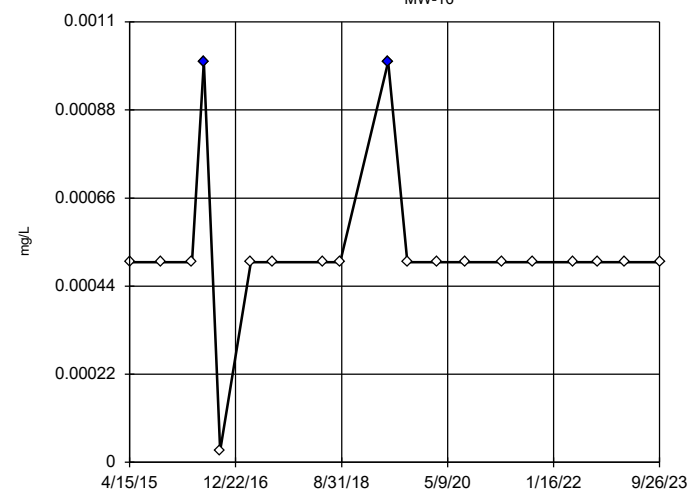
n = 19

No statistical outliers.

Constituent: Silver Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-16



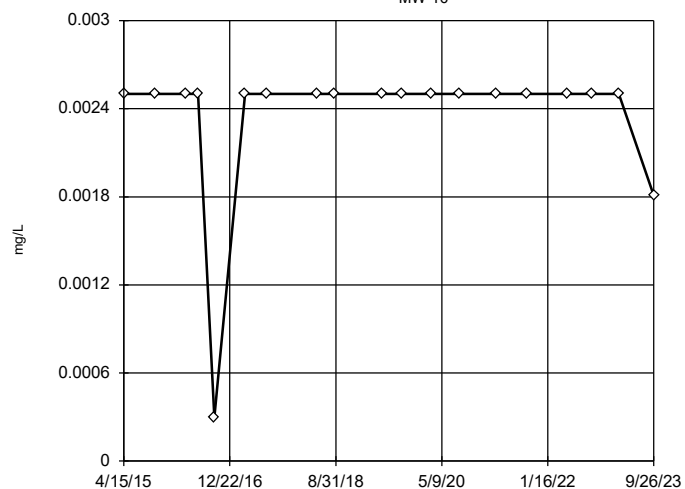
n = 19

Statistical outlier is
drawn as solid.
Outlier per Ohio method.

Constituent: Thallium Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-16



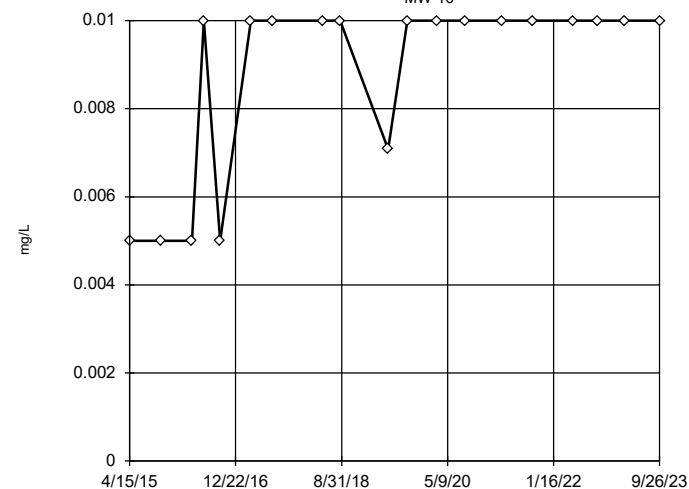
n = 19

No statistical outliers.

Constituent: Vanadium Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-16



n = 19

No statistical outliers.

Constituent: Zinc Analysis Run 2/27/2025 4:57 PM View: 2024AWQR-MW-16_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-27 BG Outlier Analysis

Cherokee County Sanitary Landfill

Client: SCS Engineers

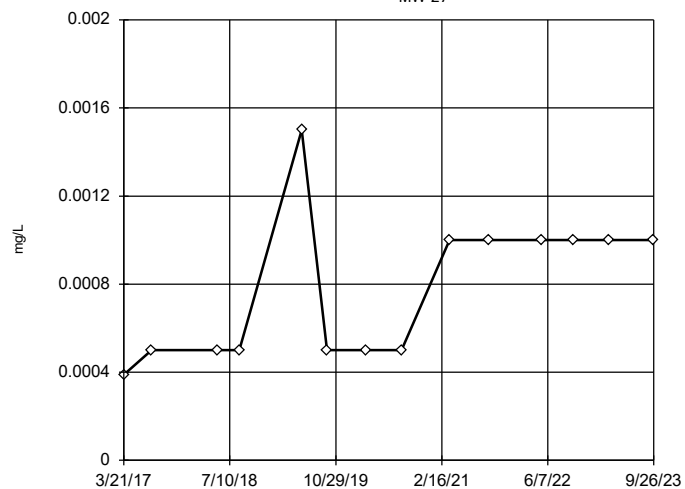
Data: Sanitas CHRKE Open Master

Printed 2/27/2025, 5:40 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0007777	0.000332	n/a	n/a
Arsenic (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0009589	0.0001537	n/a	n/a
Barium (mg/L)	MW-27	No	n/a	n/a	EPA/OH	0.05	14	0.0342	0.001669	normal	ShapiroWilk
Chromium (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.002252	0.0006316	n/a	n/a
Cobalt (mg/L)	MW-27	Yes	0.0005	5/29/2019	NP (nrm)/OH	NaN	14	0.0002355	0.0001007	unknown	ShapiroWilk
Copper (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.002394	0.0003955	n/a	n/a
Lead (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0002492	0.00000294	n/a	n/a
Vanadium (mg/L)	MW-27	No	n/a	n/a	NP (nrm)/OH	NaN	14	0.001883	0.0007664	unknown	ShapiroWilk

Ohio EPA 0715 Outlier Algorithm

MW-27



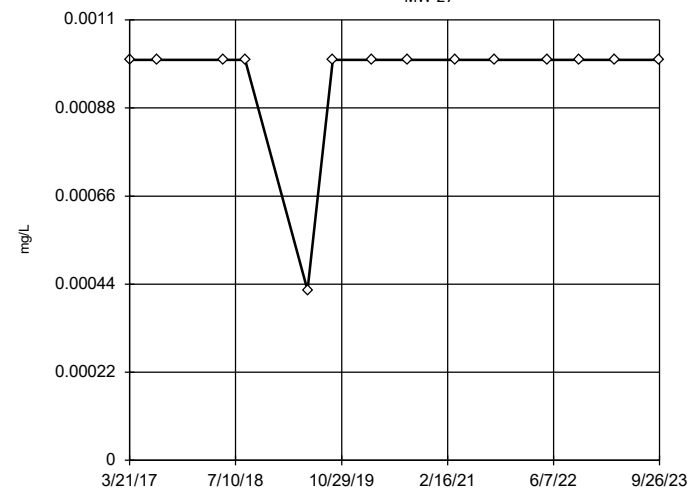
n = 14

No statistical outliers.

Constituent: Antimony Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-27



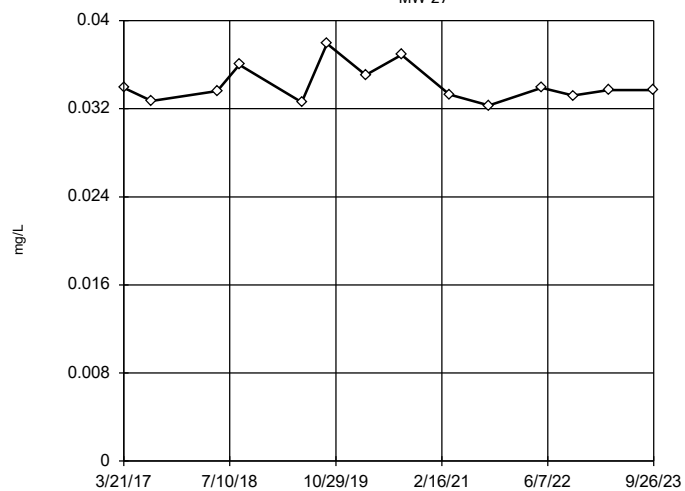
n = 14

No statistical outliers.

Constituent: Arsenic Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)

MW-27



n = 14

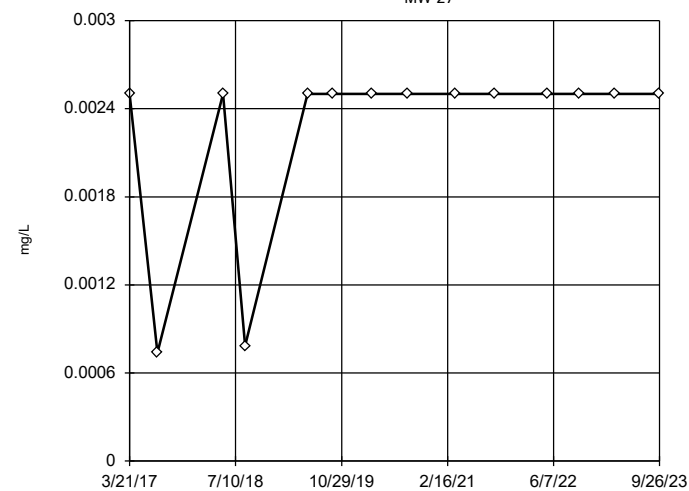
Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0342, std. dev. 0.001669, critical Tn 2.371

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8687
Critical = 0.525
The distribution was found to be normally distributed.

Constituent: Barium Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-27

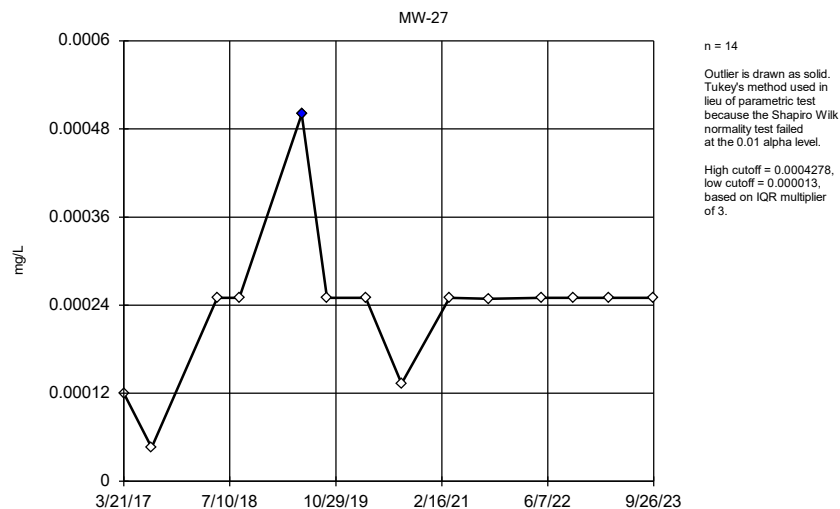


n = 14

No statistical outliers.

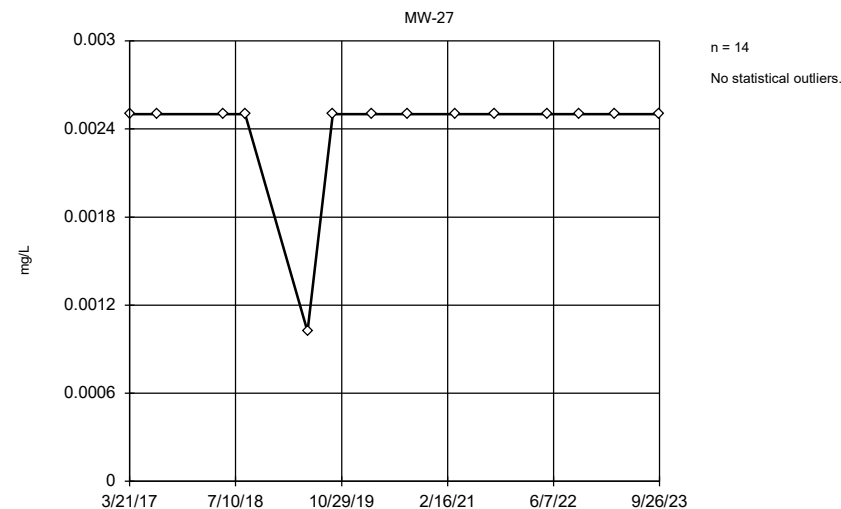
Constituent: Chromium Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



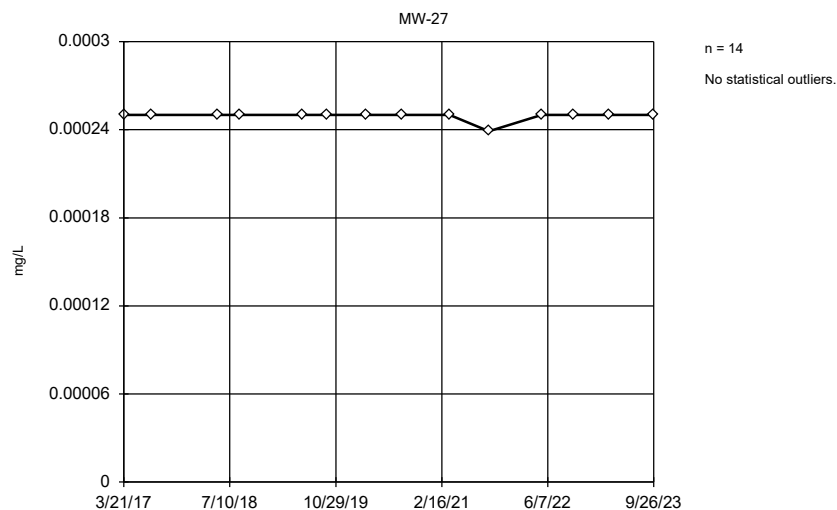
Constituent: Cobalt Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



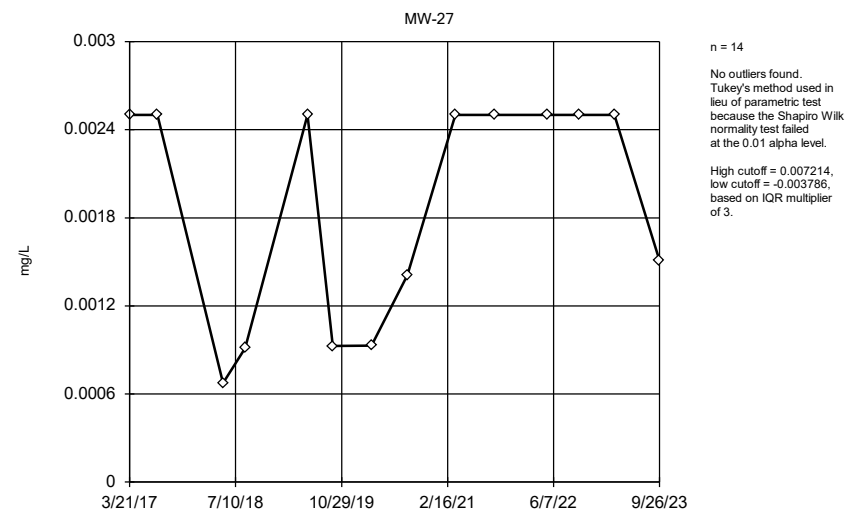
Constituent: Copper Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Lead Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



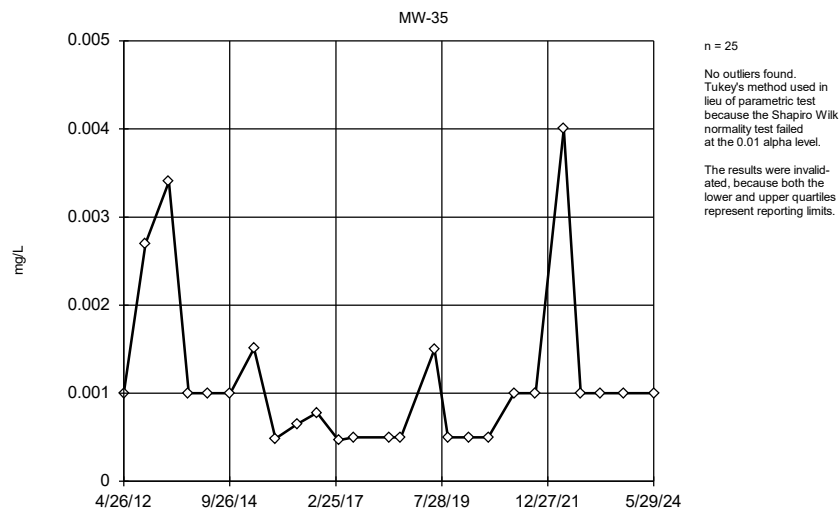
Constituent: Vanadium Analysis Run 2/27/2025 5:37 PM View: 2024AWQR-MW-27_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-35 BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 2/27/2025, 6:27 PM

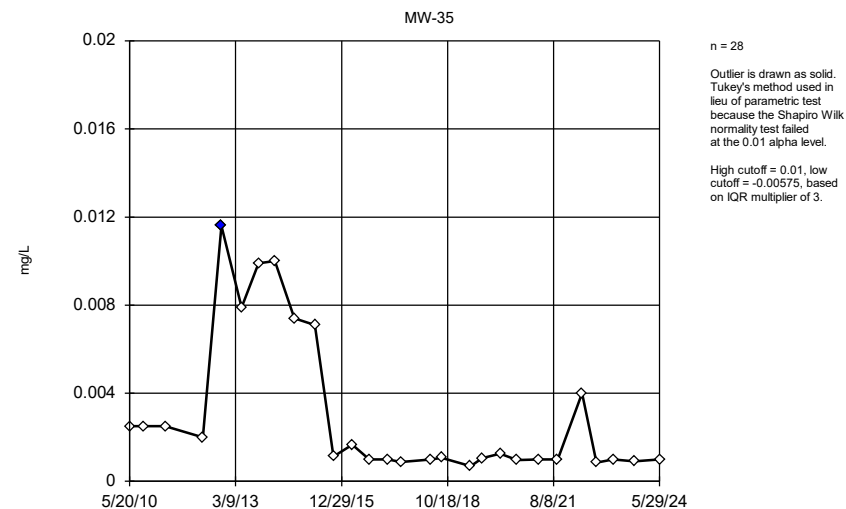
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-35	No	n/a	n/a	NP (nrm)/OH	NaN	25	0.00114	0.0009105	unknown	ShapiroWilk
Arsenic (mg/L)	MW-35	Yes	0.0116	10/24/2012	NP (nrm)/OH	NaN	28	0.003031	0.003335	unknown	ShapiroWilk
Barium (mg/L)	MW-35	Yes	0.1	5/20/2010	NP (nrm)/OH	NaN	28	0.03024	0.01767	unknown	ShapiroWilk
Cadmium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.0002061	0.0001388	n/a	n/a
Chromium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.003023	0.001034	n/a	n/a
Cobalt (mg/L)	MW-35	No	n/a	n/a	EPA/OH	0.05	25	0.01373	0.01458	ln(x)	ShapiroWilk
Copper (mg/L)	MW-35	Yes	0.0212,0.0102,0.01	7/28/2015,4/15/2015,5/10/2022	OH	NaN	29	0.003547	0.00395	n/a	n/a
Lead (mg/L)	MW-35	Yes	0.002,0.002,0.002,0.002,0.002,0.002,0.001	4/26/2012,10/24/2012,5/7/2013,10/18/2013,3/25/201	OH	NaN	28	0.0006802	0.0007193	n/a	n/a
Nickel (mg/L)	MW-35	Yes	0.227	10/24/2012	NP (nrm)/OH	NaN	28	0.05247	0.05564	unknown	ShapiroWilk
Selenium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.002362	0.0003146	n/a	n/a
Thallium (mg/L)	MW-35	Yes	0.002,0.002,0.002,0.002	10/18/2013,3/25/2014,9/30/2014,5/10/2022	OH	NaN	28	0.0007029	0.0006009	n/a	n/a
Vanadium (mg/L)	MW-35	Yes	0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01	5/20/2010,10/1/2010,4/29/2011,4/26/2012,10/24/201	OH	NaN	28	0.005259	0.003698	n/a	n/a
Zinc (mg/L)	MW-35	Yes	0.147,0.04,0.04	9/23/2016,10/19/2009,5/10/2022	OH	NaN	29	0.01636	0.02639	n/a	n/a

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



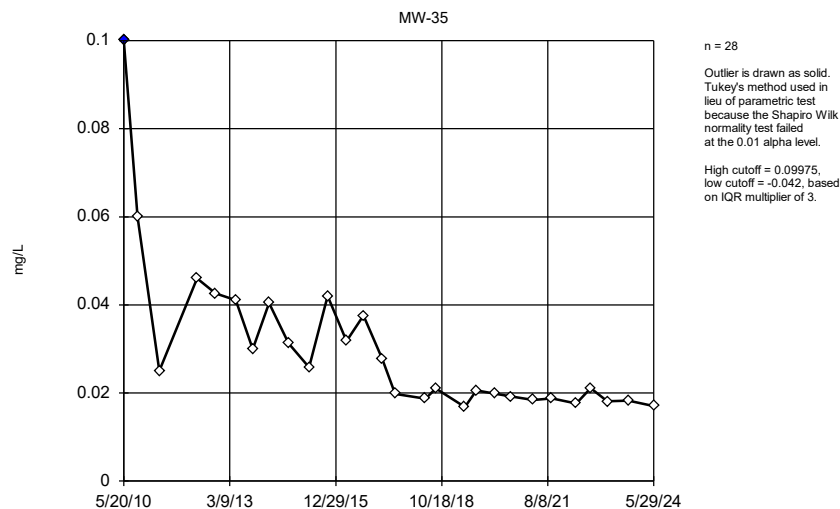
Constituent: Antimony Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



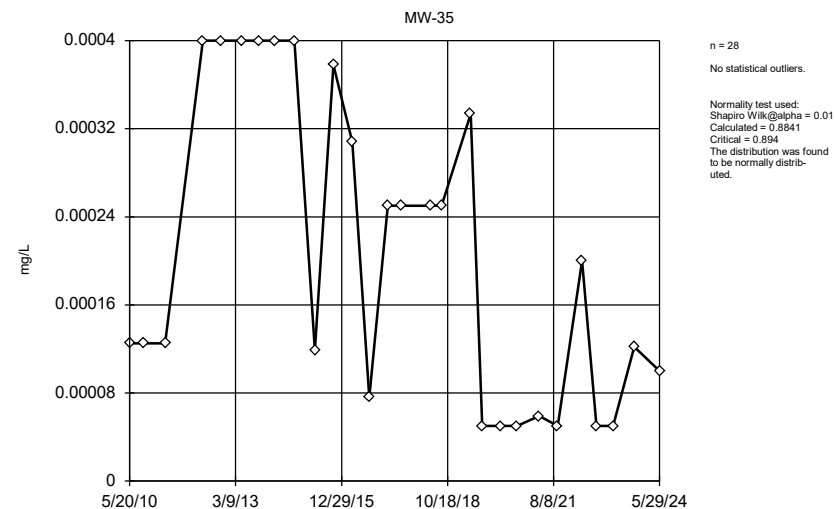
Constituent: Arsenic Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



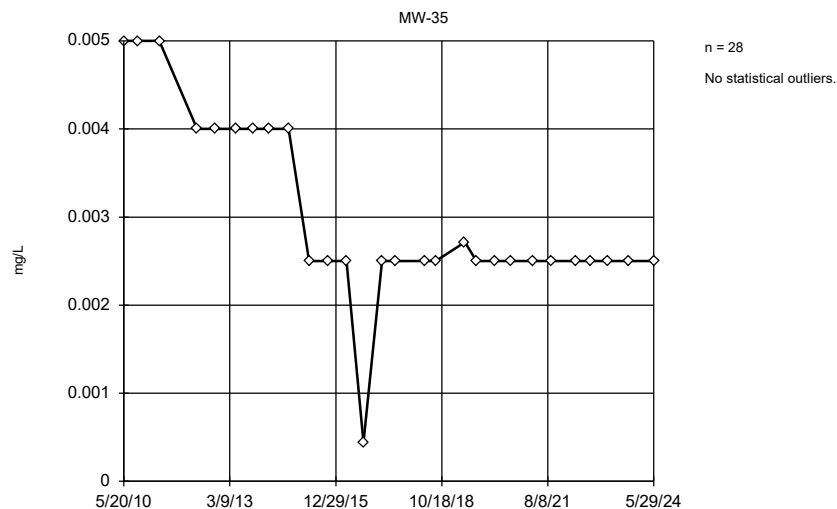
Constituent: Barium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



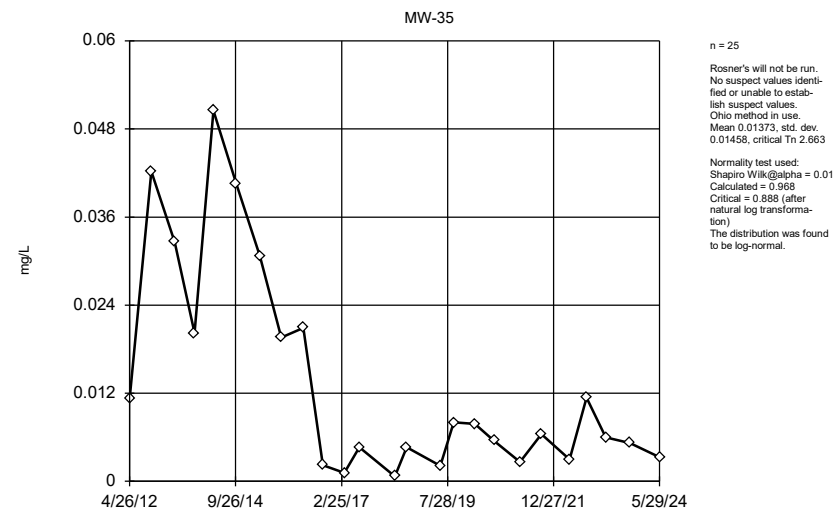
Constituent: Cadmium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



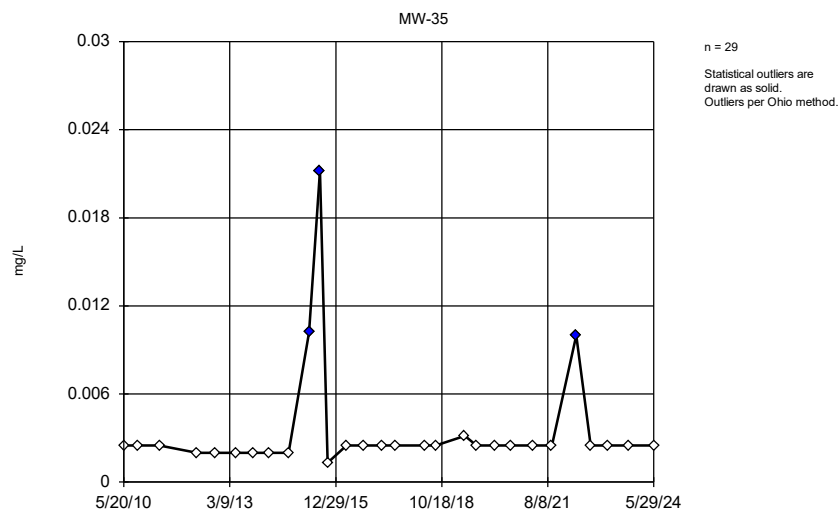
Constituent: Chromium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Rosner's Test)



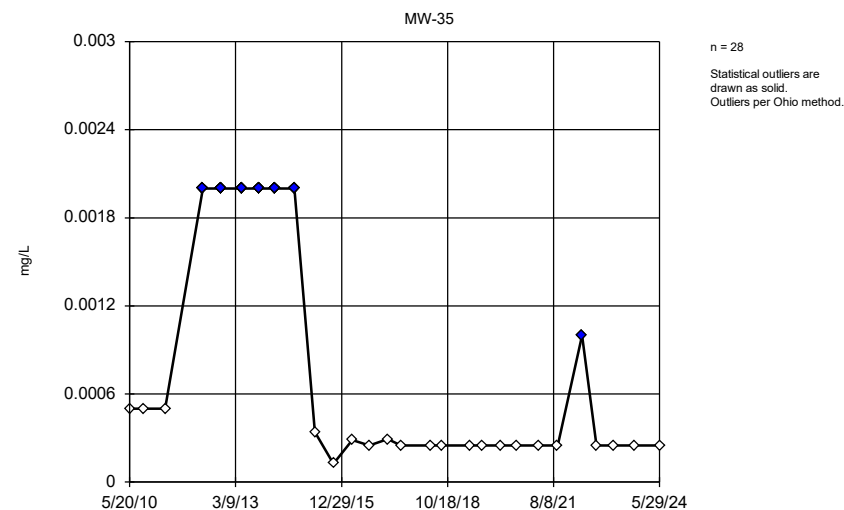
Constituent: Cobalt Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

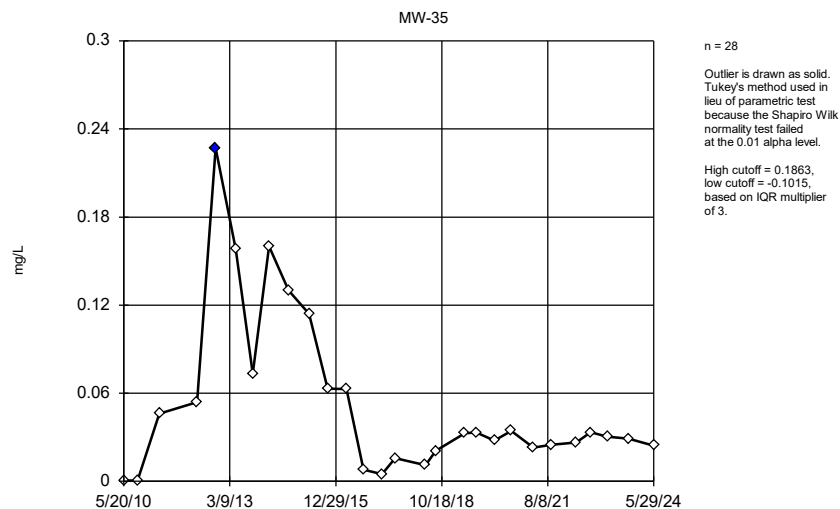


Constituent: Copper Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

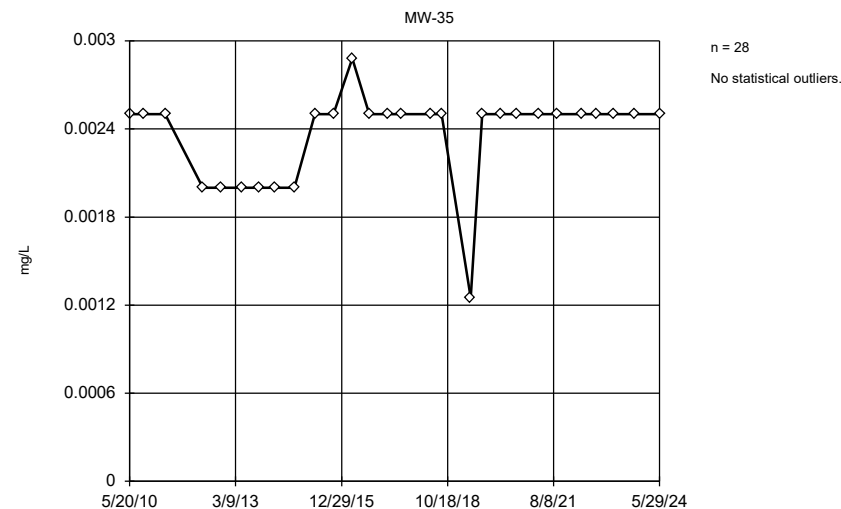


Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



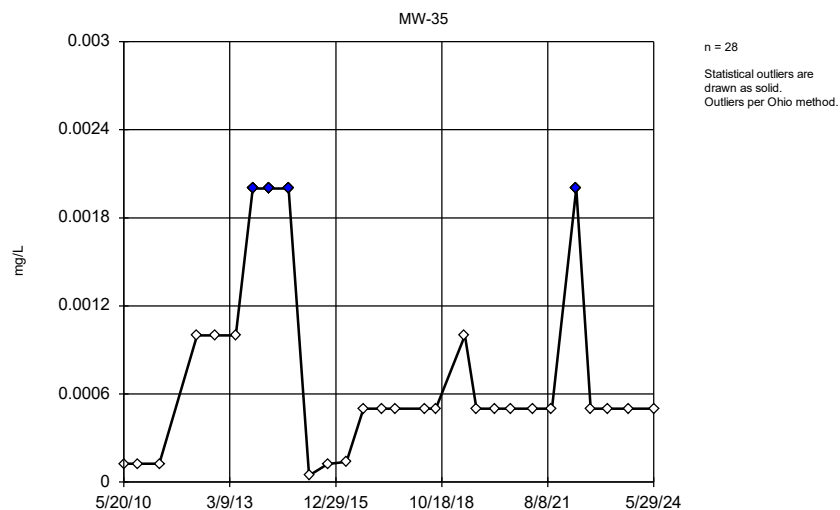
Constituent: Nickel Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



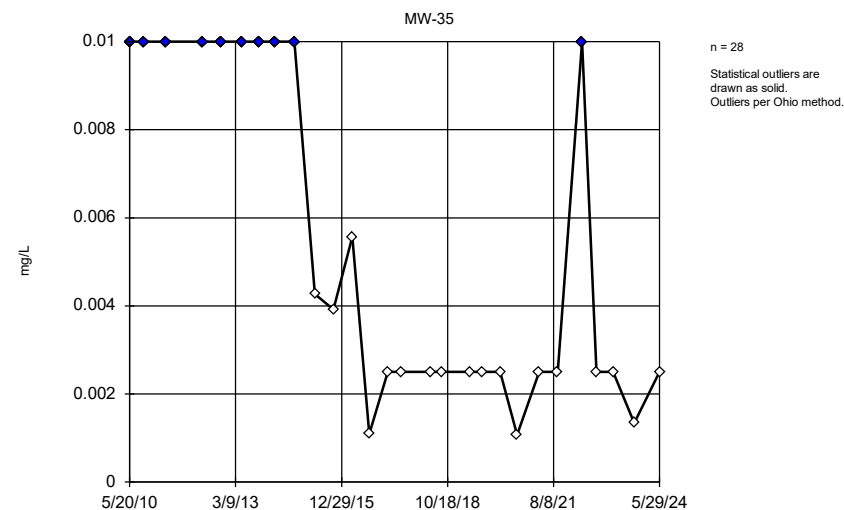
Constituent: Selenium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Thallium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

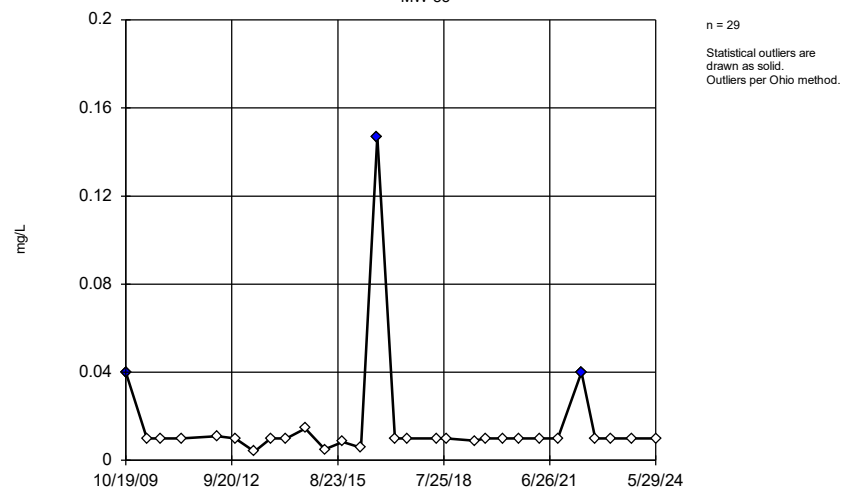
Ohio EPA 0715 Outlier Algorithm



Constituent: Vanadium Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

MW-35



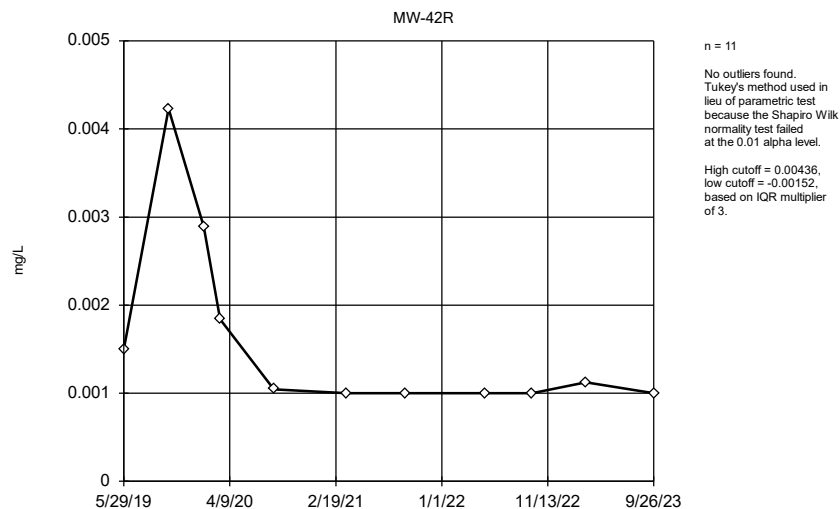
Constituent: Zinc Analysis Run 2/27/2025 6:22 PM View: 2024AWQR-MW-35_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-42R BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 2/27/2025, 7:22 PM

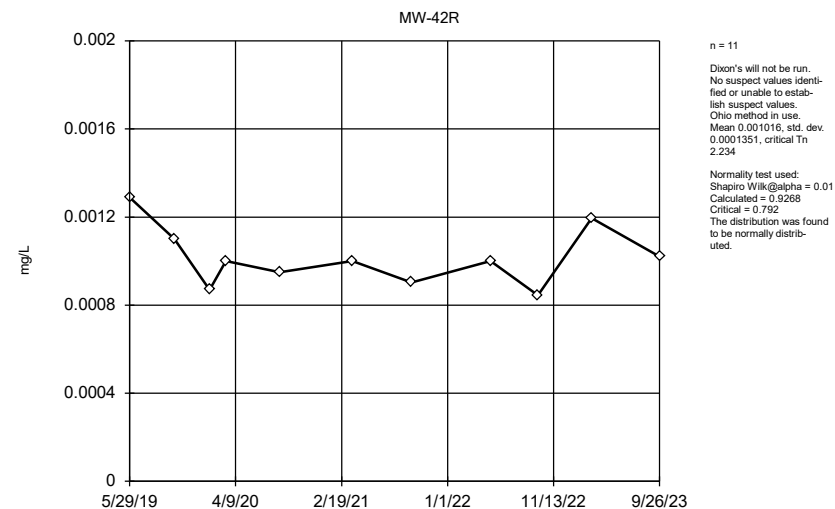
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-42R	No	n/a	n/a	NP (nrm)/OH	NaN	11	0.001603	0.001048	unknown	ShapiroWilk
Arsenic (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.001016	0.0001351	normal	ShapiroWilk
Barium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.02443	0.004789	normal	ShapiroWilk
Beryllium (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.0004976	0.000007836	n/a	n/a
Cadmium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.000195	0.00008983	normal	ShapiroWilk
Chromium (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.002398	0.0003377	n/a	n/a
Cobalt (mg/L)	MW-42R	No	n/a	n/a	Dixon/OH	0.01	12	0.004744	0.001288	normal	ShapiroWilk
Copper (mg/L)	MW-42R	Yes	0.00419,0.00905	8/19/2020,5/29/2019	Dixon/OH	0.01	11	0.003365	0.001967	normal	ShapiroWilk
Lead (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.0002916	0.000116	n/a	n/a
Nickel (mg/L)	MW-42R	Yes	0.0469	5/29/2019	Dixon/OH	0.01	11	0.02061	0.009487	normal	ShapiroWilk
Selenium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.003925	0.003093	ln(x)	ShapiroWilk
Thallium (mg/L)	MW-42R	Yes	0.001	5/29/2019	OH	NaN	11	0.0005608	0.0001542	n/a	n/a
Vanadium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.00185	0.0005645	normal	ShapiroWilk
Zinc (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.01111	0.003106	ln(x)	ShapiroWilk

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



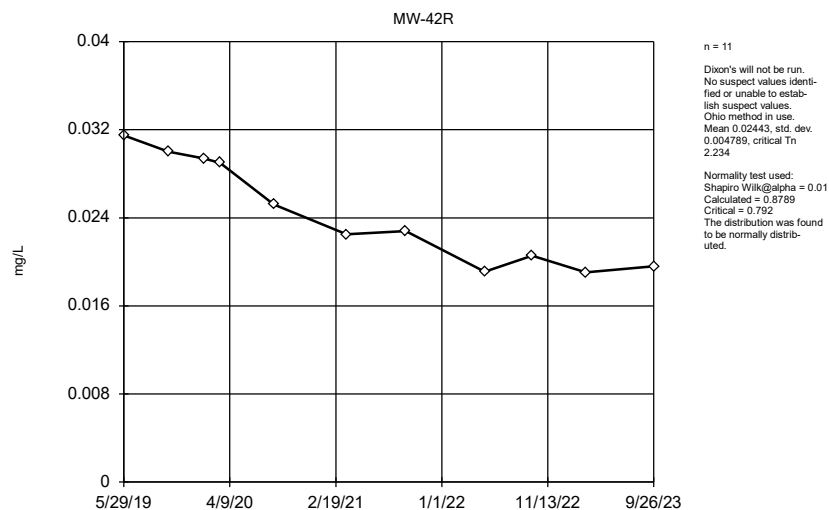
Constituent: Antimony Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



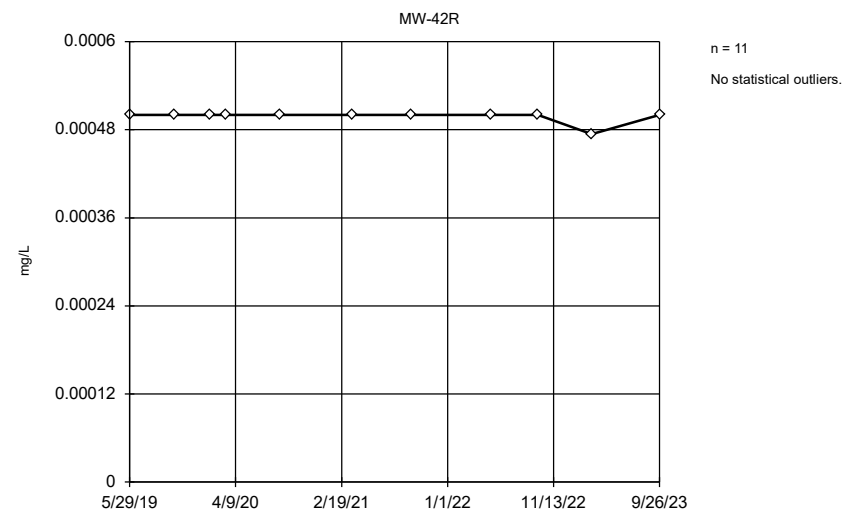
Constituent: Arsenic Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



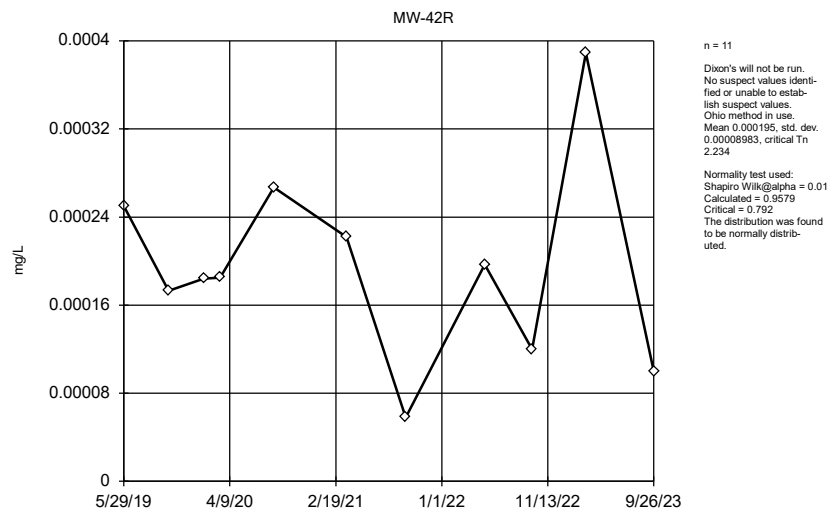
Constituent: Barium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



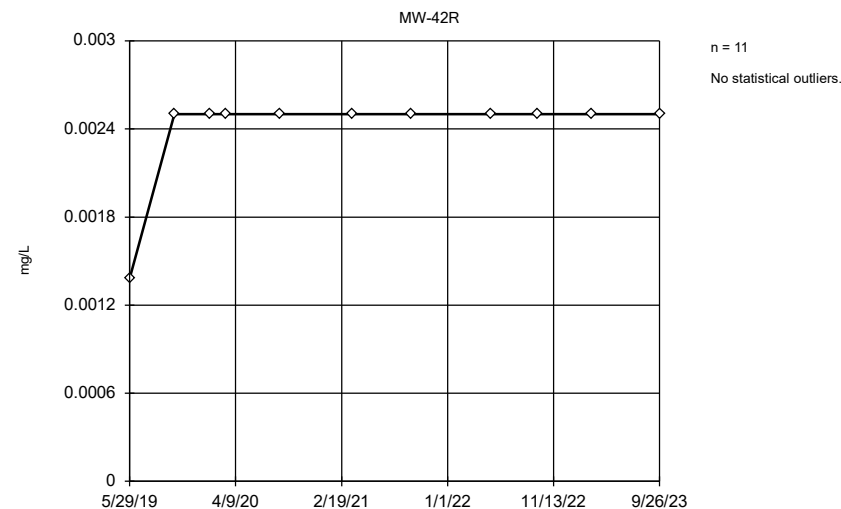
Constituent: Beryllium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGOutliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



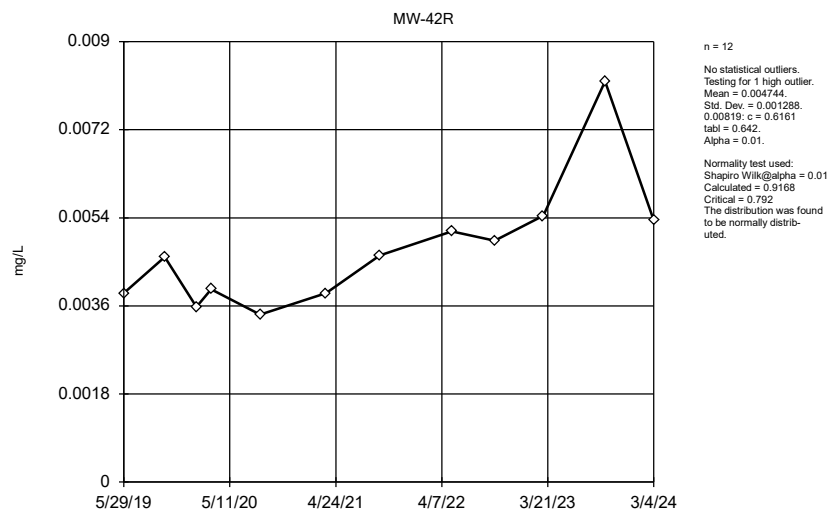
Constituent: Cadmium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



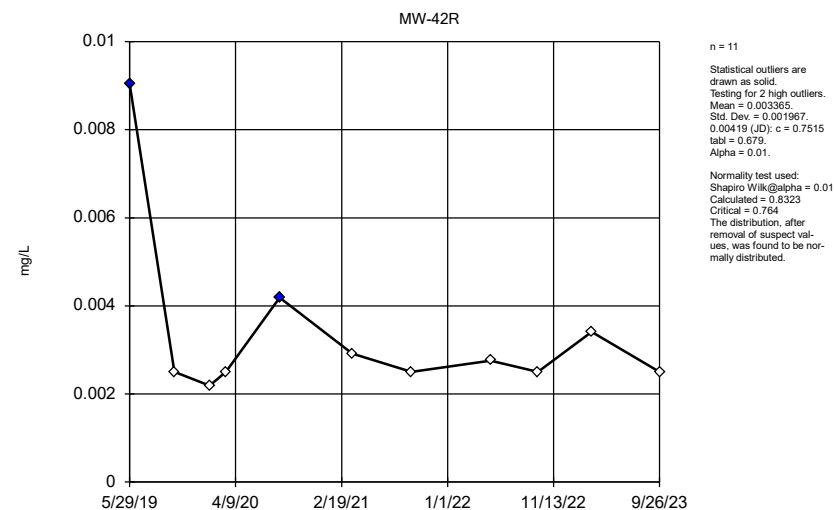
Constituent: Chromium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



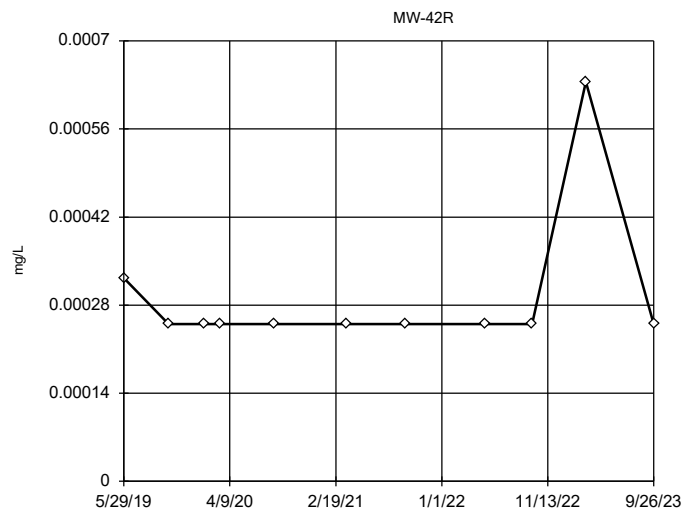
Constituent: Cobalt Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



Constituent: Copper Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

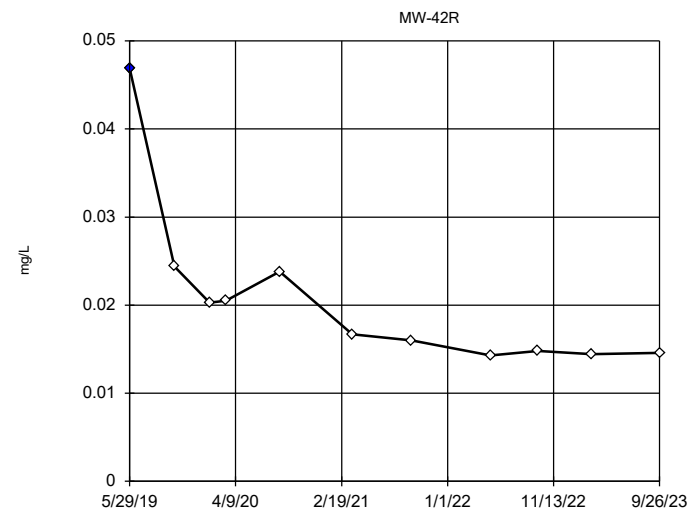


n = 11

No statistical outliers.

Constituent: Lead Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



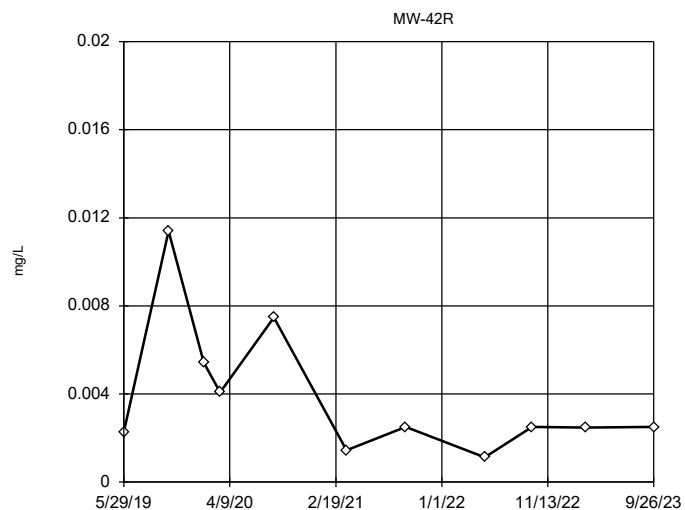
n = 11

Statistical outlier is drawn as solid.
Testing for 1 high outlier.
Mean = 0.02061.
Std. Dev. = 0.009487.
0.0469: c = 0.7119
tab1 = 0.679.
Alpha = 0.01.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8395
Critical = 0.781
The distribution, after removal of suspect value, was found to be normally distributed.

Constituent: Nickel Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



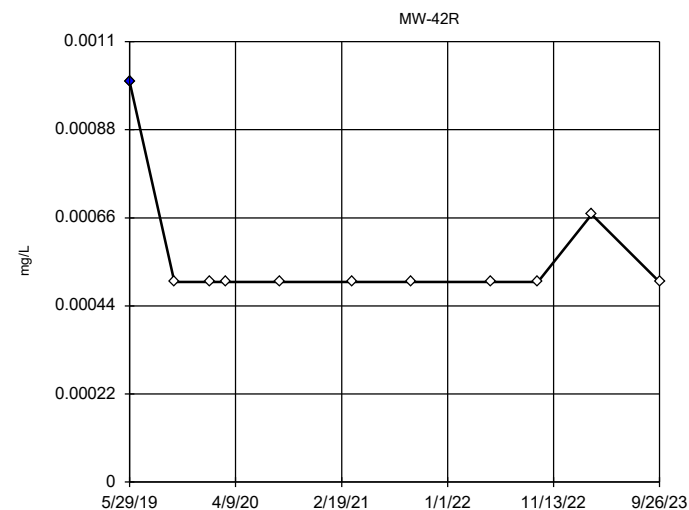
n = 11

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.003925, std. dev. 0.003093, critical Tn 2.234

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9368
Critical = 0.792 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Selenium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

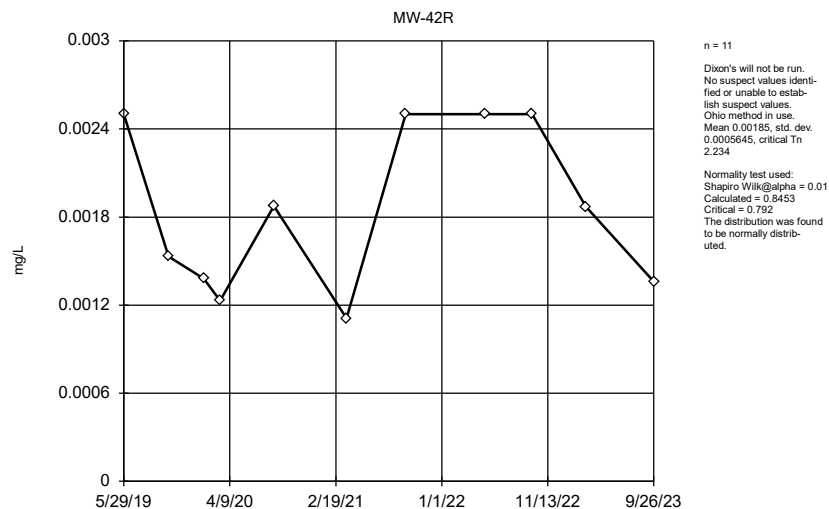


n = 11

Statistical outlier is drawn as solid.
Outlier per Ohio method.

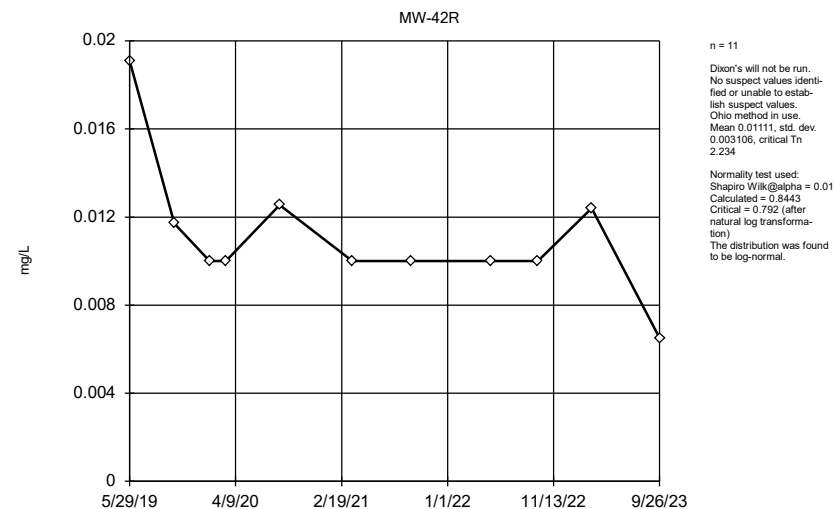
Constituent: Thallium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Vanadium Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Zinc Analysis Run 2/27/2025 7:18 PM View: 2024AWQR-MW-42R_BGO outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

**Intrawell Prediction Limits Summary Table and Graphs –
Closed MSWLF Unit**

MW-15C Intrawell Prediction Limit

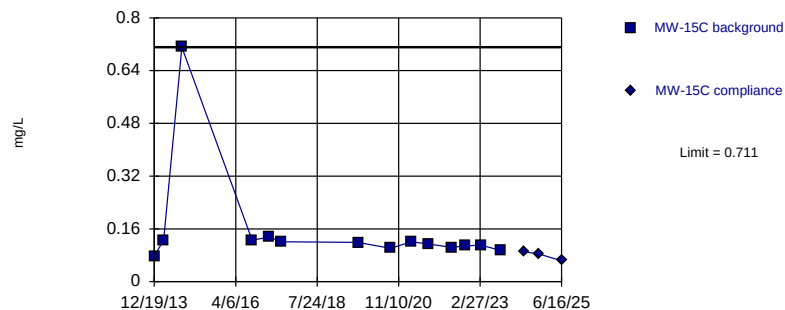
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 10/24/2025, 3:34 PM

<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>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-15C	0.711	n/a	6/16/2025	0.0634	No	14	n/a	n/a	n/a	0	n/a	n/a	0.008612	NP Intra (normality) 1 of 2
Cadmium (mg/L)	MW-15C	0.01272	n/a	6/16/2025	0.0001ND	No	8	n/a	0.03102	0.02963	25	Kaplan-Meier	sqrt(x)	0.001504	Param Intra 1 of 2
Cobalt (mg/L)	MW-15C	0.002712	n/a	6/16/2025	0.000295J	No	17	n/a	-8.038	0.9943	11.76	None	ln(x)	0.001504	Param Intra 1 of 2
Nickel (mg/L)	MW-15C	0.01417	n/a	6/16/2025	0.00727	No	11	n/a	0.007845	0.002621	0	None	No	0.001504	Param Intra 1 of 2
Zinc (mg/L)	MW-15C	0.0426	n/a	6/16/2025	0.01ND	No	8	n/a	n/a	n/a	75	n/a	n/a	0.02144	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



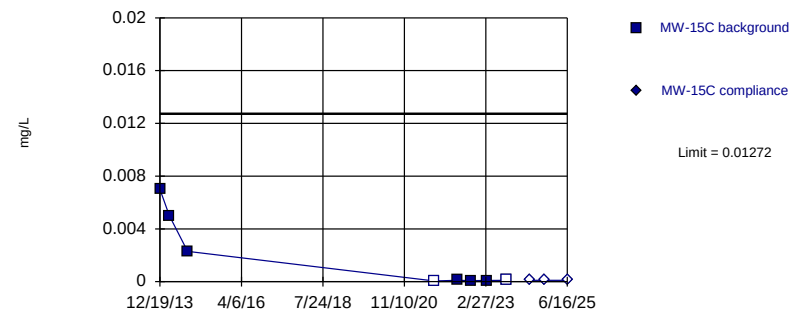
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 14 background values. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Barium Analysis Run 10/24/2025 3:33 PM View: 2025_SSN-MW-15C__IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



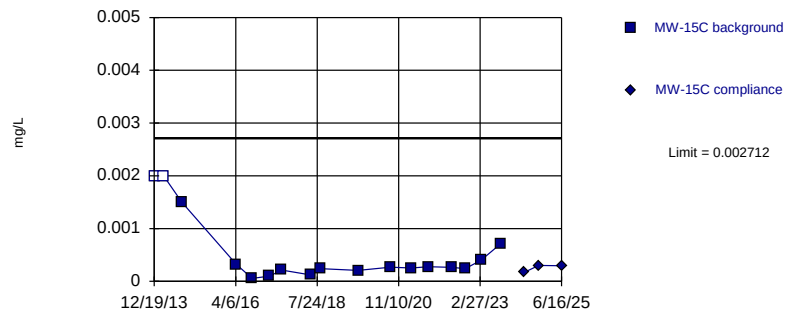
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.03102, Std. Dev.=0.02963, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.75, critical = 0.749. Kappa = 2.76 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Cadmium Analysis Run 10/24/2025 3:33 PM View: 2025_SSN-MW-15C__IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



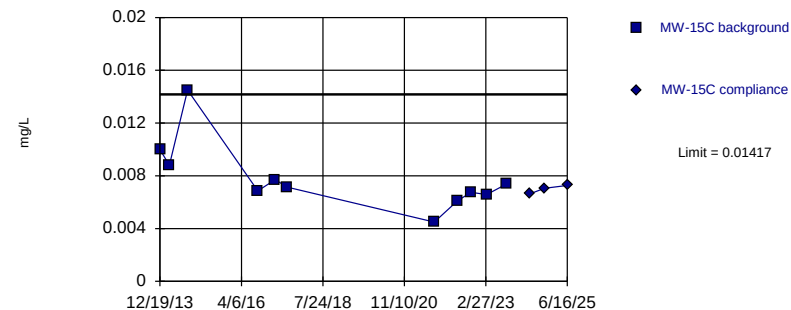
Background Data Summary (based on natural log transformation): Mean=-8.038, Std. Dev.=0.9943, n=17, 11.76% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.851. Kappa = 2.14 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Cobalt Analysis Run 10/24/2025 3:33 PM View: 2025_SSN-MW-15C__IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



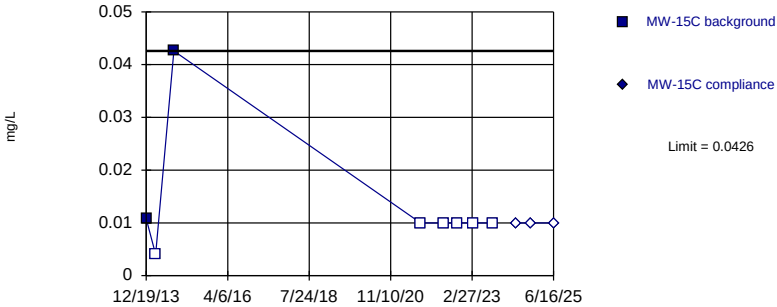
Background Data Summary: Mean=0.007845, Std. Dev.=0.002621, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8358, critical = 0.792. Kappa = 2.413 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Nickel Analysis Run 10/24/2025 3:33 PM View: 2025_SSN-MW-15C__IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Non-parametric



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

MW-44 Intrawell Prediction Limit

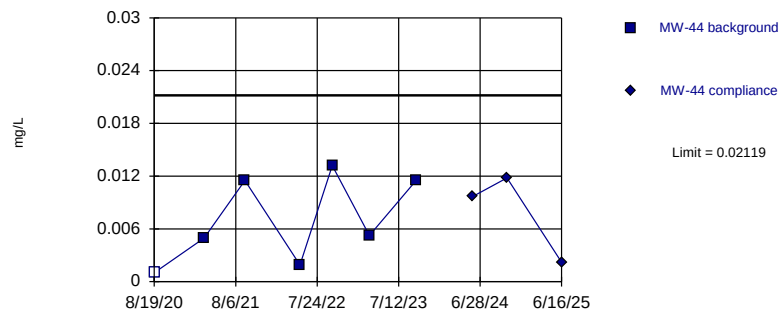
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 10/24/2025, 4:29 PM

<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>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-44	0.02119	n/a	6/16/2025	0.00221	No	7	n/a	0.007041	0.004971	14.29	None	No	0.00188	Param Intra 1 of 2
Barium (mg/L)	MW-44	0.04824	n/a	6/16/2025	0.0151	No	7	n/a	0.025	0.008163	0	None	No	0.00188	Param Intra 1 of 2
Cobalt (mg/L)	MW-44	0.005843	n/a	6/16/2025	0.000359J	No	7	n/a	0.001564	0.001503	0	None	No	0.00188	Param Intra 1 of 2
Nickel (mg/L)	MW-44	0.0025	n/a	6/16/2025	0.0025ND	No	5	n/a	n/a	n/a	80	n/a	n/a	0.04755	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Parametric



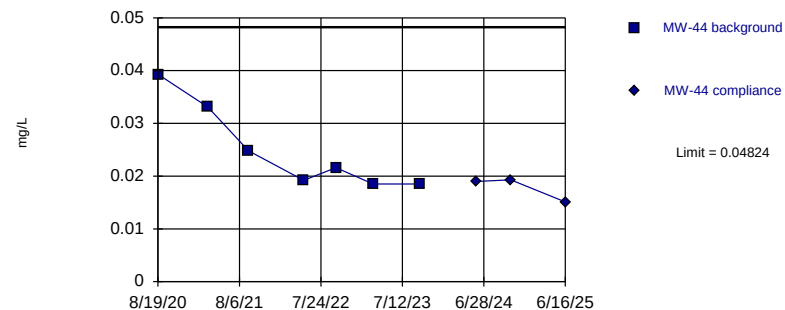
Background Data Summary: Mean=0.007041, Std. Dev.=0.004971, n=7, 14.29% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8816, critical = 0.73. Kappa = 2.847 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Arsenic Analysis Run 10/24/2025 4:24 PM View: 2025_SSN-MW-44_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



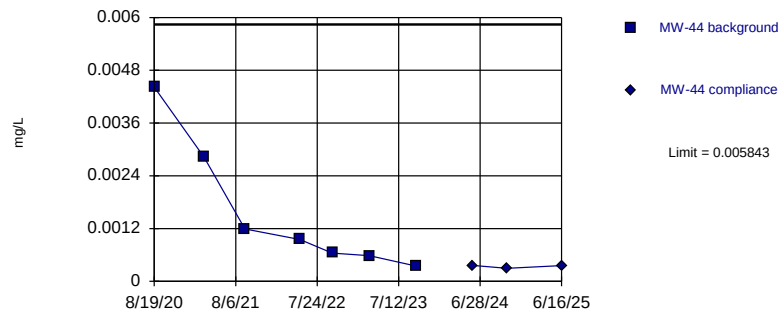
Background Data Summary: Mean=0.025, Std. Dev.=0.008163, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8261, critical = 0.73. Kappa = 2.847 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Barium Analysis Run 10/24/2025 4:24 PM View: 2025_SSN-MW-44_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



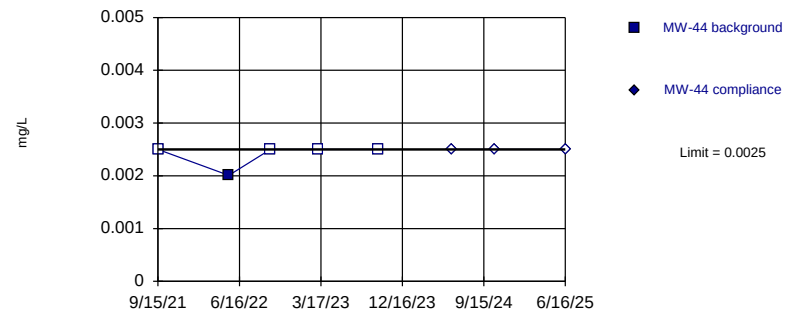
Background Data Summary: Mean=0.001564, Std. Dev.=0.001503, n=7. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8011, critical = 0.73. Kappa = 2.847 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Cobalt Analysis Run 10/24/2025 4:24 PM View: 2025_SSN-MW-44_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

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 5 background values. 80% NDs. Well-constituent pair annual alpha = 0.09284. Individual comparison alpha = 0.04755 (1 of 2).

Constituent: Nickel Analysis Run 10/24/2025 4:24 PM View: 2025_SSN-MW-44_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

**Intrawell Prediction Limits Summary Table and Graphs –
Open MSWLF Unit**

MW-16 Intrawell Prediction Limit

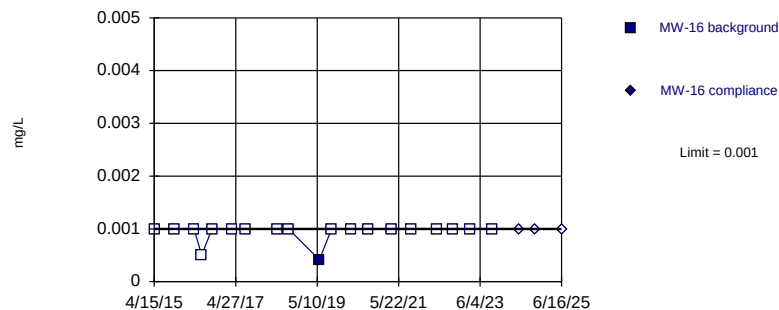
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 10/27/2025, 3:14 PM

<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>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-16	0.001	n/a	6/16/2025	0.001ND	No	19	n/a	n/a	n/a	94.74	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-16	0.3962	n/a	6/16/2025	0.143	No	19	n/a	0.3083	0.03886	0	None	No	0.0008776	Param Intra 1 of 2
Beryllium (mg/L)	MW-16	0.0005	n/a	6/16/2025	0.0005ND	No	19	n/a	n/a	n/a	94.74	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-16	0.0002835	n/a	6/16/2025	0.0001ND	No	19	n/a	n/a	n/a	63.16	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-16	0.0004544	n/a	6/16/2025	0.00025ND	No	19	n/a	0.0002298	0.00009929	21.05	Kaplan-Meier	No	0.0008776	Param Intra 1 of 2
Copper (mg/L)	MW-16	0.0025	n/a	6/16/2025	0.0025ND	No	18	n/a	n/a	n/a	83.33	n/a	n/a	0.005373	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-16	0.000478	n/a	6/16/2025	0.00025ND	No	19	n/a	n/a	n/a	68.42	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-16	0.01394	n/a	6/16/2025	0.0109	No	19	n/a	0.007898	0.002671	0	None	No	0.0008776	Param Intra 1 of 2
Silver (mg/L)	MW-16	0.000752	n/a	6/16/2025	0.0005ND	No	19	n/a	n/a	n/a	94.74	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-16	0.001	n/a	6/16/2025	0.0005ND	No	19	n/a	n/a	n/a	94.74	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-16	0.0025	n/a	6/16/2025	0.0025ND	No	19	n/a	n/a	n/a	89.47	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-16	0.01	n/a	6/16/2025	0.01ND	No	19	n/a	n/a	n/a	94.74	n/a	n/a	0.004832	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



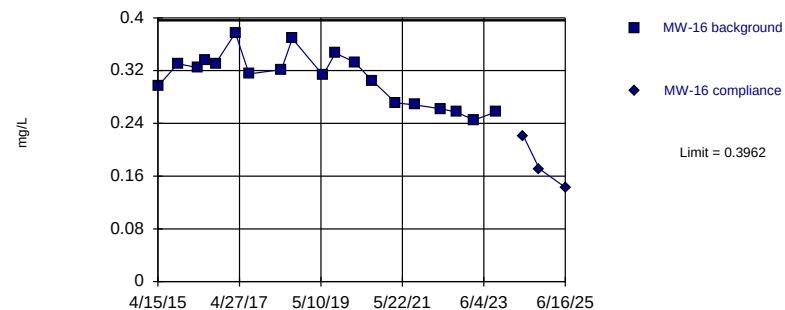
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Arsenic Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



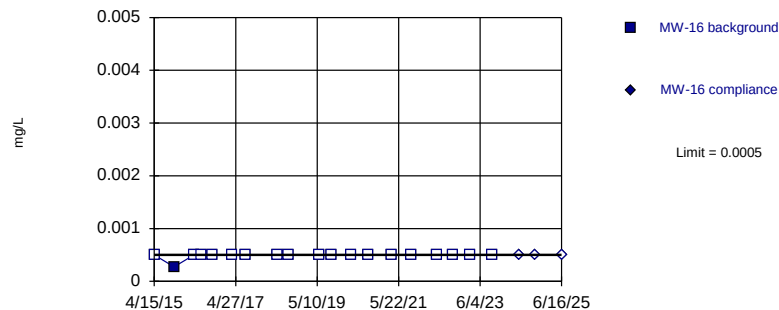
Background Data Summary: Mean=0.3083, Std. Dev.=0.03886, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Barium Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



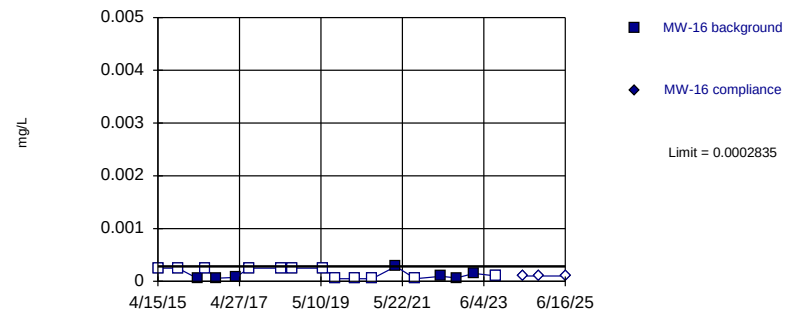
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Beryllium Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



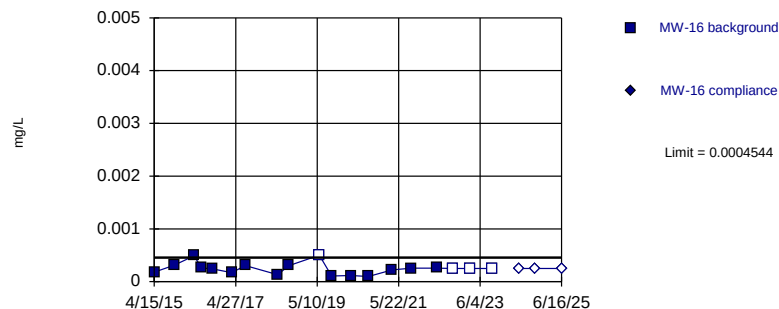
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 63.16% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Cadmium Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



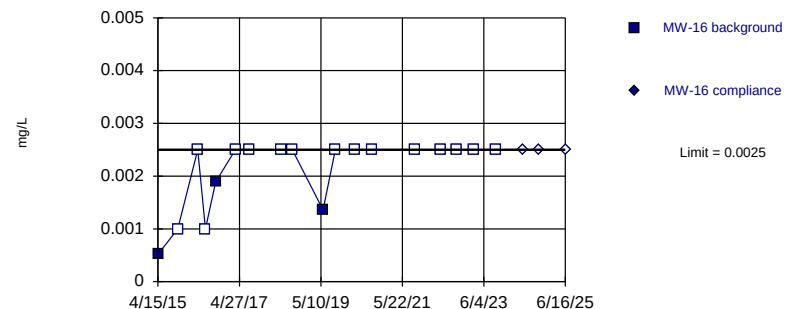
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0002298, Std. Dev.=0.00009929, n=19, 21.05% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8834, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Cobalt Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



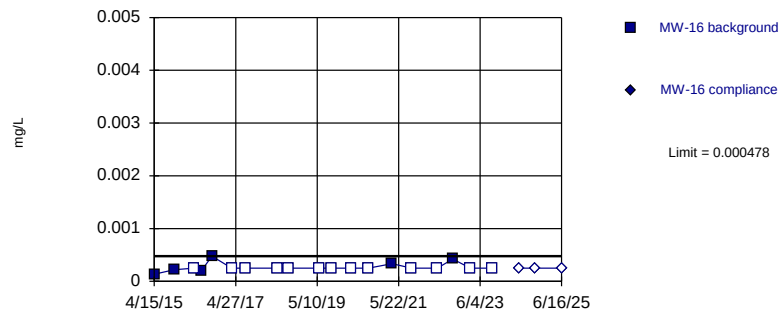
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Copper Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



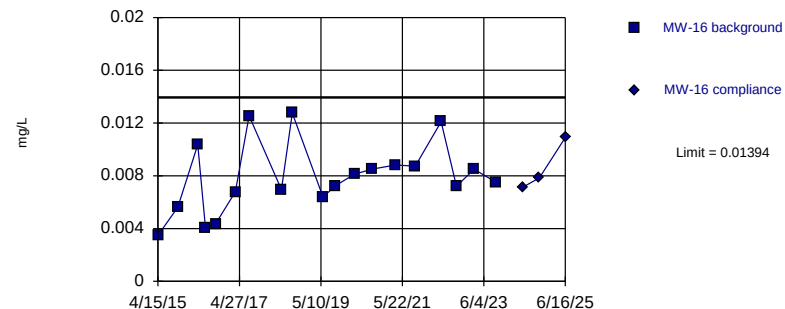
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 68.42% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Lead Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



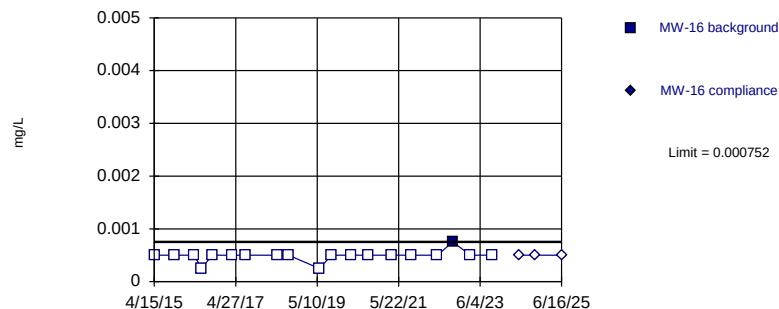
Background Data Summary: Mean=0.007898, Std. Dev.=0.002671, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Nickel Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



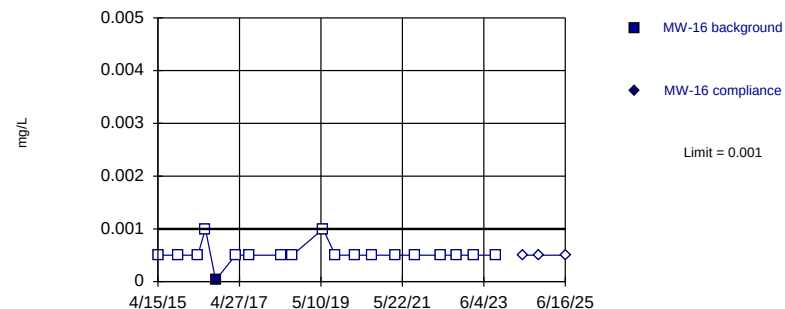
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



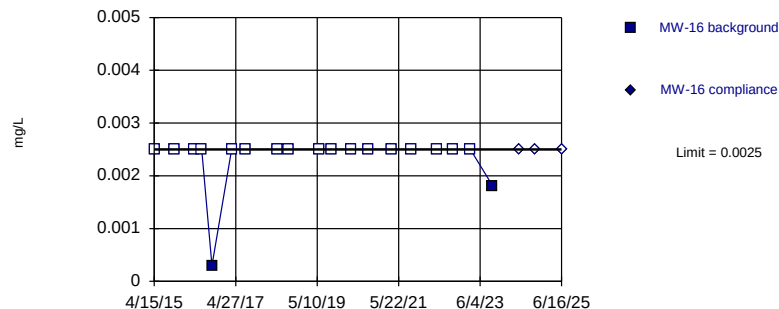
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Thallium Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



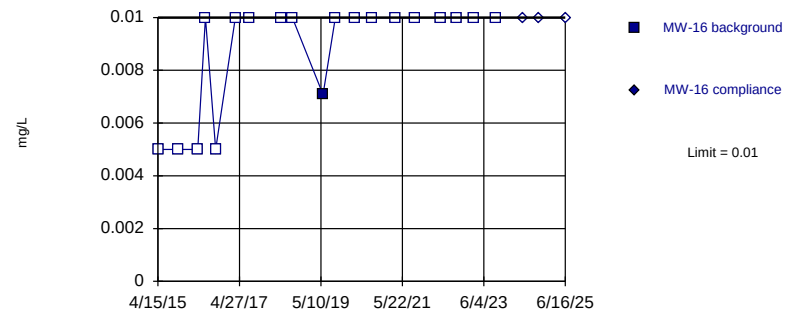
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Vanadium Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Zinc Analysis Run 10/27/2025 3:09 PM View: 2025_SSN-MW-16_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-27 Intrawell Prediction Limit

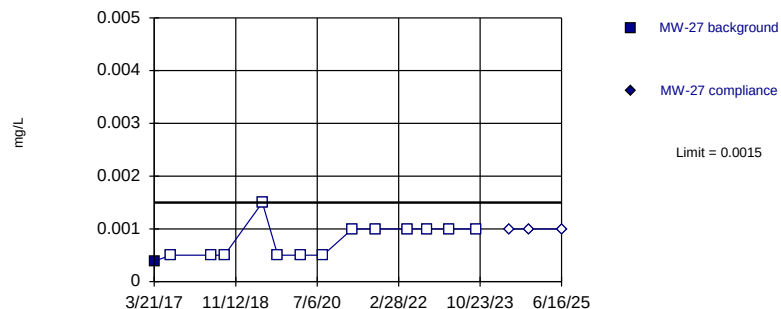
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 10/27/2025, 3:24 PM

<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>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-27	0.0015	n/a	6/16/2025	0.001ND	No	14	n/a	n/a	n/a	92.86	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-27	0.001	n/a	6/16/2025	0.001ND	No	14	n/a	n/a	n/a	92.86	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-27	0.03802	n/a	6/16/2025	0.0309	No	14	n/a	0.0342	0.001669	0	None	No	0.001316	Param Intra 1 of 2
Chromium (mg/L)	MW-27	0.0025	n/a	6/16/2025	0.0025ND	No	14	n/a	n/a	n/a	85.71	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-27	0.0005	n/a	6/16/2025	0.00025ND	No	14	n/a	n/a	n/a	71.43	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-27	0.0025	n/a	6/16/2025	0.0025ND	No	14	n/a	n/a	n/a	92.86	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-27	0.00025	n/a	6/16/2025	0.00025ND	No	14	n/a	n/a	n/a	92.86	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-27	0.0025	n/a	6/16/2025	0.0025ND	No	14	n/a	n/a	n/a	57.14	n/a	n/a	0.008612	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



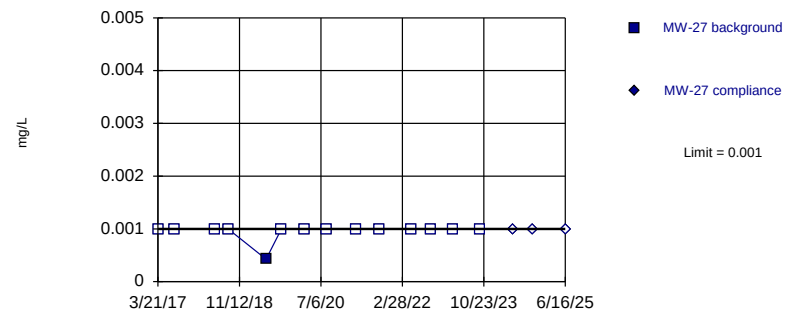
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Antimony Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



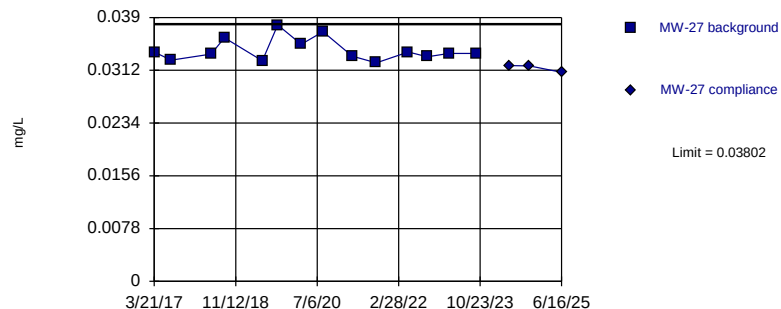
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Arsenic Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



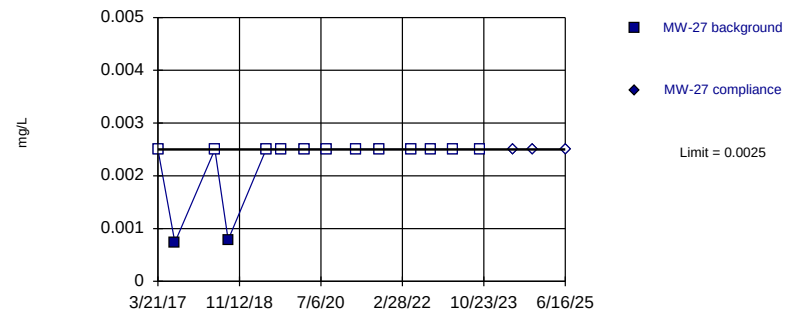
Background Data Summary: Mean=0.0342, Std. Dev.=0.001669, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8687, critical = 0.825. Kappa = 2.289 (c=8, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001316.

Constituent: Barium Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



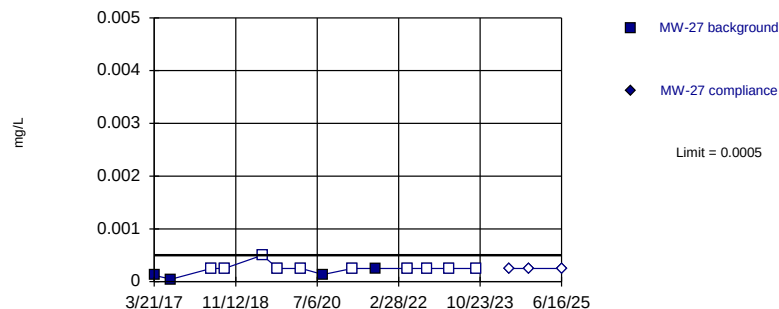
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Chromium Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



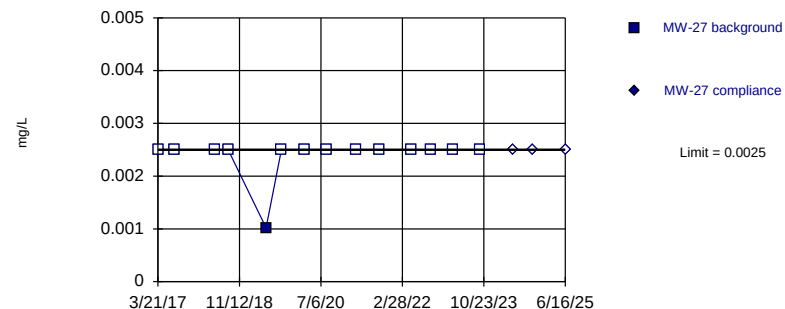
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 71.43% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Cobalt Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



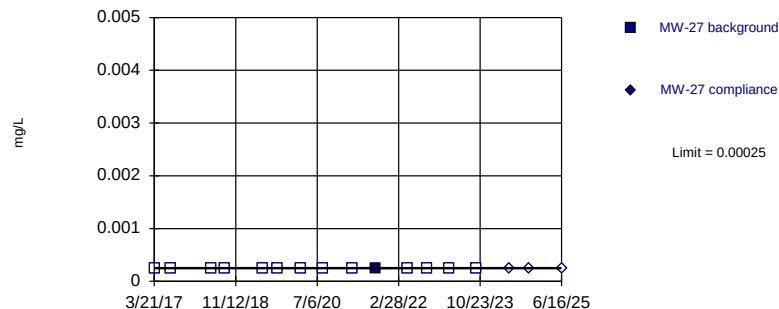
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Copper Analysis Run 10/27/2025 3:23 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



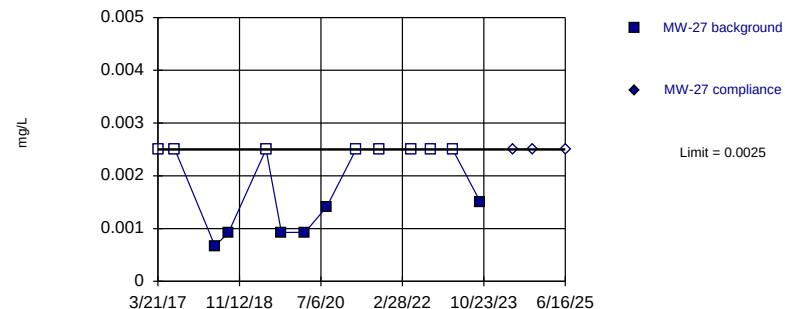
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Lead Analysis Run 10/27/2025 3:24 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



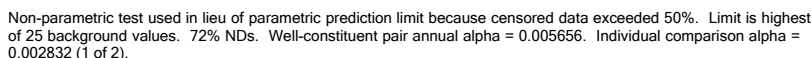
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 57.14% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Vanadium Analysis Run 10/27/2025 3:24 PM View: 2025_SSN-MW-27_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

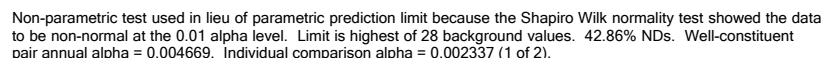
MW-35 Intrawell Prediction Limit

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 10/27/2025, 4:09 PM

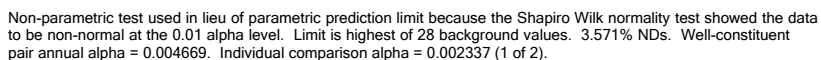
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-35	0.004	n/a	6/16/2025	0.001ND	No	25	n/a	n/a	n/a	72	n/a	n/a	0.002832	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-35	0.0116	n/a	6/16/2025	0.000689J	No	28	n/a	n/a	n/a	42.86	n/a	n/a	0.002337	NP Intra (normality) 1 of 2
Barium (mg/L)	MW-35	0.1	n/a	6/16/2025	0.0203	No	28	n/a	n/a	n/a	3.571	n/a	n/a	0.002337	NP Intra (normality) 1 of 2
Cadmium (mg/L)	MW-35	0.0004	n/a	6/16/2025	0.0001ND	No	28	n/a	n/a	n/a	75	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-35	0.005	n/a	6/16/2025	0.0025ND	No	28	n/a	n/a	n/a	92.86	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-35	0.05224	n/a	6/16/2025	0.00622	No	25	n/a	0.1024	0.05805	0	None	sqrt(x)	0.0008101	Param Intra 1 of 2
Copper (mg/L)	MW-35	0.0212	n/a	6/16/2025	0.0025ND	No	29	n/a	n/a	n/a	86.21	n/a	n/a	0.002172	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-35	0.002	n/a	6/16/2025	0.00025ND	No	28	n/a	n/a	n/a	85.71	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-35	0.1929	n/a	6/16/2025	0.0165	No	28	n/a	0.2014	0.111	7.143	None	sqrt(x)	0.0008101	Param Intra 1 of 2
Selenium (mg/L)	MW-35	0.00288	n/a	6/16/2025	0.0025ND	No	28	n/a	n/a	n/a	96.43	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-35	0.002	n/a	6/16/2025	0.0005ND	No	28	n/a	n/a	n/a	89.29	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-35	0.01	n/a	6/16/2025	0.0025ND	No	28	n/a	n/a	n/a	78.57	n/a	n/a	0.002337	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-35	0.147	n/a	6/16/2025	0.01ND	No	29	n/a	n/a	n/a	75.86	n/a	n/a	0.002172	NP Intra (NDs) 1 of 2



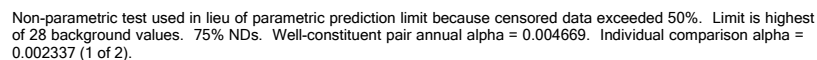
Within Limit



Within Limit



Within Limit

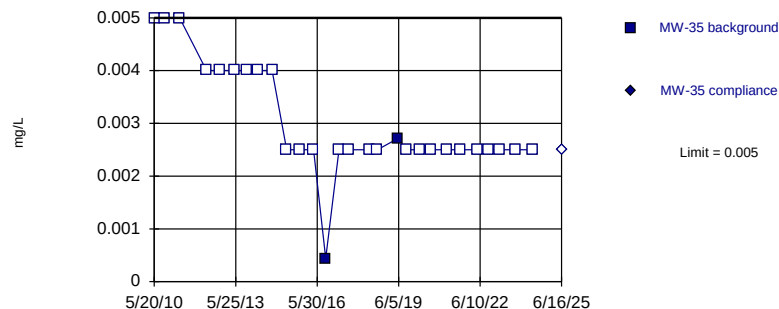


Constituent: Cadmium Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



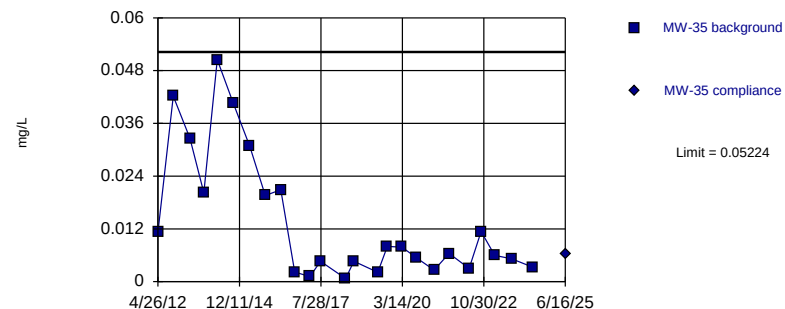
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Chromium Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



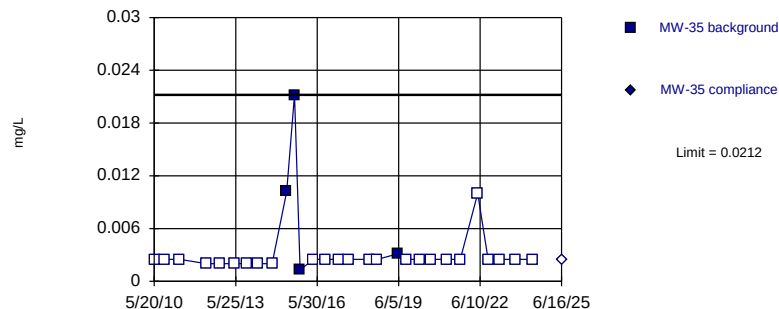
Background Data Summary (based on square root transformation): Mean=0.1024, Std. Dev.=0.05805, n=25.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9028, critical = 0.888. Kappa = 2.173 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008101.

Constituent: Cobalt Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



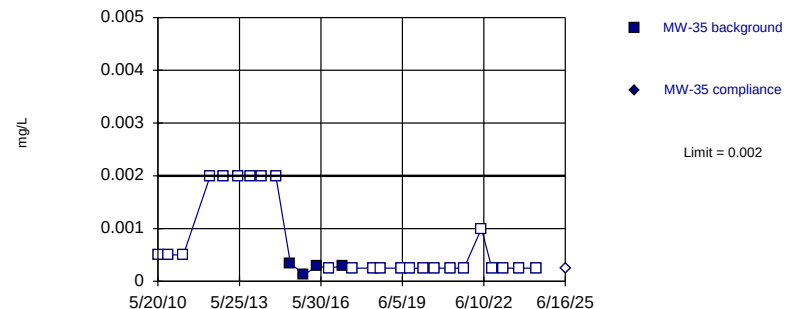
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 86.21% NDs. Well-constituent pair annual alpha = 0.00434. Individual comparison alpha = 0.002172 (1 of 2).

Constituent: Copper Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



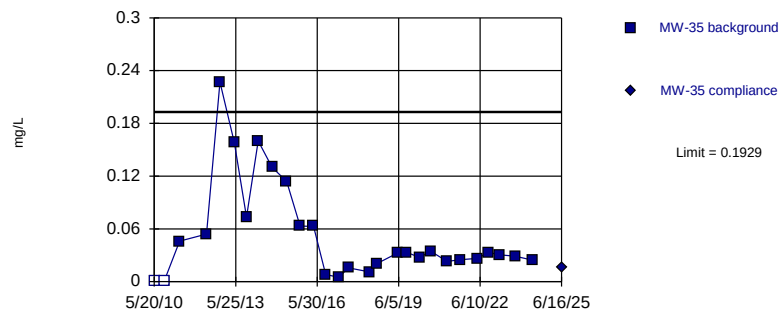
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Lead Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



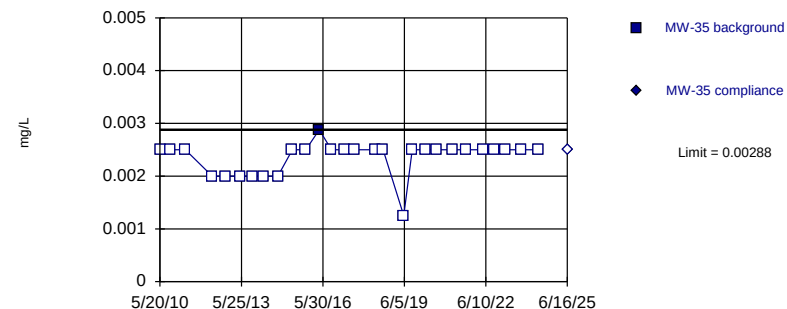
Background Data Summary (based on square root transformation): Mean=0.2014, Std. Dev.=0.111, n=28, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9319, critical = 0.896. Kappa = 2.141 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008101.

Constituent: Nickel Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



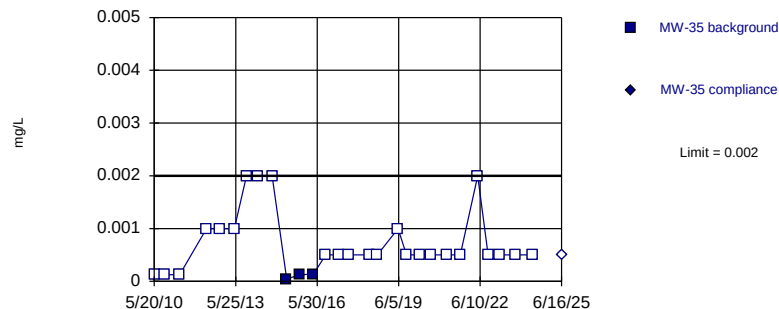
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 96.43% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Selenium Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



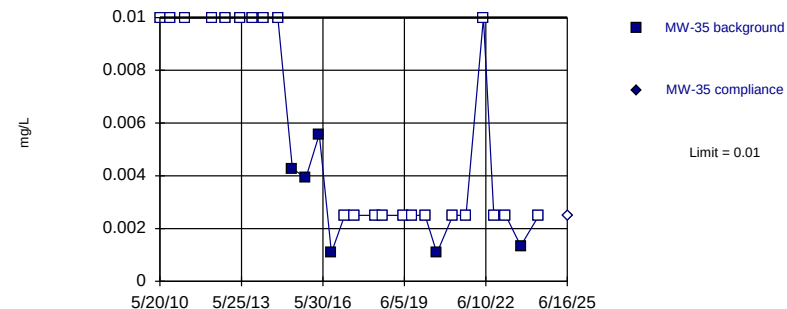
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 89.29% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Thallium Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric

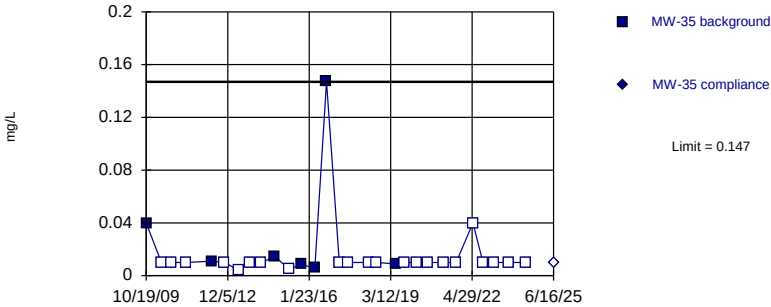


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 78.57% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Vanadium Analysis Run 10/27/2025 4:06 PM View: 2025_SSN-MW-35_IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit
Intrawell Non-parametric



MW-42R Intrawell Prediction Limit

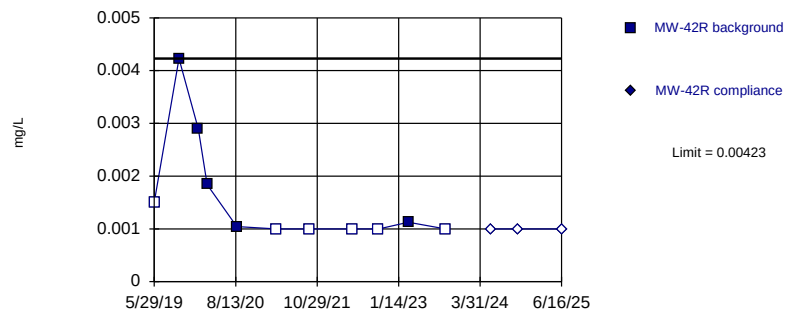
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 10/27/2025, 4:17 PM

<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>Bg Wells</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-42R	0.00423	n/a	6/16/2025	0.001ND	No	11	n/a	n/a	n/a	54.55	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-42R	0.001429	n/a	6/16/2025	0.000543J	No	11	n/a	0.001022	0.0001506	27.27	Kaplan-Meier	No	0.0007523	Param Intra 1 of 2
Barium (mg/L)	MW-42R	0.03738	n/a	6/16/2025	0.0239	No	11	n/a	0.02443	0.004789	0	None	No	0.0007523	Param Intra 1 of 2
Beryllium (mg/L)	MW-42R	0.0005	n/a	6/16/2025	0.0005ND	No	11	n/a	n/a	n/a	90.91	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-42R	0.0004256	n/a	6/16/2025	0.0001ND	No	11	n/a	0.0001948	0.00008534	18.18	Kaplan-Meier	No	0.0007523	Param Intra 1 of 2
Chromium (mg/L)	MW-42R	0.0025	n/a	6/16/2025	0.0025ND	No	11	n/a	n/a	n/a	90.91	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-42R	0.0081	n/a	6/16/2025	0.00365	No	12	n/a	0.004744	0.001288	0	None	No	0.0007523	Param Intra 1 of 2
Copper (mg/L)	MW-42R	0.00905	n/a	6/16/2025	0.0025ND	No	11	n/a	n/a	n/a	45.45	n/a	n/a	0.01276	NP Intra (normality) 1 of 2
Lead (mg/L)	MW-42R	0.000635	n/a	6/16/2025	0.00025ND	No	11	n/a	n/a	n/a	81.82	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-42R	0.05051	n/a	6/16/2025	0.00952	No	11	n/a	-3.95	0.3566	0	None	ln(x)	0.0007523	Param Intra 1 of 2
Selenium (mg/L)	MW-42R	0.01389	n/a	6/16/2025	0.0025ND	No	11	n/a	0.05811	0.0221	27.27	Kaplan-Meier	sqrt(x)	0.0007523	Param Intra 1 of 2
Thallium (mg/L)	MW-42R	0.001	n/a	6/16/2025	0.0005ND	No	11	n/a	n/a	n/a	90.91	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-42R	0.002226	n/a	6/16/2025	0.0025ND	No	11	n/a	0.001479	0.0002763	36.36	Kaplan-Meier	No	0.0007523	Param Intra 1 of 2
Zinc (mg/L)	MW-42R	0.0191	n/a	6/16/2025	0.01ND	No	11	n/a	n/a	n/a	54.55	n/a	n/a	0.01276	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



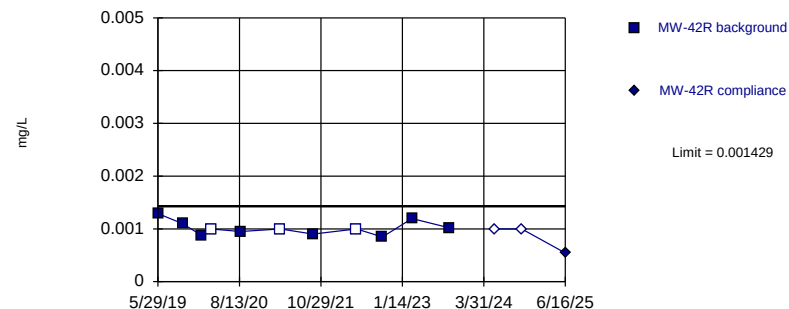
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Antimony Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



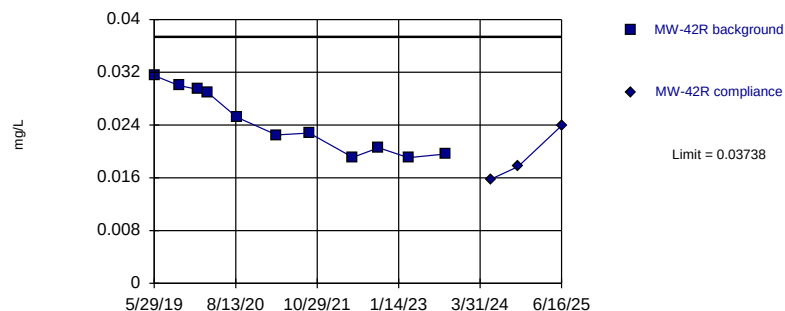
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001022, Std. Dev.=0.0001506, n=11, 27.27% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Arsenic Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



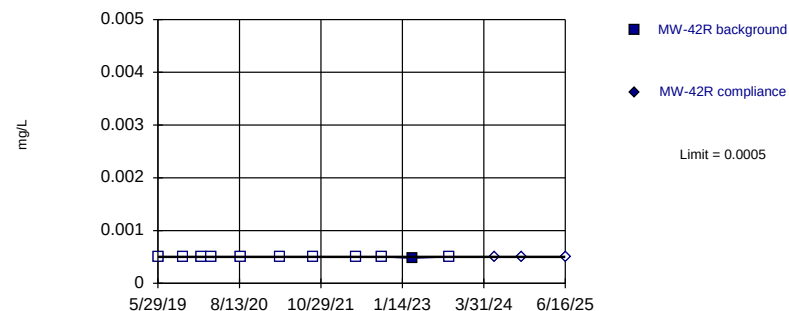
Background Data Summary: Mean=0.02443, Std. Dev.=0.004789, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8789, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Barium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



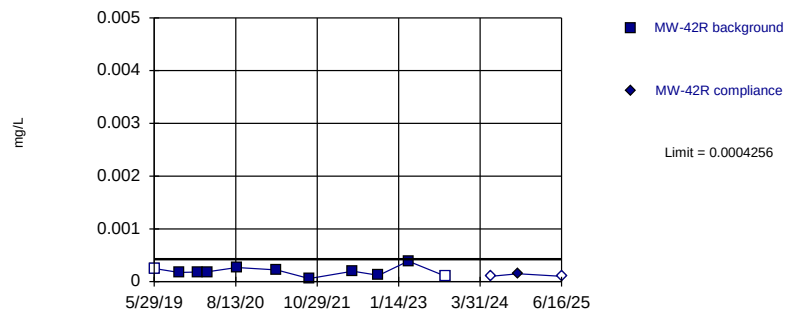
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Beryllium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



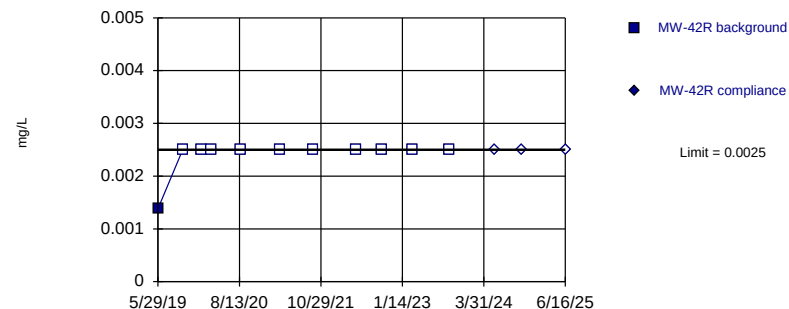
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0001948, Std. Dev.=0.00008534, n=11, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9579, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Cadmium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



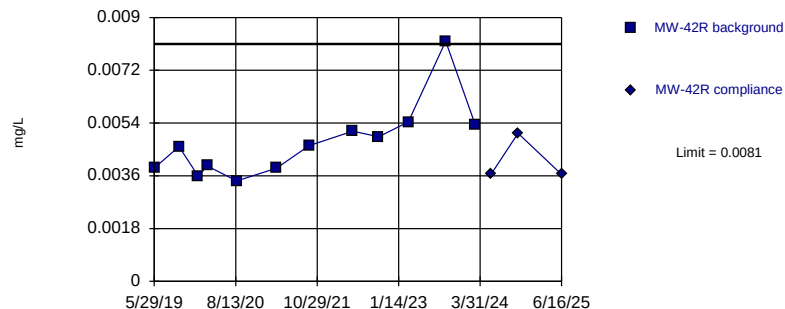
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Chromium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



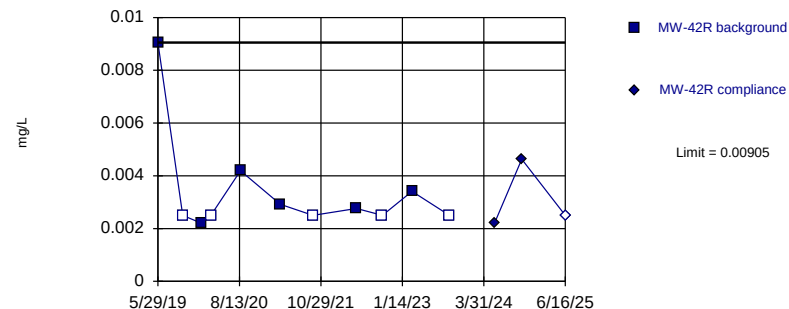
Background Data Summary: Mean=0.004744, Std. Dev.=0.001288, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8207, critical = 0.805. Kappa = 2.606 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Cobalt Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



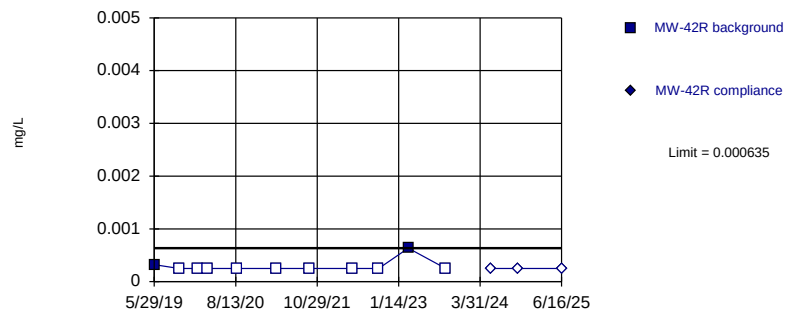
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Copper Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



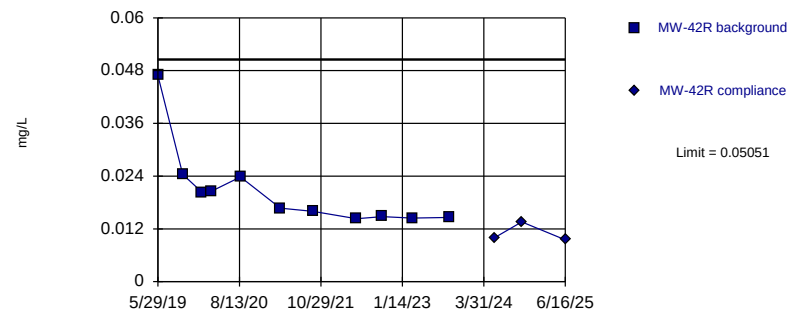
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Lead Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



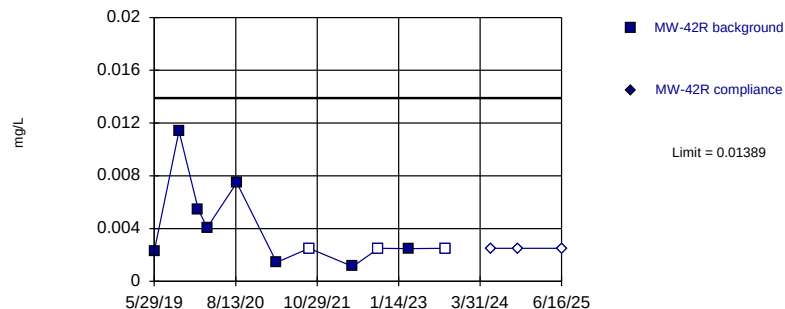
Background Data Summary (based on natural log transformation): Mean=-3.95, Std. Dev.=0.3566, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8062, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Nickel Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



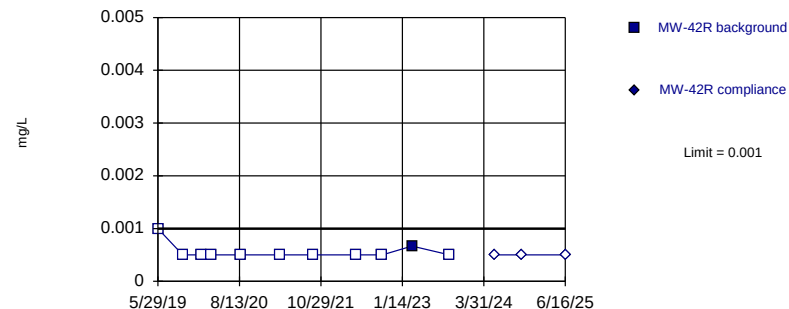
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.05811, Std. Dev.=0.0221, n=11, 27.27% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8762, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Selenium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



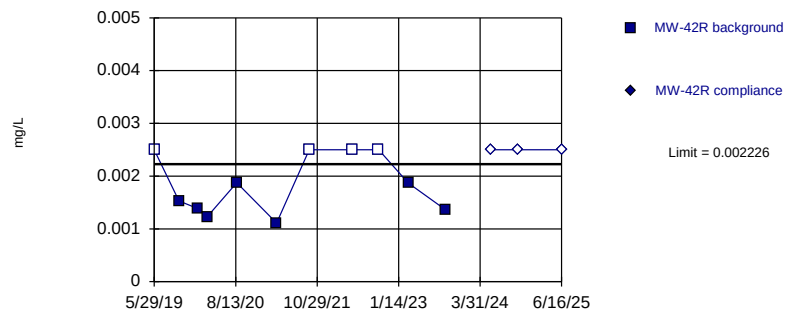
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Thallium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



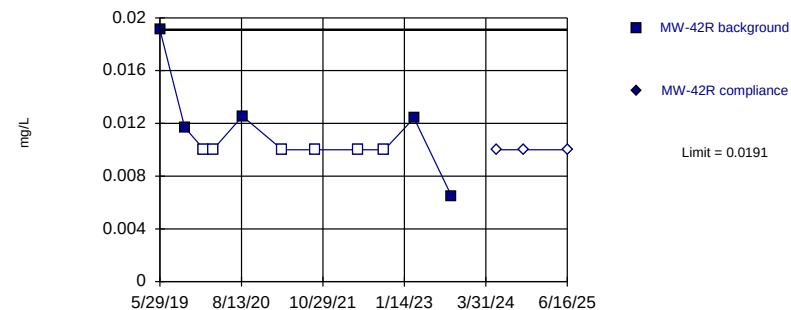
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001479, Std. Dev.=0.0002763, n=11, 36.36% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8453, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Vanadium Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 11 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Zinc Analysis Run 10/27/2025 4:16 PM View: 2025_SSN-MW-42R-IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

**Sen's Slope/Mann-Kendall Summary Table and Graphs –
Closed MSWLF Unit**

AM AZPOC Trend Test

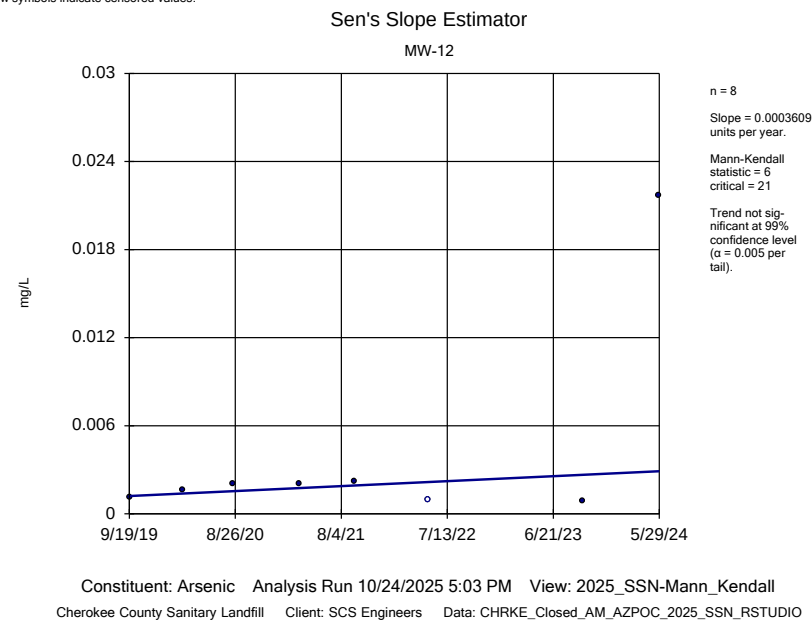
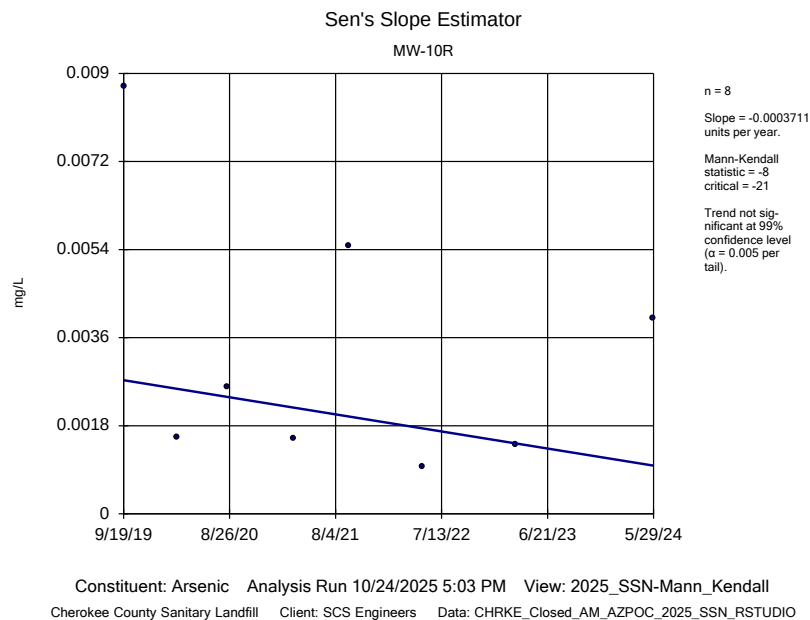
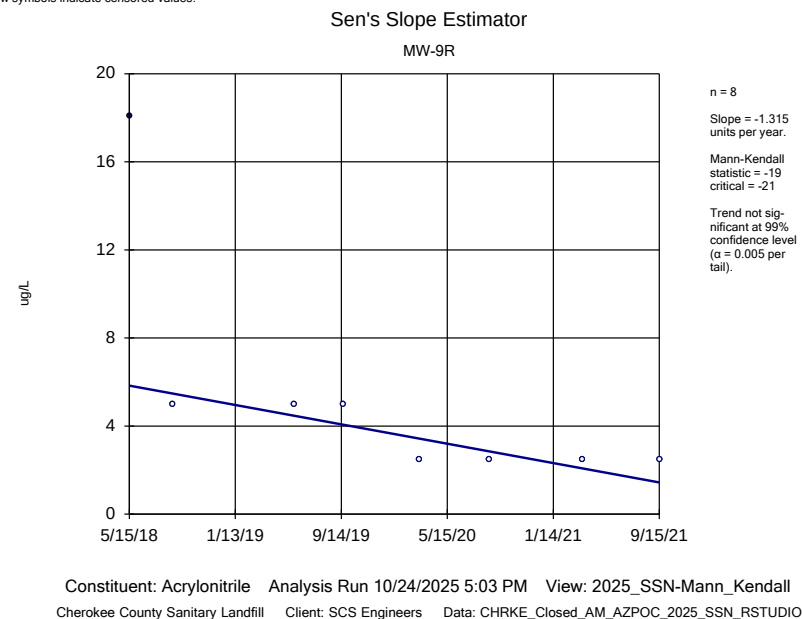
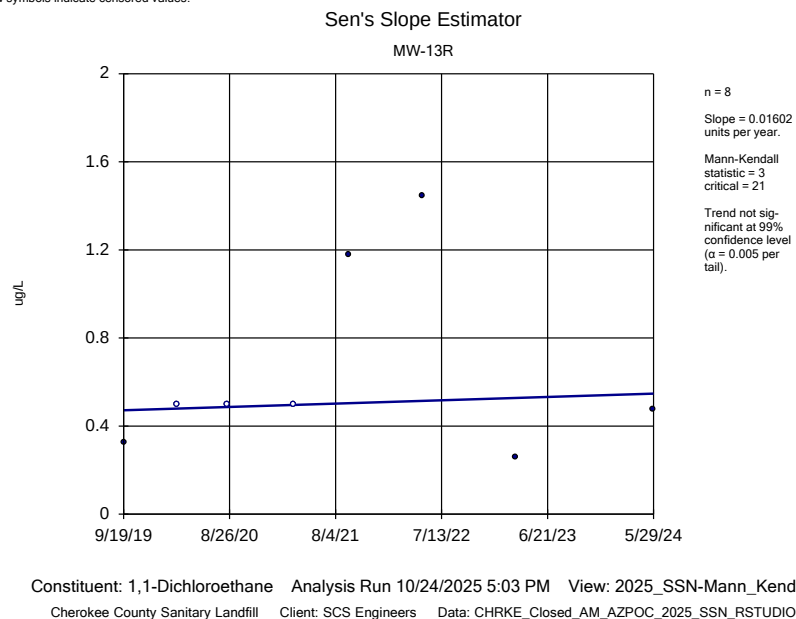
Cherokee County Sanitary Landfill

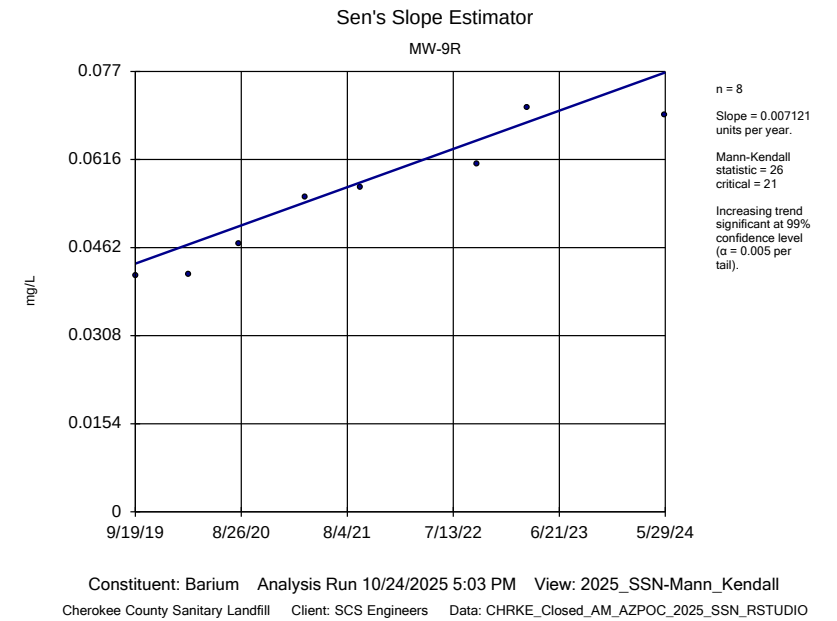
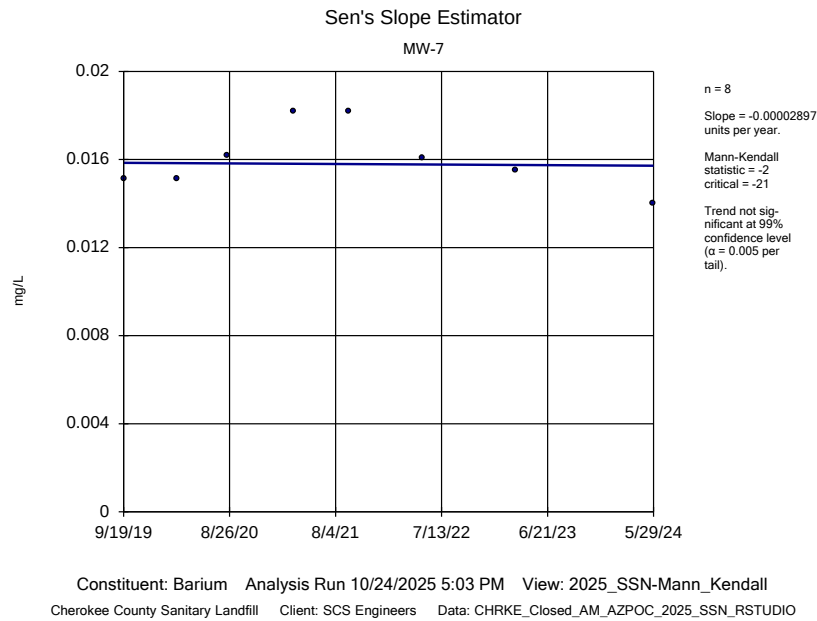
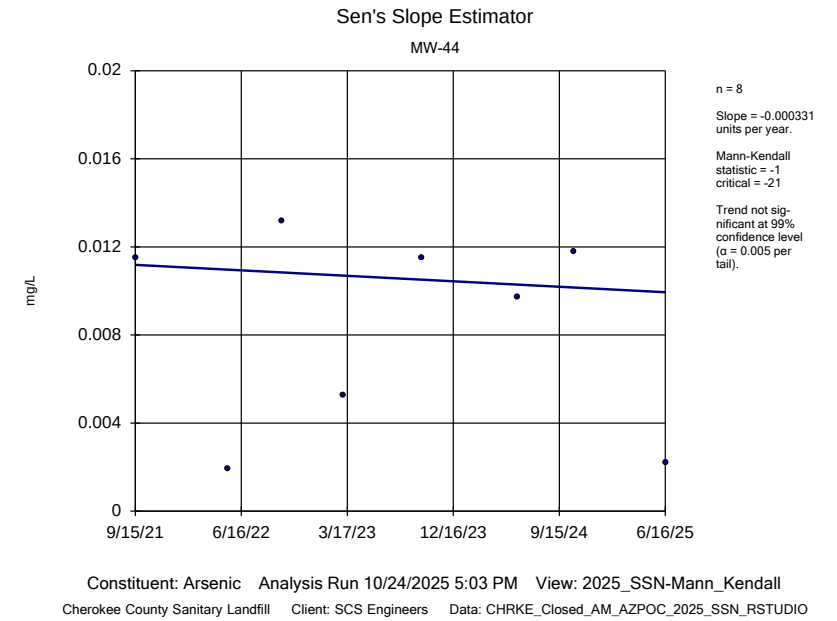
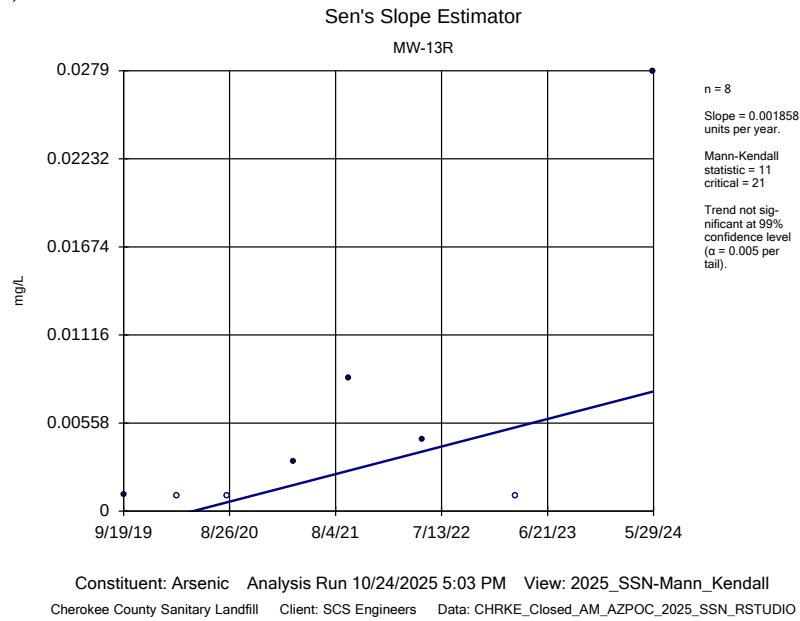
Client: SCS Engineers

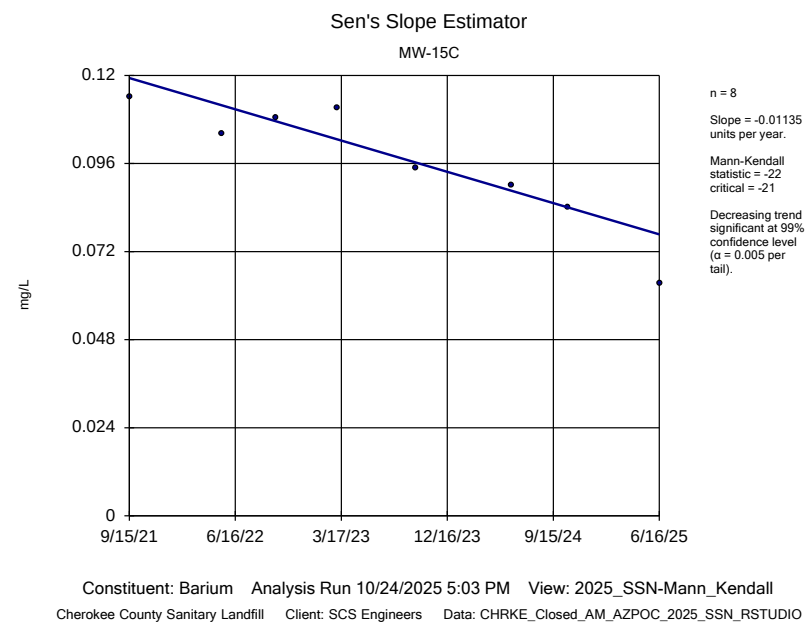
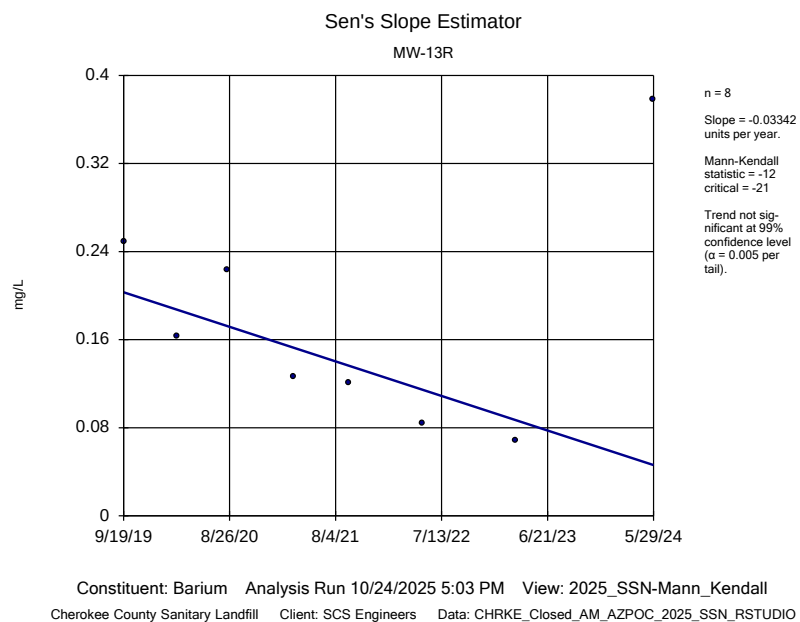
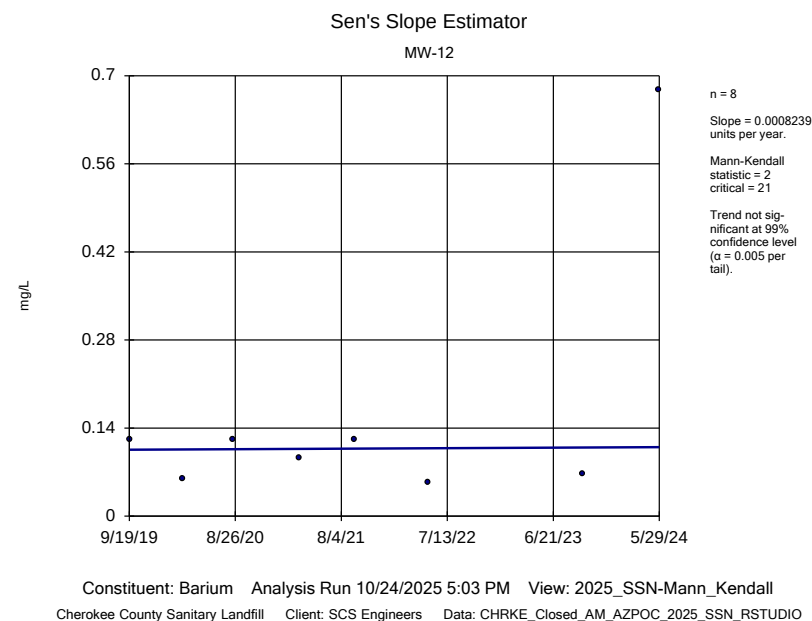
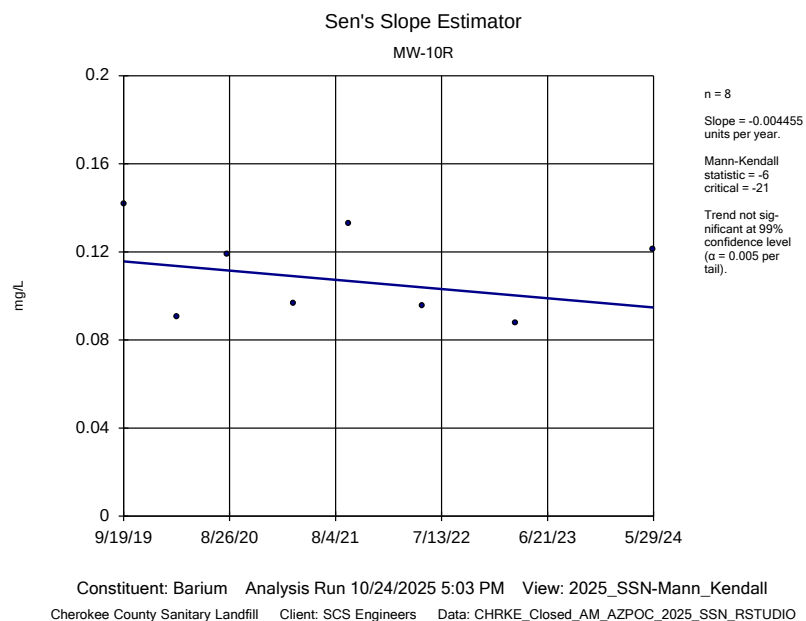
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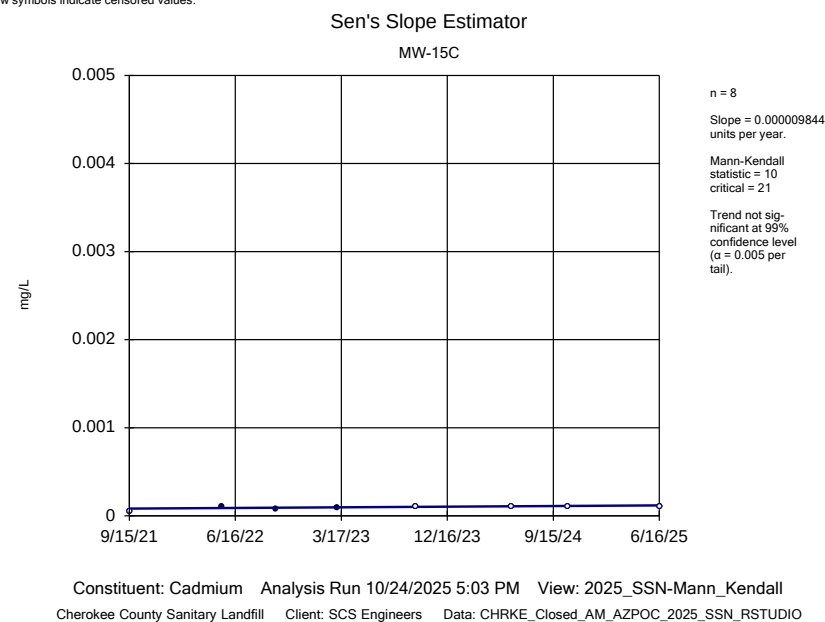
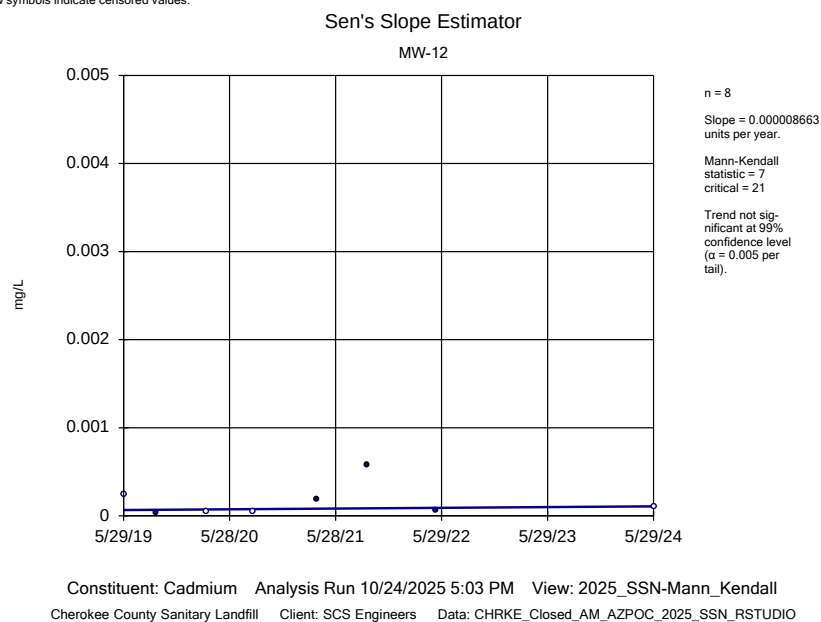
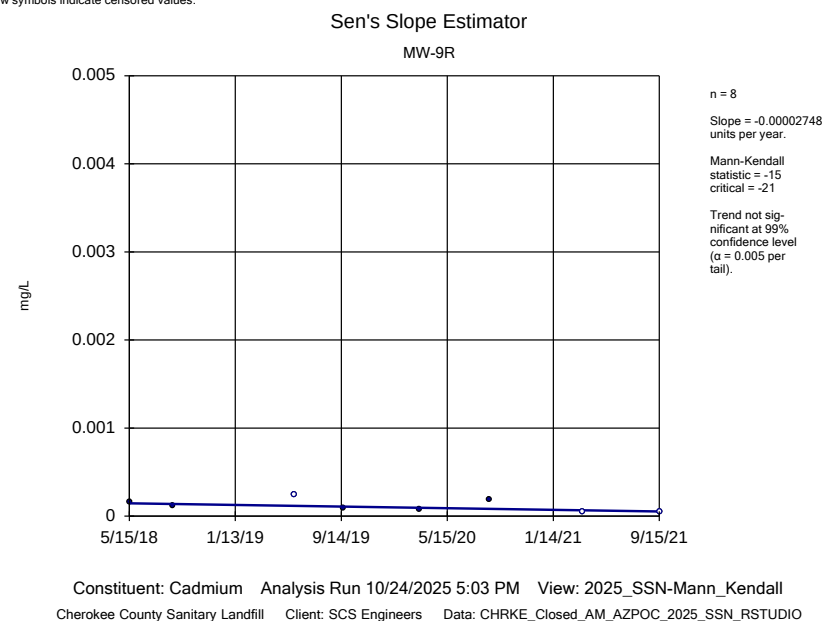
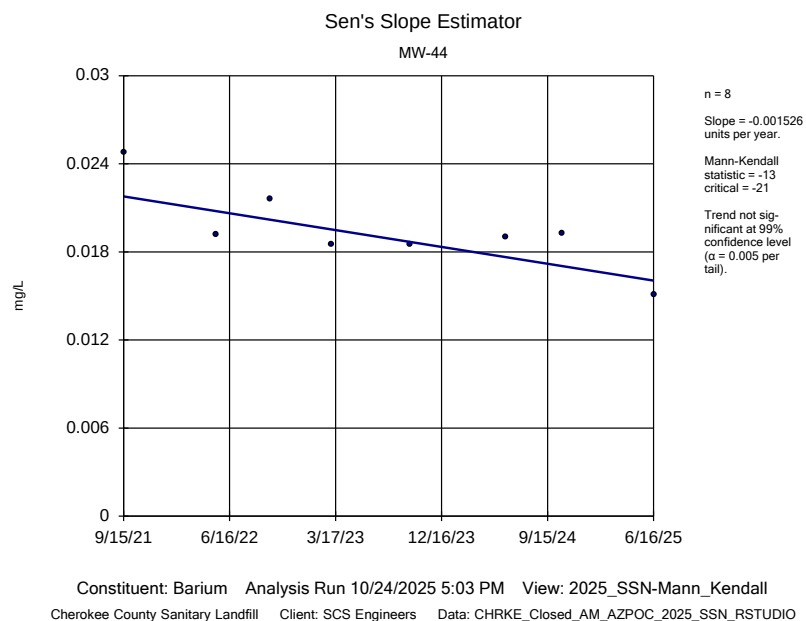
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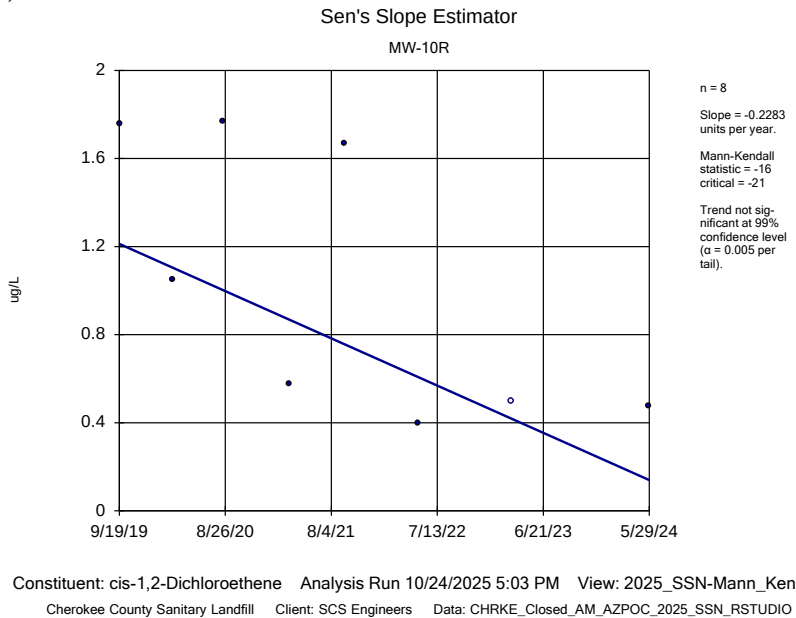
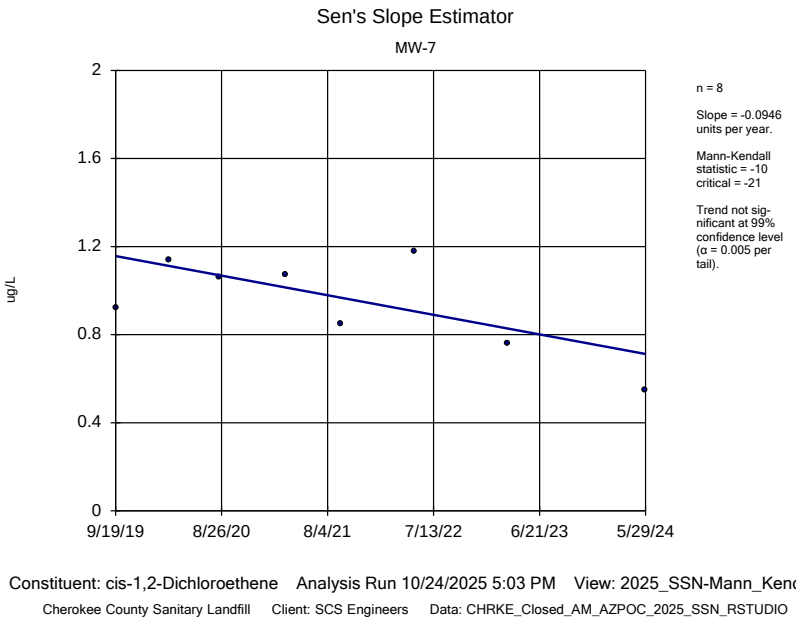
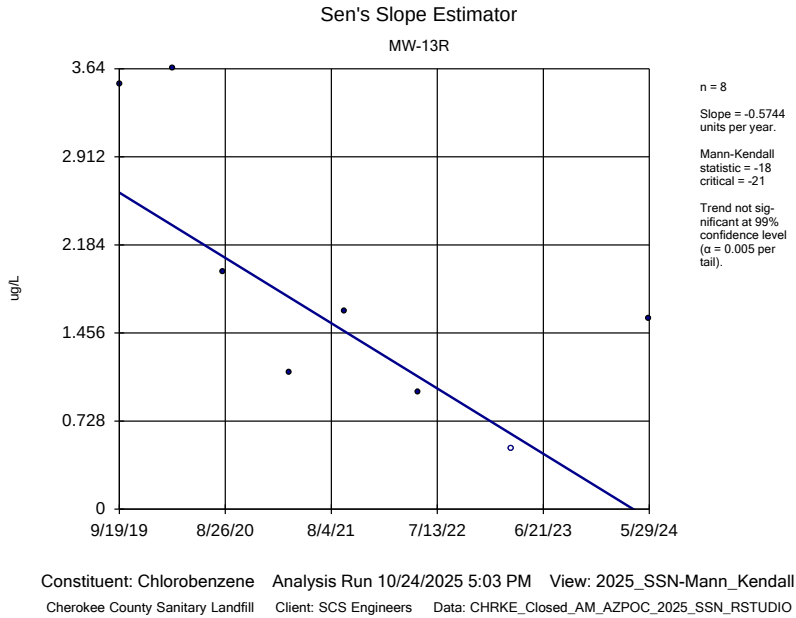
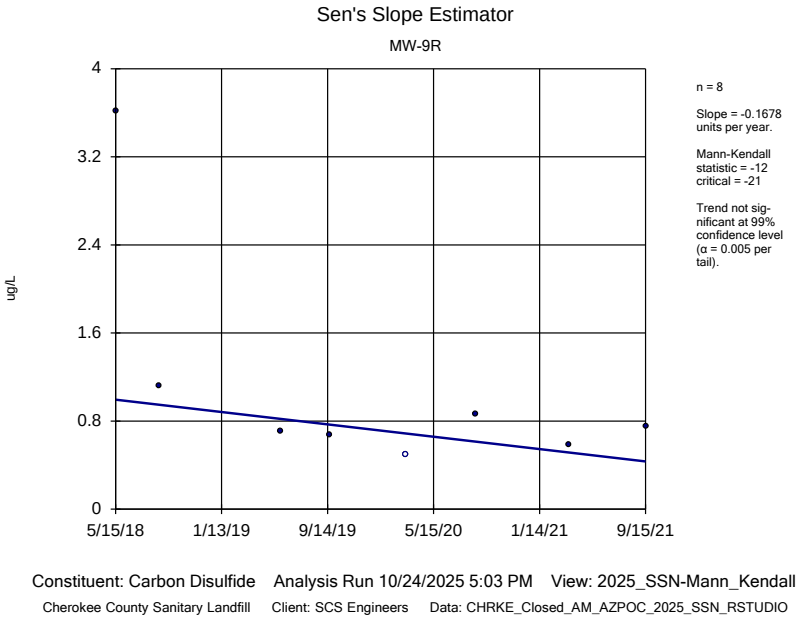
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
1,1-Dichloroethane (ug/L)	MW-13R	0.01602	3	21	No	8	37.5	0.01	NP
Acrylonitrile (ug/L)	MW-9R	-1.315	-19	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-10R	-0.0003711	-8	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-12	0.0003609	6	21	No	8	12.5	0.01	NP
Arsenic (mg/L)	MW-13R	0.001858	11	21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-44	-0.000331	-1	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-7	-0.00002897	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-9R	0.007121	26	21	Yes	8	0	0.01	NP
Barium (mg/L)	MW-10R	-0.004455	-6	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-12	0.0008239	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-13R	-0.03342	-12	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-15C	-0.01135	-22	-21	Yes	8	0	0.01	NP
Barium (mg/L)	MW-44	-0.001526	-13	-21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-9R	-0.00002748	-15	-21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-12	0.000008663	7	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-15C	0.000009844	10	21	No	8	62.5	0.01	NP
Carbon Disulfide (ug/L)	MW-9R	-0.1678	-12	-21	No	8	12.5	0.01	NP
Chlorobenzene (ug/L)	MW-13R	-0.5744	-18	-21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-7	-0.0946	-10	-21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-10R	-0.2283	-16	-21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-7	0.00004231	11	21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-9R	0.0006987	16	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-10R	-0.0004451	-11	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-12	0.0004315	12	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-13R	-0.001222	-10	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-15C	0.000006554	2	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-44	-0.0002058	-22	-21	Yes	8	0	0.01	NP
Copper (mg/L)	MW-7	0	5	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-10R	0	5	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-13R	0	7	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-10R	-0.00002	-2	-21	No	8	0	0.01	NP
Lead (mg/L)	MW-12	0	4	21	No	8	50	0.01	NP
Nickel (mg/L)	MW-9R	0.00166	6	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-10R	0.0002952	4	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-12	0.003772	10	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-13R	-0.0004919	-14	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-15C	0.0004926	18	21	No	8	0	0.01	NP
Selenium (mg/L)	MW-12	0.0007979	16	21	No	8	62.5	0.01	NP
Styrene (ug/L)	MW-9R	0	-7	-21	No	8	87.5	0.01	NP
Trichloroethene (ug/L)	MW-7	-0.1407	-22	-21	Yes	8	0	0.01	NP

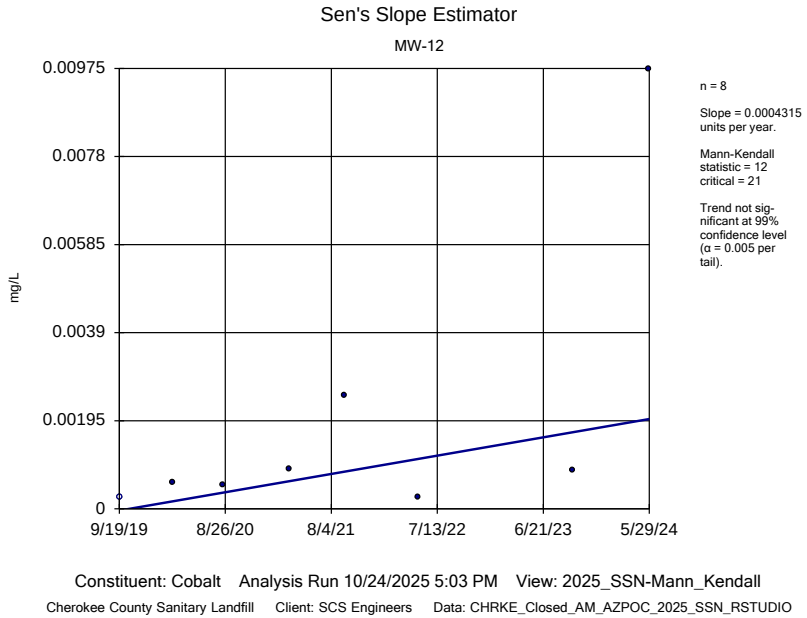
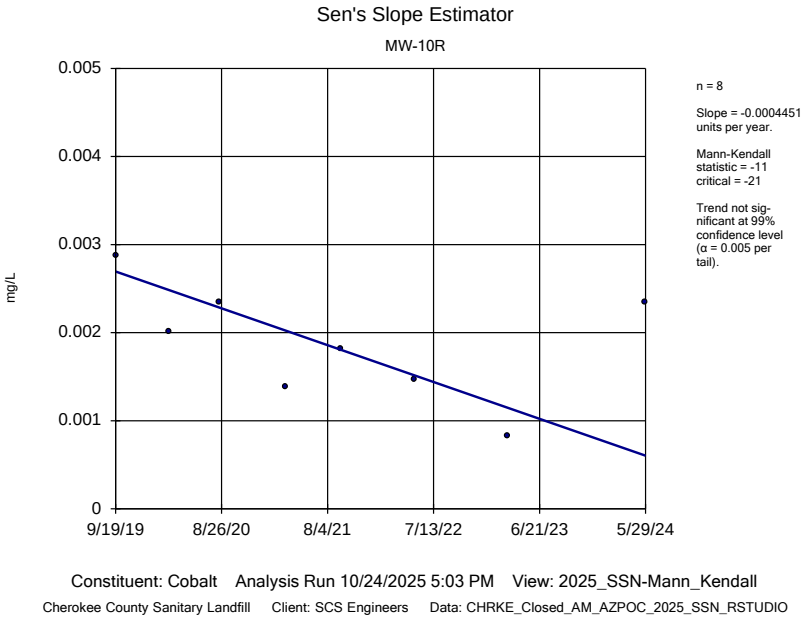
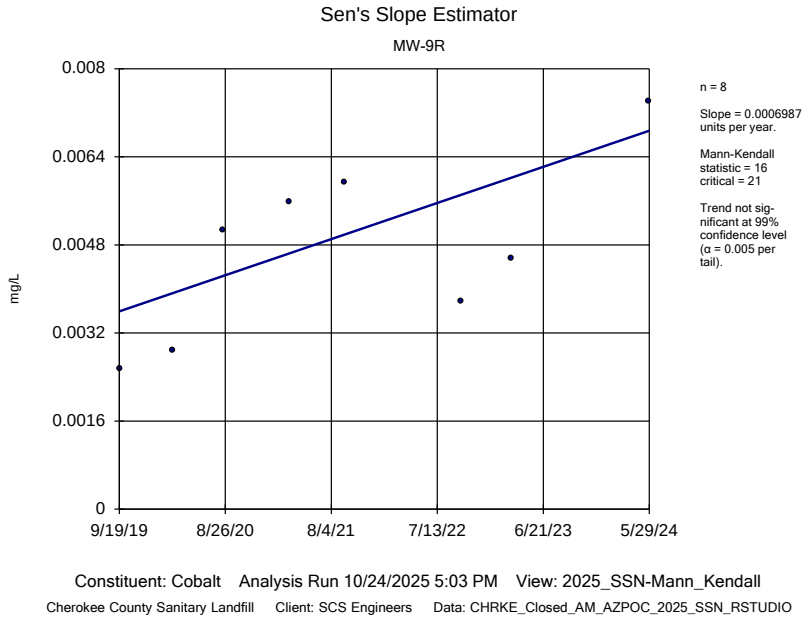
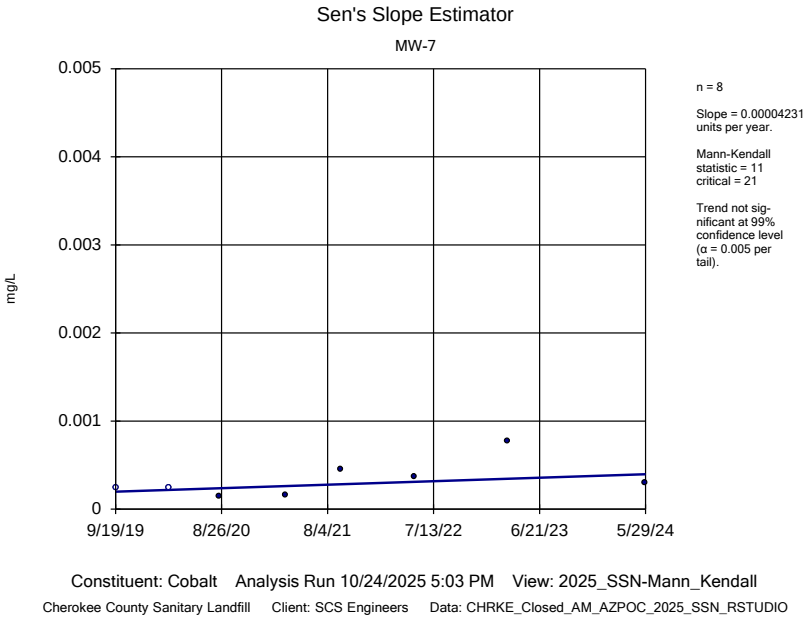


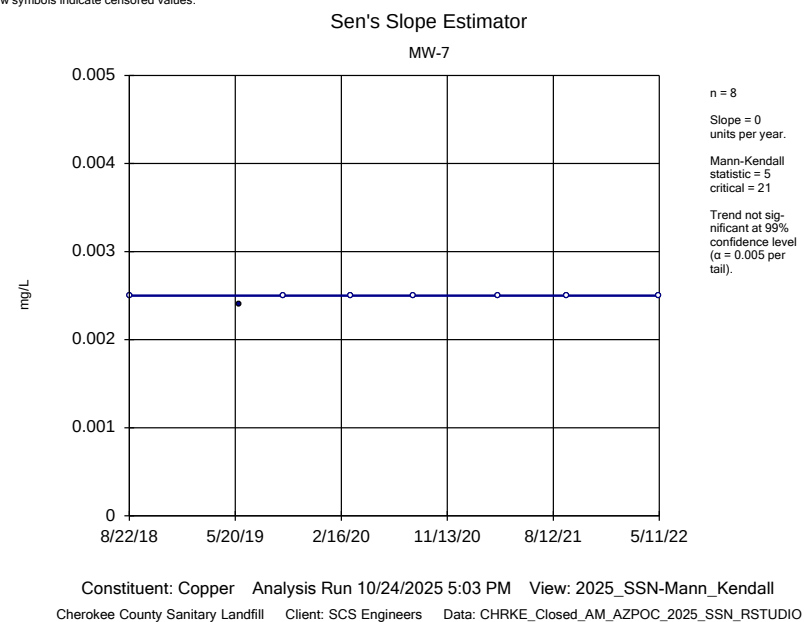
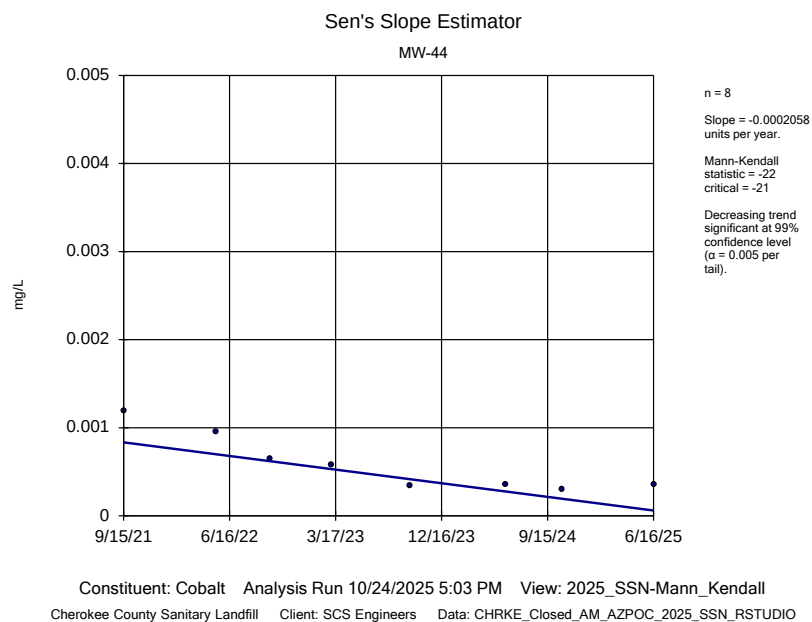
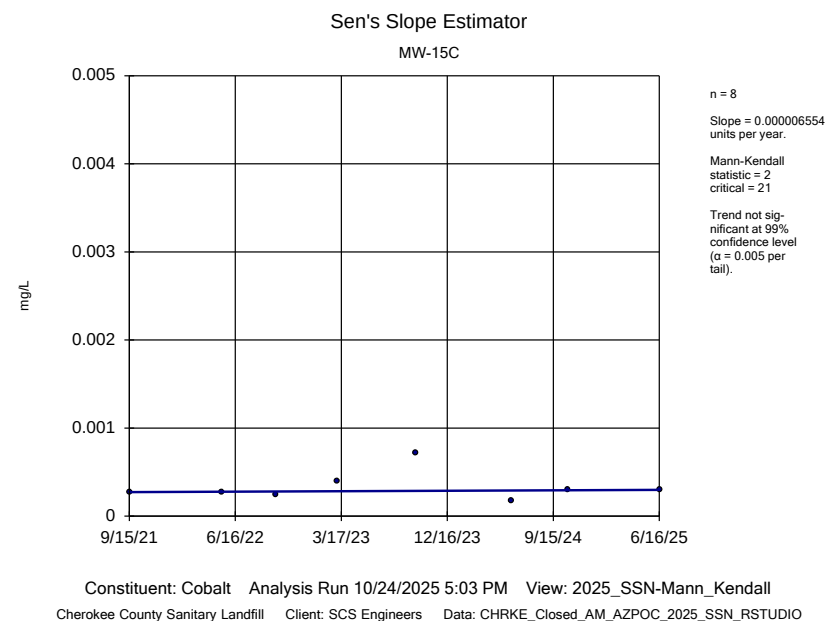
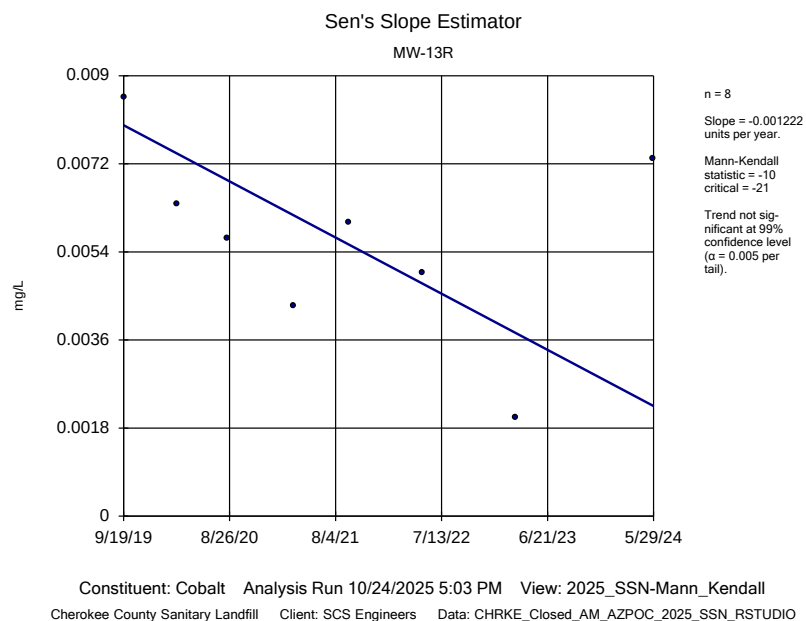


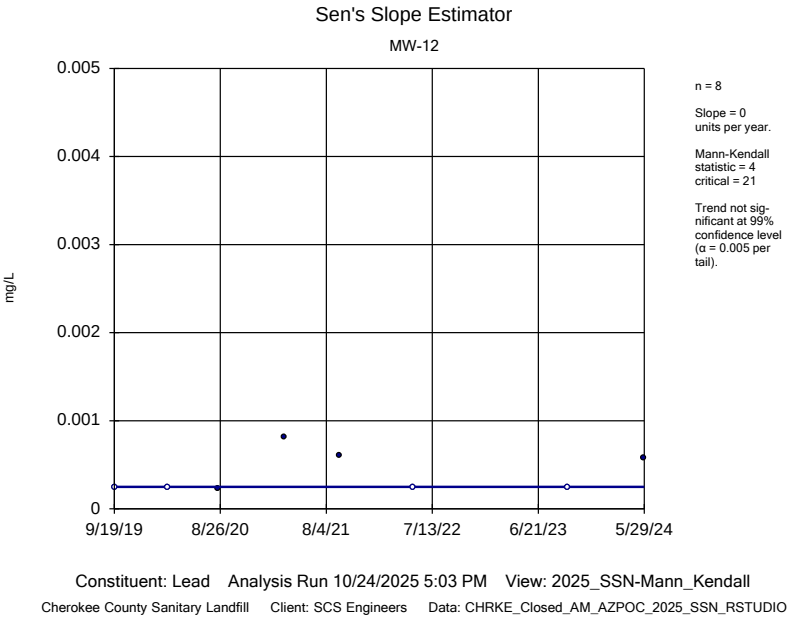
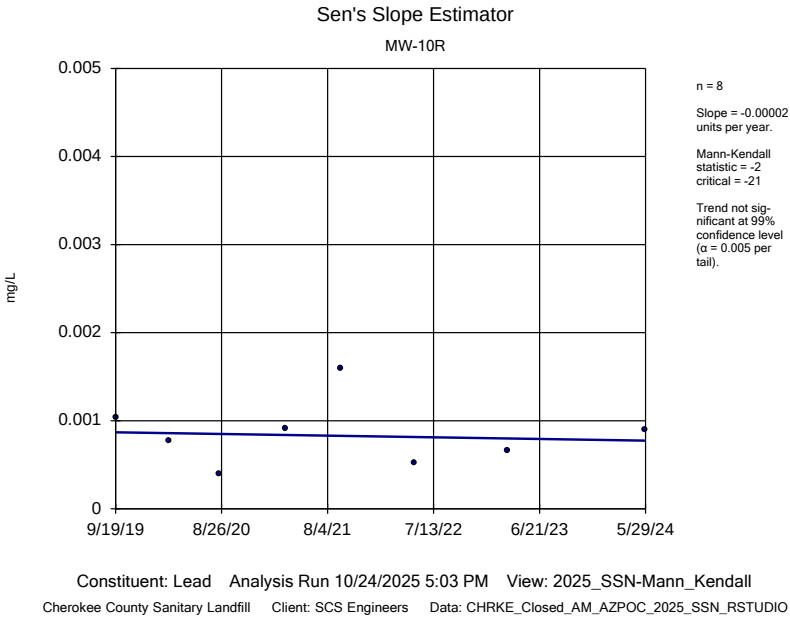
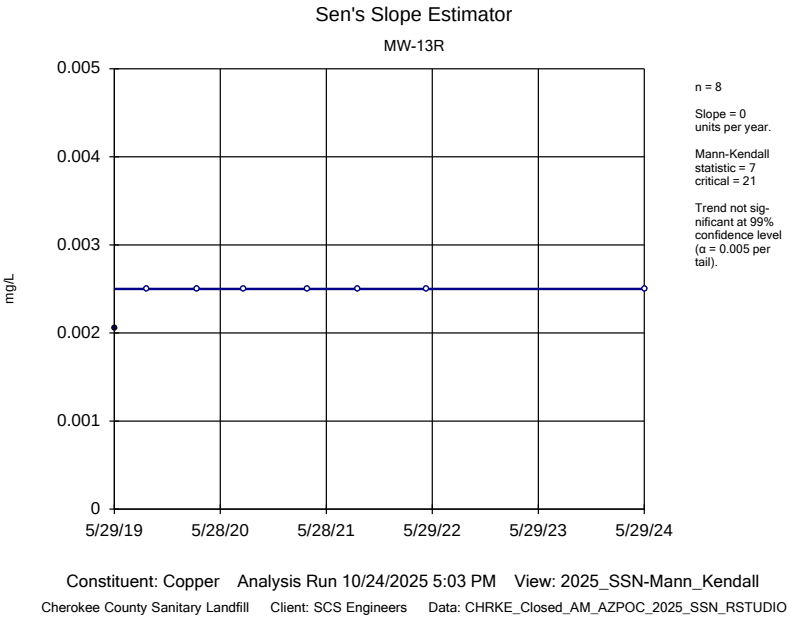
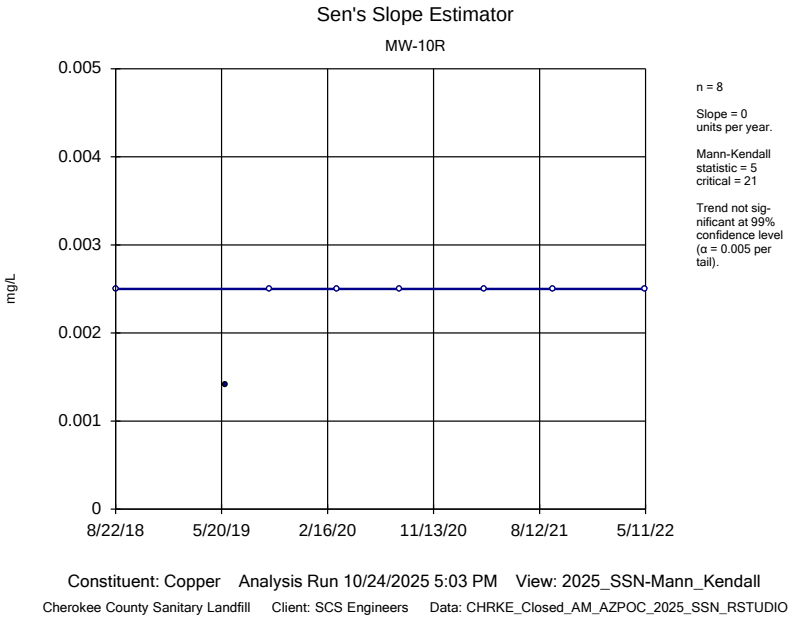


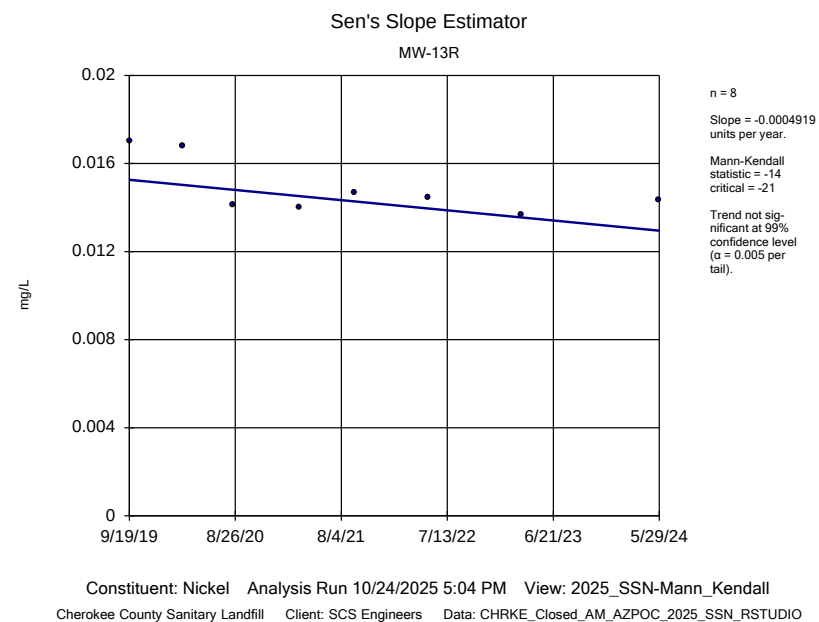
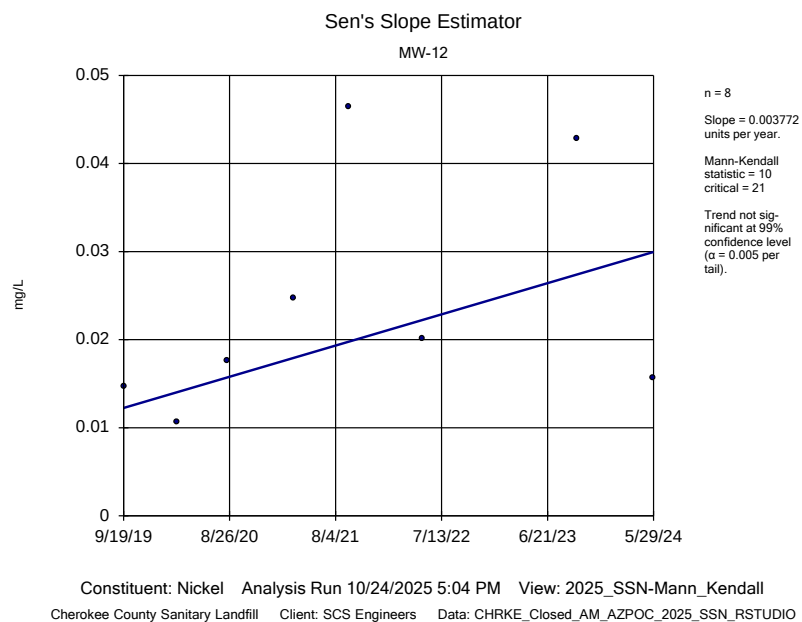
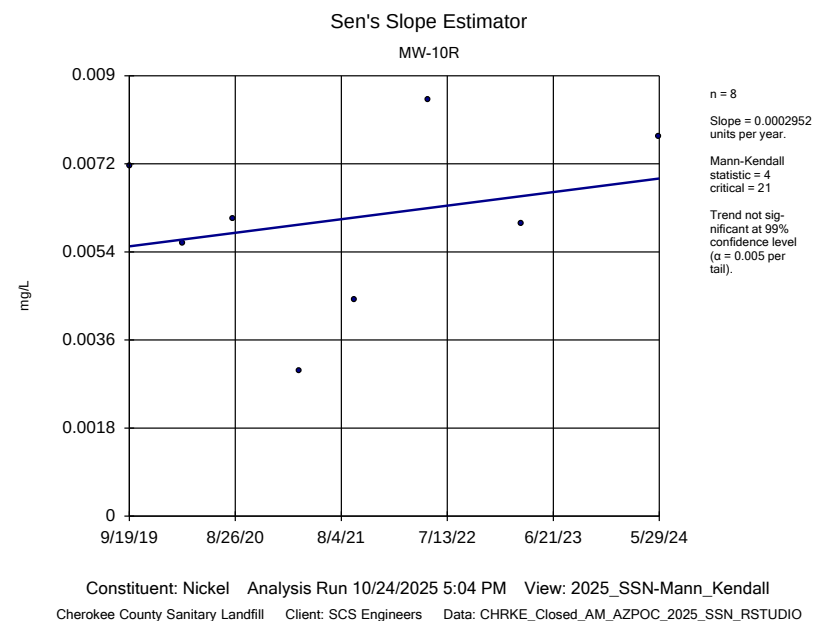
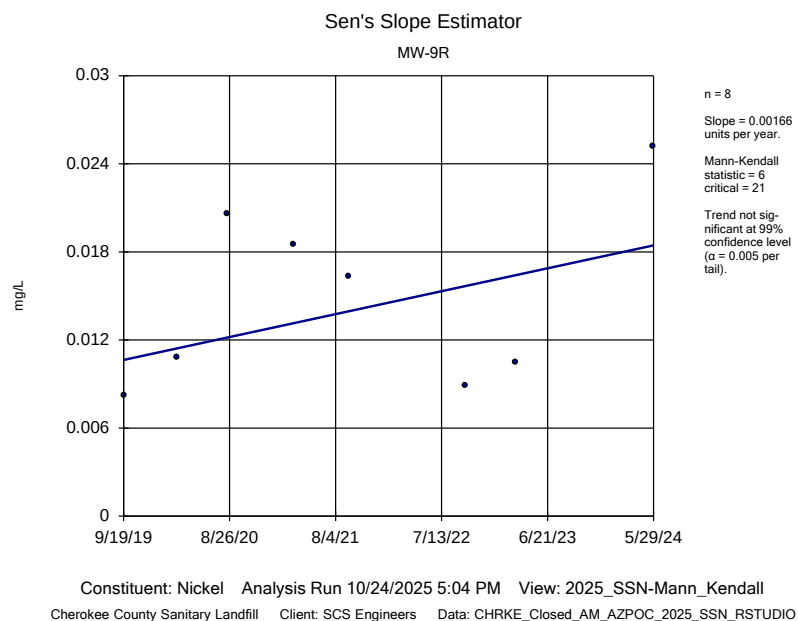


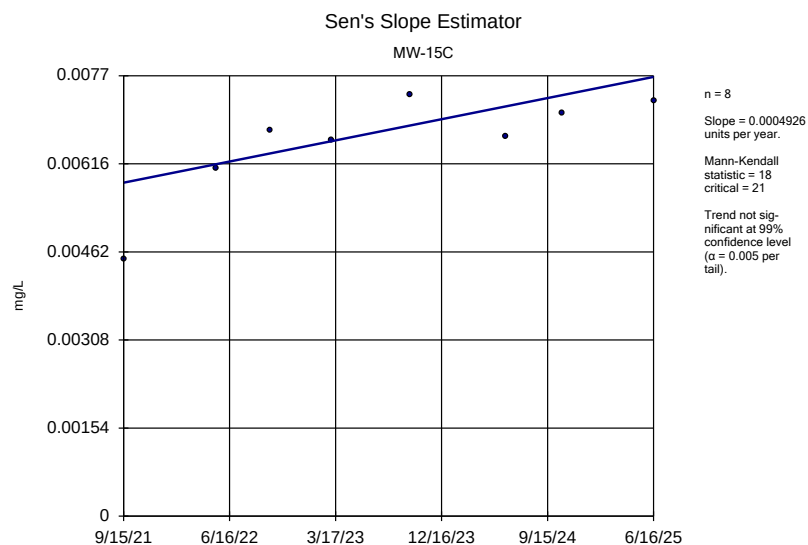




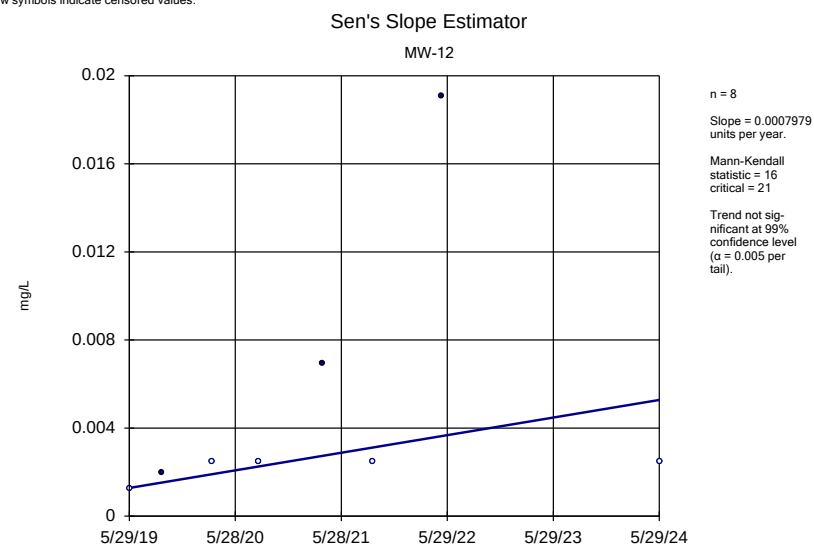




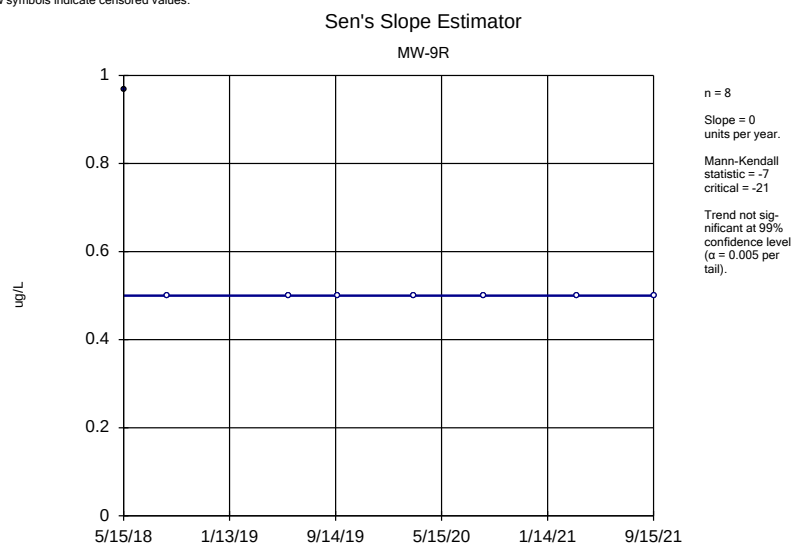




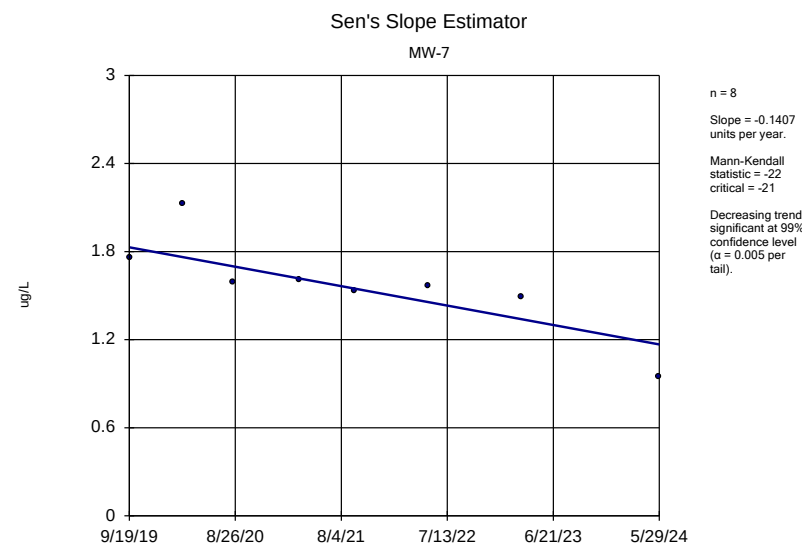
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO



Constituent: Selenium Analysis Run 10/24/2025 5:04 PM View: 2025_SSN-Mann_Kendall
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO



Constituent: Styrene Analysis Run 10/24/2025 5:04 PM View: 2025_SSN-Mann_Kendall
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO



Constituent: Trichloroethene Analysis Run 10/24/2025 5:04 PM View: 2025_SSN-Mann_Kendall
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Confidence Interval Summary Table and Graphs – Closed MSWLF Unit

AM AZPOC Confidence Interval

Cherokee County Sanitary Landfill

Client: SCS Engineers

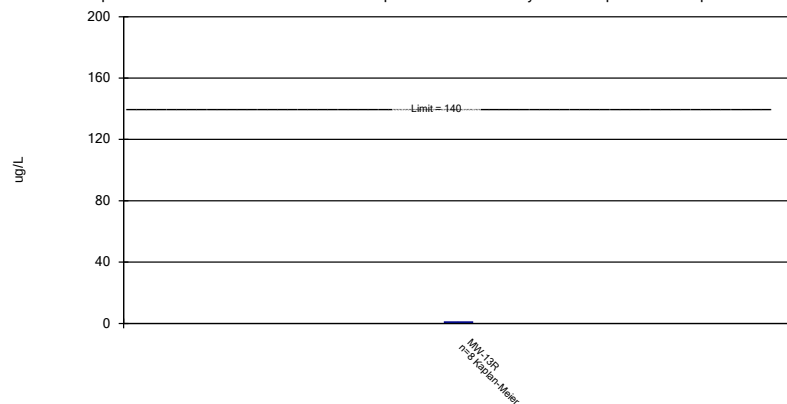
Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

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<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>
1,1-Dichloroethane (ug/L)	MW-13R	1.047	0.1418	140	No	8	37.5	No	0.01	Param.
Acrylonitrile (ug/L)	MW-9R	18.1	2.5	10	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-10R	0.006129	0.0004393	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	MW-12	0.0217	0.0008915	0.01	No	8	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-13R	0.0279	0.001	0.01	No	8	37.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-44	0.01322	0.00354	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-7	0.01763	0.01447	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10R	0.1327	0.0887	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-12	0.678	0.0545	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-13R	0.2856	0.06761	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-44	0.02245	0.01655	2	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-9R	0.0001556	0.0000683	0.0494	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-12	0.000582	0.00004	0.0494	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-15C	0.000103	0.00005	0.0494	No	8	62.5	No	0.004	NP (NDs)
Carbon Disulfide (ug/L)	MW-9R	3.615	0.5	700	No	8	12.5	No	0.004	NP (normality)
Chlorobenzene (ug/L)	MW-13R	3.081	0.6498	100	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-7	1.169	0.7147	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-10R	1.681	0.3689	70	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.0005505	0.0001387	0.0074	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-9R	0.006447	0.002998	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-10R	0.002579	0.001192	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-12	0.00975	0.000247	0.0074	No	8	12.5	No	0.004	NP (normality)
Cobalt (mg/L)	MW-13R	0.00775	0.003555	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-15C	0.0005076	0.0001564	0.0074	No	8	0	No	0.01	Param.
Copper (mg/L)	MW-7	0.0025	0.0024	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-10R	0.0025	0.001417	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-13R	0.0025	0.00206	1.3	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-10R	0.001239	0.0004569	0.0222	No	8	0	No	0.01	Param.
Lead (mg/L)	MW-12	0.000627	0.0001524	0.0222	No	8	50	No	0.01	Param.
Nickel (mg/L)	MW-9R	0.02146	0.008296	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-10R	0.00796	0.004153	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-12	0.03822	0.009929	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-13R	0.01624	0.01353	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-15C	0.007507	0.005553	0.1	No	8	0	No	0.01	Param.
Selenium (mg/L)	MW-12	0.0191	0.00125	0.05	No	8	62.5	No	0.004	NP (NDs)
Styrene (ug/L)	MW-9R	0.969	0.5	100	No	8	87.5	No	0.004	NP (NDs)

Parametric Confidence Interval

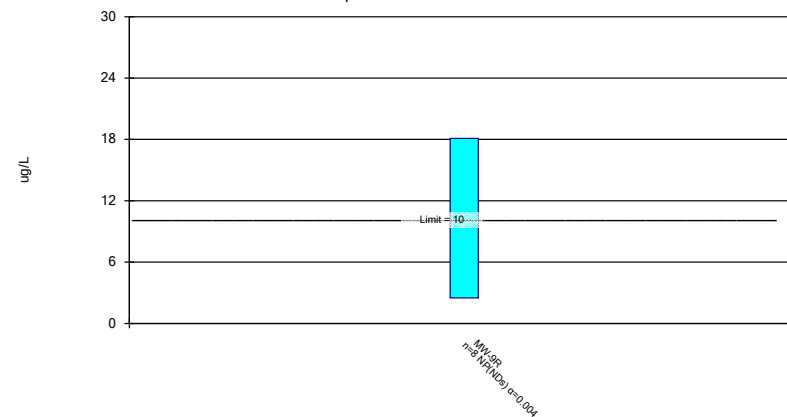
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: 1,1-Dichloroethane Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Non-Parametric Confidence Interval

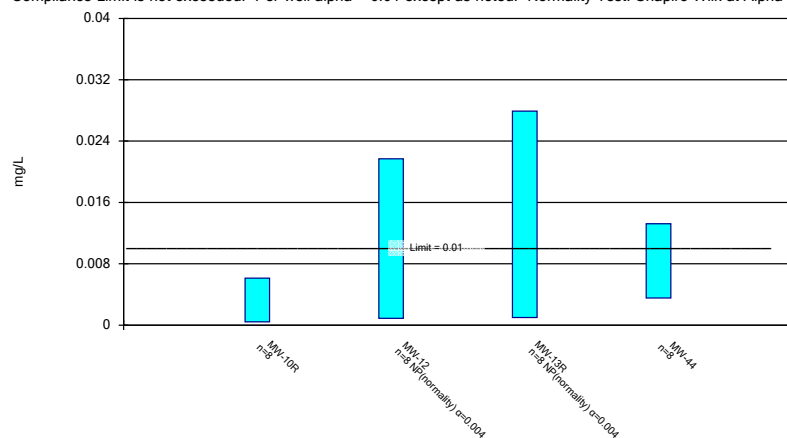
Compliance Limit is not exceeded.



Constituent: Acrylonitrile Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric and Non-Parametric (NP) Confidence Interval

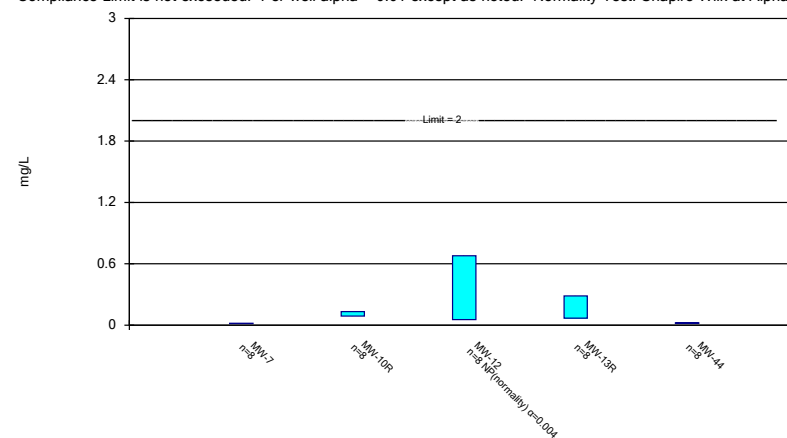
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric and Non-Parametric (NP) Confidence Interval

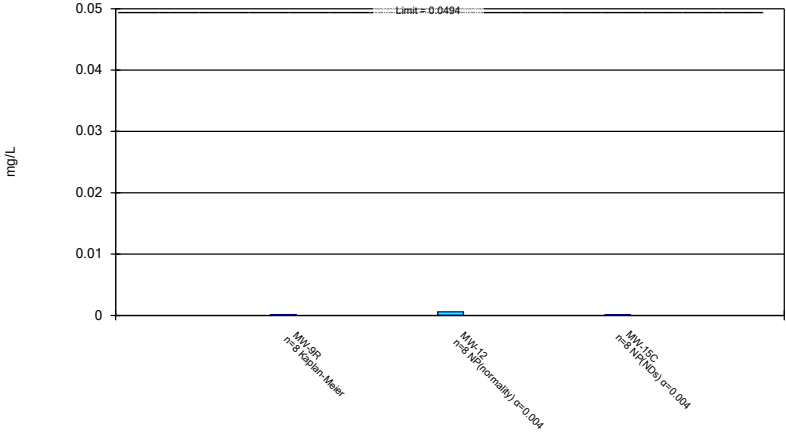
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Constituent: Barium Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric and Non-Parametric (NP) Confidence Interval

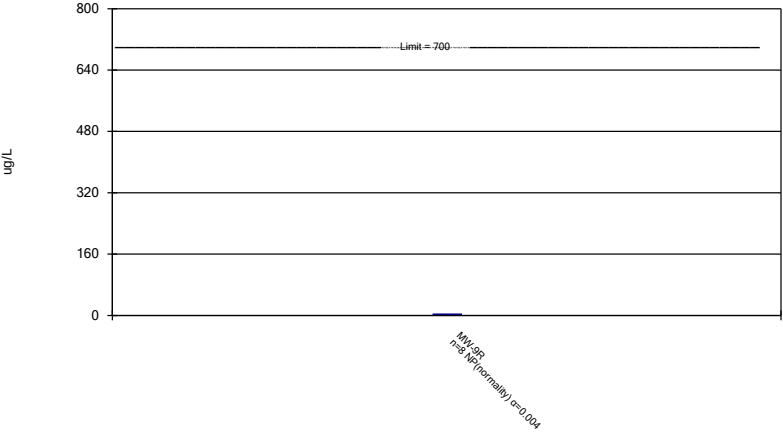
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Non-Parametric Confidence Interval

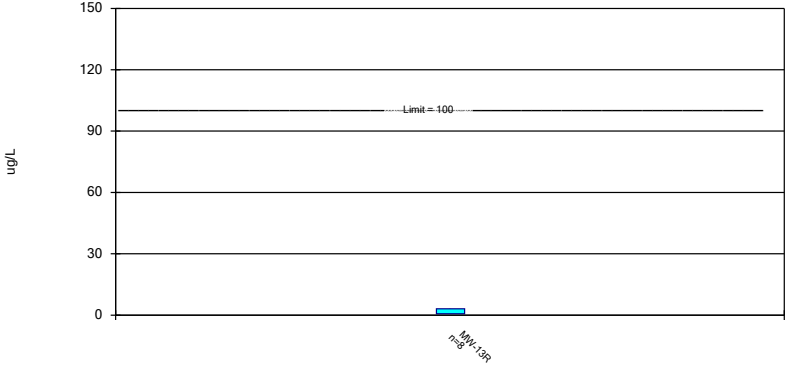
Compliance Limit is not exceeded.



Constituent: Carbon Disulfide Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric Confidence Interval

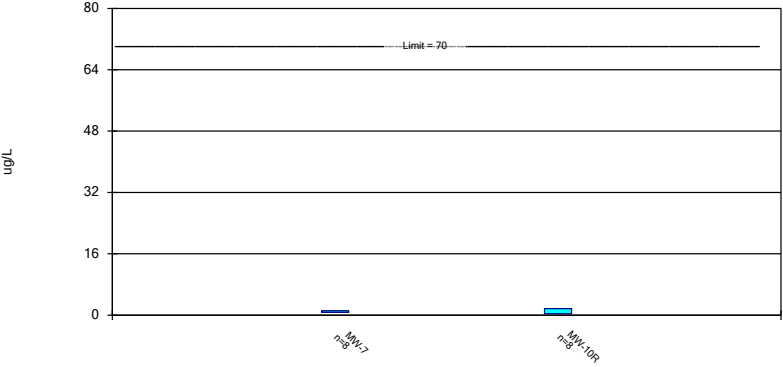
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chlorobenzene Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric Confidence Interval

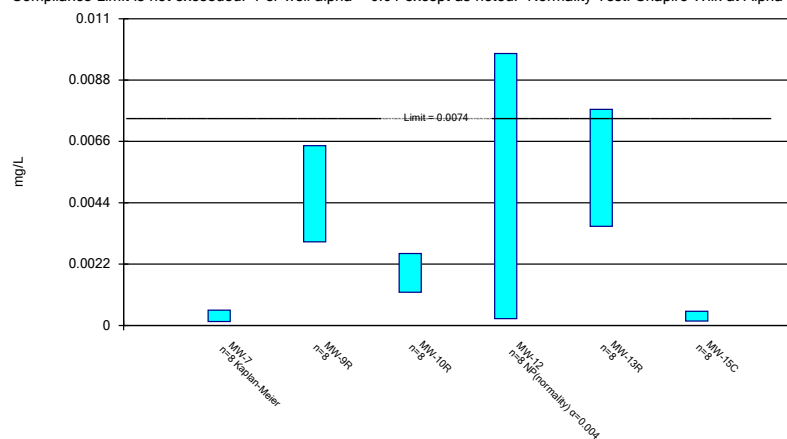
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Constituent: cis-1,2-Dichloroethene Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Inter
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric and Non-Parametric (NP) Confidence Interval

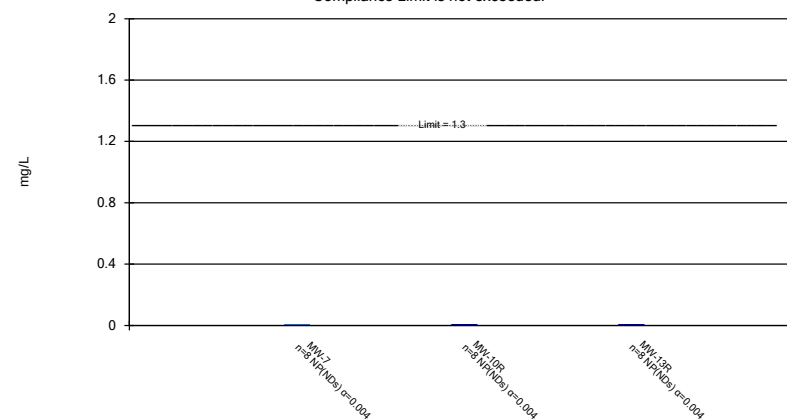
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Non-Parametric Confidence Interval

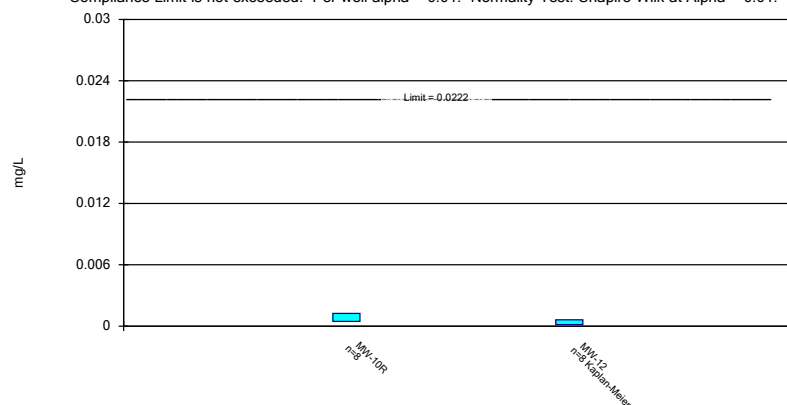
Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric Confidence Interval

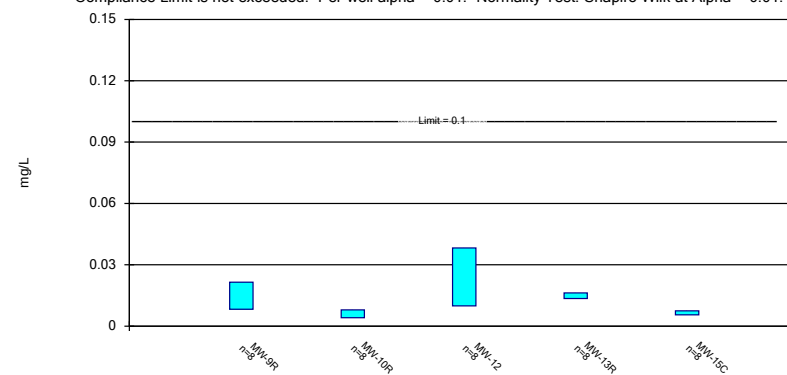
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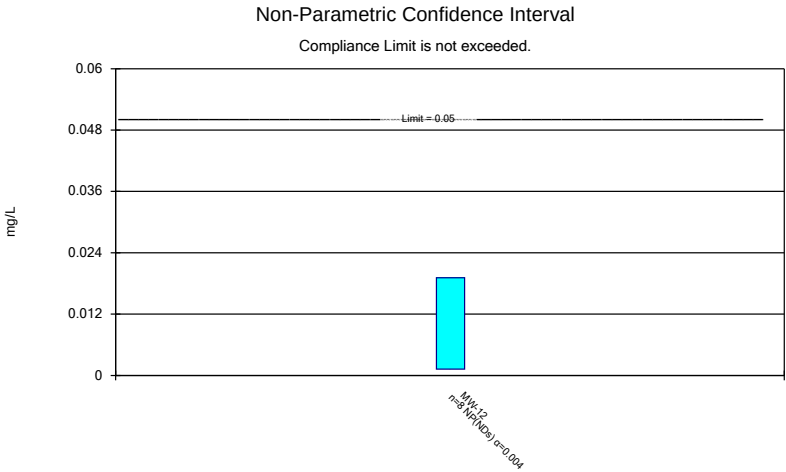
Constituent: Lead Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Parametric Confidence Interval

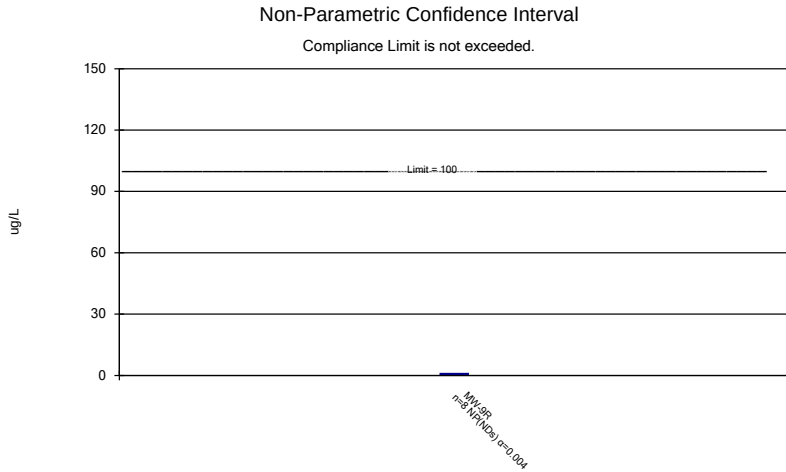
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Nickel Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO



Constituent: Selenium Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO



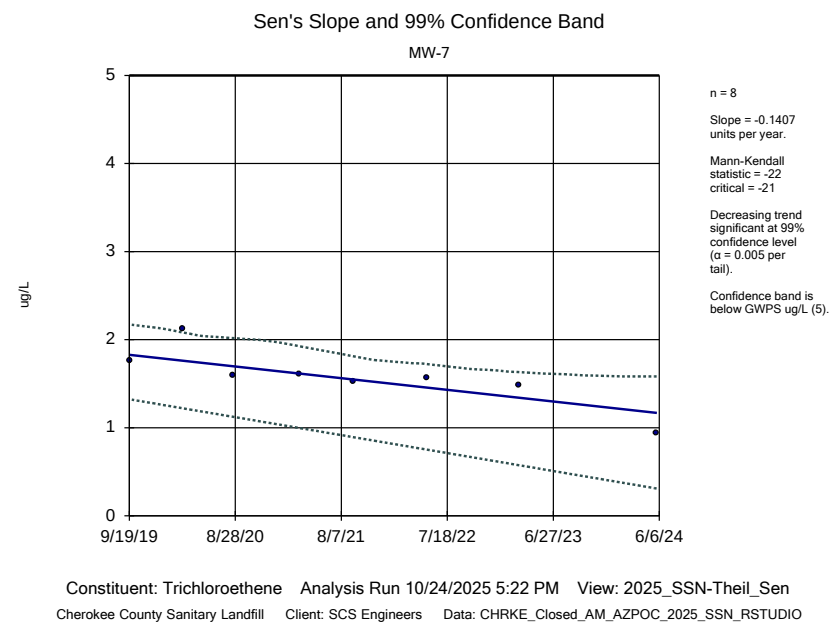
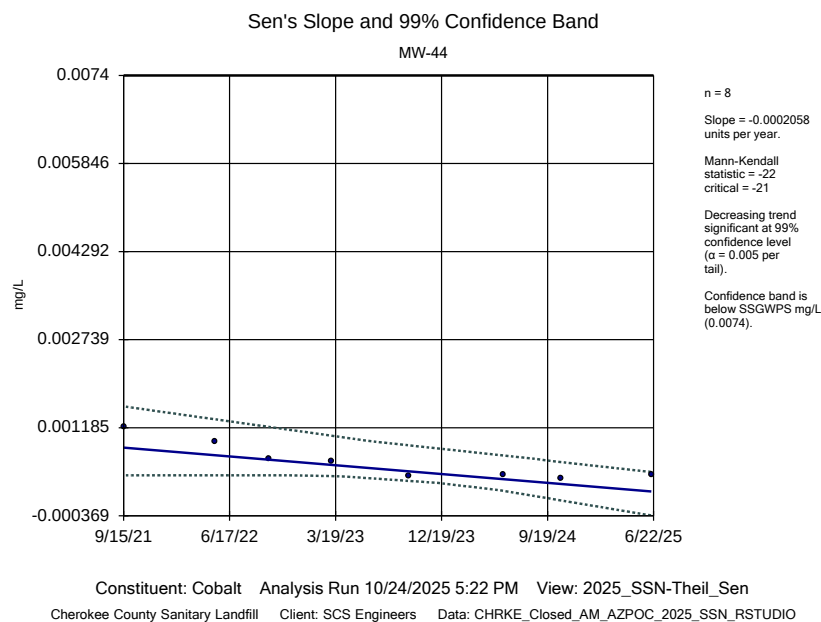
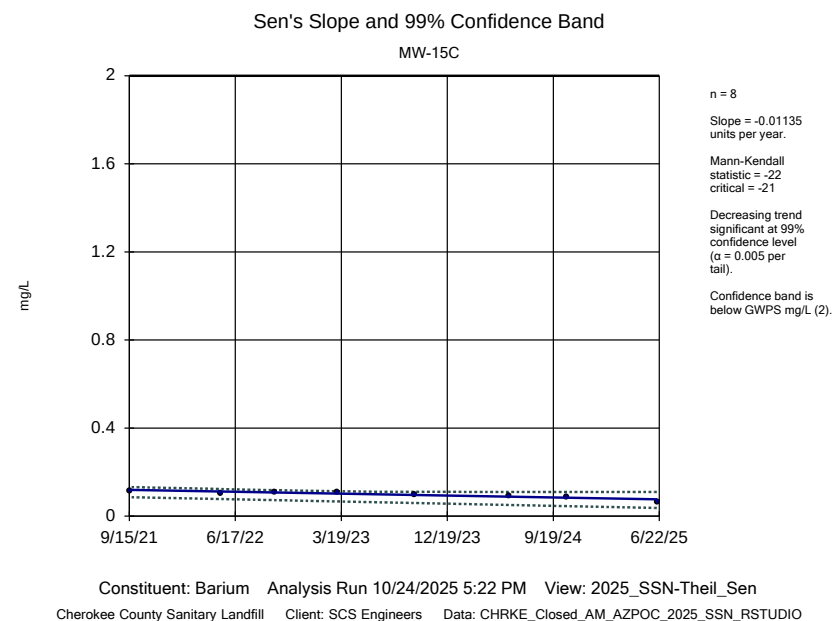
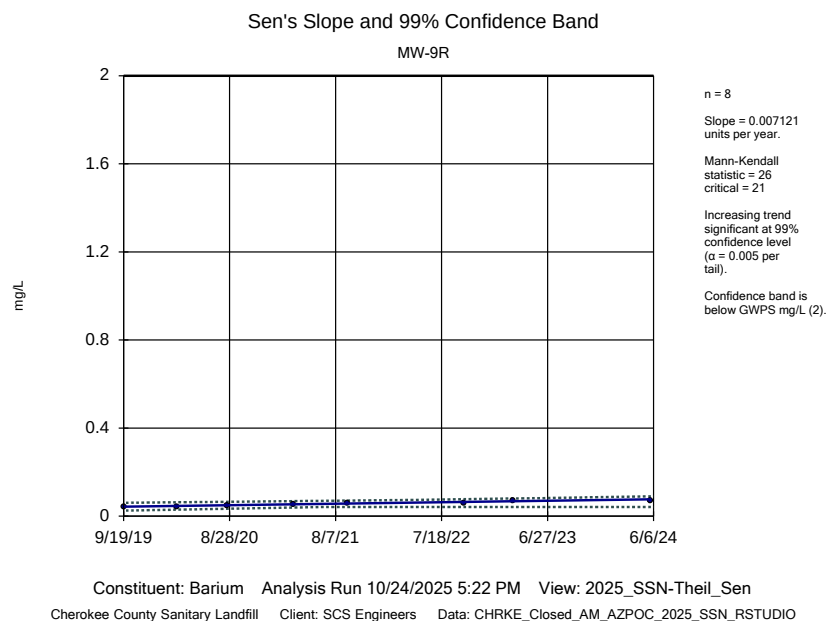
Constituent: Styrene Analysis Run 10/24/2025 5:16 PM View: 2025_SSN-Confidence_Interval
Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO

Theil-Sen Summary Table and Graphs – Closed MSWLF Unit

AM AZPOC Theil Sen/Trend Test

Cherokee County Sanitary Landfill Client: SCS Engineers Data: CHRKE_Closed_AM_AZPOC_2025_SSN_RSTUDIO Printed 10/24/2025, 5:28 PM

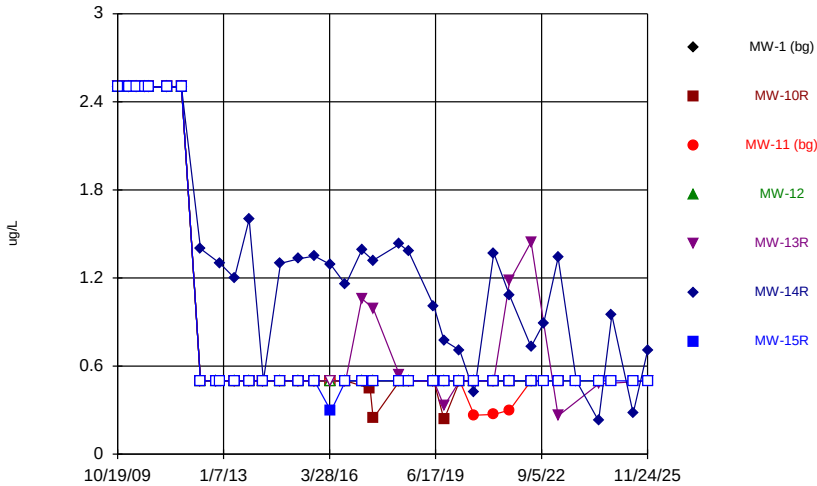
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-9R	0.007121	26	21	Yes	8	0	0.01	NP
Barium (mg/L)	MW-15C	-0.01135	-22	-21	Yes	8	0	0.01	NP
Cobalt (mg/L)	MW-44	-0.0002058	-22	-21	Yes	8	0	0.01	NP
Trichloroethene (ug/L)	MW-7	-0.1407	-22	-21	Yes	8	0	0.01	NP



2nd 2025 Statistical Evaluation

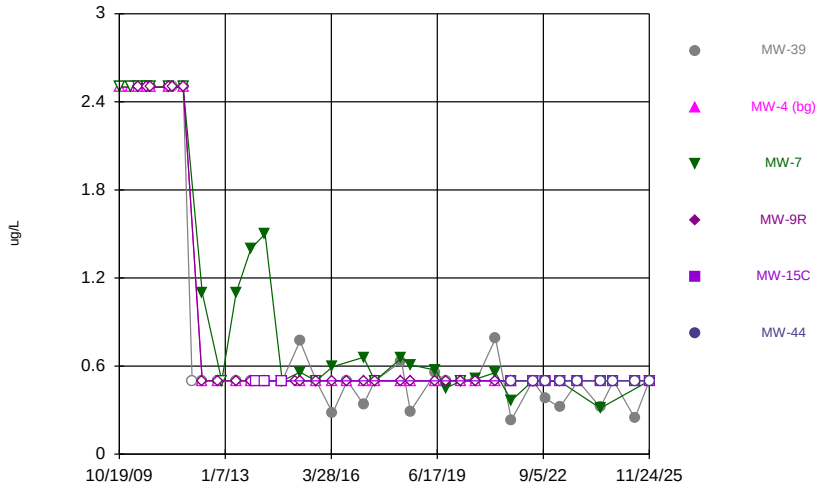
Time Series Plots – Closed MSWLF Unit

Time Series



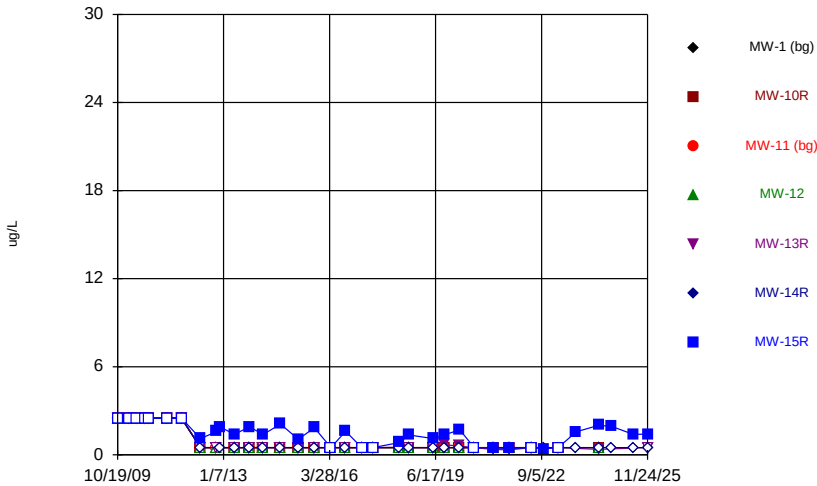
Constituent: 1,1-Dichloroethane Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



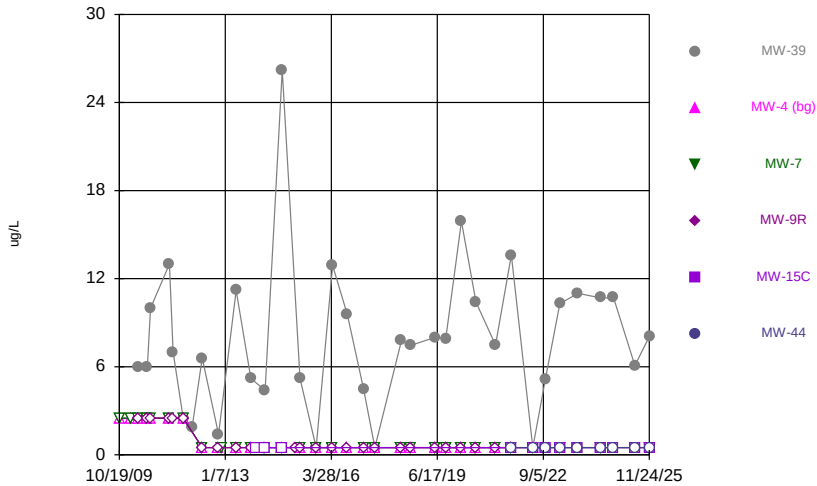
Constituent: 1,1-Dichloroethane Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



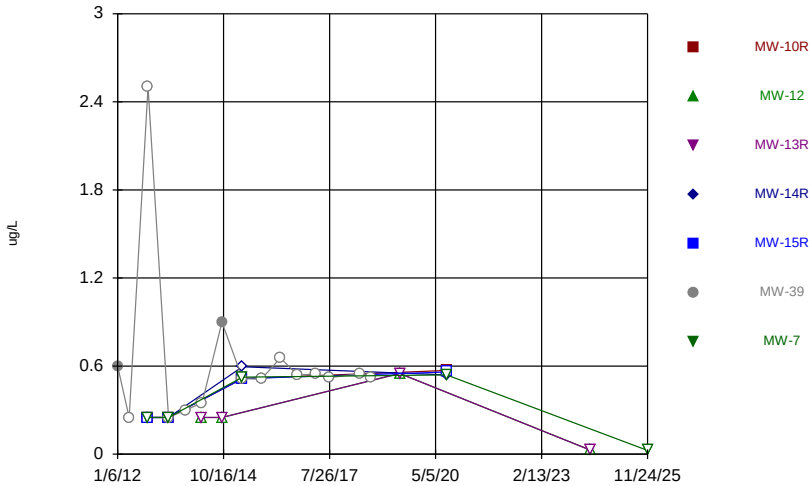
Constituent: 1,4-Dichlorobenzene Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



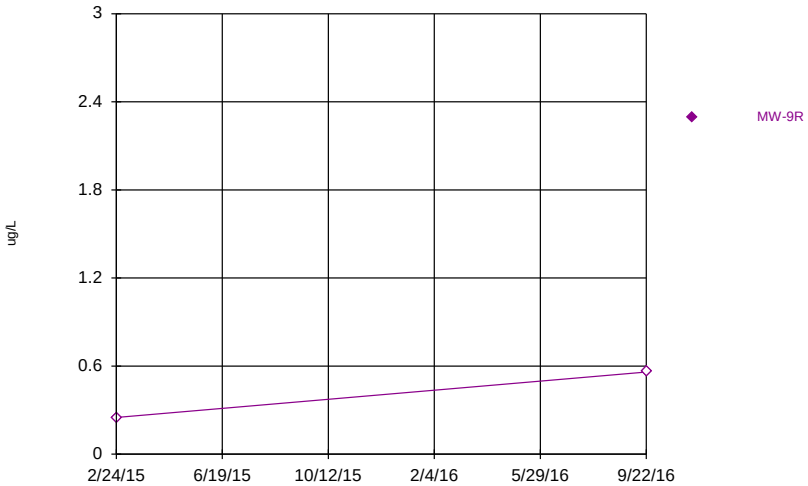
Constituent: 1,4-Dichlorobenzene Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



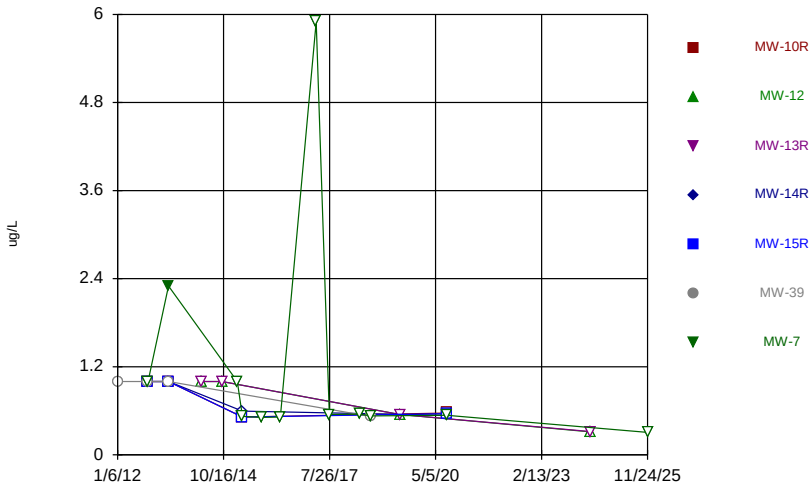
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



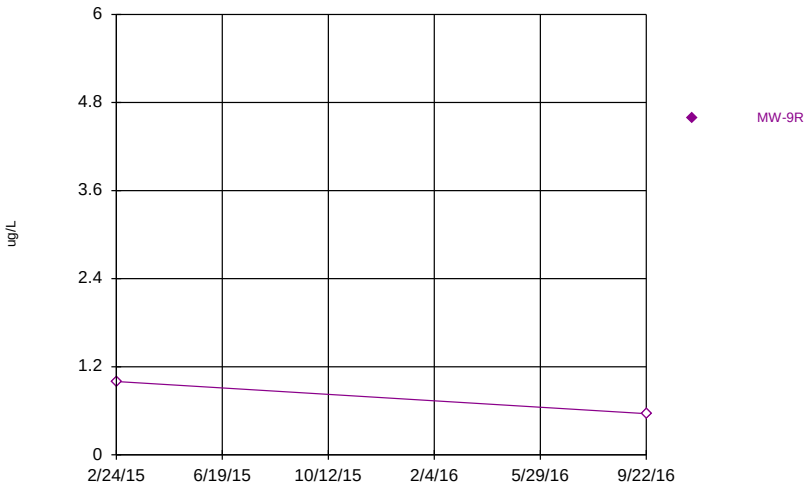
Constituent: 2,4,5-TP [Silvex] [2C] Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



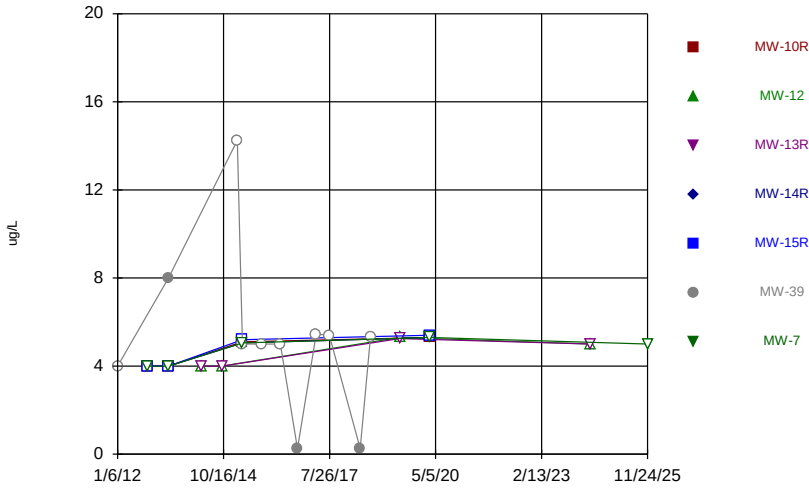
Constituent: 2,4-D [2C] Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



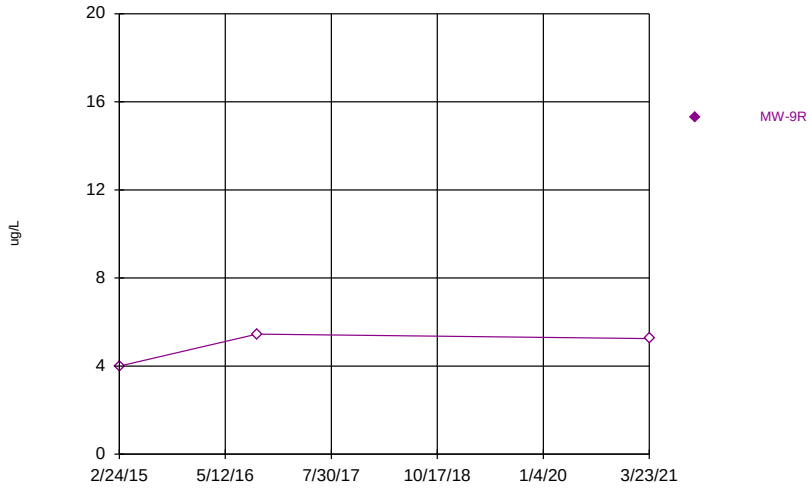
Constituent: 2,4-D [2C] Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



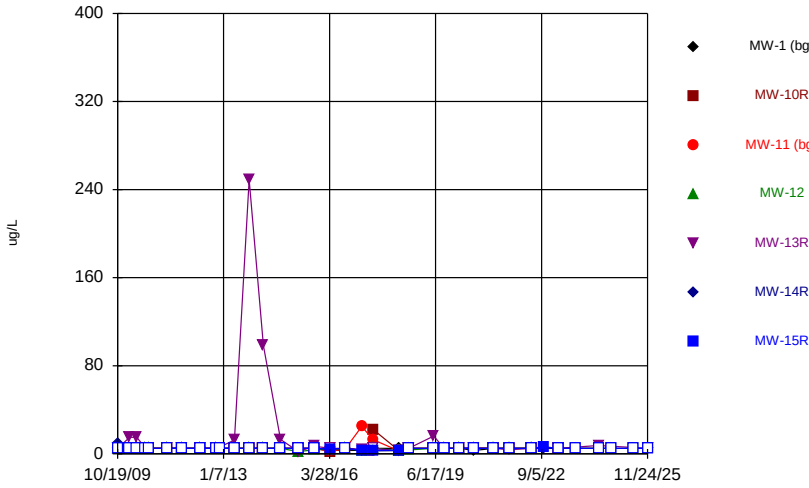
Constituent: 3/4-Methylphenol Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



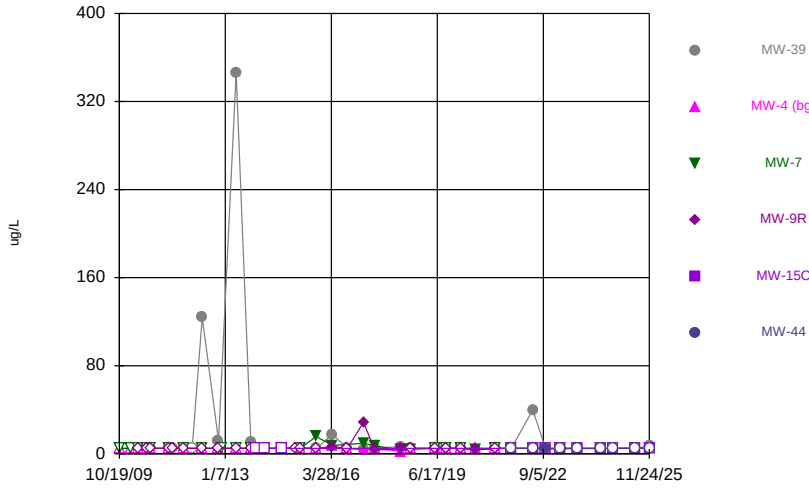
Constituent: 3/4-Methylphenol Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



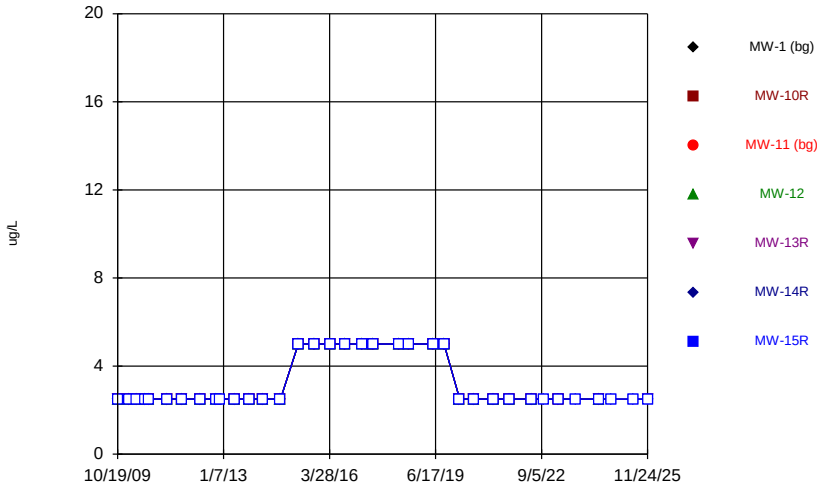
Constituent: Acetone Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



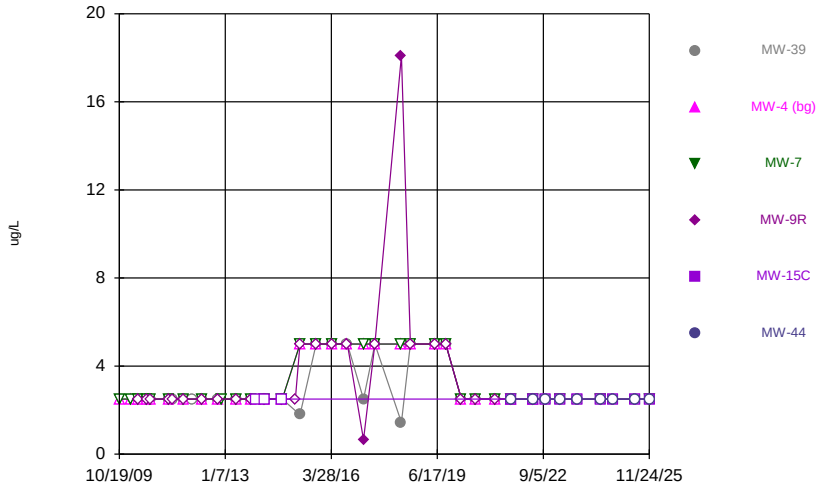
Constituent: Acetone Analysis Run 1/16/2026 12:58 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



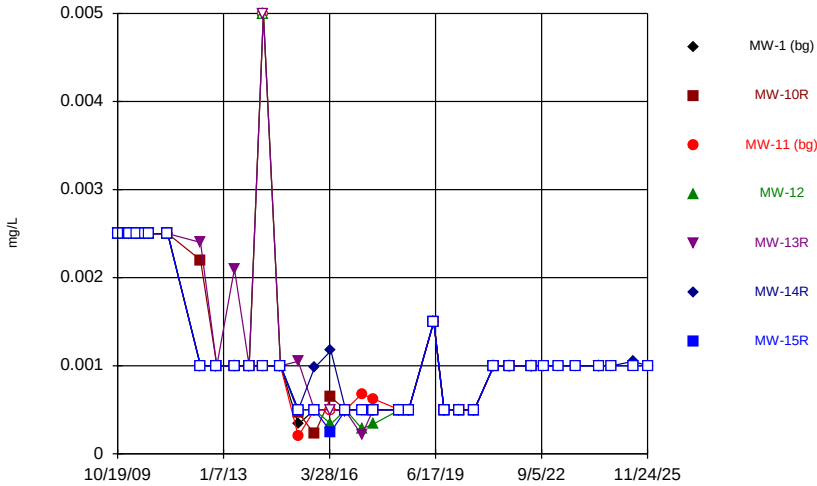
Constituent: Acrylonitrile Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



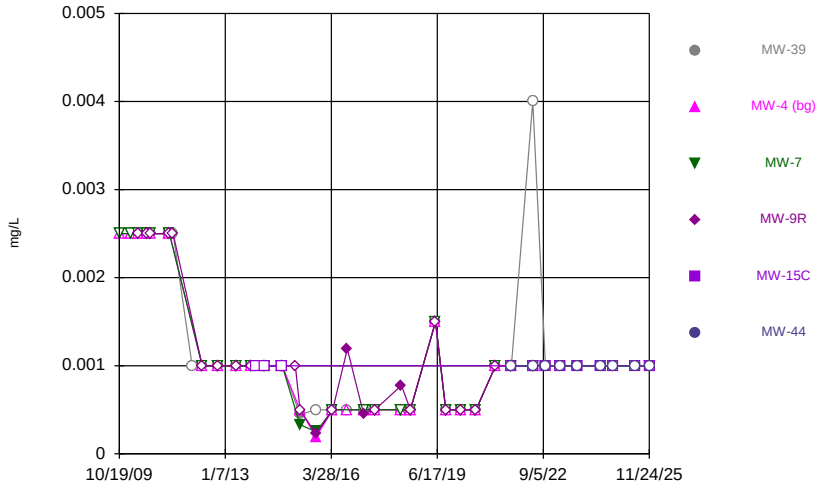
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



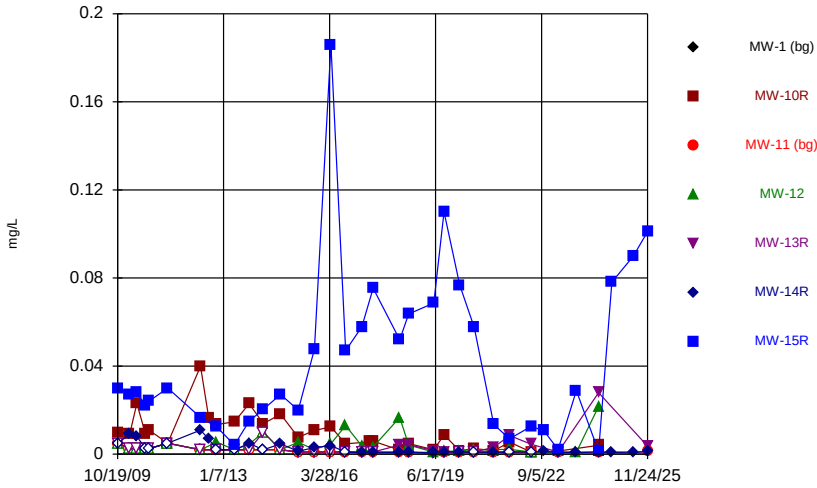
Constituent: Antimony Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



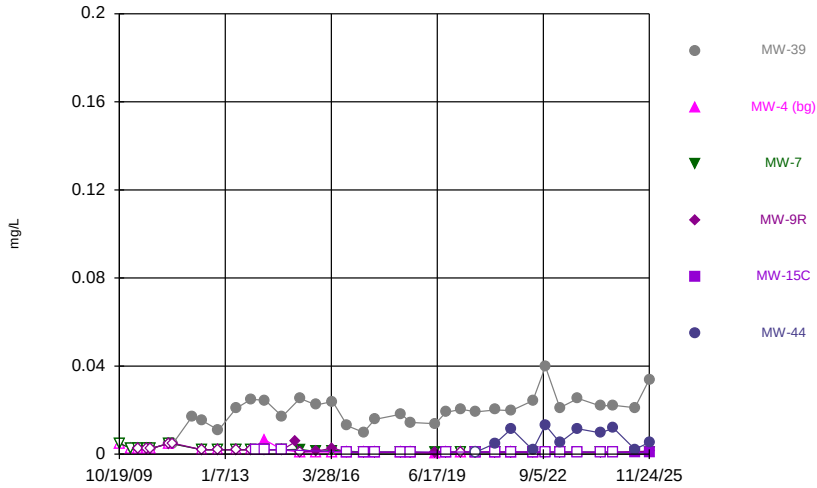
Constituent: Antimony Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



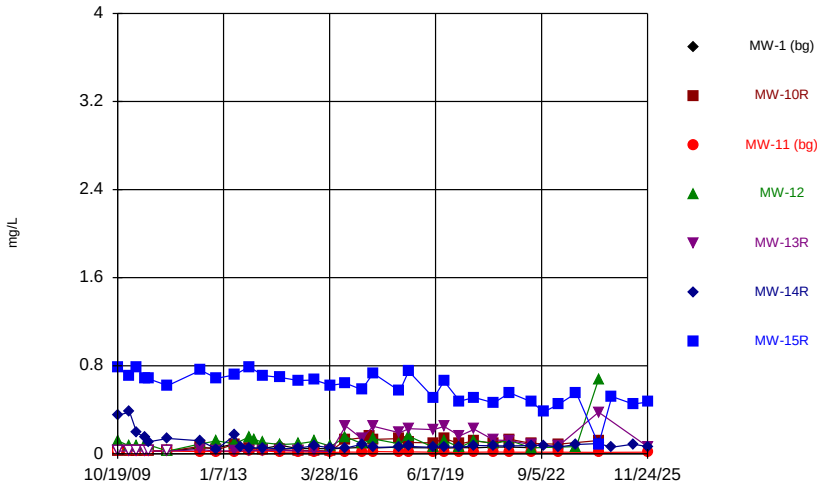
Constituent: Arsenic Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



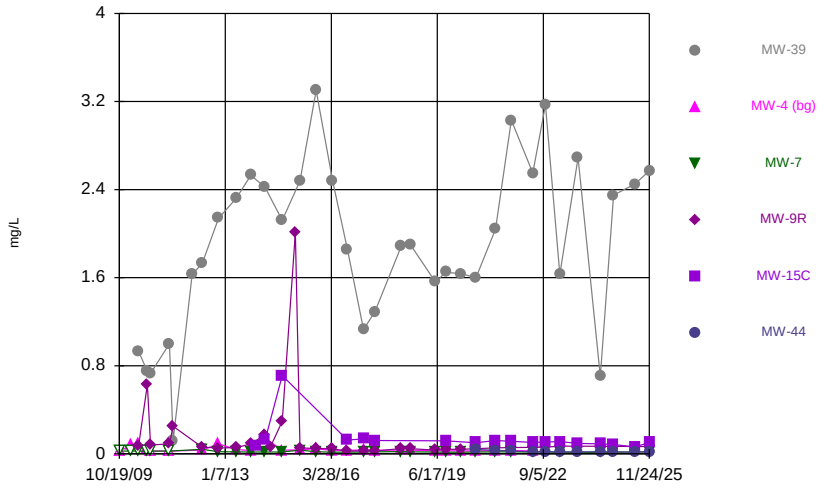
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



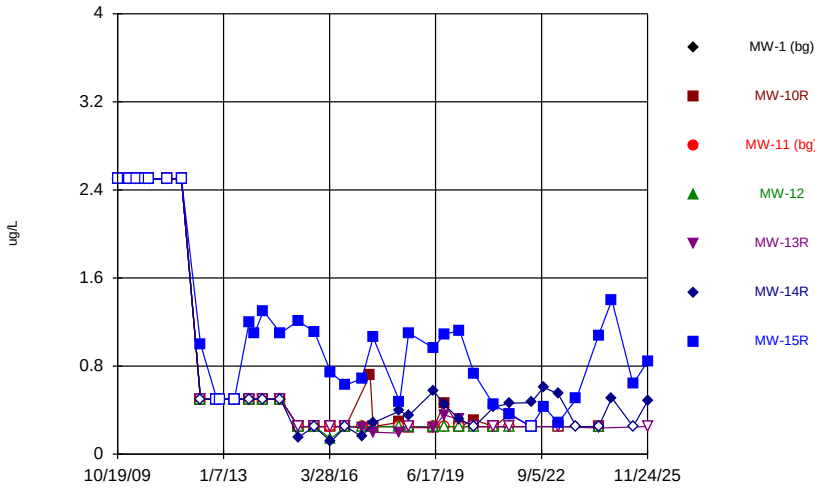
Constituent: Barium Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



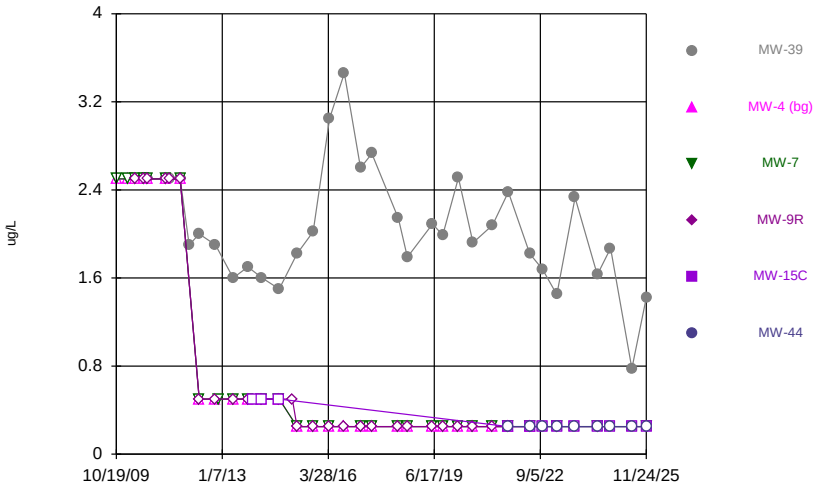
Constituent: Barium Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



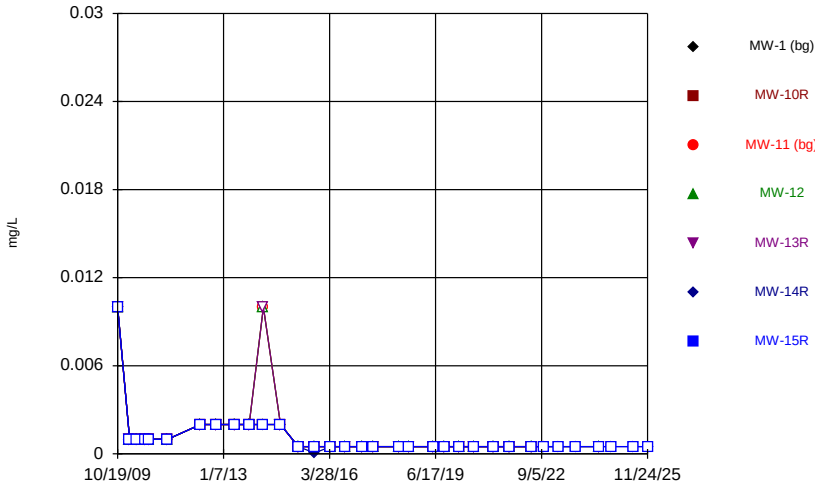
Constituent: Benzene Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



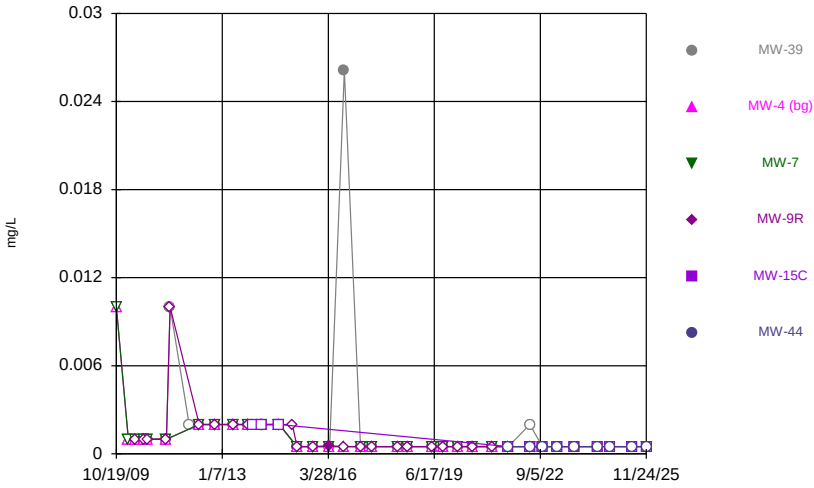
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Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



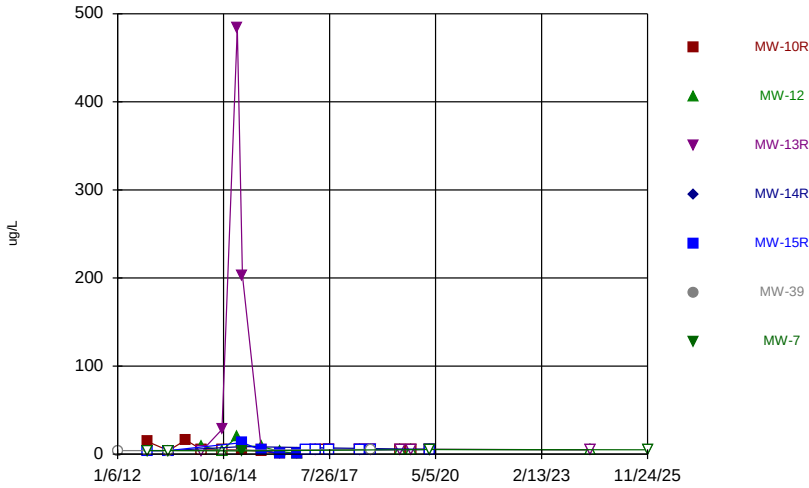
Constituent: Beryllium Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

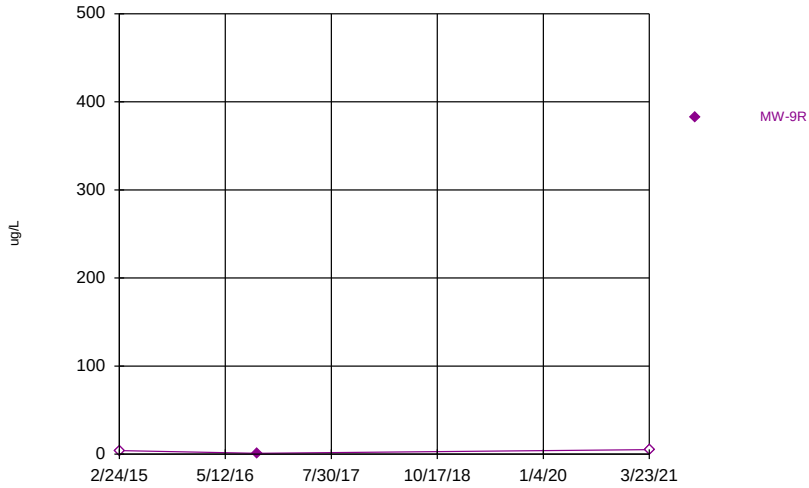


Constituent: Beryllium Analysis Run 1/16/2026 12:59 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

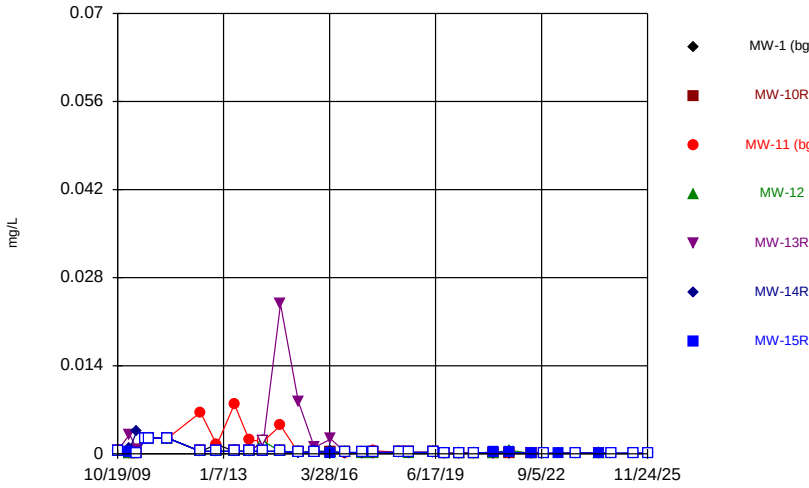
Time Series



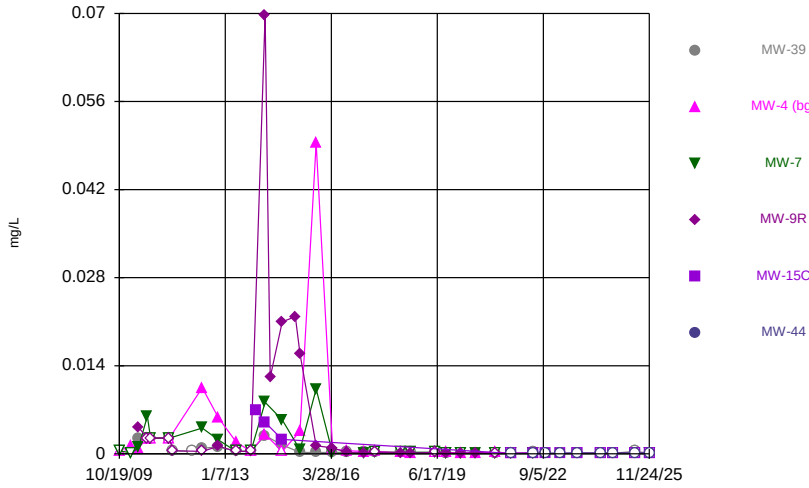
Time Series



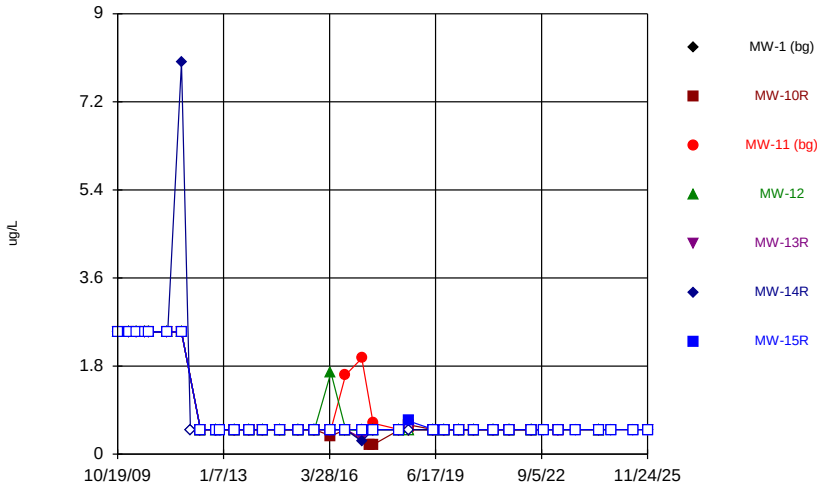
Time Series



Time Series

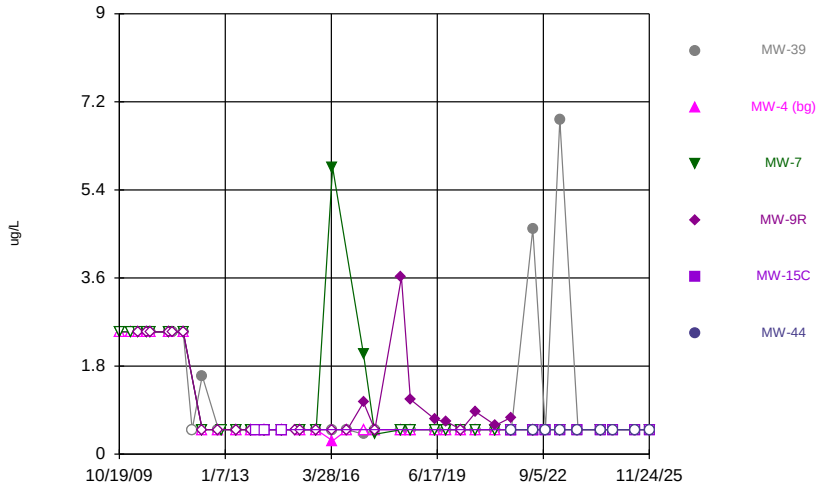


Time Series



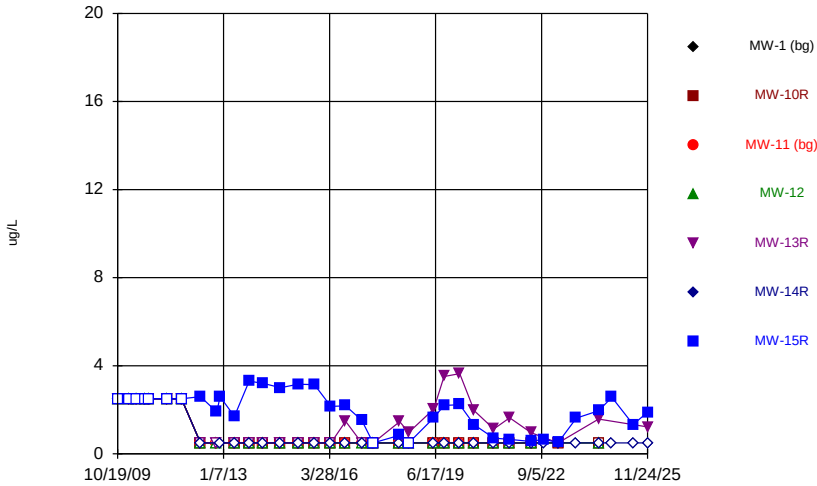
Constituent: Carbon Disulfide Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



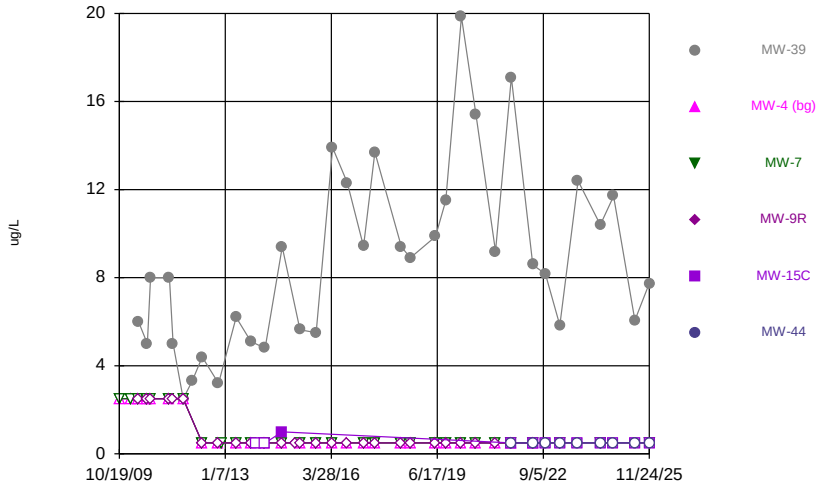
Constituent: Carbon Disulfide Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



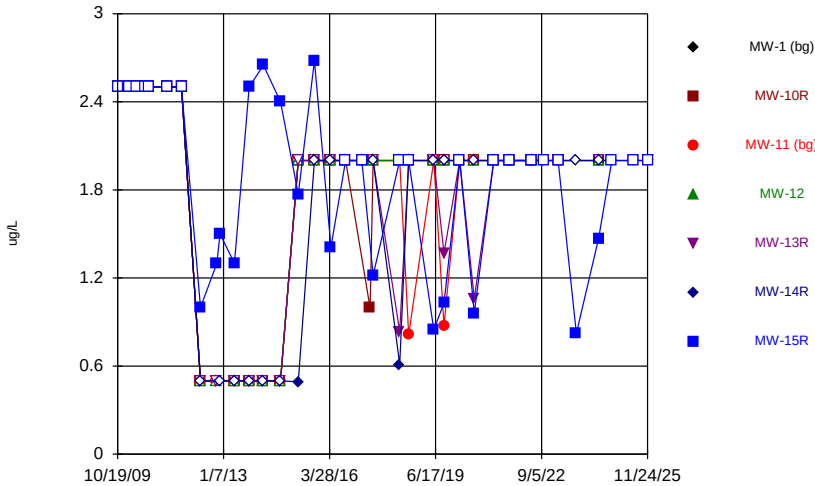
Constituent: Chlorobenzene Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



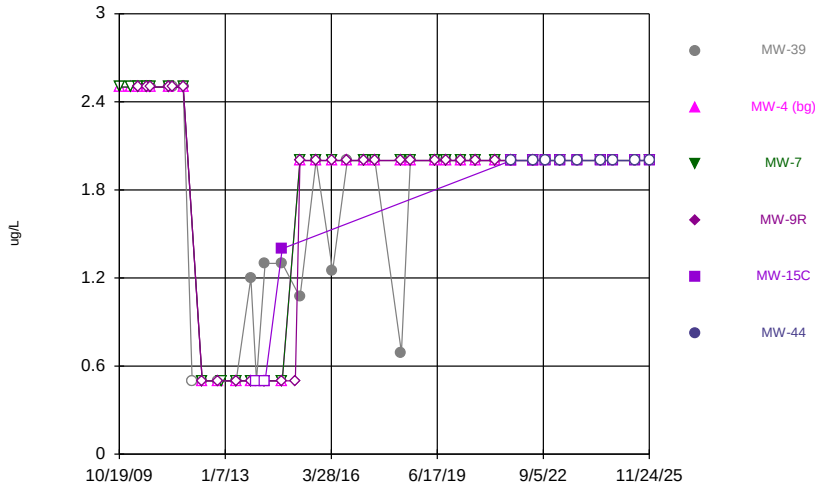
Constituent: Chlorobenzene Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



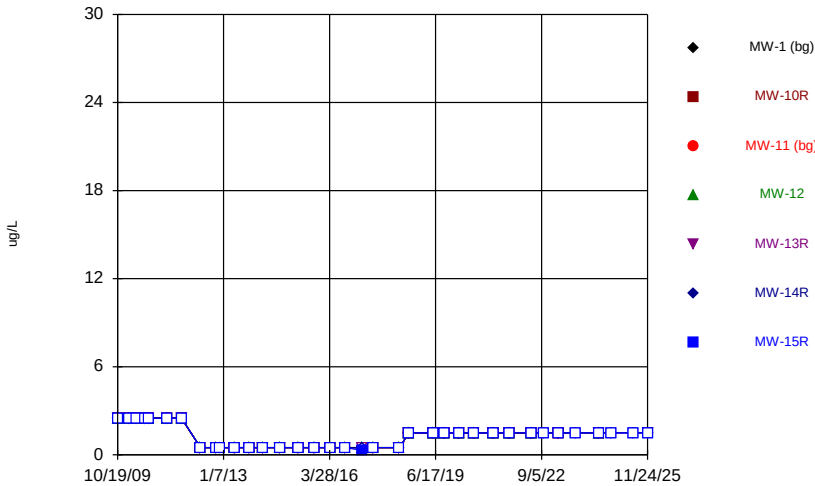
Constituent: Chloroethane Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



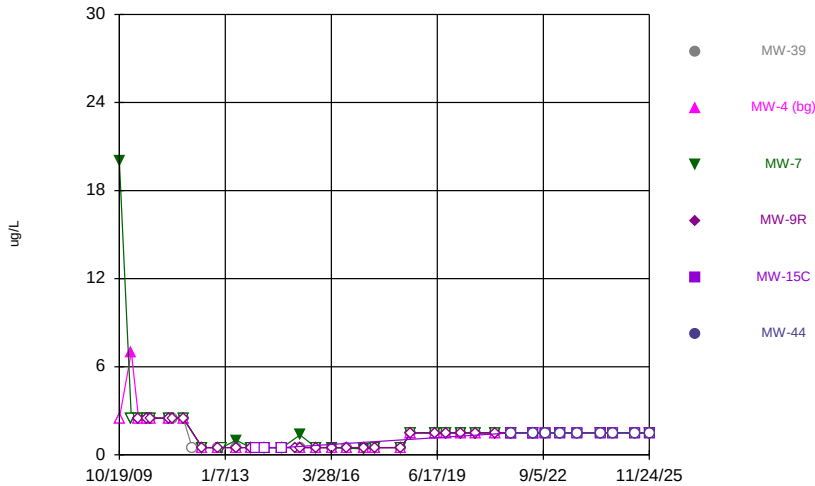
Constituent: Chloroethane Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



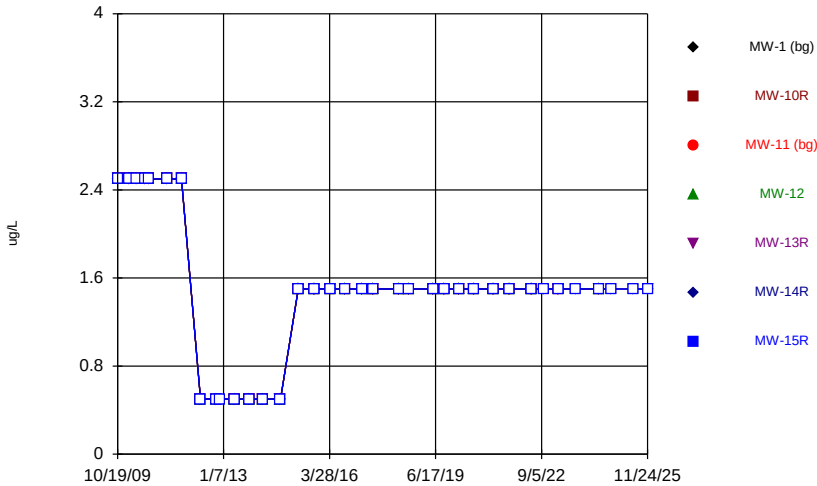
Constituent: Chloroform Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



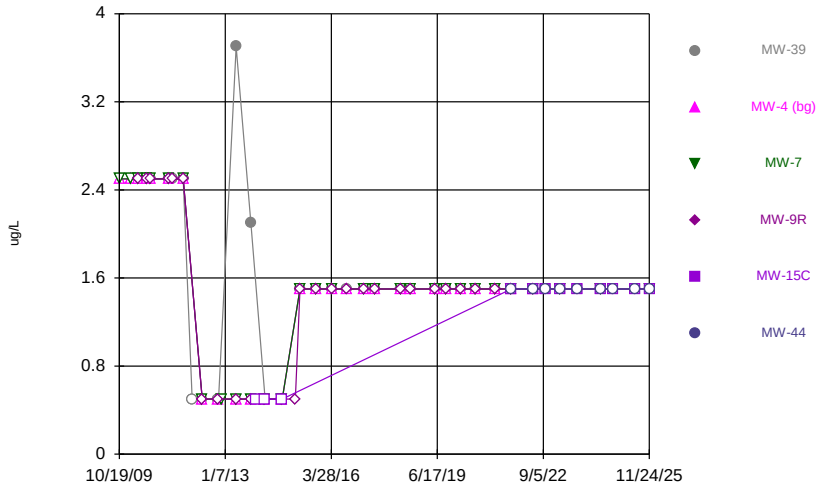
Constituent: Chloroform Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



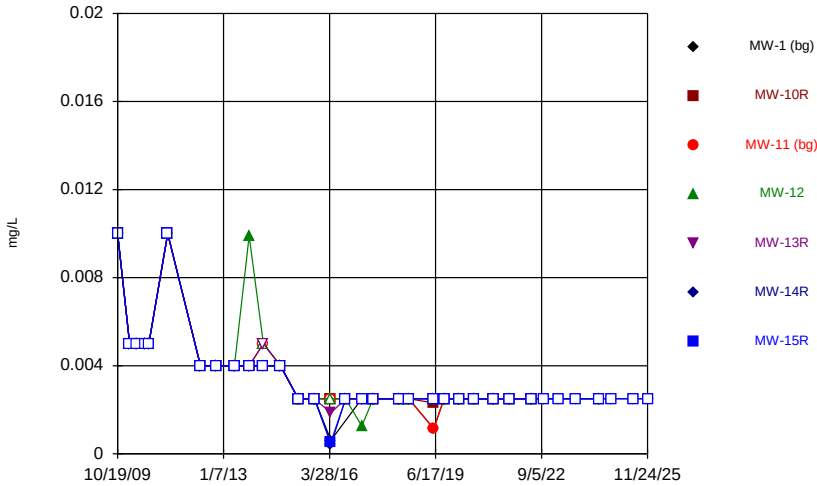
Constituent: Chloromethane Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



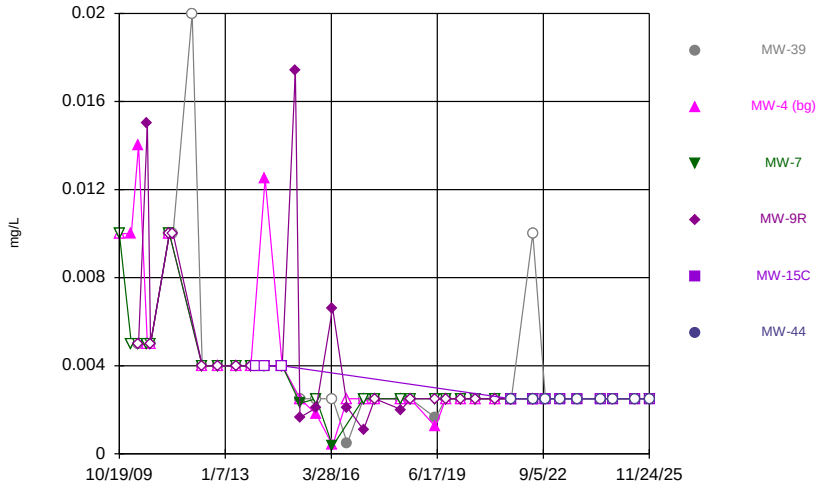
Constituent: Chloromethane Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



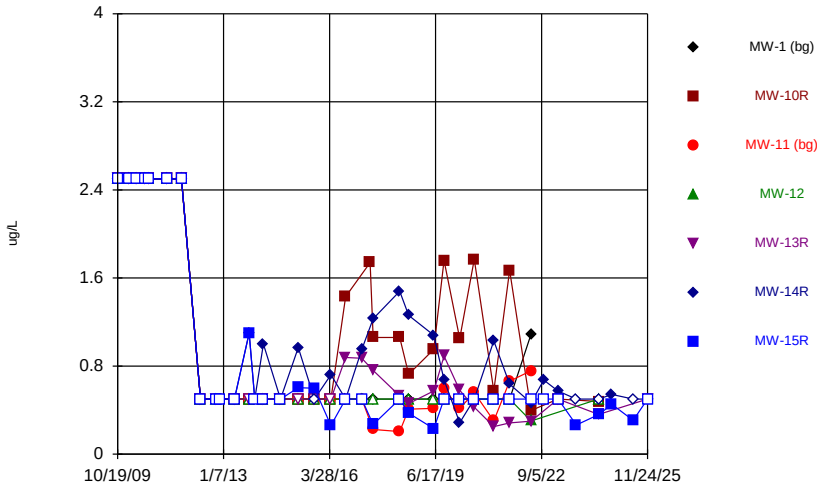
Constituent: Chromium Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



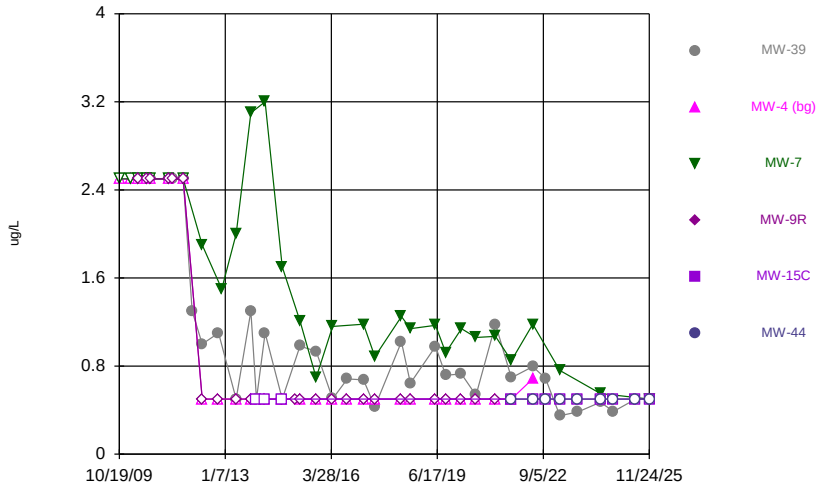
Constituent: Chromium Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



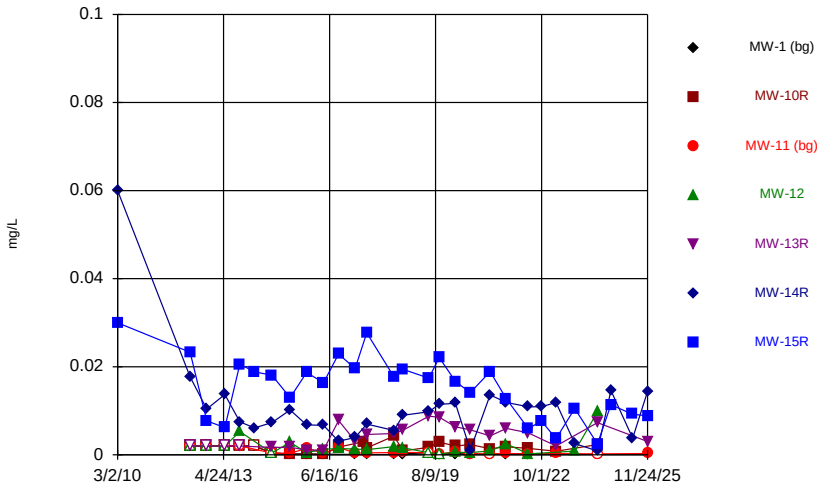
Constituent: cis-1,2-Dichloroethene Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



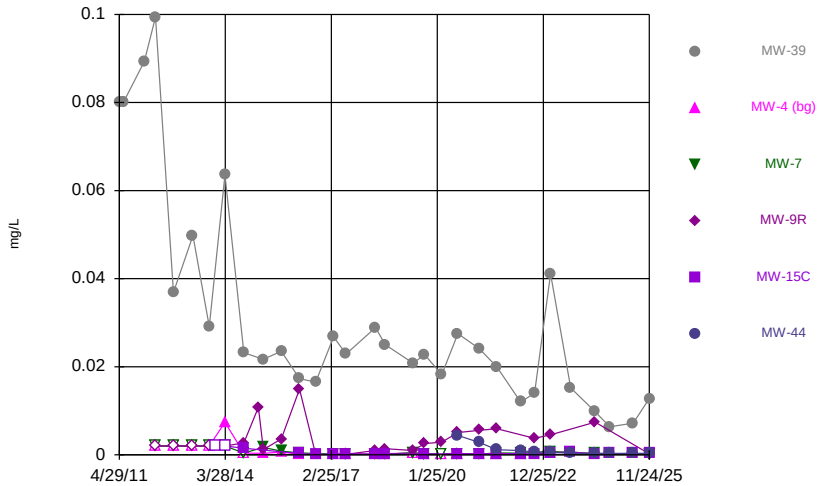
Constituent: cis-1,2-Dichloroethene Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



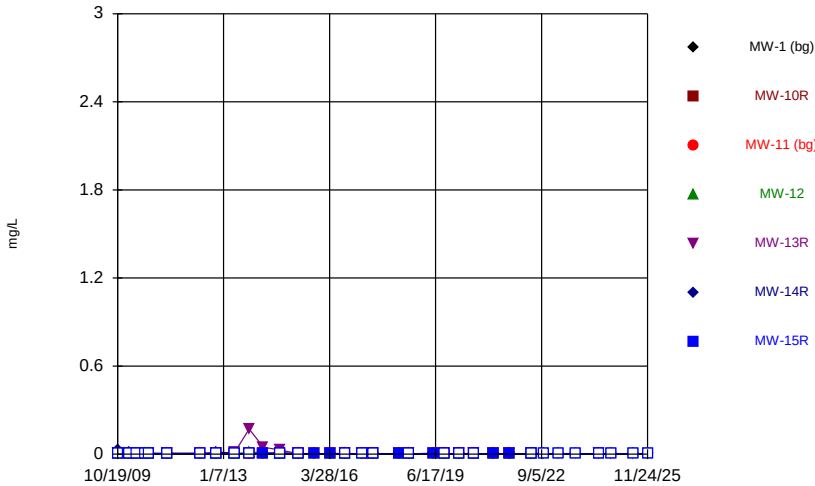
Constituent: Cobalt Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

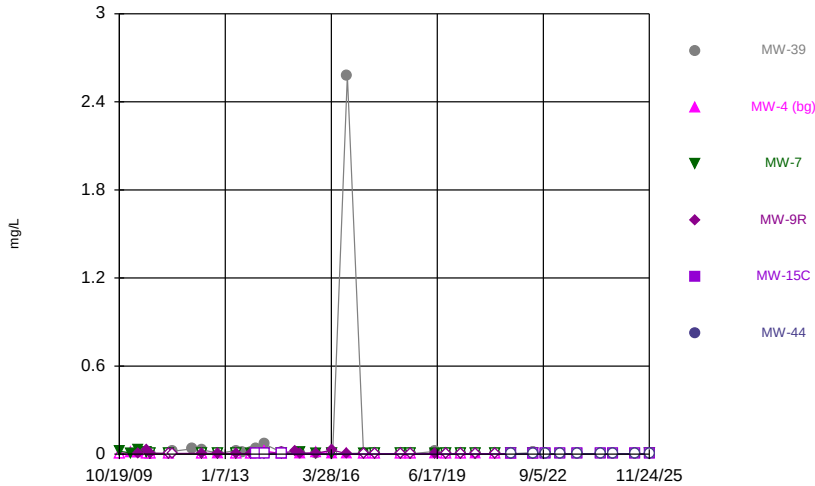


Constituent: Cobalt Analysis Run 1/16/2026 1:00 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

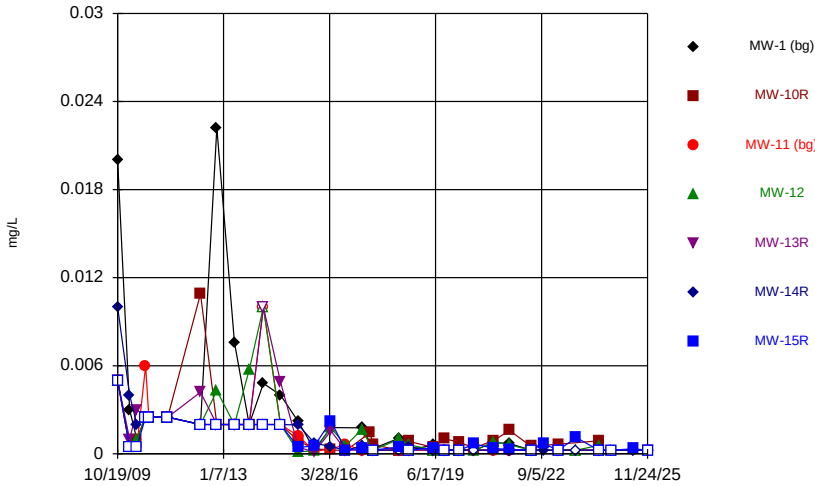
Time Series



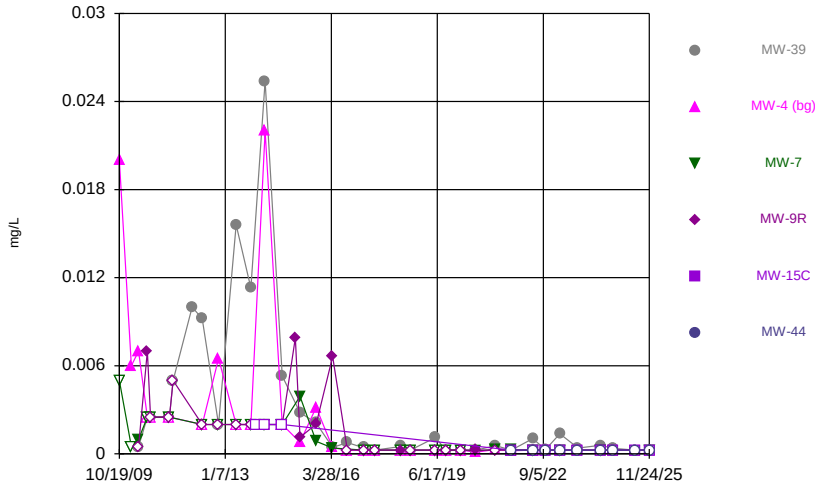
Time Series



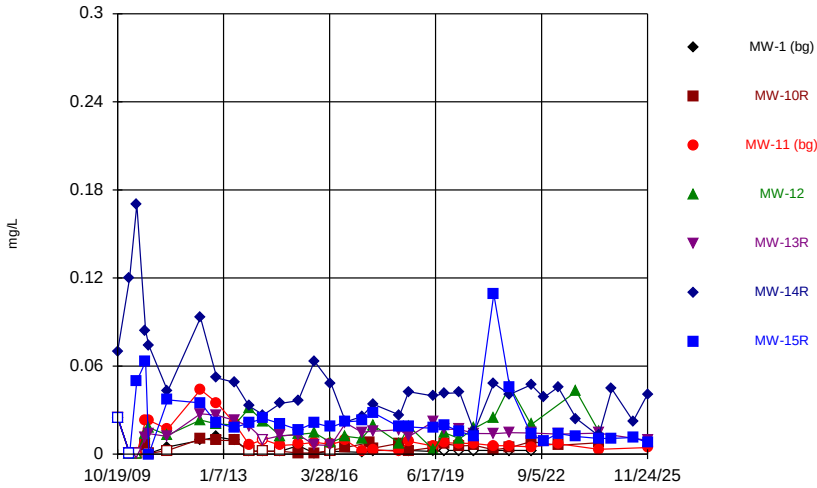
Time Series



Time Series

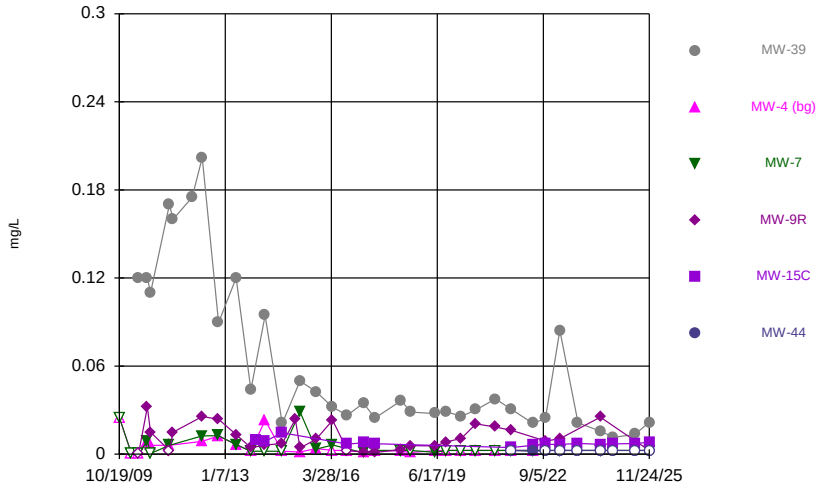


Time Series



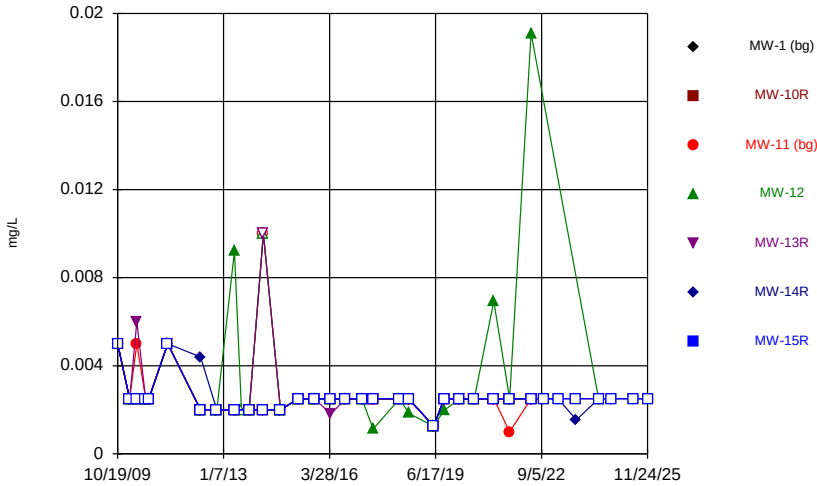
Constituent: Nickel Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



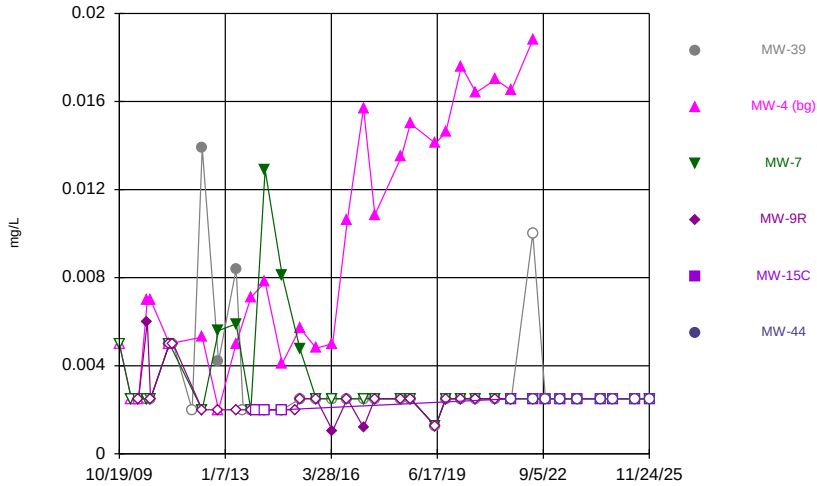
Constituent: Nickel Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



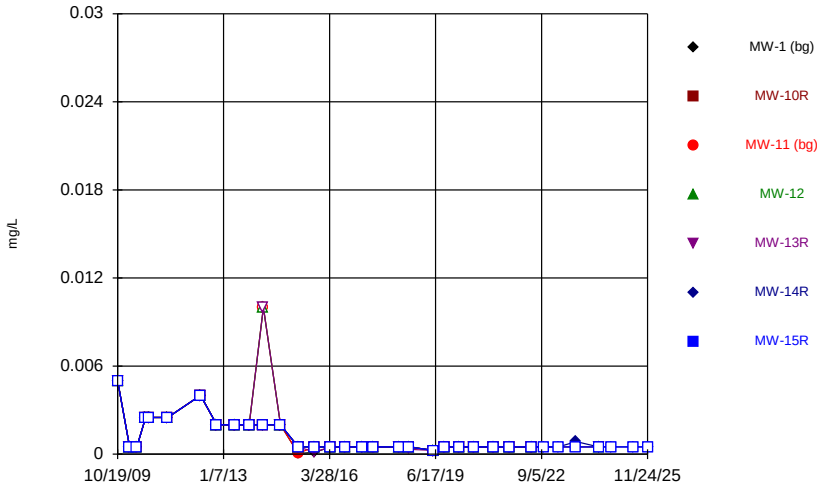
Constituent: Selenium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



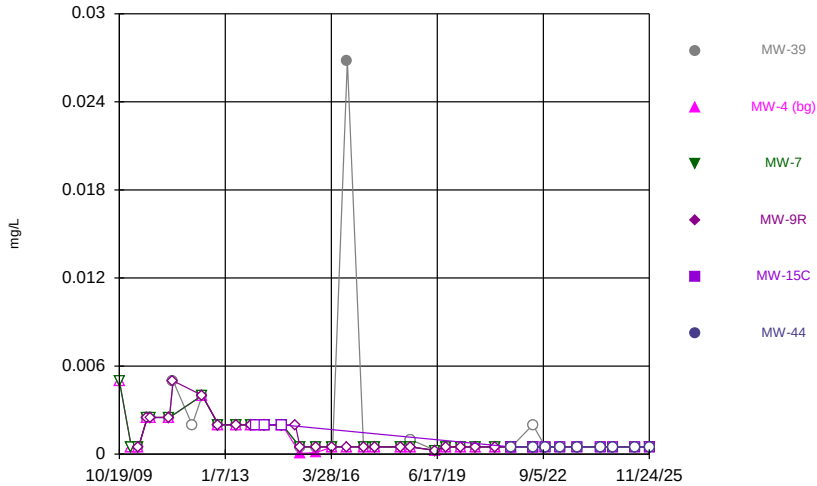
Constituent: Selenium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



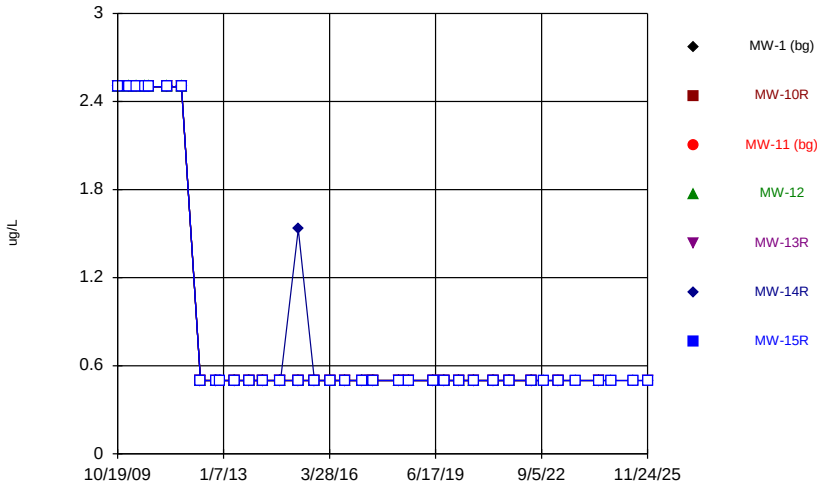
Constituent: Silver Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



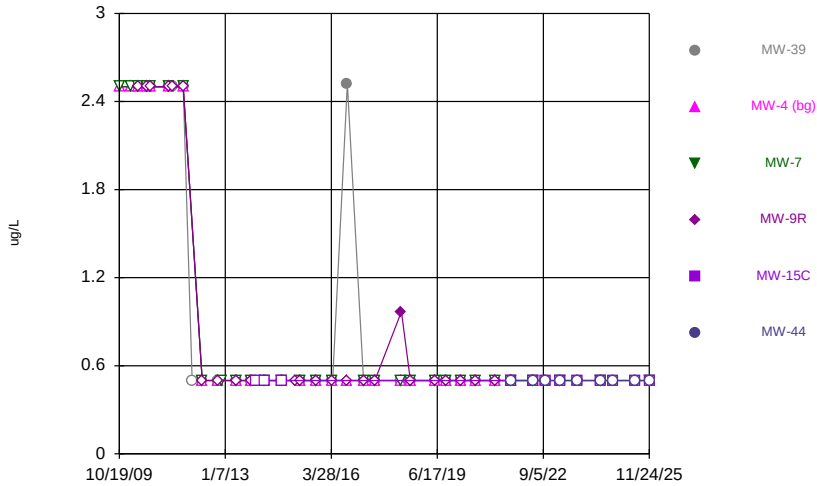
Constituent: Silver Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



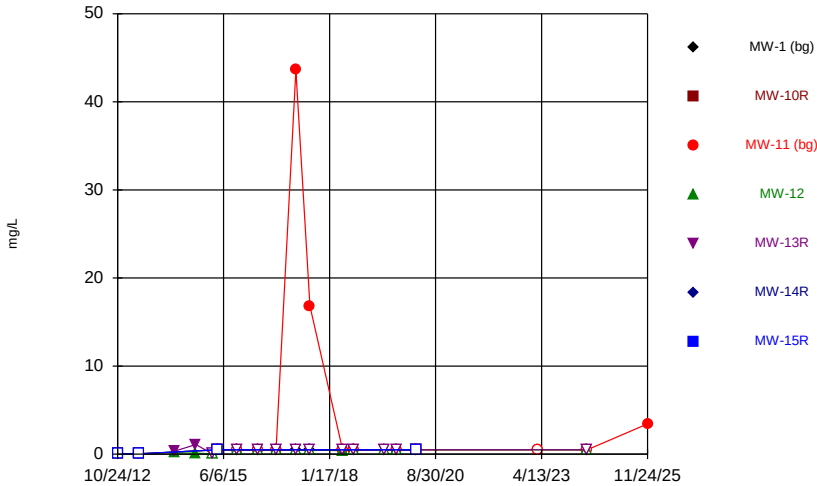
Constituent: Styrene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

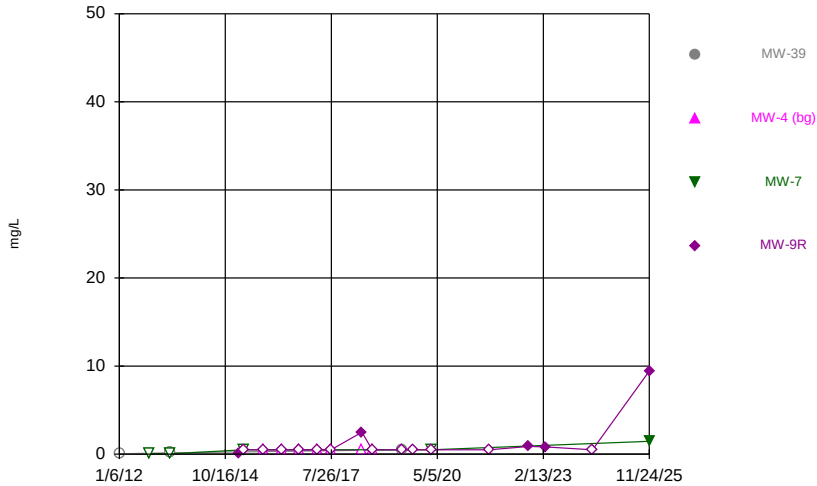


Constituent: Styrene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

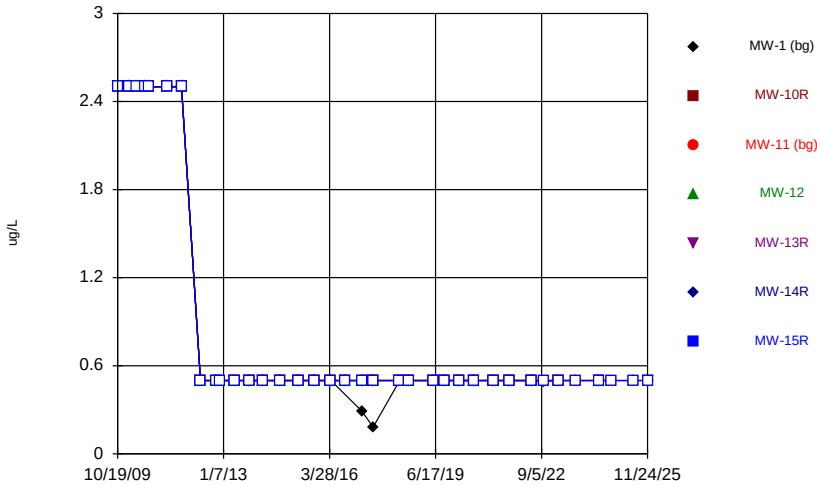
Time Series



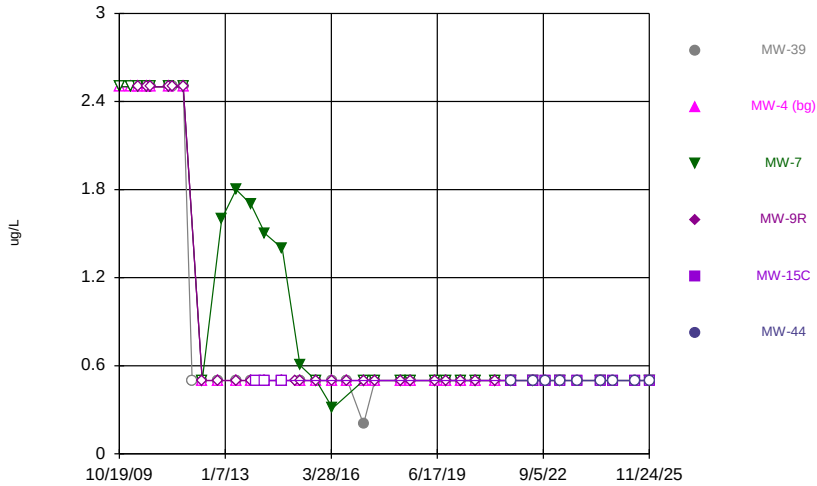
Time Series



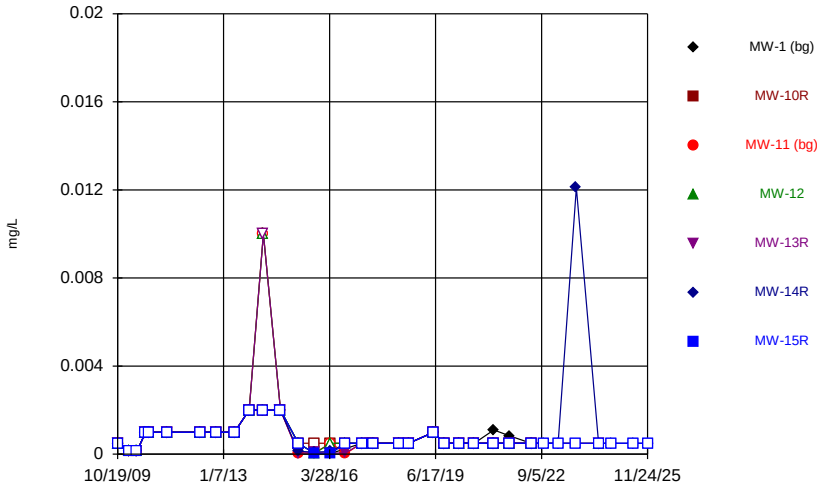
Time Series



Time Series

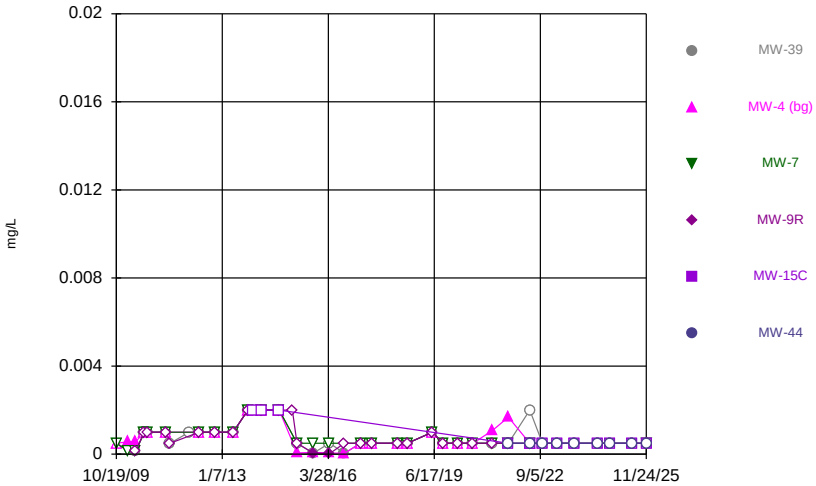


Time Series



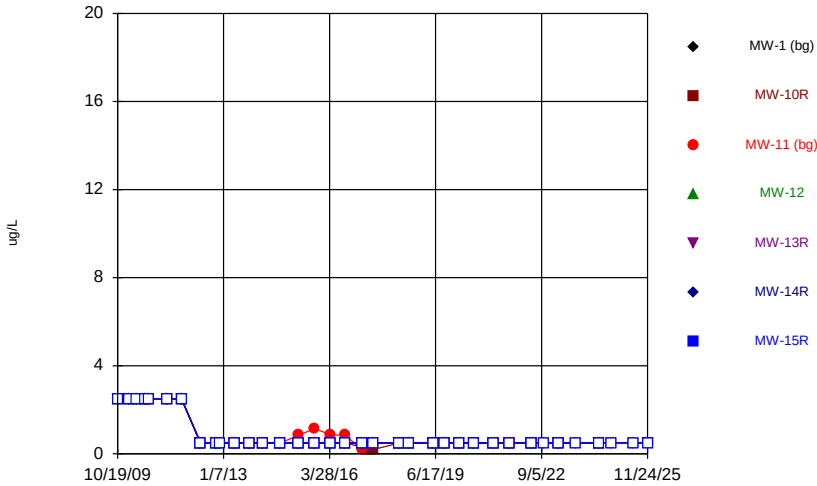
Constituent: Thallium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



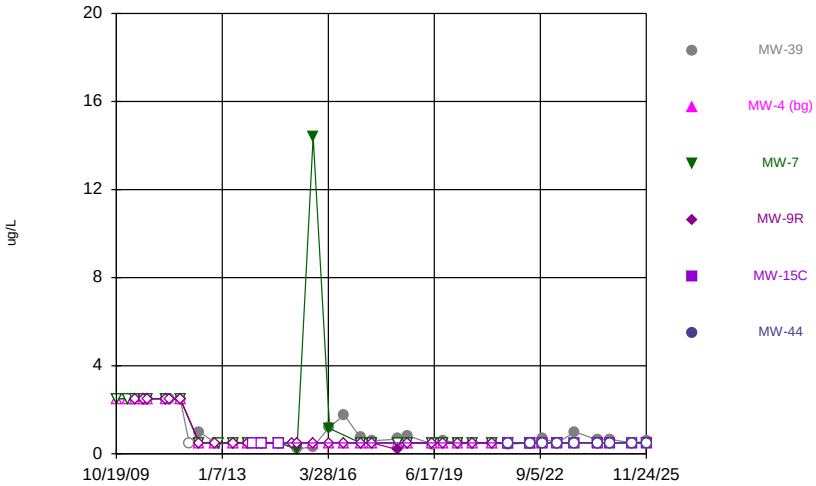
Constituent: Thallium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



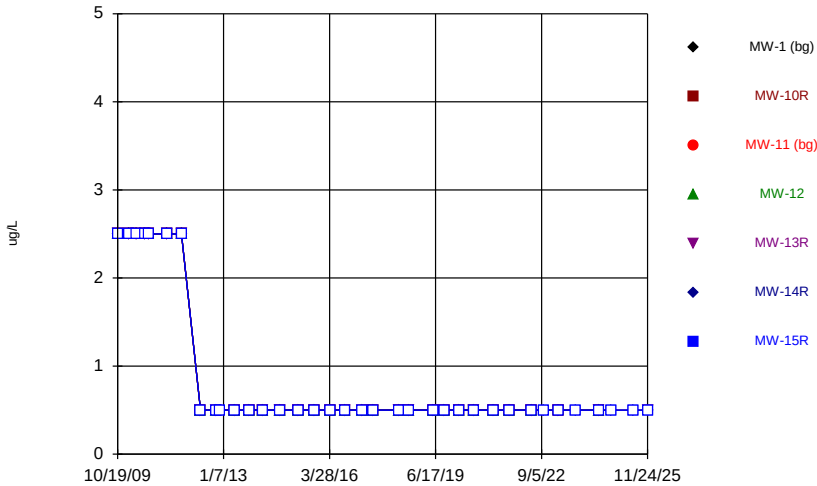
Constituent: Toluene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



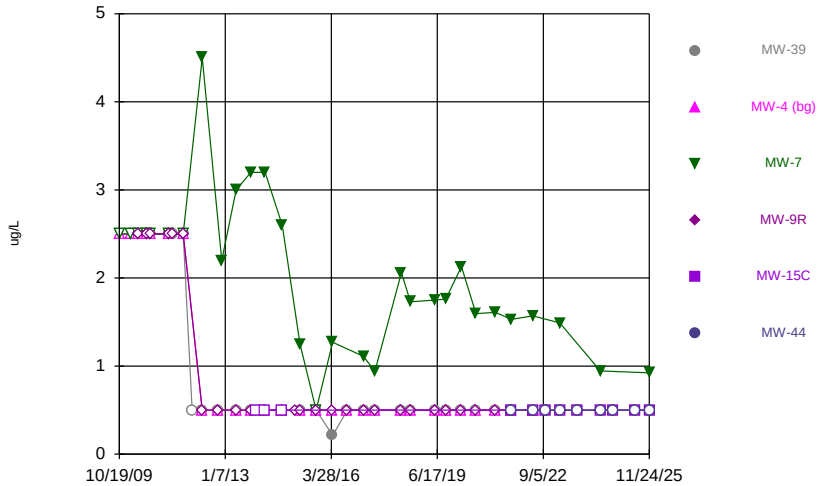
Constituent: Toluene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



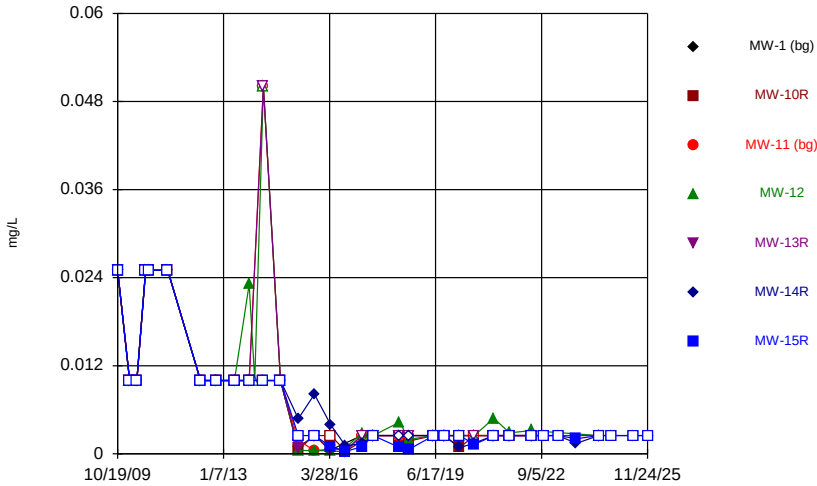
Constituent: Trichloroethene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



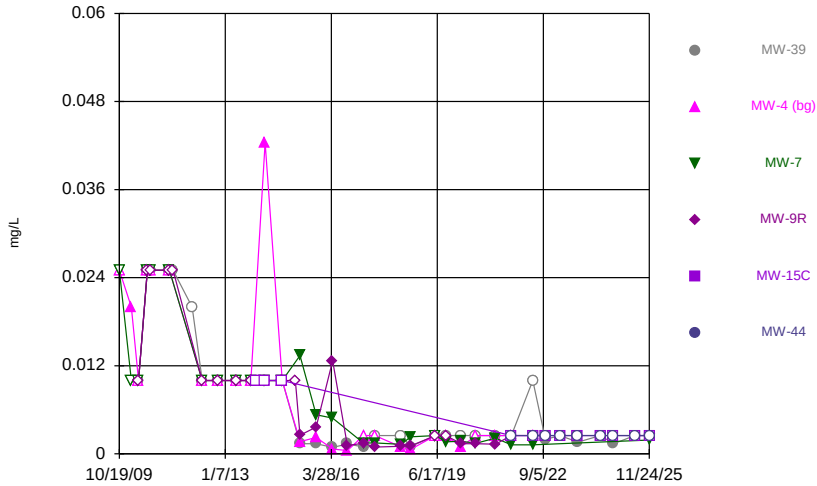
Constituent: Trichloroethene Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series



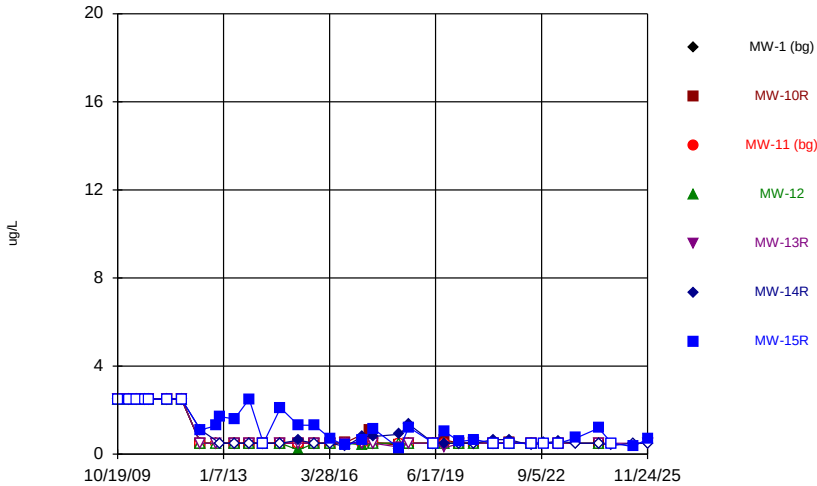
Constituent: Vanadium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Time Series

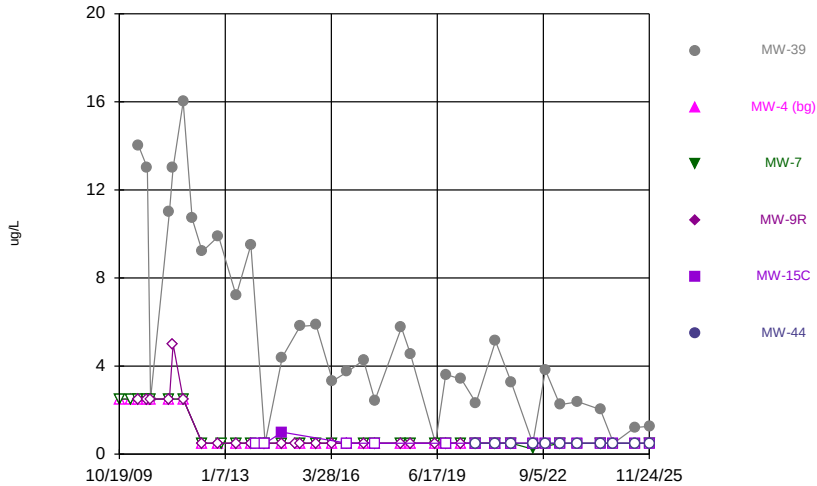


Constituent: Vanadium Analysis Run 1/16/2026 1:01 PM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

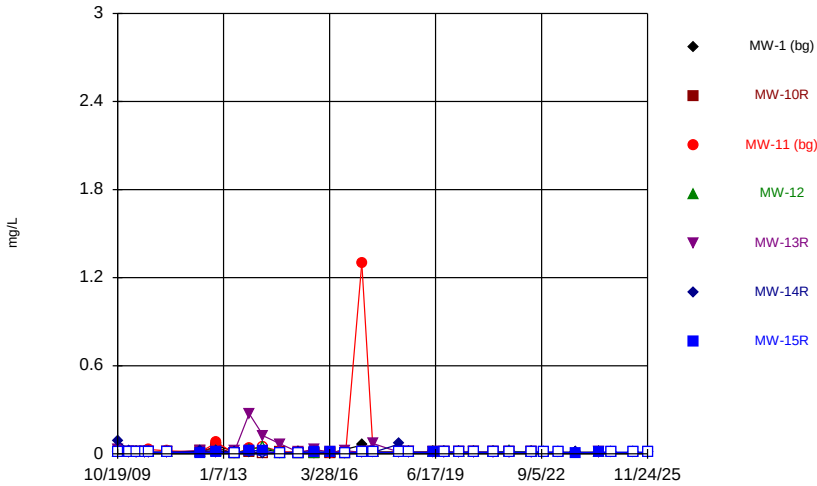
Time Series



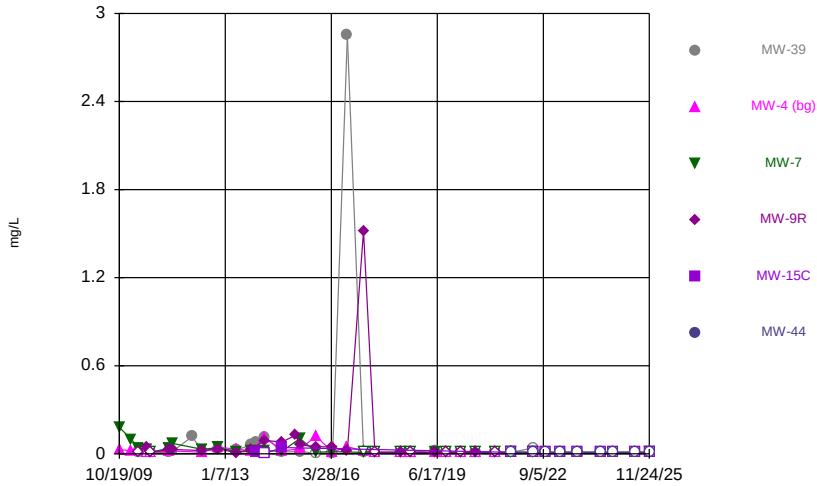
Time Series



Time Series

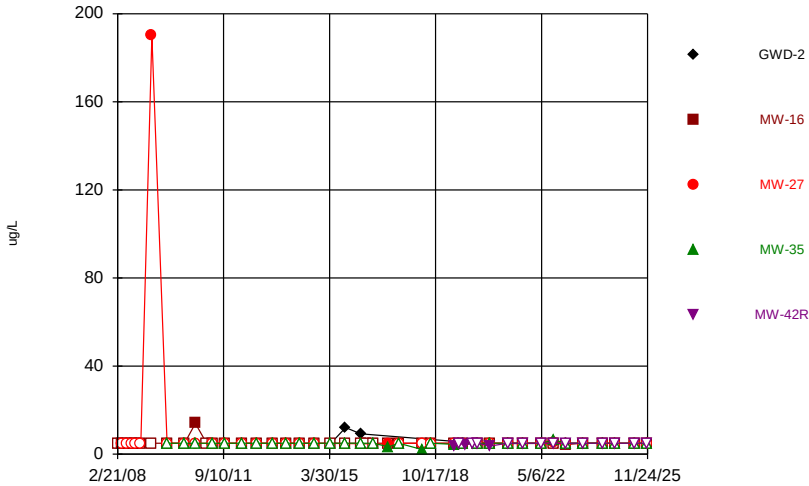


Time Series



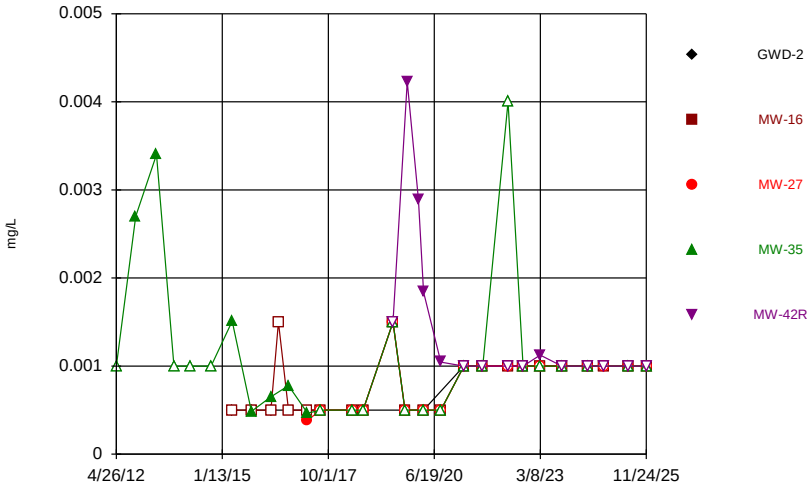
Time Series Plots – Open MSWLF Unit

Time Series



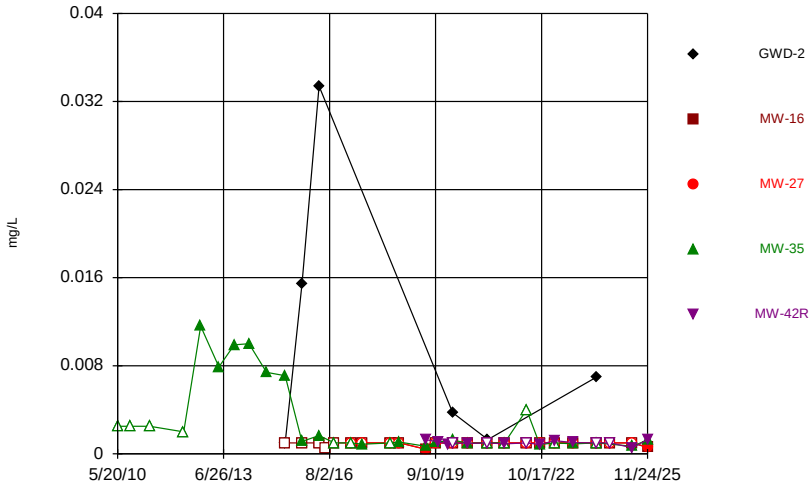
Constituent: Acetone Analysis Run 1/7/2026 11:20 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



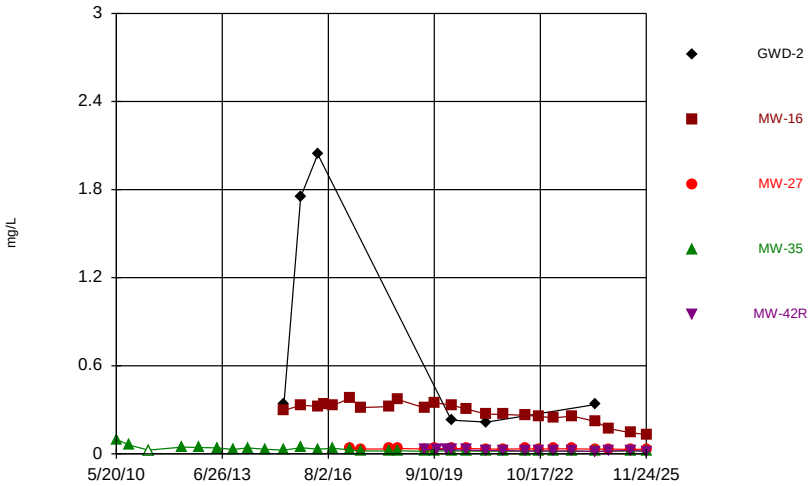
Constituent: Antimony Analysis Run 1/7/2026 11:20 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



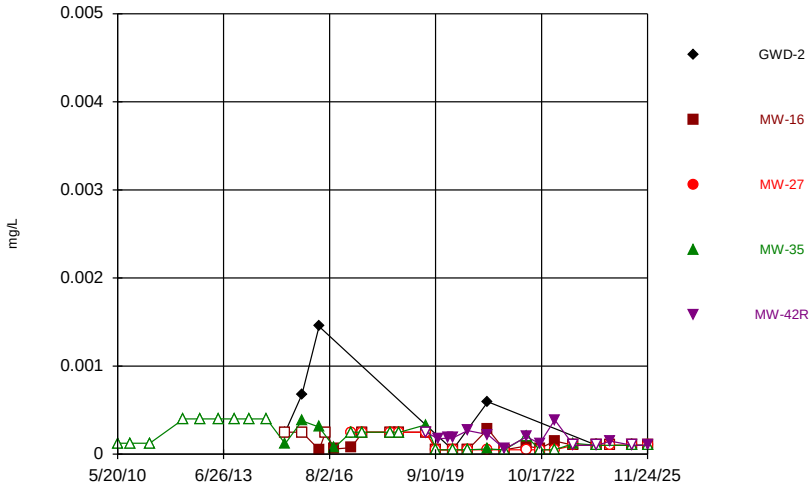
Constituent: Arsenic Analysis Run 1/7/2026 11:20 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series

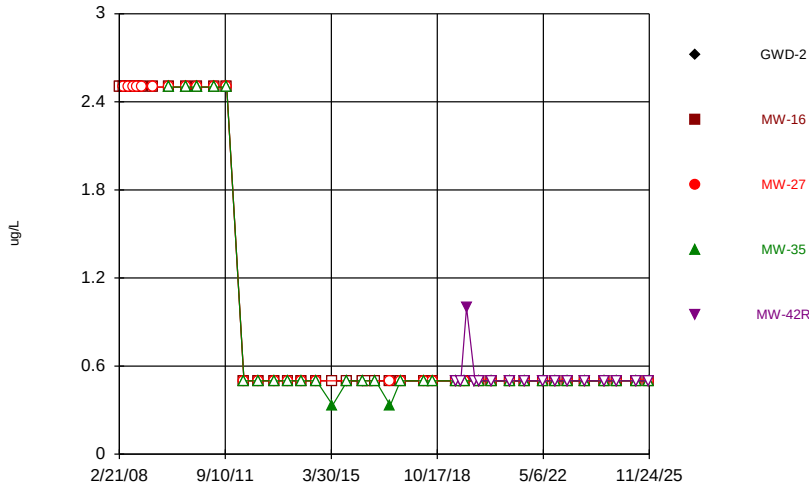


Constituent: Barium Analysis Run 1/7/2026 11:20 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

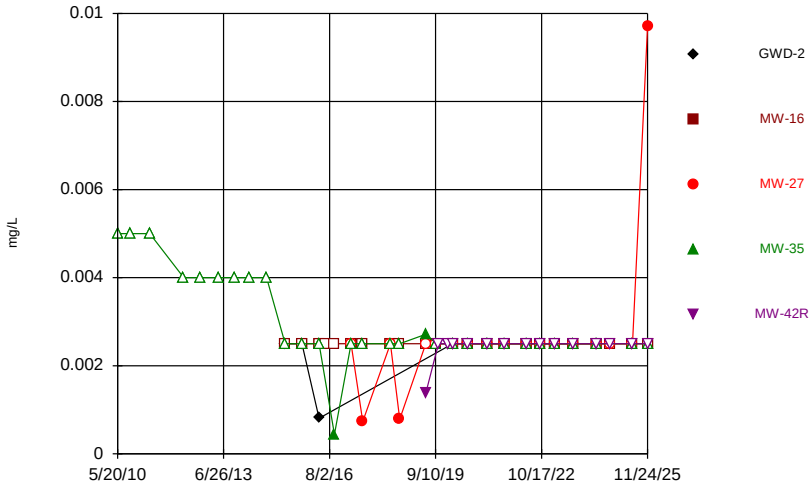
Time Series



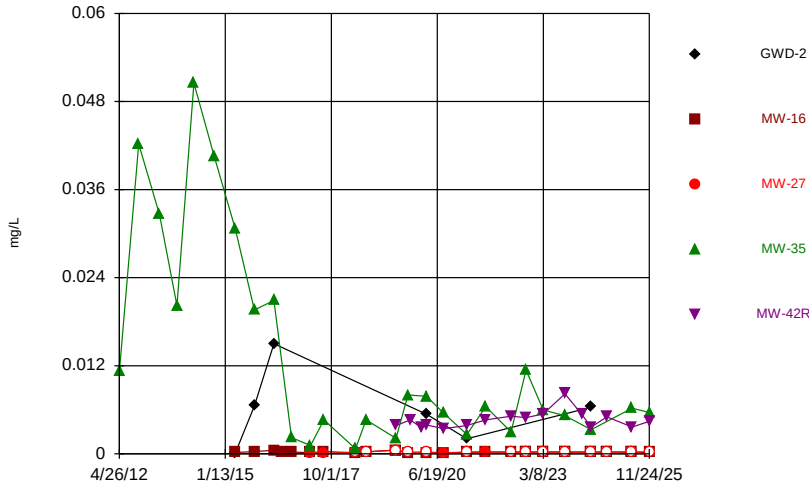
Time Series



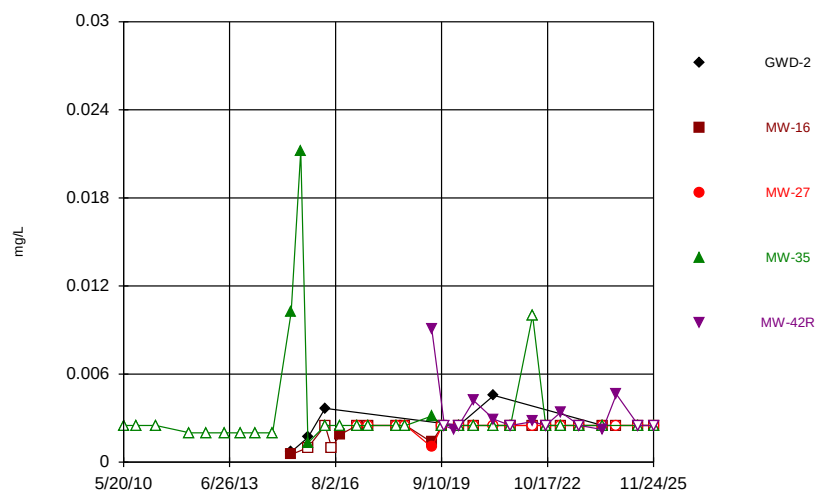
Time Series



Time Series

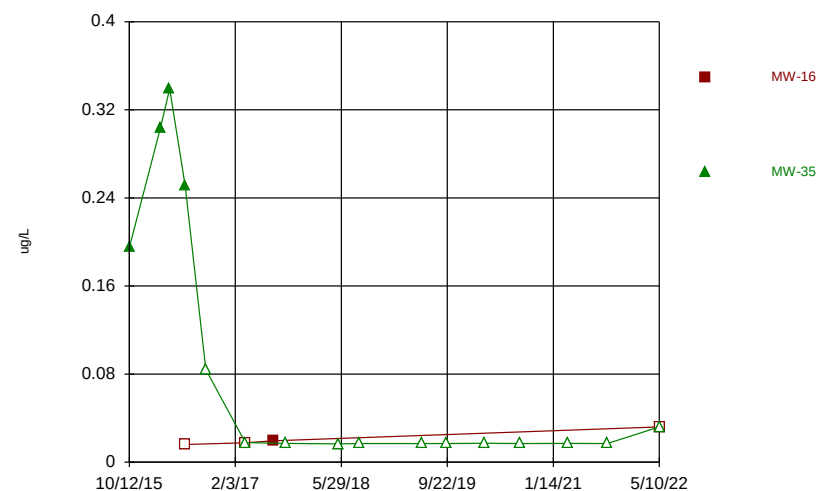


Time Series



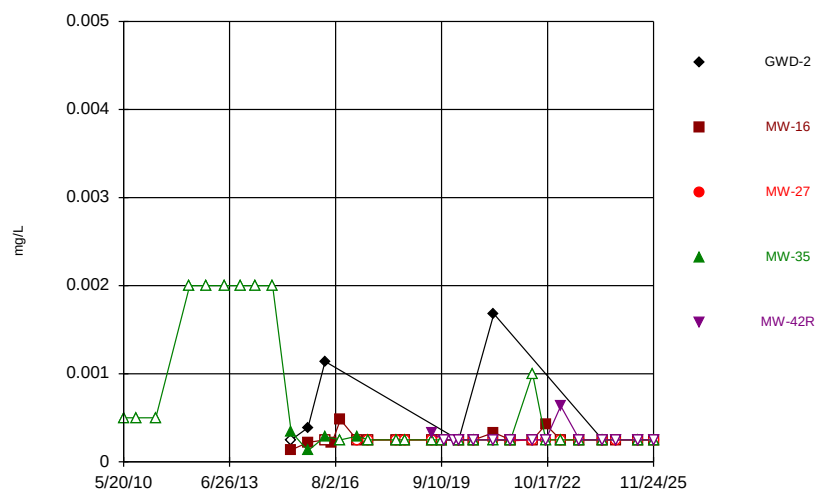
Constituent: Copper Analysis Run 1/7/2026 11:21 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



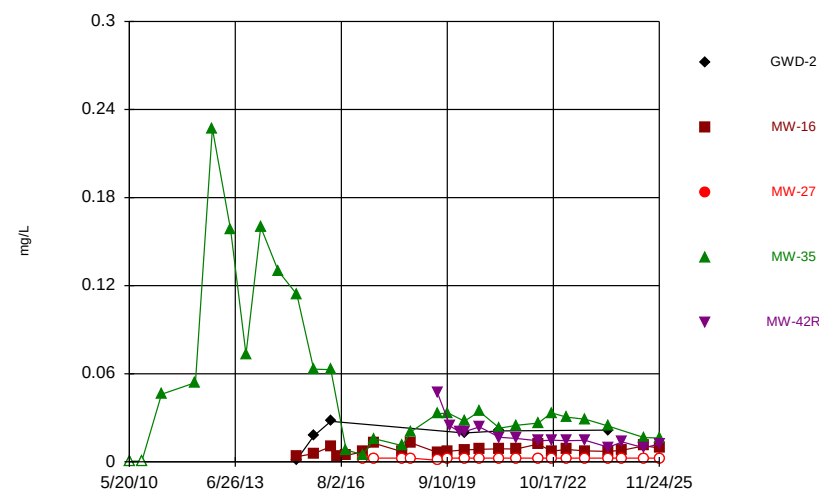
Constituent: Endrin aldehyde Analysis Run 1/7/2026 11:21 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series



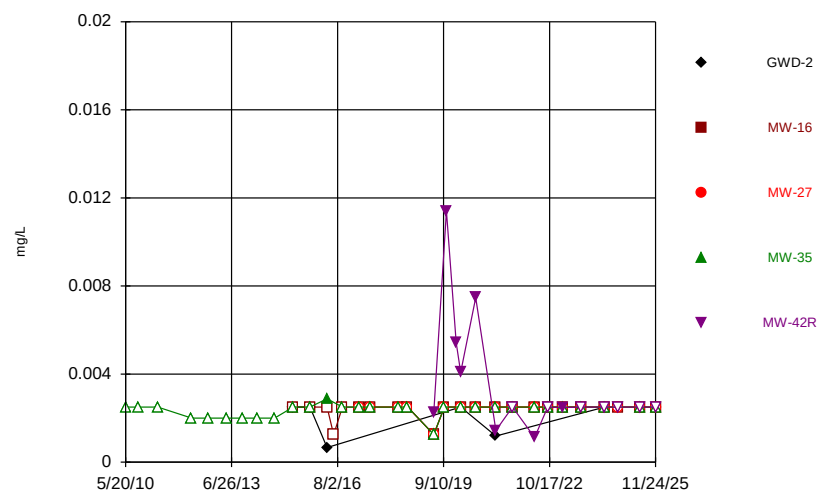
Constituent: Lead Analysis Run 1/7/2026 11:21 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Time Series

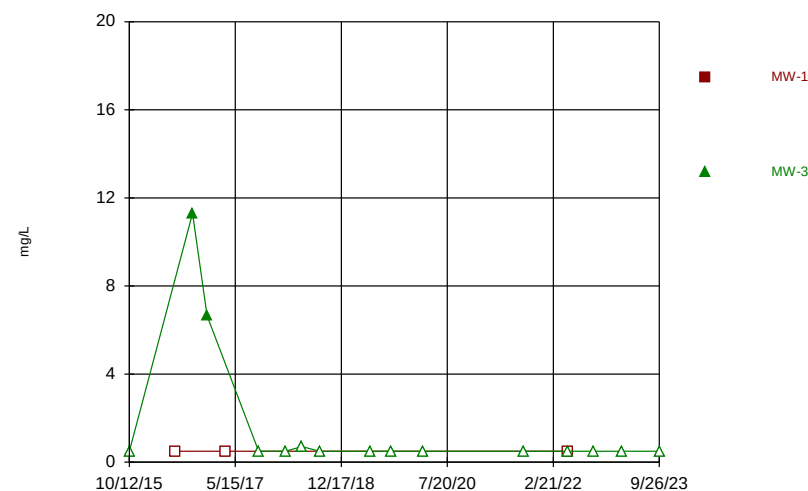


Constituent: Nickel Analysis Run 1/7/2026 11:21 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

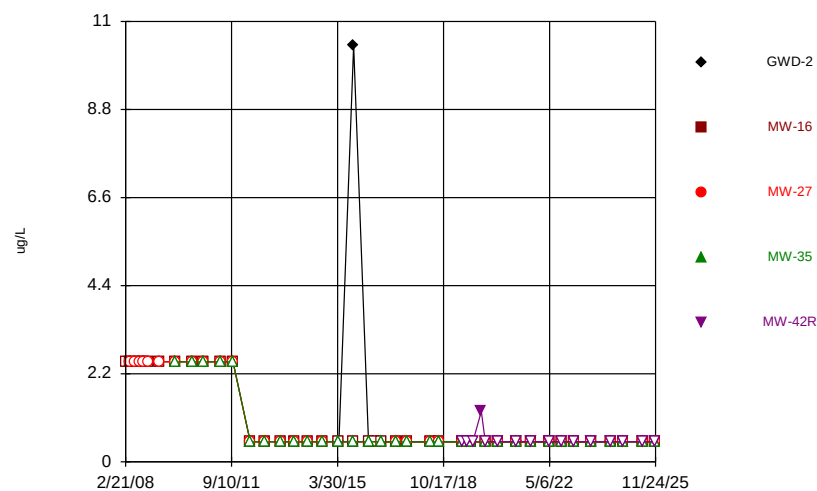
Time Series



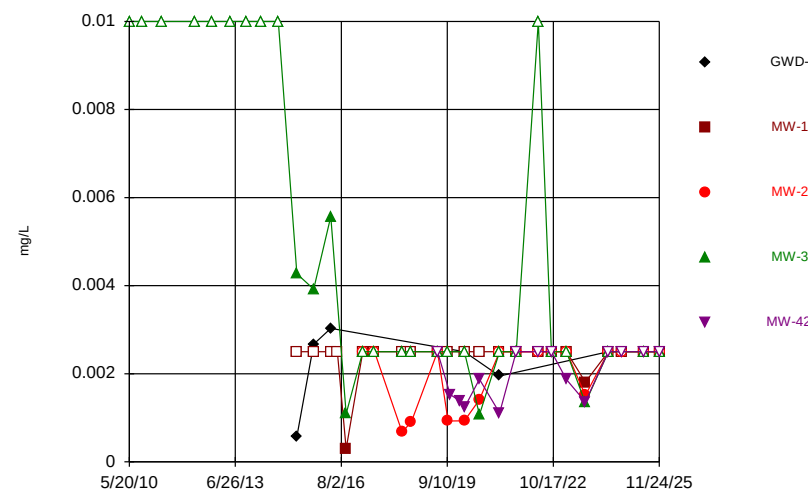
Time Series



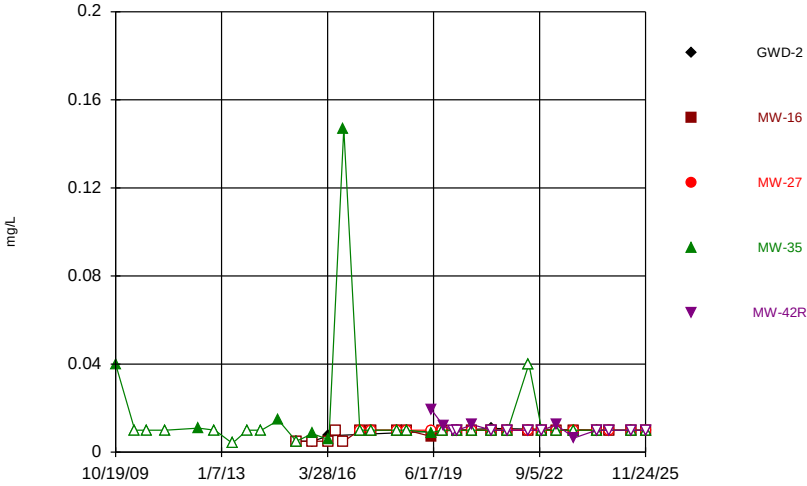
Time Series



Time Series



Time Series



Constituent: Zinc Analysis Run 1/7/2026 11:21 AM View: 2025_AWQR-Time_Series
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

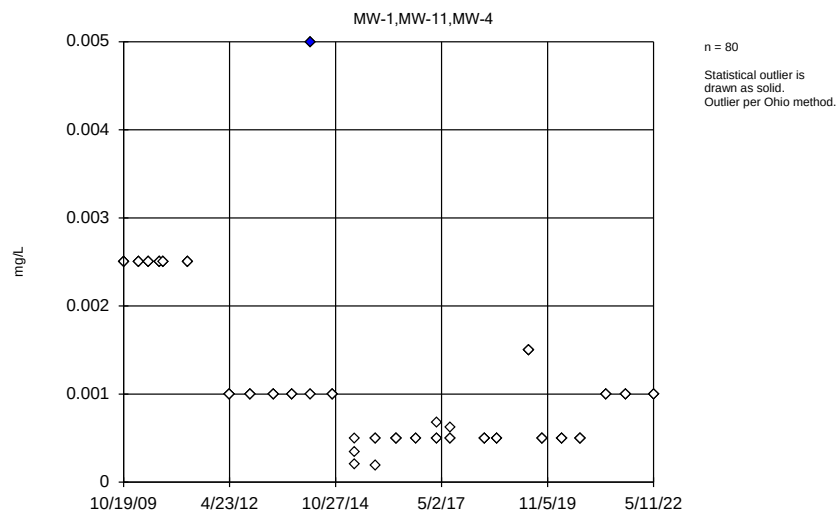
Outlier Test Summary Table and Graphs – Closed MSWLF Unit

BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 12/22/2025, 1:43 PM

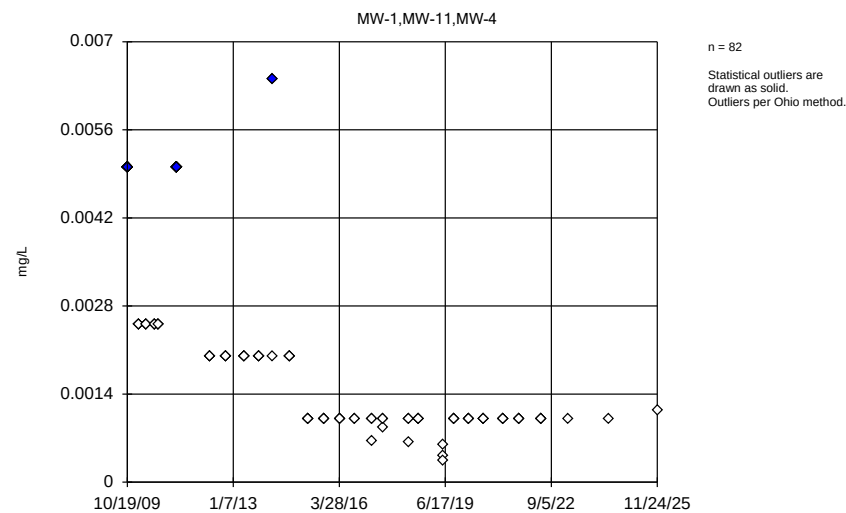
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-1,MW-11,MW-4	Yes	0.005	n/a w/combined bg	OH	NaN	80	0.0012	0.0008913	n/a	n/a
Arsenic (mg/L)	MW-1,MW-11,MW-4	Yes	0.0064,0.005,0.005	n/a w/combined bg	OH	NaN	82	0.001745	0.001237	n/a	n/a
Barium (mg/L)	MW-11,MW-1,MW-4	No	n/a	n/a w/combined bg	EPA/OH	0.05	83	0.03658	0.02304	ln(x)	ShapiroFrancia
Cadmium (mg/L)	MW-1,MW-11,MW-4	Yes	0.0066,0.0079,0.0105,0.0494	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.001727	0.005707	unknown	ShapiroFrancia
Chromium (mg/L)	MW-1,MW-11,MW-4	Yes	0.014,0.0125,0.01,0.01,0.01	n/a w/combined bg	OH	NaN	80	0.00396	0.002695	n/a	n/a
Cobalt (mg/L)	MW-1,MW-11,MW-4	Yes	0.0074	n/a w/combined bg	NP (nrm)/OH	NaN	64	0.000789	0.001107	unknown	ShapiroFrancia
Copper (mg/L)	MW-1,MW-11,MW-4	Yes	0.005,0.005,0.005,0.0133,0.0068,0.0051,0.0111,0.0	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.003762	0.00356	unknown	ShapiroFrancia
Lead (mg/L)	MW-1,MW-11,MW-4	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	83	0.002554	0.004624	unknown	ShapiroFrancia
Nickel (mg/L)	MW-11,MW-1,MW-4	No	n/a	n/a w/combined bg	EPA/OH	0.05	83	0.006773	0.008147	ln(x)	ShapiroFrancia
Selenium (mg/L)	MW-1,MW-11,MW-4	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.004993	0.004639	unknown	ShapiroFrancia
Silver (mg/L)	MW-1,MW-11,MW-4	Yes	0.01,0.005,0.004,0.0025,0.0025,0.0025	n/a w/combined bg	OH	NaN	80	0.001371	0.001574	n/a	n/a
Thallium (mg/L)	MW-1,MW-11,MW-4	Yes	0.01,0.002,0.002	n/a w/combined bg	OH	NaN	80	0.0008656	0.001166	n/a	n/a
Vanadium (mg/L)	MW-1,MW-11,MW-4	Yes	0.05,0.0424	n/a w/combined bg	OH	NaN	80	0.008904	0.01017	n/a	n/a
Zinc (mg/L)	MW-1,MW-11,MW-4	Yes	0.0551,0.0598,0.0772,0.05,1.3,0.113,0.119	n/a w/combined bg	NP (nrm)/OH	NaN	80	0.03498	0.1447	unknown	ShapiroFrancia

Ohio EPA 0715 Outlier Algorithm, Pooled Background



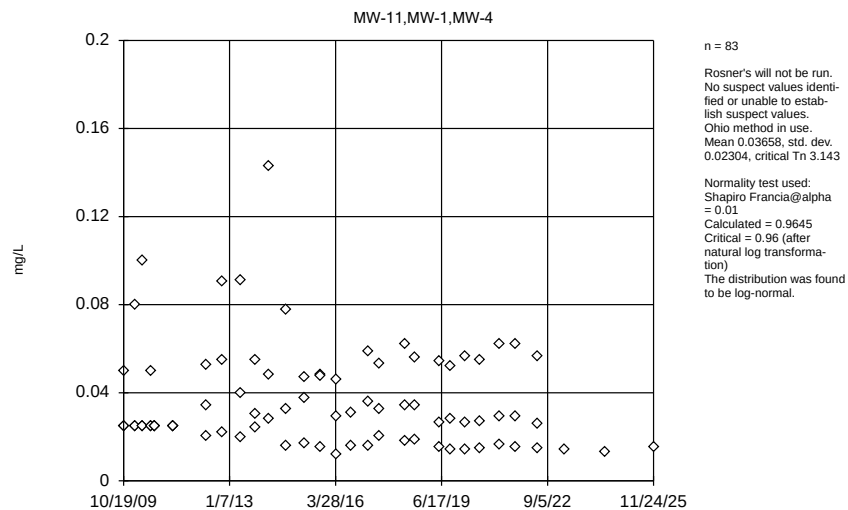
Constituent: Antimony Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



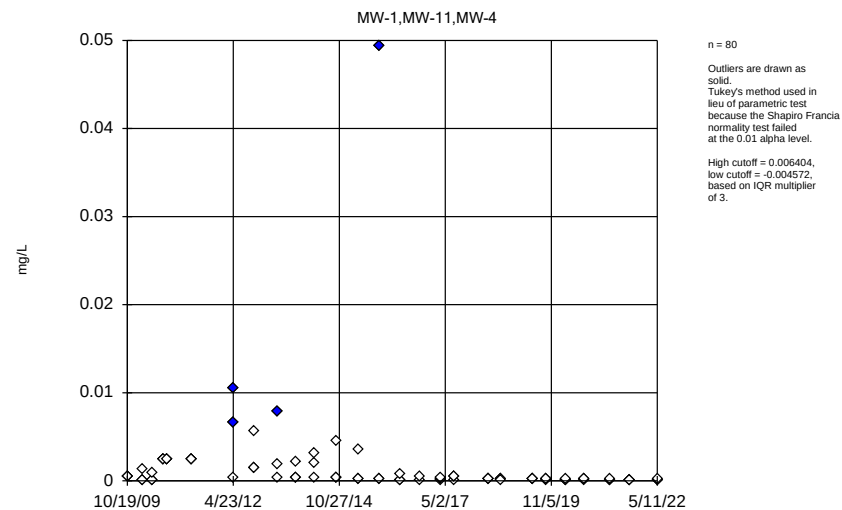
Constituent: Arsenic Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Rosner's Test)



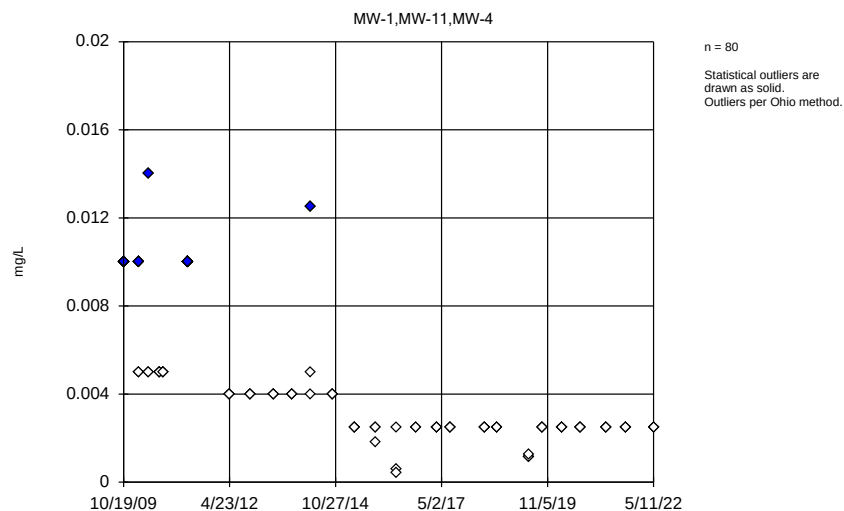
Constituent: Barium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



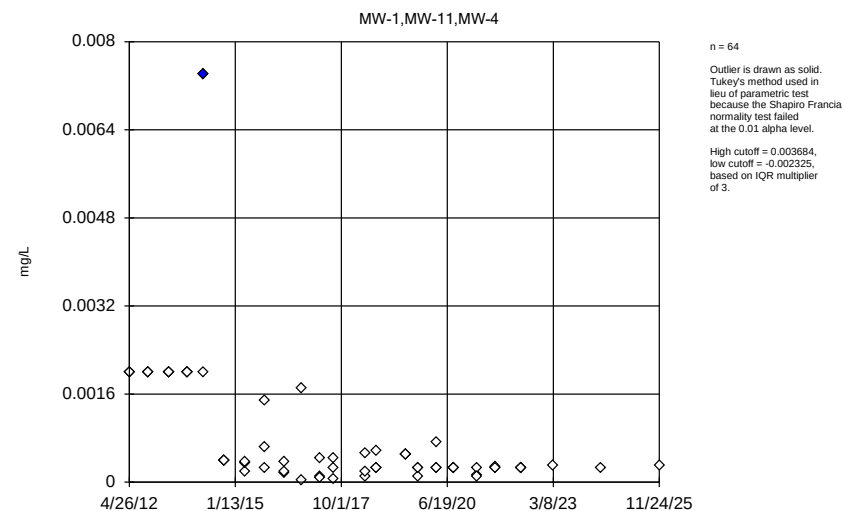
Constituent: Cadmium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



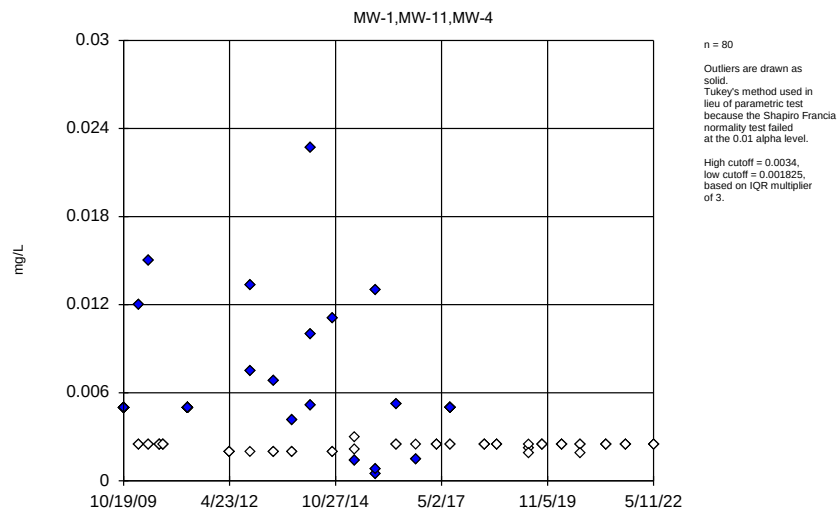
Constituent: Chromium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



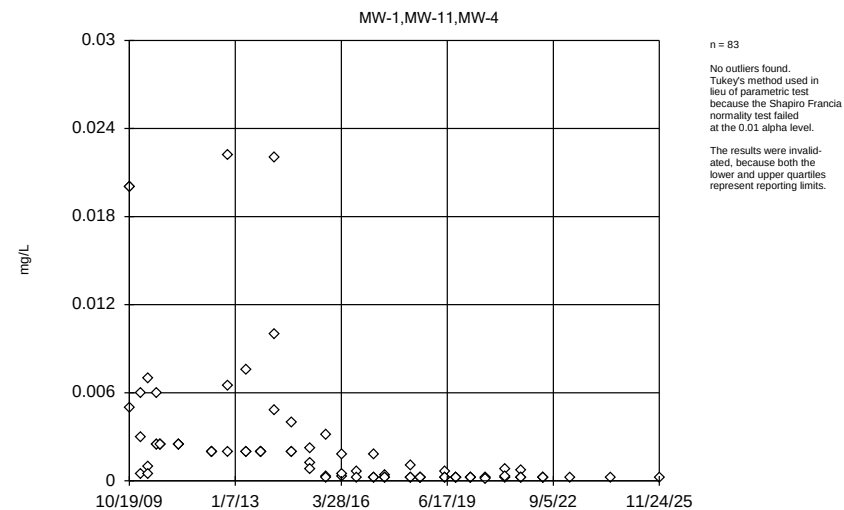
Constituent: Cobalt Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



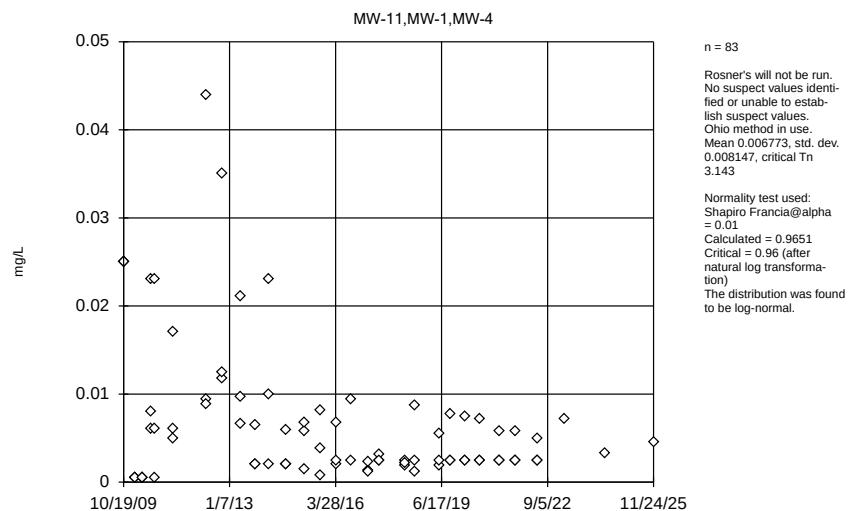
Constituent: Copper Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



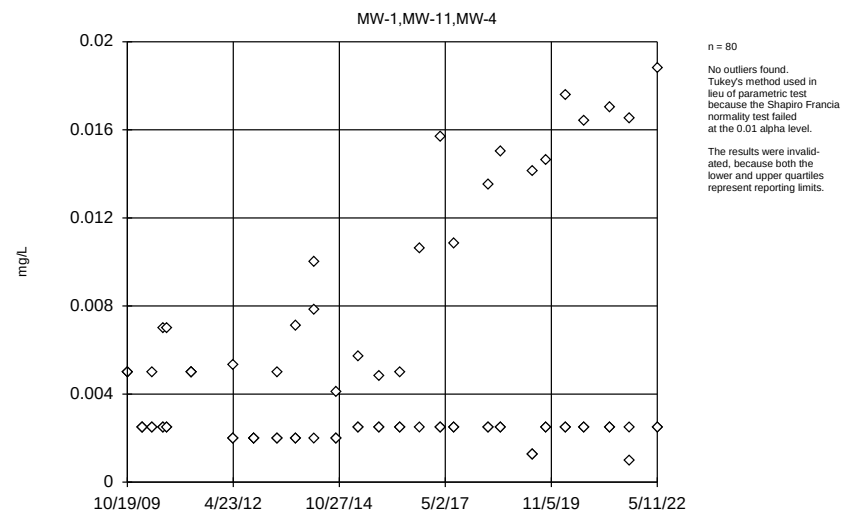
Constituent: Lead Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Rosner's Test)



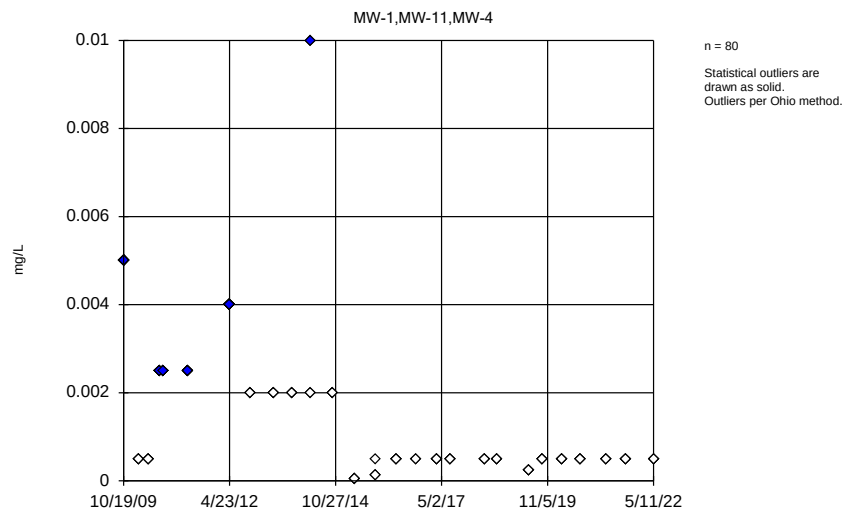
Constituent: Nickel Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background



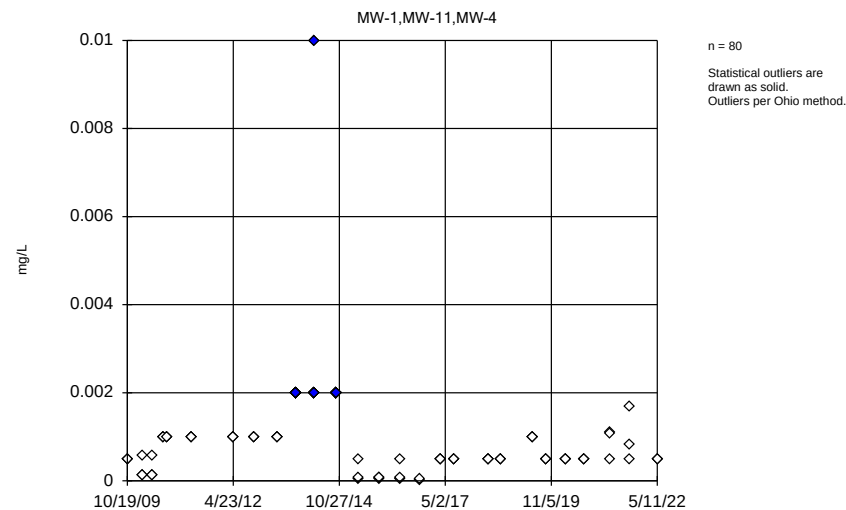
Constituent: Selenium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background



Constituent: Silver Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

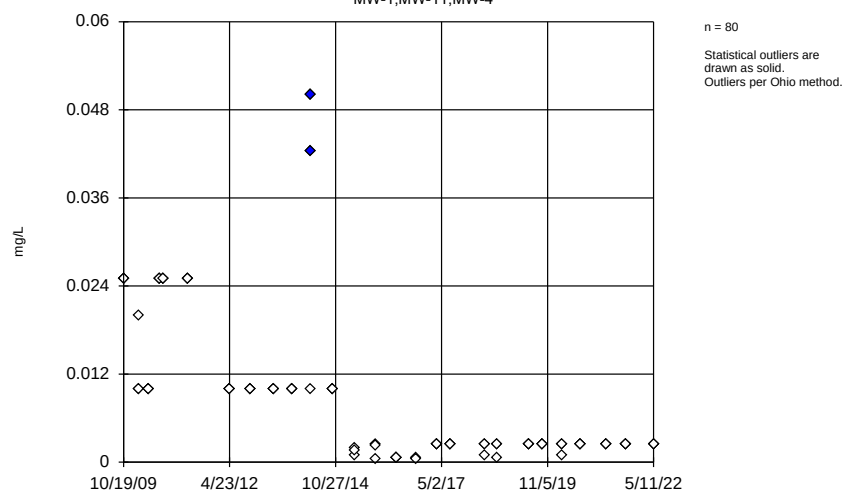
Ohio EPA 0715 Outlier Algorithm, Pooled Background



Constituent: Thallium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm, Pooled Background

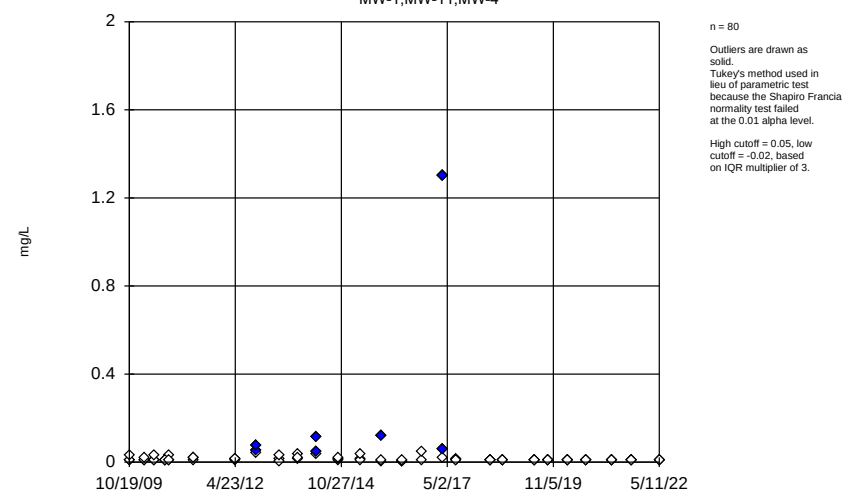
MW-1,MW-11,MW-4



Constituent: Vanadium Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-1,MW-11,MW-4



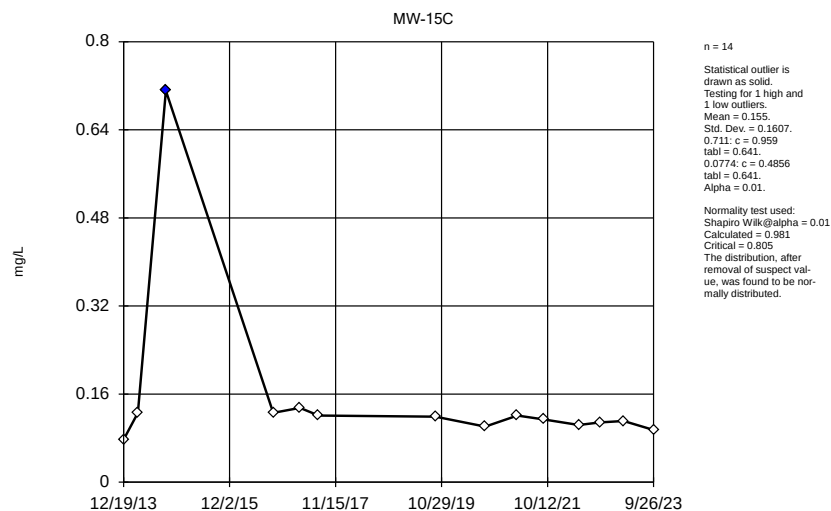
Constituent: Zinc Analysis Run 12/22/2025 1:38 PM View: 2025_AWQR-BG_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

MW-15C BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 1/6/2026, 10:49 AM

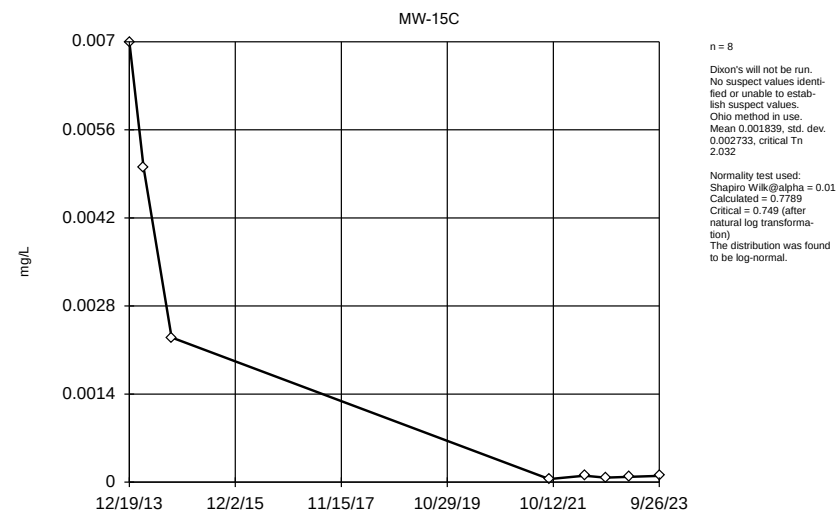
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Barium (mg/L)	MW-15C	Yes	0.711	9/30/2014	Dixon/OH	0.01	14	0.155	0.1607	normal	ShapiroWilk
Cadmium (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	8	0.001839	0.002733	ln(x)	ShapiroWilk
Cobalt (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	17	0.0005391	0.0006417	ln(x)	ShapiroWilk
Nickel (mg/L)	MW-15C	No	n/a	n/a	EPA/OH	0.05	11	0.007845	0.002621	normal	ShapiroWilk
Zinc (mg/L)	MW-15C	Yes	0.0426	9/30/2014	OH	NaN	8	0.01342	0.01199	n/a	n/a

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



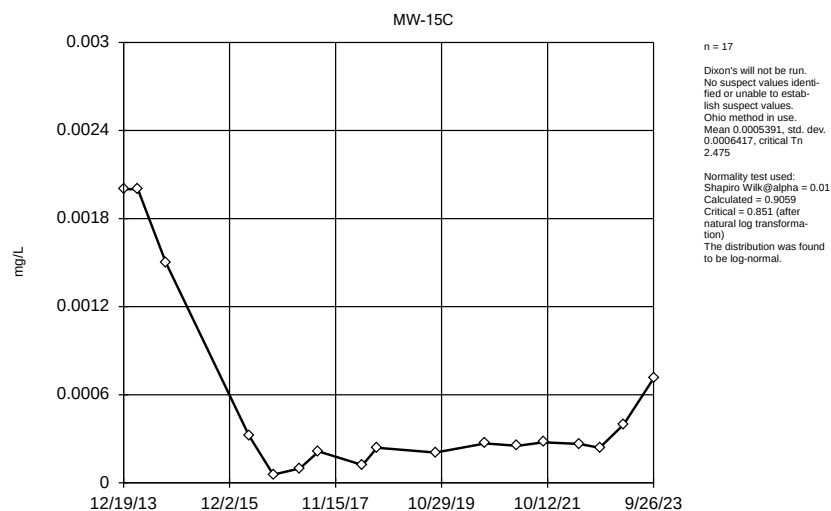
Constituent: Barium Analysis Run 1/6/2026 10:40 AM View: 2025_AWQR-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



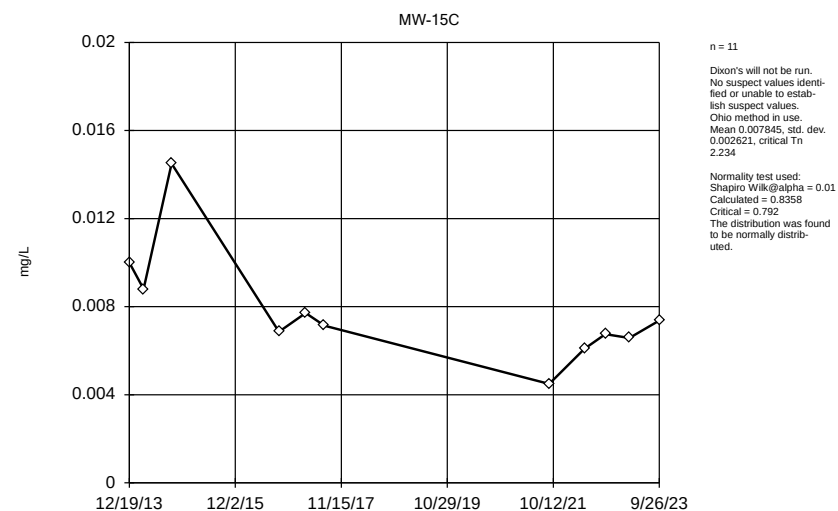
Constituent: Cadmium Analysis Run 1/6/2026 10:40 AM View: 2025_AWQR-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)

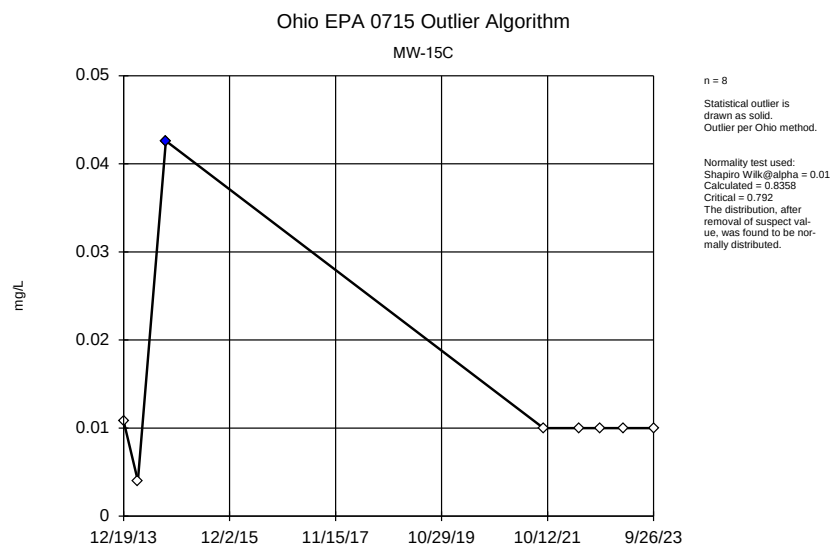


Constituent: Cobalt Analysis Run 1/6/2026 10:40 AM View: 2025_AWQR-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Nickel Analysis Run 1/6/2026 10:40 AM View: 2025_AWQR-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master



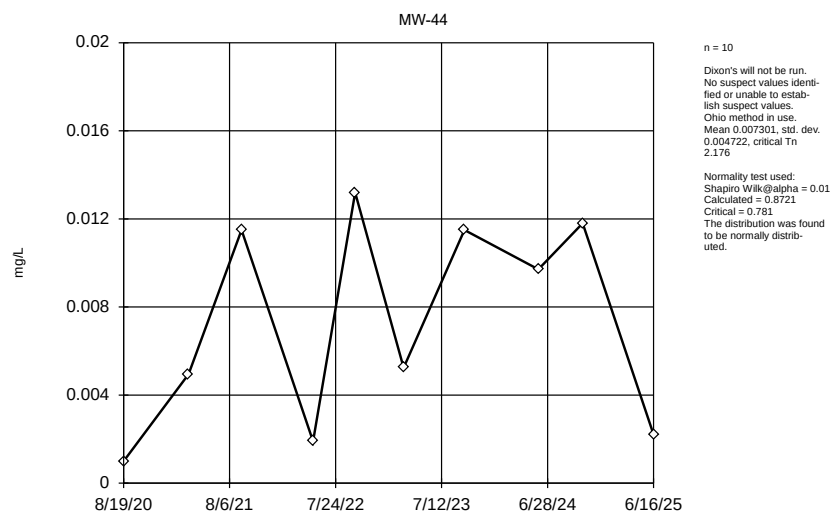
Constituent: Zinc Analysis Run 1/6/2026 10:40 AM View: 2025_AWQR-MW-15C_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

MW-44 BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 1/6/2026, 11:16 AM

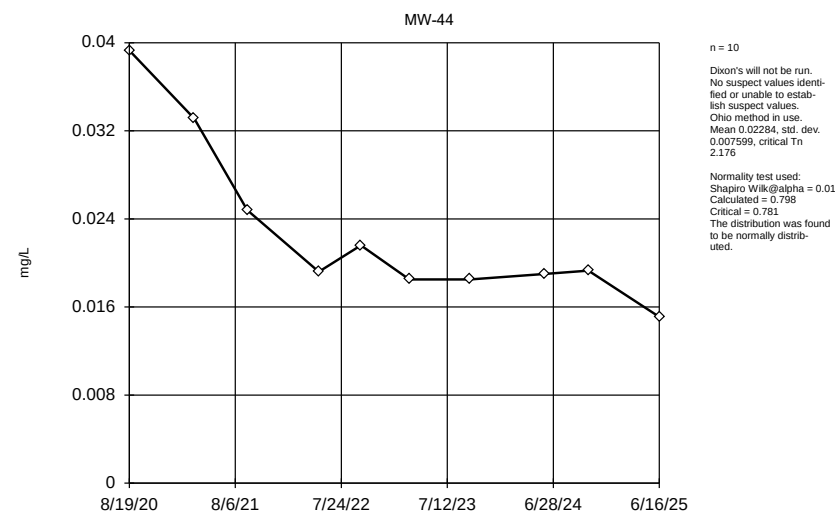
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	10	0.007301	0.004722	normal	ShapiroWilk
Barium (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	10	0.02284	0.007599	normal	ShapiroWilk
Cobalt (mg/L)	MW-44	No	n/a	n/a	EPA/OH	0.05	10	0.001197	0.001362	ln(x)	ShapiroWilk
Nickel (mg/L)	MW-44	No	n/a	n/a	OH	NaN	8	0.002439	0.0001732	n/a	n/a

EPA Screening (suspected outliers for Dixon's Test)



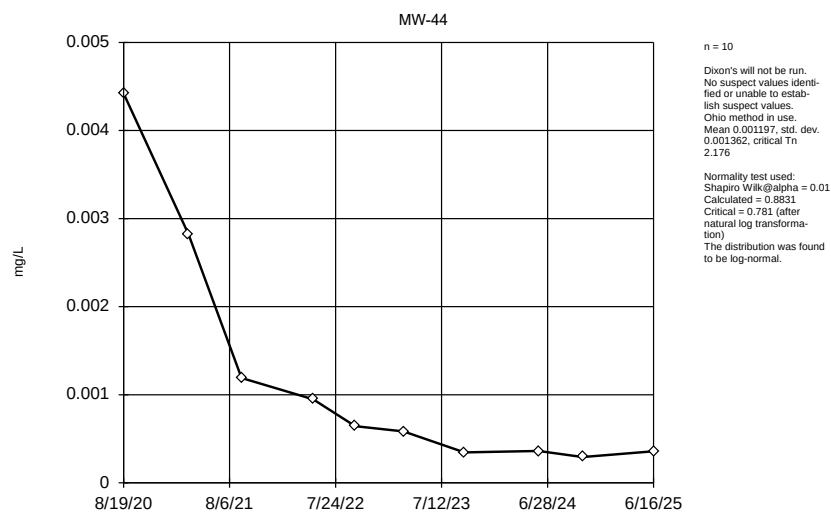
Constituent: Arsenic Analysis Run 1/6/2026 11:14 AM View: 2025_AWQR_MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



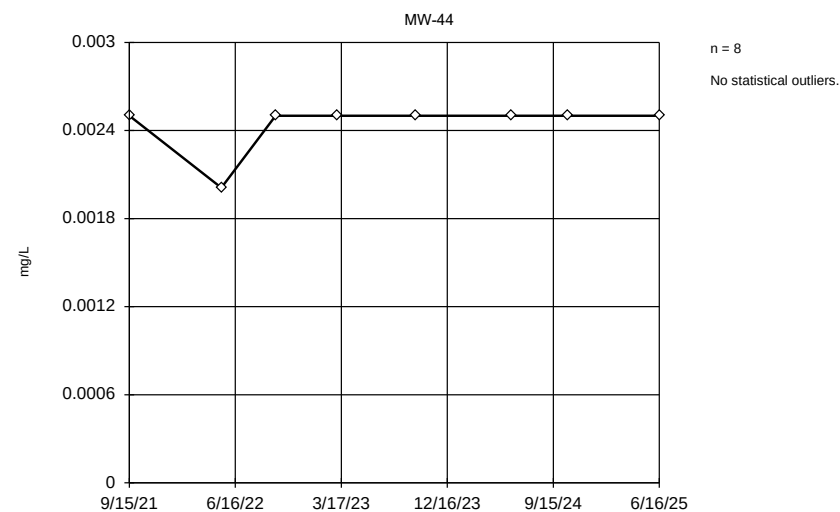
Constituent: Barium Analysis Run 1/6/2026 11:14 AM View: 2025_AWQR_MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Cobalt Analysis Run 1/6/2026 11:14 AM View: 2025_AWQR_MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Nickel Analysis Run 1/6/2026 11:14 AM View: 2025_AWQR_MW-44_Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Outlier Test Summary Table and Graphs – Open MSWLF Unit

MW-16 BG Outlier Analysis

Cherokee County Sanitary Landfill

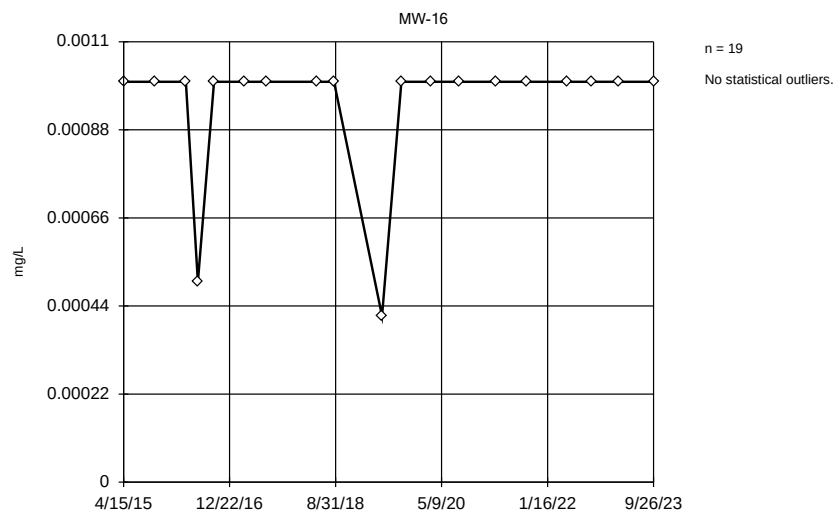
Client: SCS Engineers

Data: Sanitas CHRKE Open Master

Printed 1/7/2026, 1:20 PM

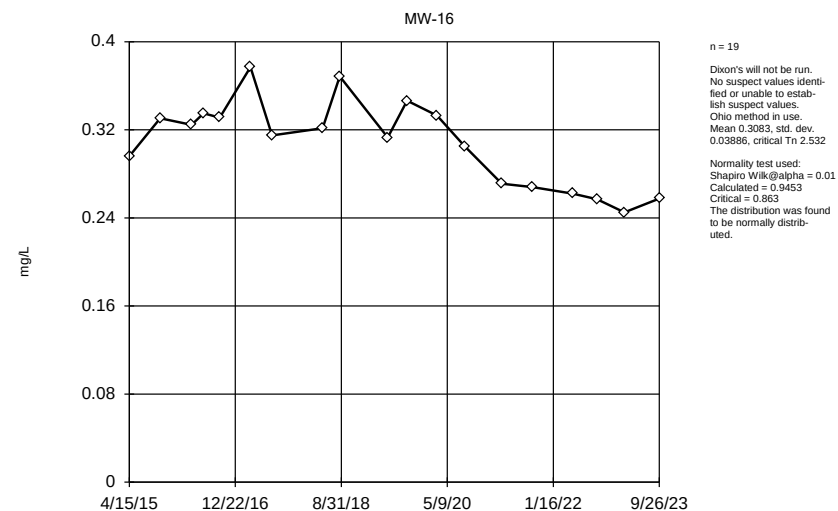
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0009429	0.0001716	n/a	n/a
Barium (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.3083	0.03886	normal	ShapiroWilk
Beryllium (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0004881	0.00005196	n/a	n/a
Cadmium (mg/L)	MW-16	No	n/a	n/a	NP (nrm)/OH	NaN	19	0.0001486	0.00009572	unknown	ShapiroWilk
Cobalt (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.0002472	0.0001096	normal	ShapiroWilk
Copper (mg/L)	MW-16	No	n/a	n/a	OH	NaN	18	0.002126	0.000668	n/a	n/a
Lead (mg/L)	MW-16	No	n/a	n/a	NP (nrm)/OH	NaN	19	0.0002657	0.00007454	unknown	ShapiroWilk
Nickel (mg/L)	MW-16	No	n/a	n/a	EPA/OH	0.05	19	0.007898	0.002671	normal	ShapiroWilk
Silver (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.0004869	0.0001015	n/a	n/a
Thallium (mg/L)	MW-16	Yes	0.001,0.001	6/21/2016,5/29/2019	OH	NaN	19	0.0005278	0.0001982	n/a	n/a
Vanadium (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.002348	0.000521	n/a	n/a
Zinc (mg/L)	MW-16	No	n/a	n/a	OH	NaN	19	0.008794	0.00212	n/a	n/a

Ohio EPA 0715 Outlier Algorithm



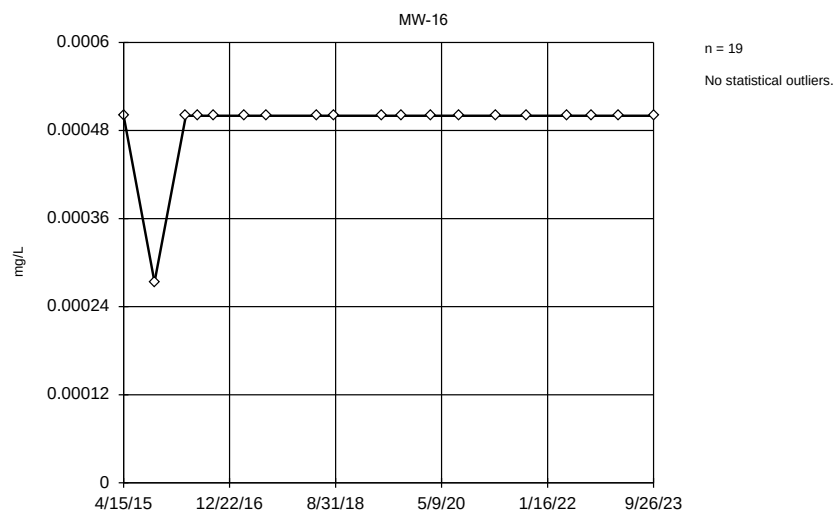
Constituent: Arsenic Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



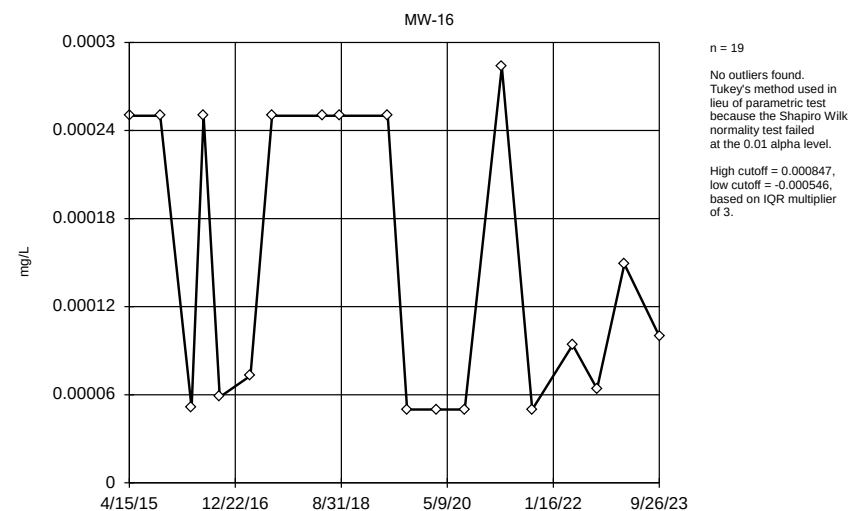
Constituent: Barium Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



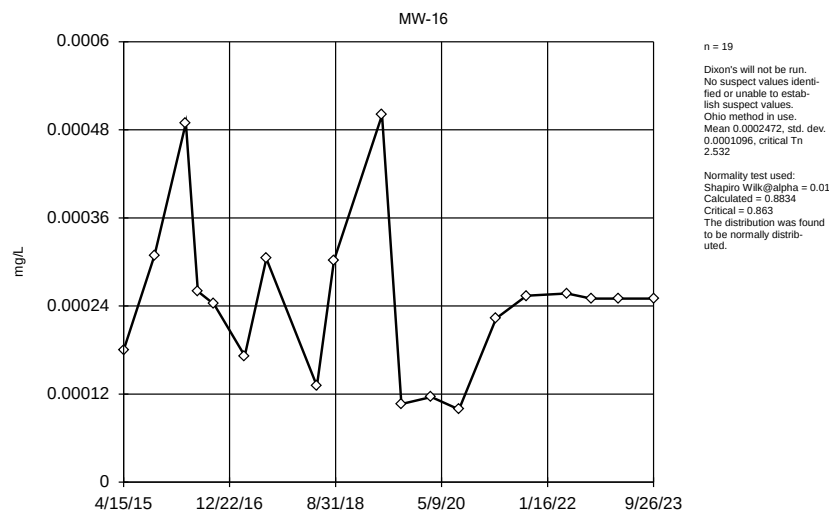
Constituent: Beryllium Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



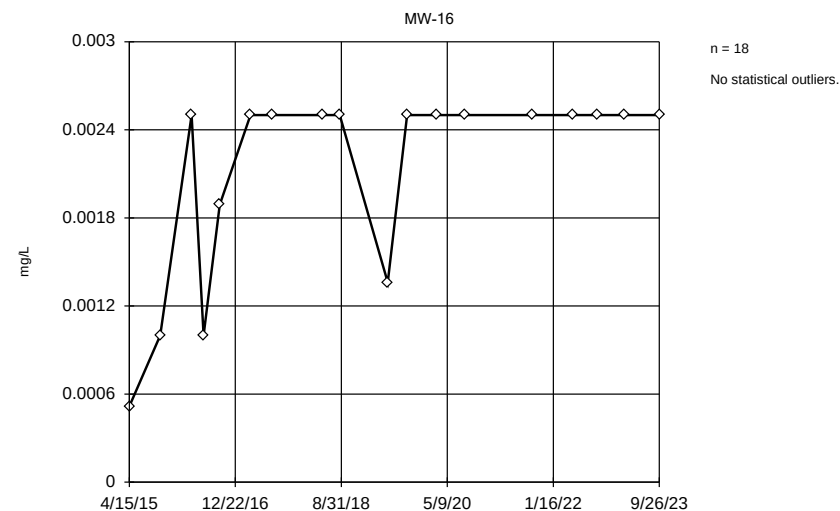
Constituent: Cadmium Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



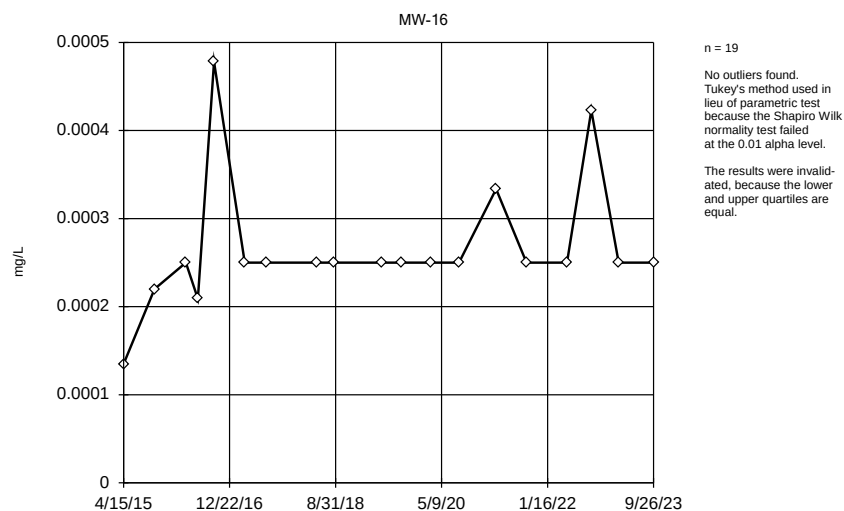
Constituent: Cobalt Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



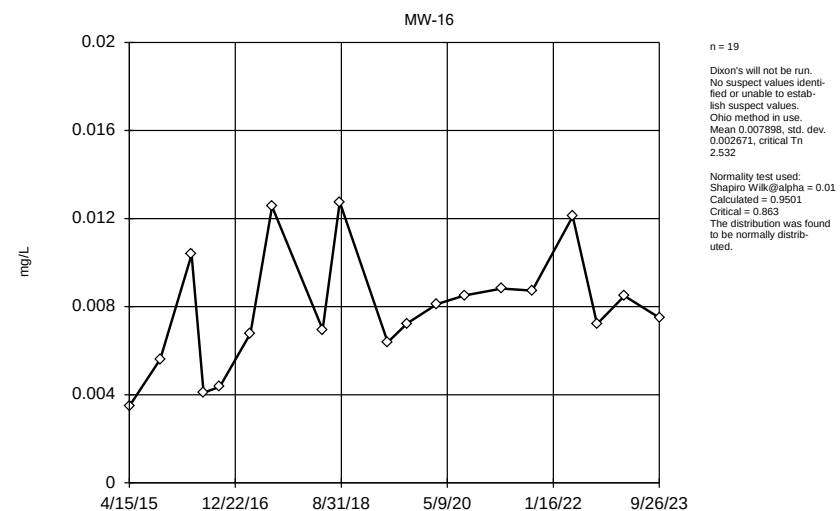
Constituent: Copper Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

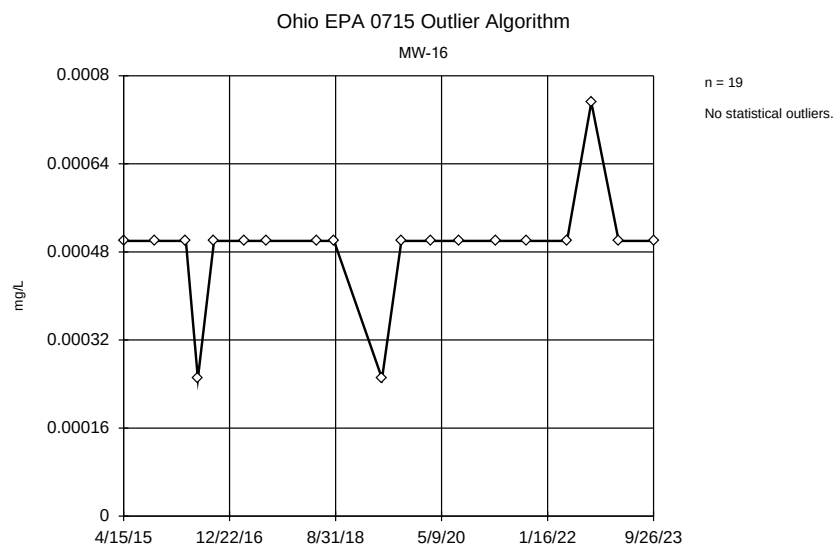


Constituent: Lead Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

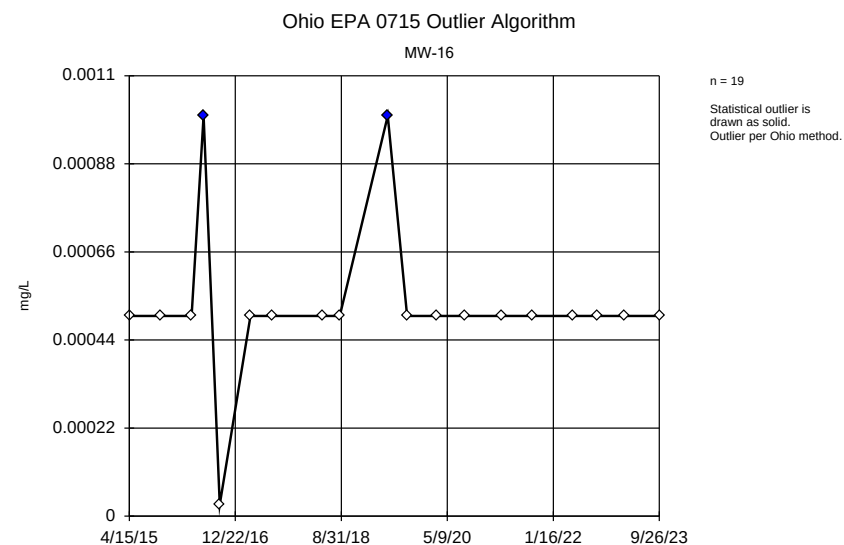
EPA Screening (suspected outliers for Dixon's Test)



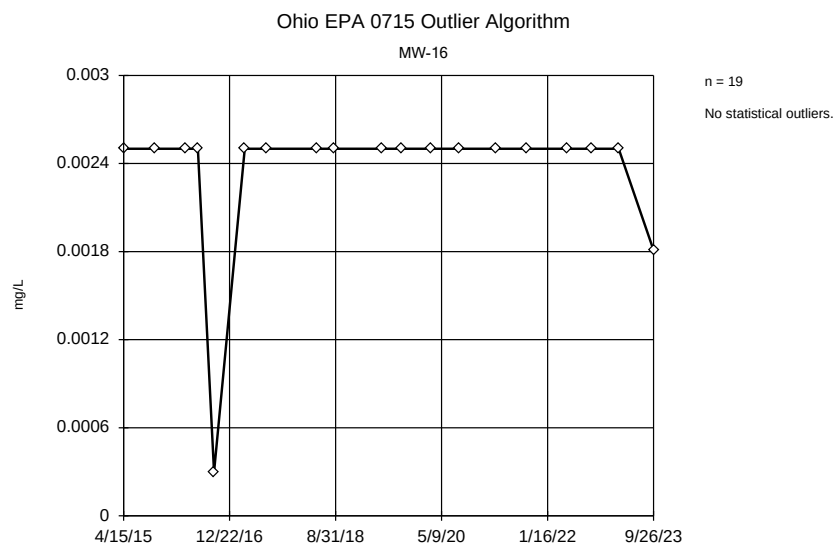
Constituent: Nickel Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master



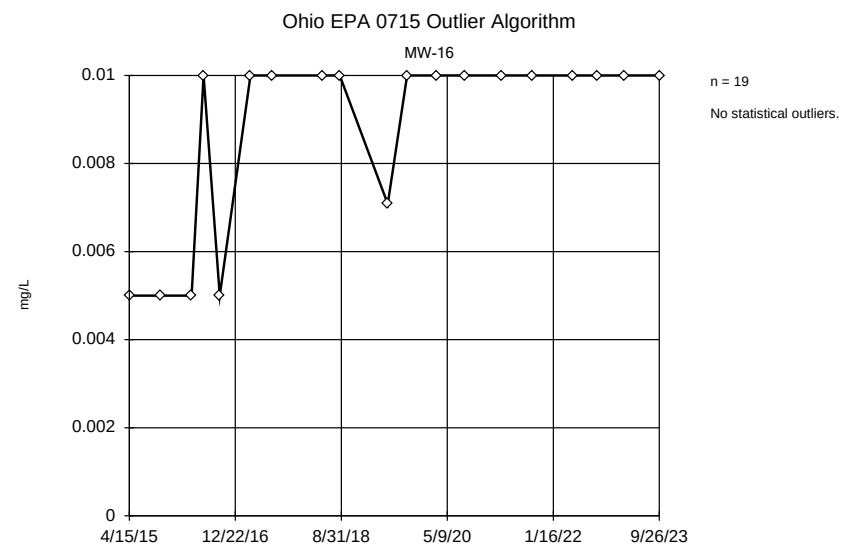
Constituent: Silver Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master



Constituent: Thallium Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master



Constituent: Vanadium Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master



Constituent: Zinc Analysis Run 1/7/2026 1:16 PM View: 2025 AWQR MW-16 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-27 BG Outlier Analysis

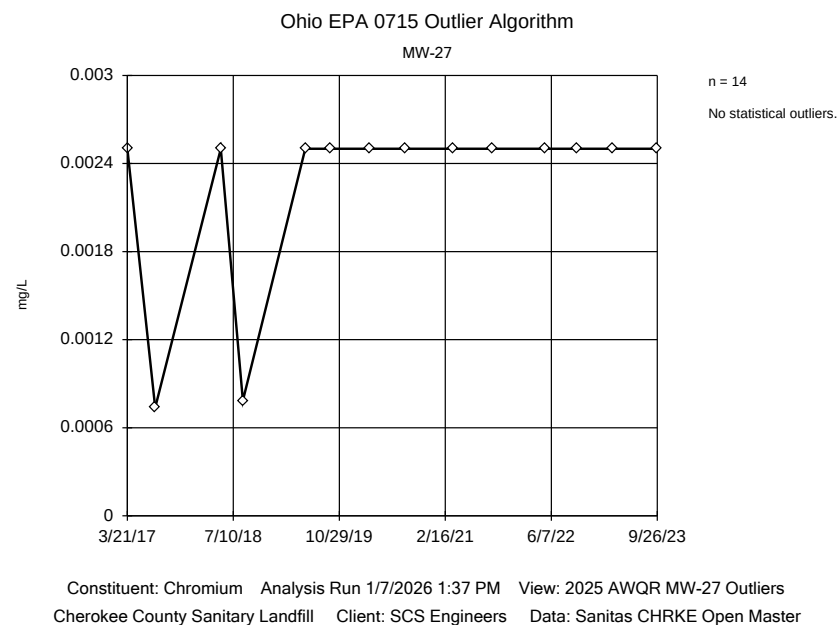
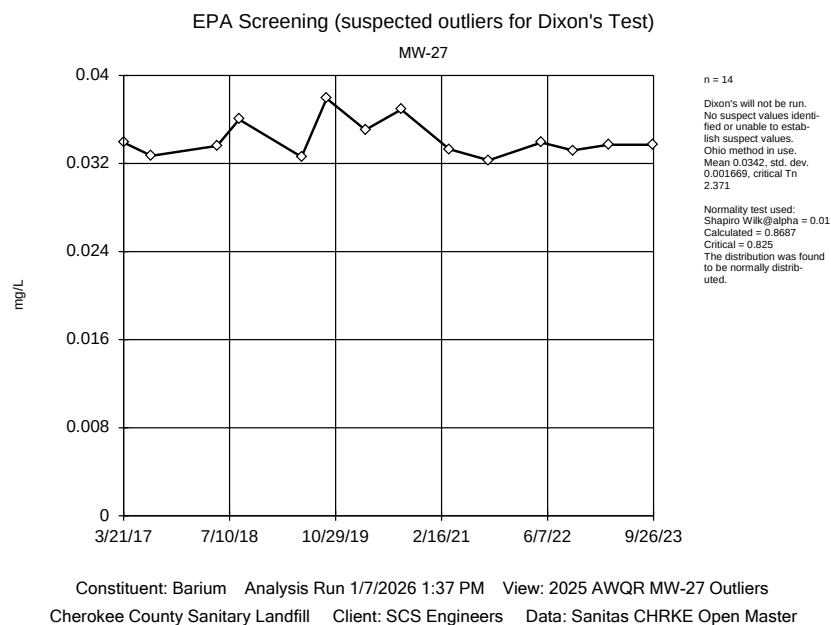
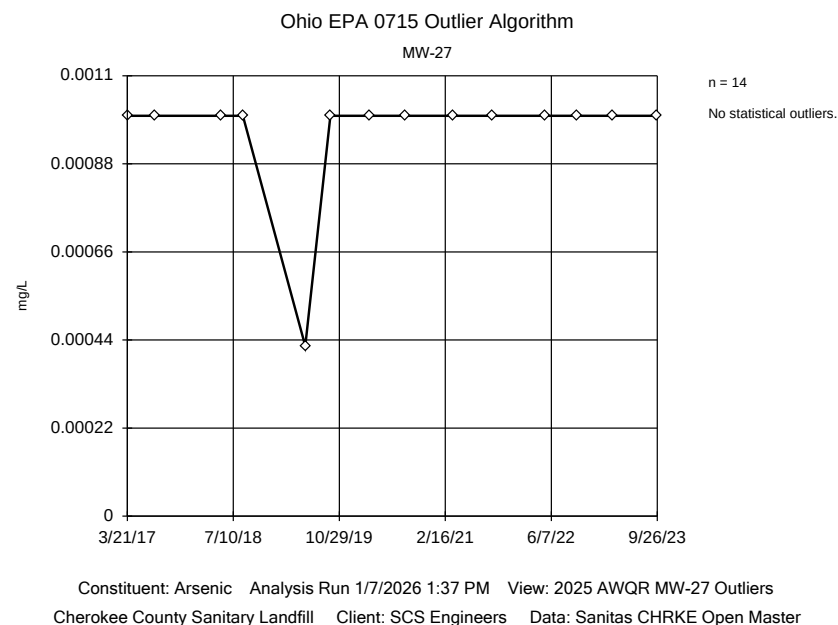
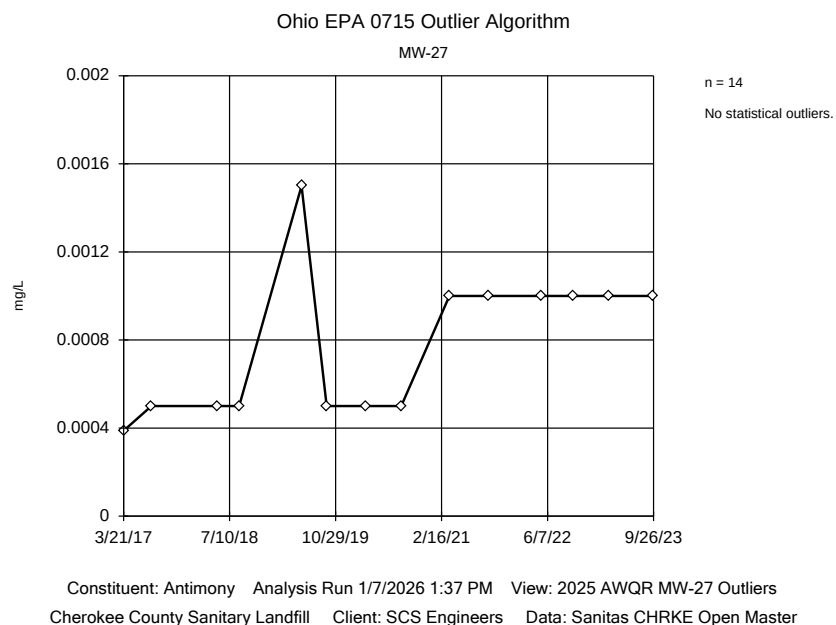
Cherokee County Sanitary Landfill

Client: SCS Engineers

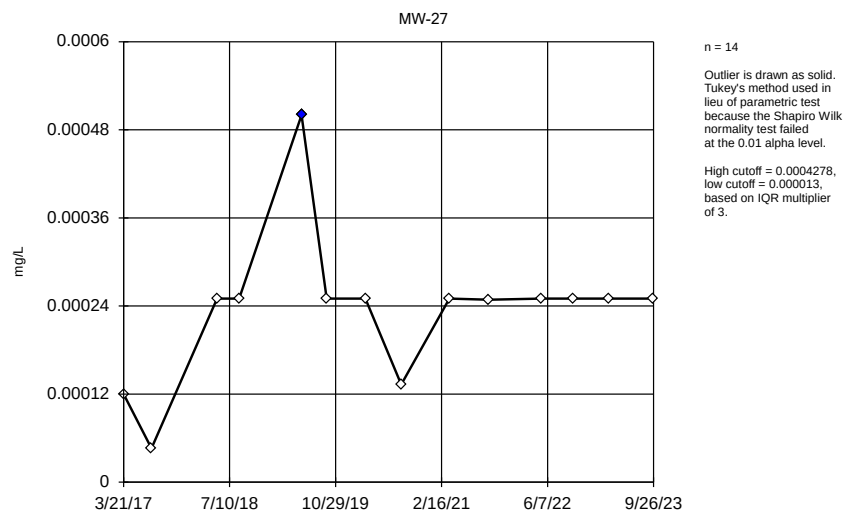
Data: Sanitas CHRKE Open Master

Printed 1/7/2026, 1:40 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0007777	0.000332	n/a	n/a
Arsenic (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0009589	0.0001537	n/a	n/a
Barium (mg/L)	MW-27	No	n/a	n/a	EPA/OH	0.05	14	0.0342	0.001669	normal	ShapiroWilk
Chromium (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.002252	0.0006316	n/a	n/a
Cobalt (mg/L)	MW-27	Yes	0.0005	5/29/2019	NP (nrm)/OH	NaN	14	0.0002355	0.0001007	unknown	ShapiroWilk
Copper (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.002394	0.0003955	n/a	n/a
Lead (mg/L)	MW-27	No	n/a	n/a	OH	NaN	14	0.0002492	0.00000294	n/a	n/a
Vanadium (mg/L)	MW-27	No	n/a	n/a	NP (nrm)/OH	NaN	14	0.001883	0.0007664	unknown	ShapiroWilk

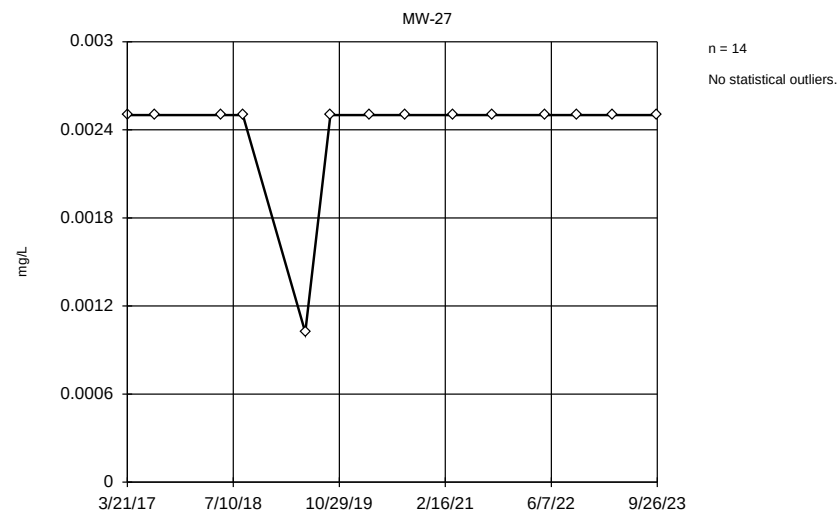


Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



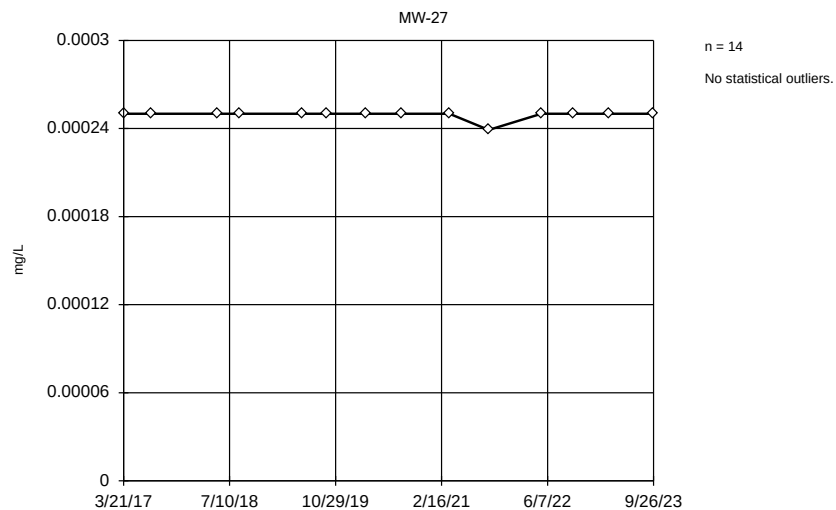
Constituent: Cobalt Analysis Run 1/7/2026 1:37 PM View: 2025 AWQR MW-27 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



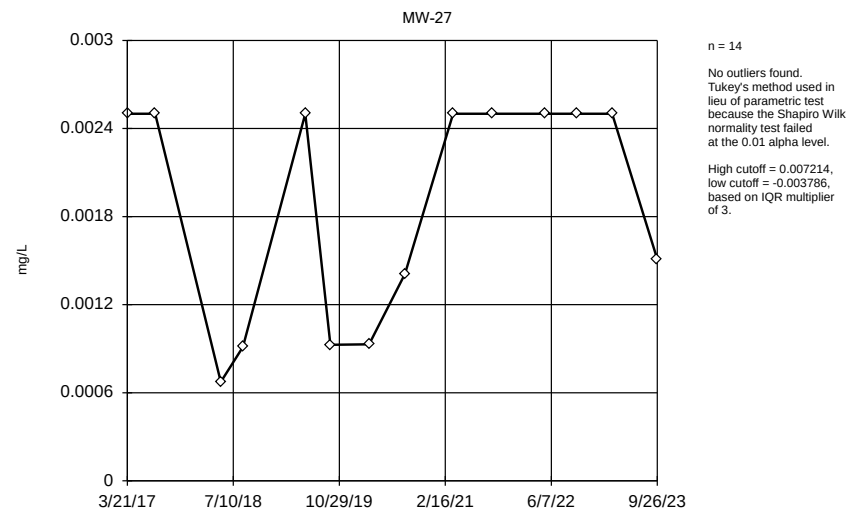
Constituent: Copper Analysis Run 1/7/2026 1:37 PM View: 2025 AWQR MW-27 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Lead Analysis Run 1/7/2026 1:37 PM View: 2025 AWQR MW-27 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



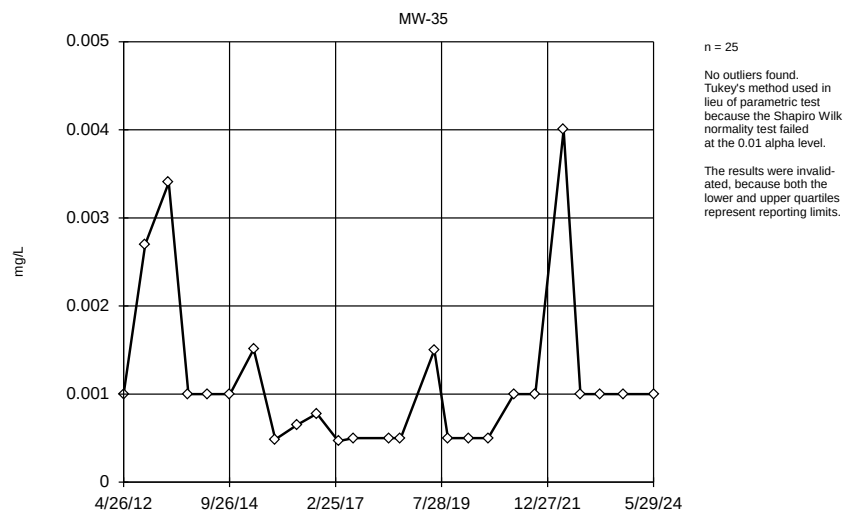
Constituent: Vanadium Analysis Run 1/7/2026 1:37 PM View: 2025 AWQR MW-27 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-35 BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/7/2026, 2:18 PM

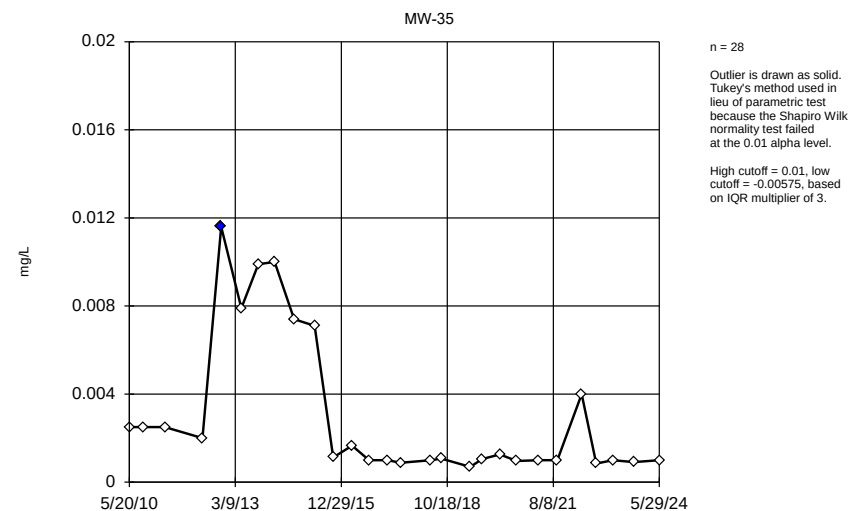
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-35	No	n/a	n/a	NP (nrm)/OH	NaN	25	0.00114	0.0009105	unknown	ShapiroWilk
Arsenic (mg/L)	MW-35	Yes	0.0116	10/24/2012	NP (nrm)/OH	NaN	28	0.003031	0.003335	unknown	ShapiroWilk
Barium (mg/L)	MW-35	Yes	0.1	5/20/2010	NP (nrm)/OH	NaN	28	0.03024	0.01767	unknown	ShapiroWilk
Cadmium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.0002061	0.0001388	n/a	n/a
Chromium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.003023	0.001034	n/a	n/a
Cobalt (mg/L)	MW-35	No	n/a	n/a	EPA/OH	0.05	25	0.01373	0.01458	ln(x)	ShapiroWilk
Copper (mg/L)	MW-35	Yes	0.0212,0.0102,0.01	7/28/2015,4/15/2015,5/10/2022	OH	NaN	29	0.003547	0.00395	n/a	n/a
Lead (mg/L)	MW-35	Yes	0.002,0.002,0.002,0.002,0.002,0.002,0.001	4/26/2012,10/24/2012,5/7/2013,10/18/2013,3/25/201	OH	NaN	28	0.0006802	0.0007193	n/a	n/a
Nickel (mg/L)	MW-35	Yes	0.227	10/24/2012	NP (nrm)/OH	NaN	28	0.05247	0.05564	unknown	ShapiroWilk
Selenium (mg/L)	MW-35	No	n/a	n/a	OH	NaN	28	0.002362	0.0003146	n/a	n/a
Thallium (mg/L)	MW-35	Yes	0.002,0.002,0.002,0.002	10/18/2013,3/25/2014,9/30/2014,5/10/2022	OH	NaN	28	0.0007029	0.0006009	n/a	n/a
Vanadium (mg/L)	MW-35	Yes	0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01,0.01	5/20/2010,10/1/2010,4/29/2011,4/26/2012,10/24/201	OH	NaN	28	0.005259	0.003698	n/a	n/a
Zinc (mg/L)	MW-35	Yes	0.147,0.04,0.04	9/23/2016,10/19/2009,5/10/2022	OH	NaN	29	0.01636	0.02639	n/a	n/a

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



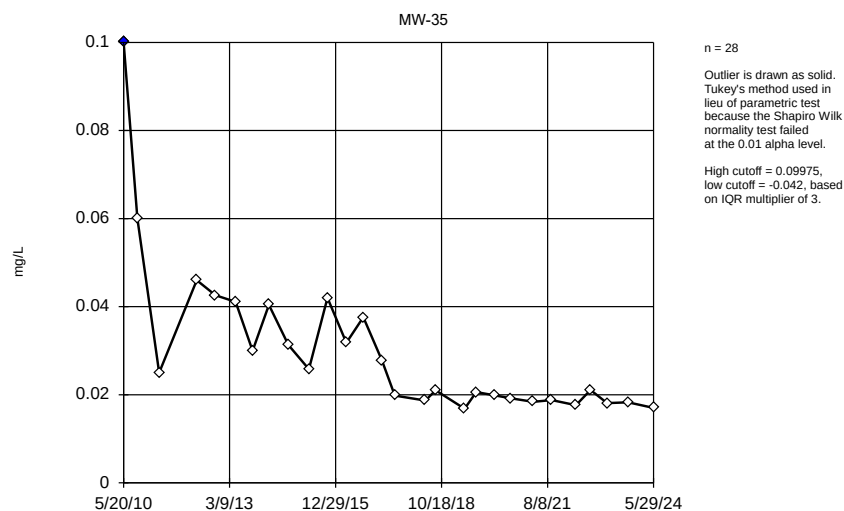
Constituent: Antimony Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



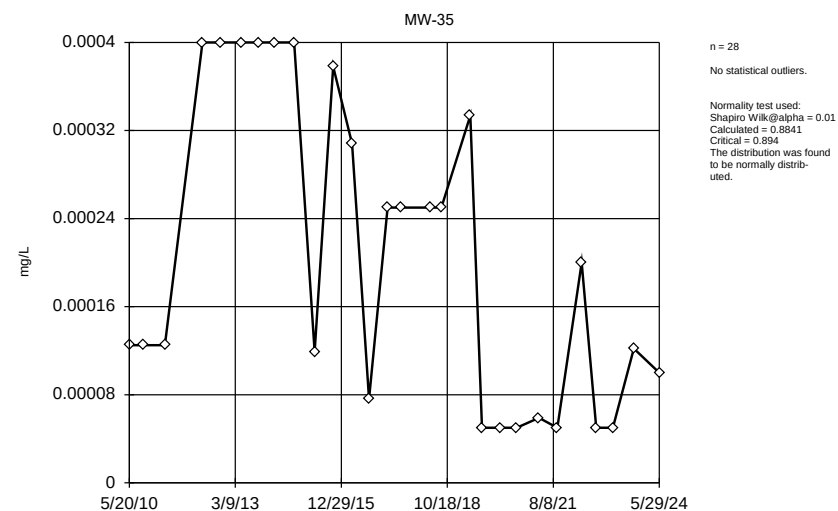
Constituent: Arsenic Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



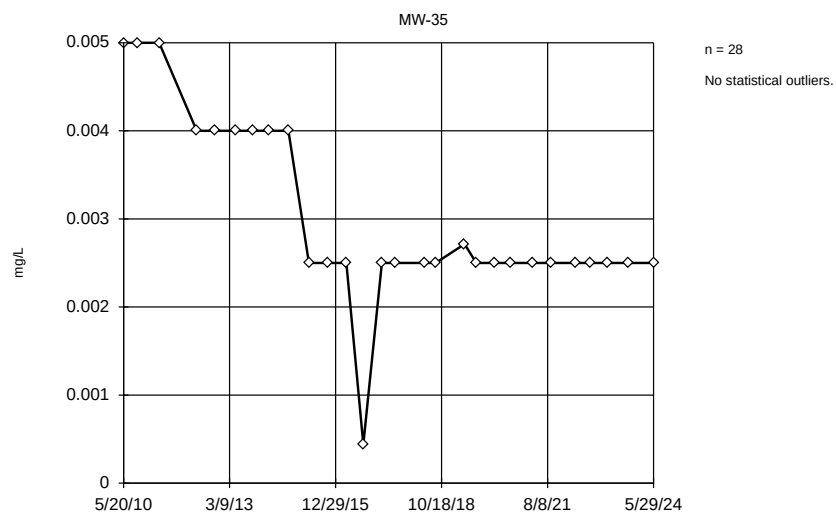
Constituent: Barium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



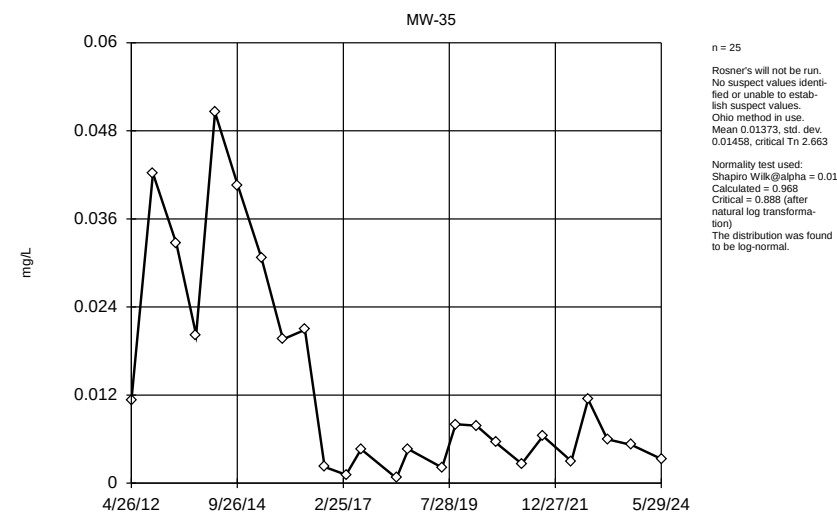
Constituent: Cadmium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



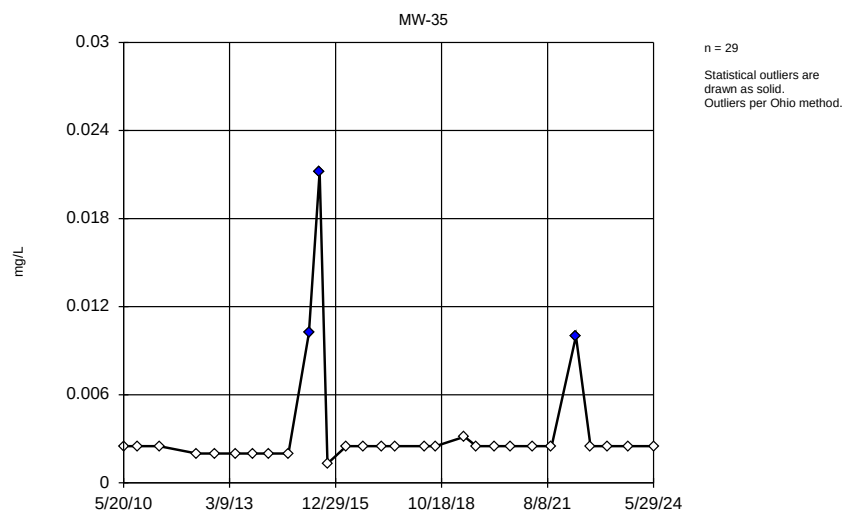
Constituent: Chromium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Rosner's Test)



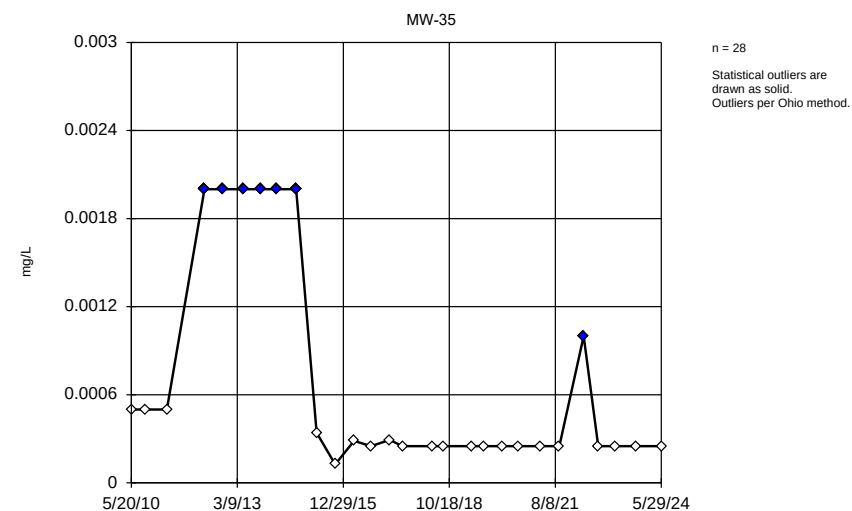
Constituent: Cobalt Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



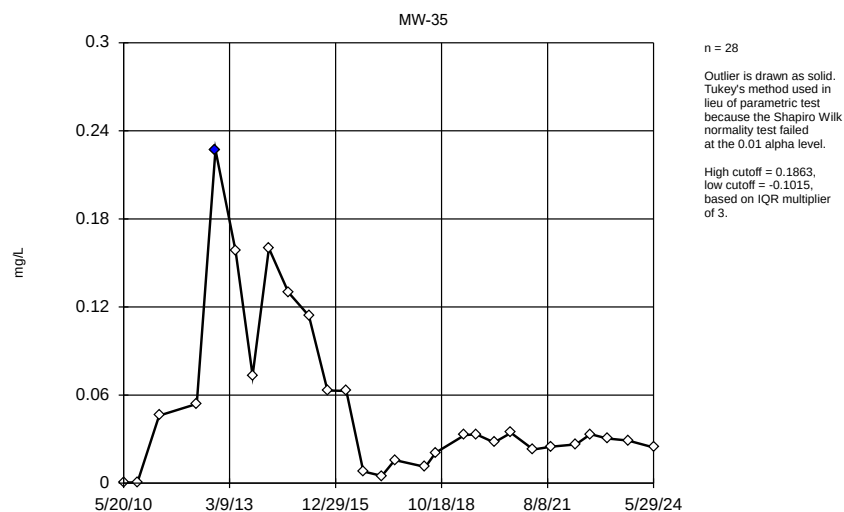
Constituent: Copper Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



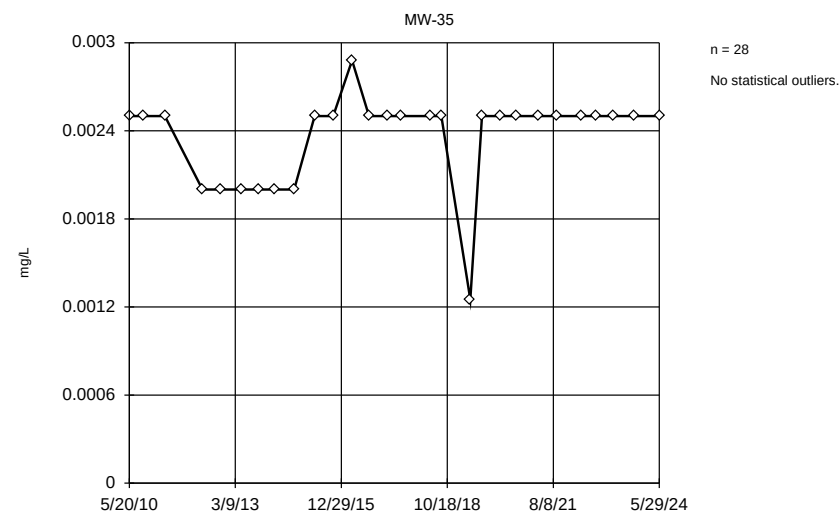
Constituent: Lead Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



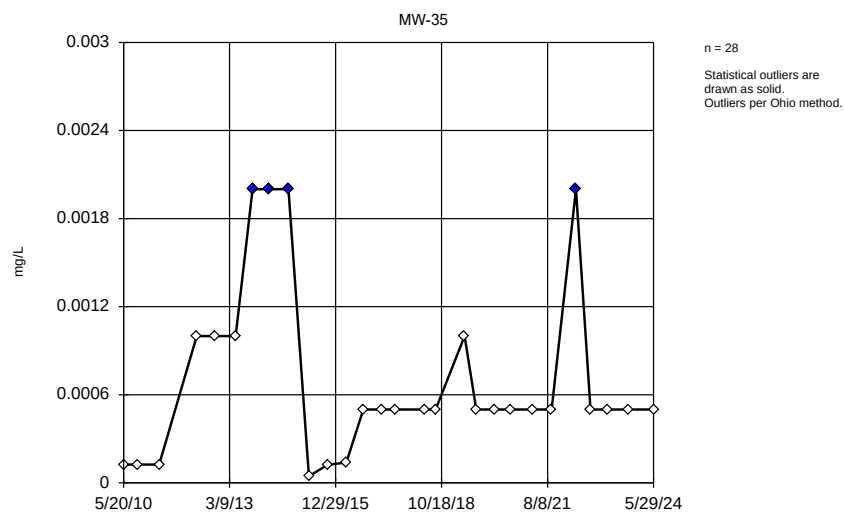
Constituent: Nickel Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



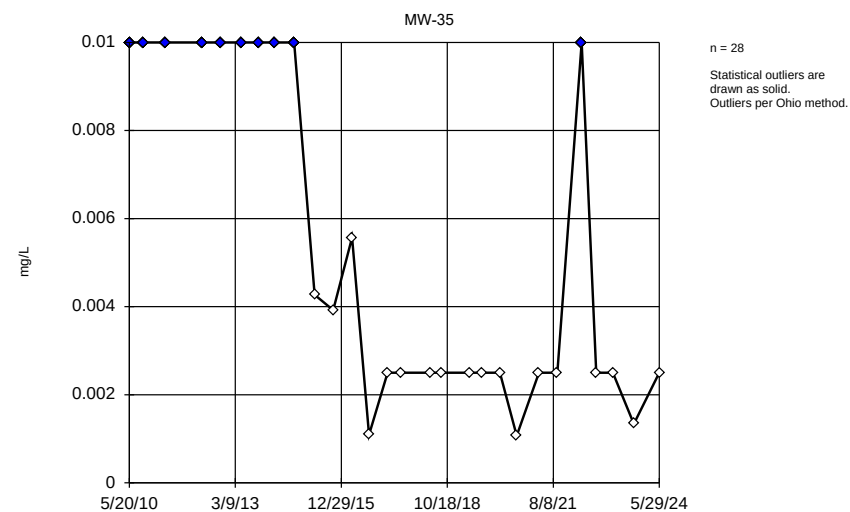
Constituent: Selenium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm

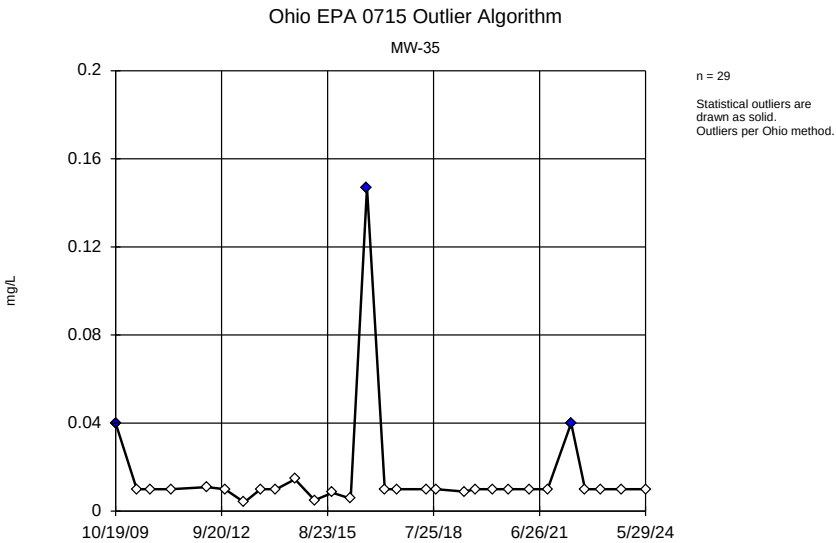


Constituent: Thallium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



Constituent: Vanadium Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master



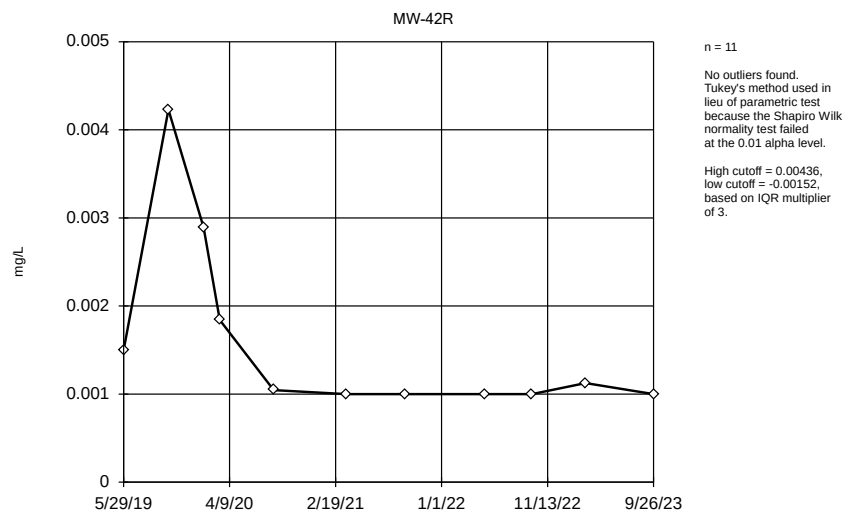
Constituent: Zinc Analysis Run 1/7/2026 2:17 PM View: 2025 AWQR MW-35 Outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-42R BG Outlier Analysis

Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/7/2026, 3:01 PM

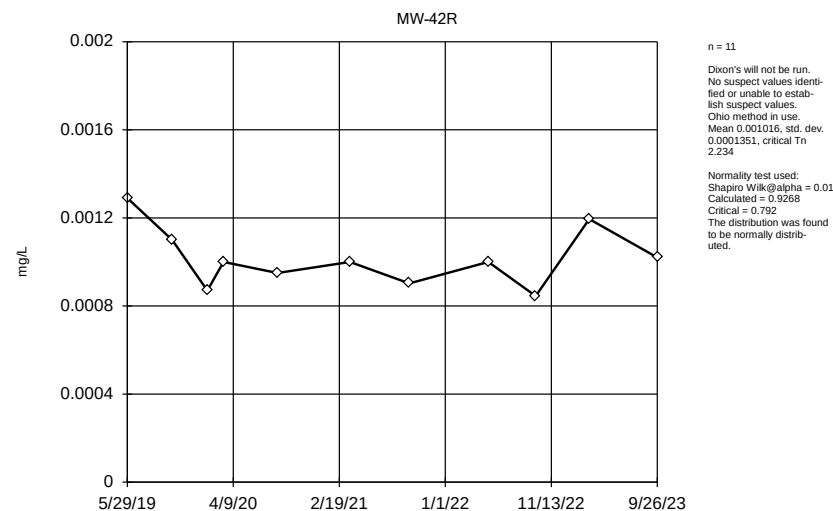
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	MW-42R	No	n/a	n/a	NP (nrm)/OH	NaN	11	0.001603	0.001048	unknown	ShapiroWilk
Arsenic (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.001016	0.0001351	normal	ShapiroWilk
Barium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.02443	0.004789	normal	ShapiroWilk
Beryllium (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.0004976	0.000007839	n/a	n/a
Cadmium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.000195	0.00008983	normal	ShapiroWilk
Chromium (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.002398	0.0003377	n/a	n/a
Cobalt (mg/L)	MW-42R	No	n/a	n/a	Dixon/OH	0.01	12	0.004744	0.001288	normal	ShapiroWilk
Copper (mg/L)	MW-42R	Yes	0.00419,0.00905	8/19/2020,5/29/2019	Dixon/OH	0.01	11	0.003365	0.001967	normal	ShapiroWilk
Lead (mg/L)	MW-42R	No	n/a	n/a	OH	NaN	11	0.0002916	0.000116	n/a	n/a
Nickel (mg/L)	MW-42R	Yes	0.0469	5/29/2019	Dixon/OH	0.01	11	0.02061	0.009487	normal	ShapiroWilk
Selenium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.003925	0.003093	ln(x)	ShapiroWilk
Thallium (mg/L)	MW-42R	Yes	0.001	5/29/2019	OH	NaN	11	0.0005608	0.0001542	n/a	n/a
Vanadium (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.00185	0.0005645	normal	ShapiroWilk
Zinc (mg/L)	MW-42R	No	n/a	n/a	EPA/OH	0.05	11	0.01111	0.003106	ln(x)	ShapiroWilk

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm



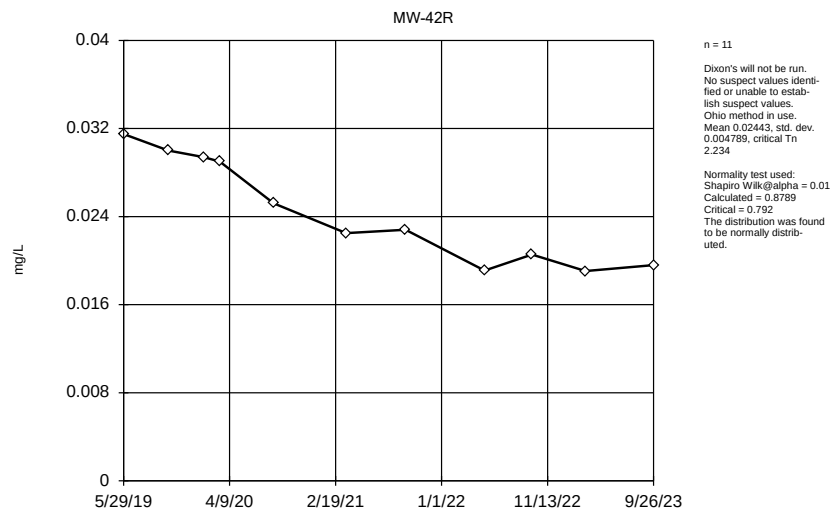
Constituent: Antimony Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



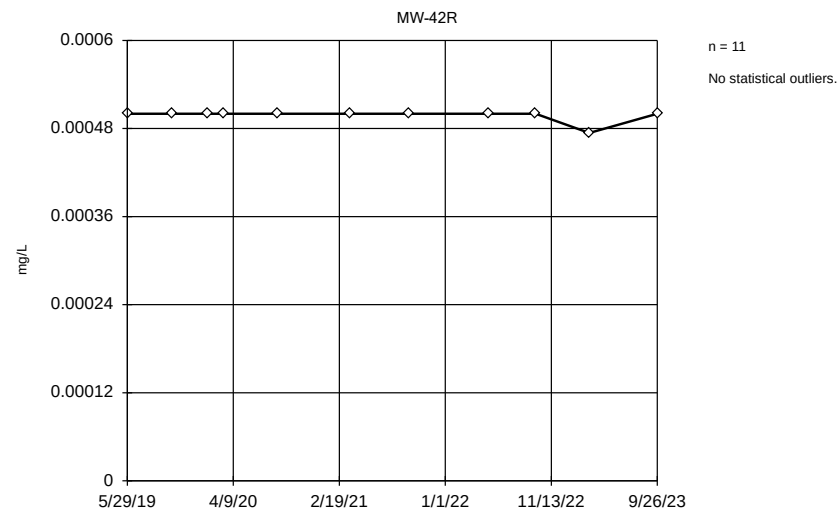
Constituent: Arsenic Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



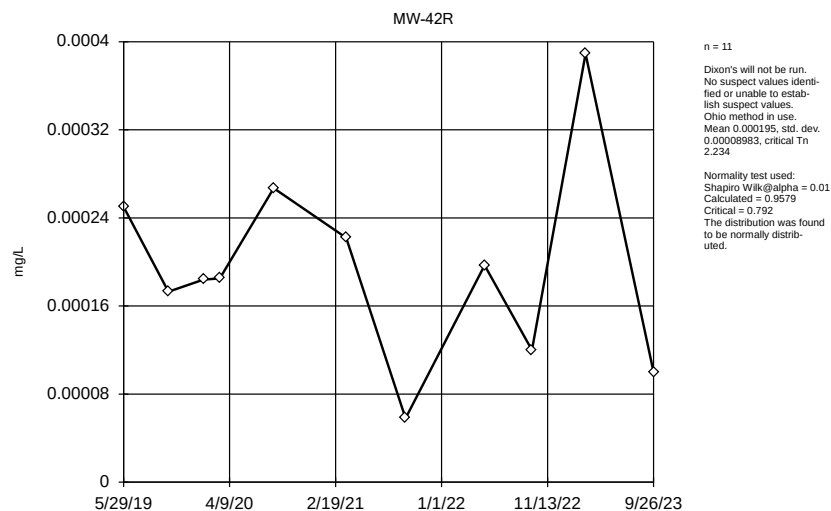
Constituent: Barium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



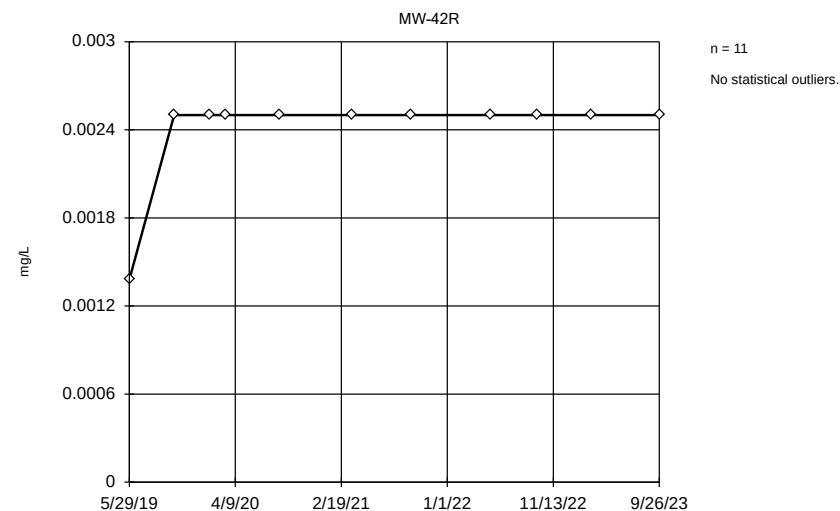
Constituent: Beryllium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



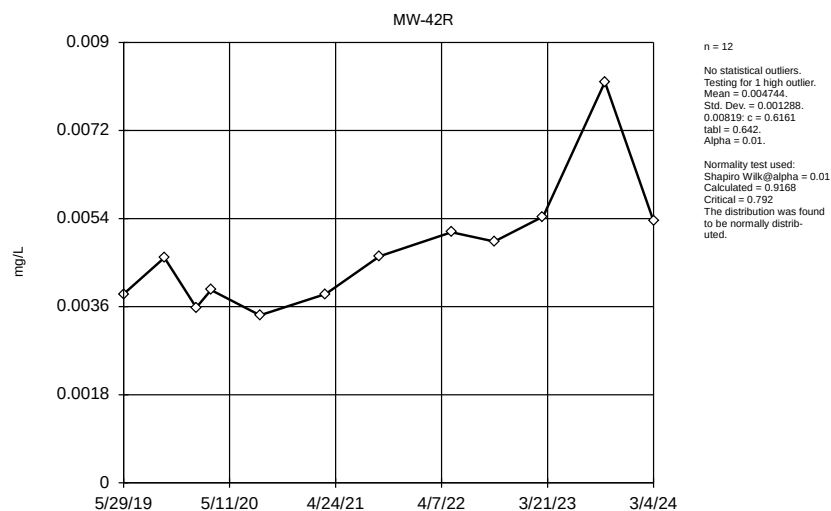
Constituent: Cadmium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



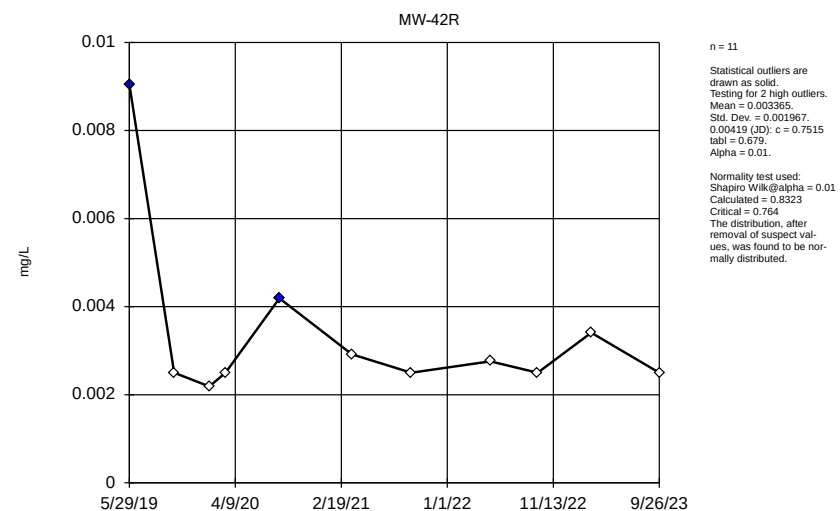
Constituent: Chromium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



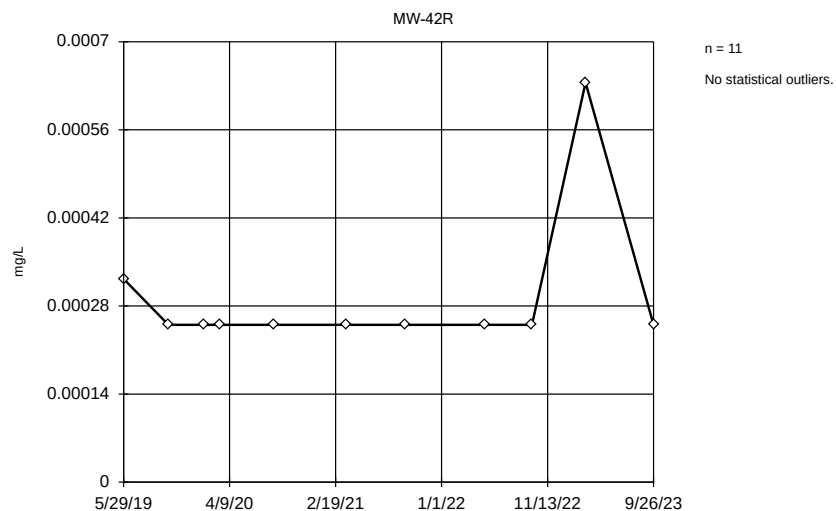
Constituent: Cobalt Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



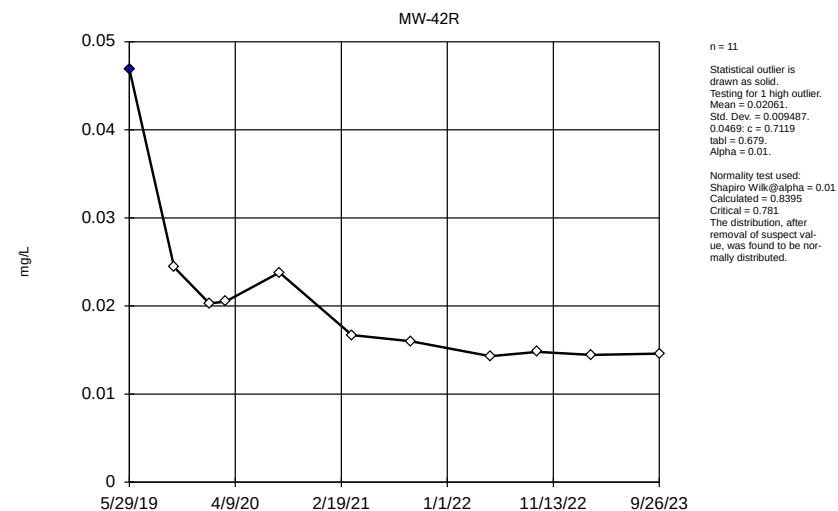
Constituent: Copper Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



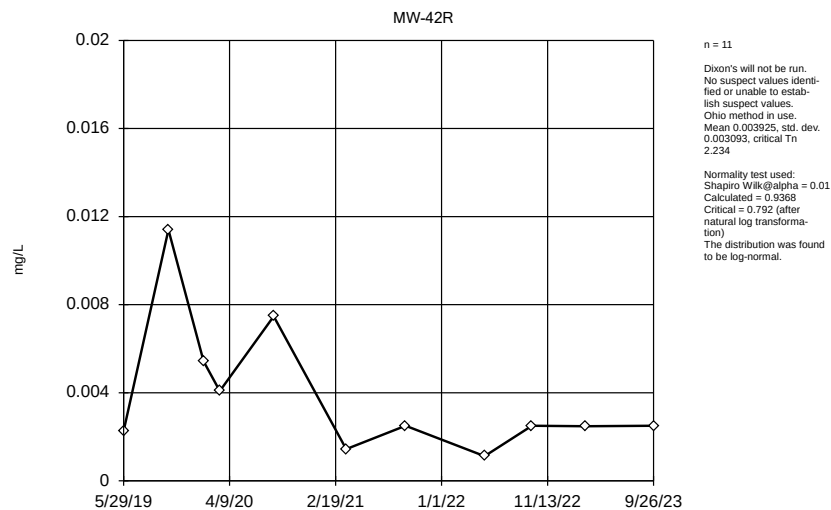
Constituent: Lead Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Dixon's Outlier Test / Ohio EPA 0715 Outlier Algorithm



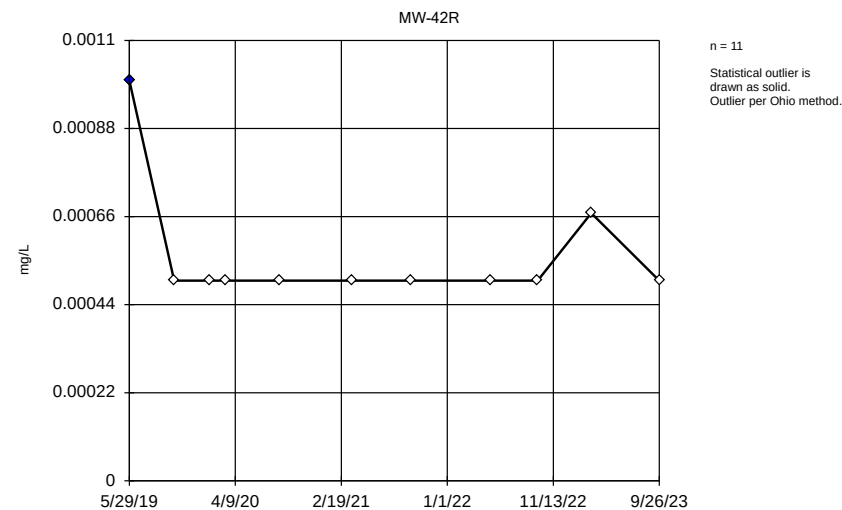
Constituent: Nickel Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



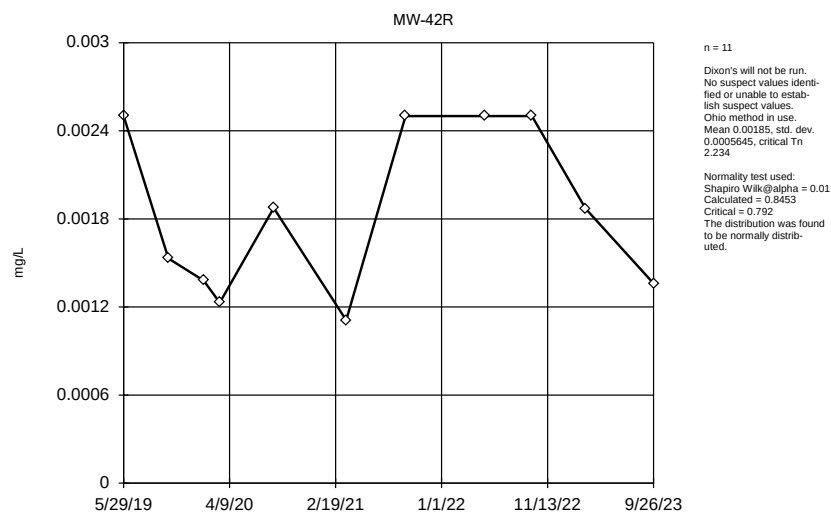
Constituent: Selenium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Ohio EPA 0715 Outlier Algorithm



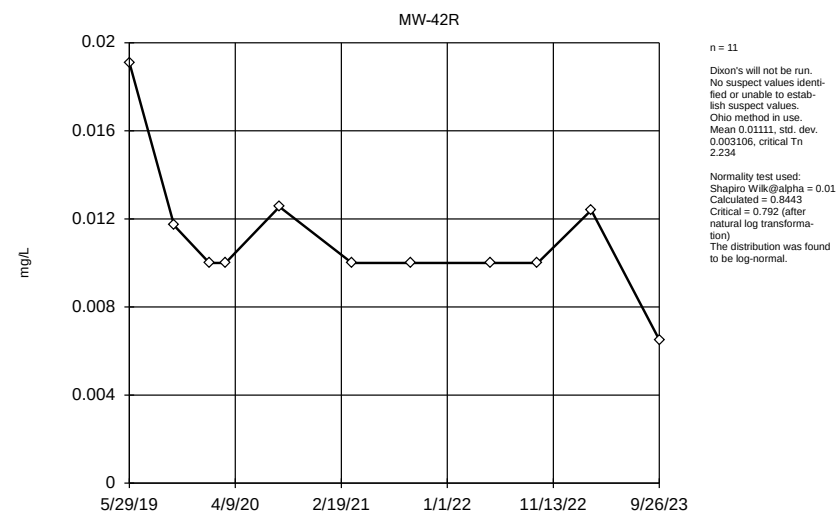
Constituent: Thallium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Vanadium Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Zinc Analysis Run 1/7/2026 2:57 PM View: 2025 AWQR MW-42R outliers
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

**Intrawell Prediction Limits Summary Table and Graphs –
Closed MSWLF Unit**

Prediction Limit

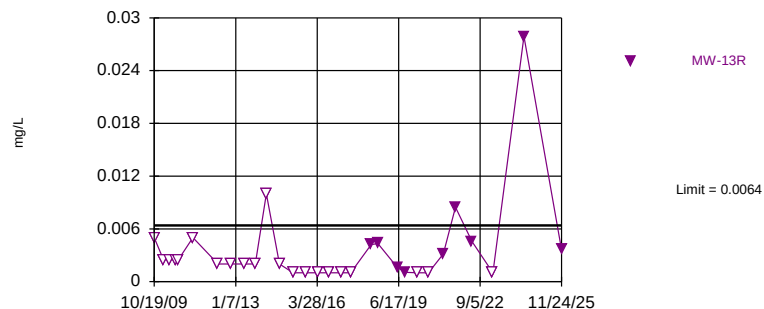
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 1/7/2026, 9:14 AM

<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>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-13R	0.0064	n/a	11/24/2025	0.00363	No	82	MW-4,MW-1,MW-11	90.24	n/a	0.0002861	NP Inter (NDs) 1 of 2
Barium (mg/L)	MW-13R	0.1014	n/a	11/24/2025	0.0661	No	83	MW-1,MW-11,MW-4	16.87	ln(x)	0.0005374	Param Inter 1 of 2
Barium (mg/L)	MW-7	0.1014	n/a	11/24/2025	0.0177	No	83	MW-1,MW-11,MW-4	16.87	ln(x)	0.0005374	Param Inter 1 of 2
Barium (mg/L)	MW-9R	0.1014	n/a	11/24/2025	0.066	No	83	MW-1,MW-11,MW-4	16.87	ln(x)	0.0005374	Param Inter 1 of 2
Cobalt (mg/L)	MW-13R	0.0074	n/a	11/24/2025	0.00302	No	64	MW-4,MW-1,MW-11	56.25	n/a	0.0004669	NP Inter (NDs) 1 of 2
Nickel (mg/L)	MW-13R	0.028	n/a	11/24/2025	0.00941	No	83	MW-1,MW-11,MW-4	40.96	ln(x)	0.0005374	Param Inter 1 of 2

Within Limit

Prediction Limit

Interwell Non-parametric



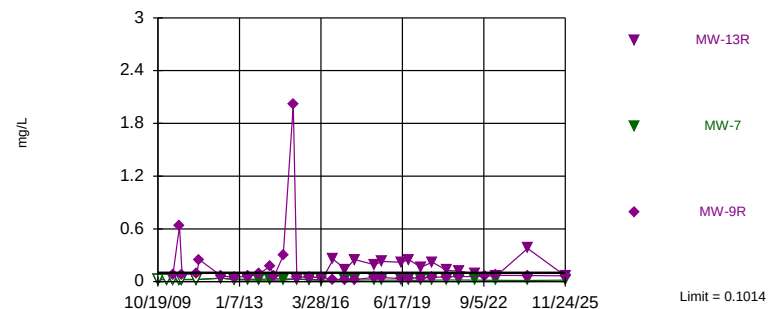
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 82 background values. 90.24% NDs. Annual per-constituent alpha = 0.003998. Individual comparison alpha = 0.0002861 (1 of 2). Assumes 6 future values.

Constituent: Arsenic Analysis Run 1/7/2026 9:12 AM View: 2025_AWQR-AM_Interwell_PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Interwell Parametric



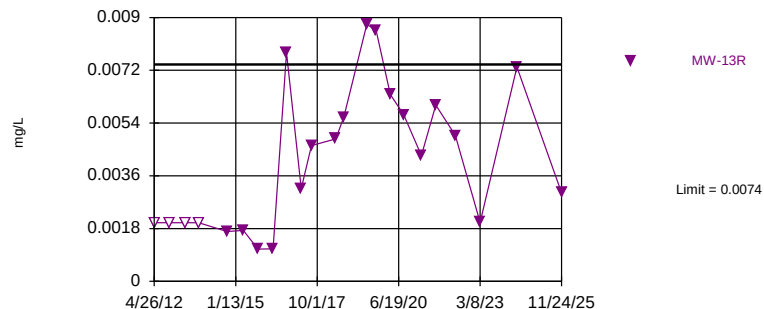
Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-3.503, Std. Dev.=0.59, n=83, 16.87% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9645, critical = 0.96. Kappa = 2.058 (c=14, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.003756. Individual comparison alpha = 0.0005374. Comparing 3 points to limit. Assumes 4 future values.

Constituent: Barium Analysis Run 1/7/2026 9:12 AM View: 2025_AWQR-AM_Interwell_PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Interwell Non-parametric



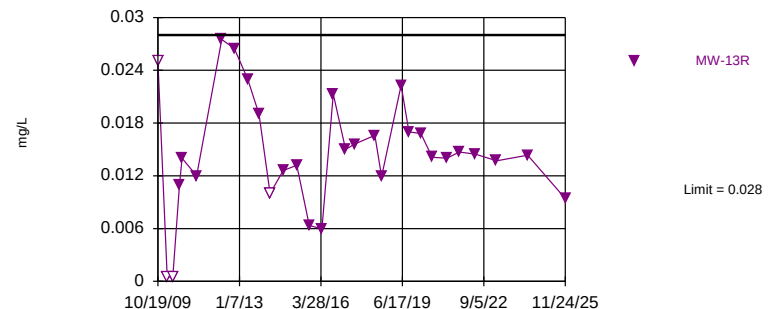
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 64 background values. 56.25% NDs. Annual per-constituent alpha = 0.006517. Individual comparison alpha = 0.0004669 (1 of 2). Assumes 6 future values.

Constituent: Cobalt Analysis Run 1/7/2026 9:12 AM View: 2025_AWQR-AM_Interwell_PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-5.79, Std. Dev.=1.076, n=83, 40.96% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9651, critical = 0.96. Kappa = 2.058 (c=14, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.003756. Individual comparison alpha = 0.0005374. Assumes 6 future values.

Constituent: Nickel Analysis Run 1/7/2026 9:12 AM View: 2025_AWQR-AM_Interwell_PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

MW-15C Intrawell Prediction Limit

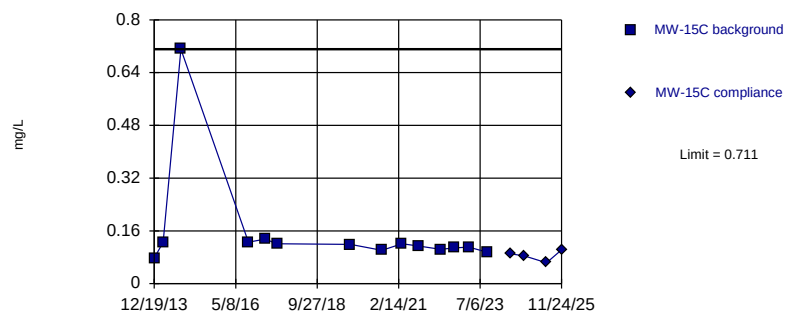
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 1/6/2026, 11:00 AM

<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>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-15C	0.711	n/a	11/24/2025	0.1025	No	14	n/a	0	n/a	0.008612	NP Intra (normality) 1 of 2
Cadmium (mg/L)	MW-15C	0.01272	n/a	11/24/2025	0.0001ND	No	8	n/a	25	sqrt(x)	0.001504	Param Intra 1 of 2
Cobalt (mg/L)	MW-15C	0.002712	n/a	11/24/2025	0.000285J	No	17	n/a	11.76	ln(x)	0.001504	Param Intra 1 of 2
Nickel (mg/L)	MW-15C	0.01417	n/a	11/24/2025	0.00815	No	11	n/a	0	No	0.001504	Param Intra 1 of 2
Zinc (mg/L)	MW-15C	0.0426	n/a	11/24/2025	0.01ND	No	8	n/a	75	n/a	0.02144	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



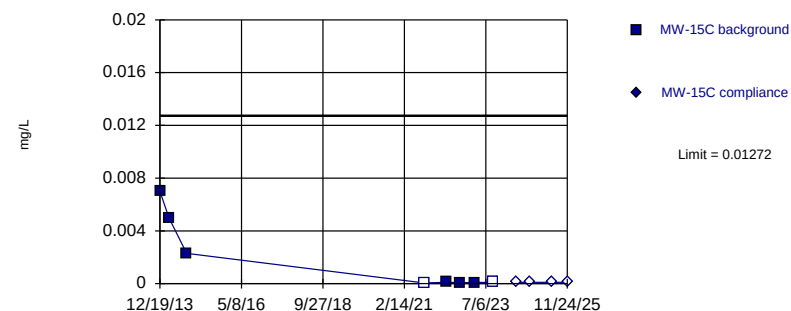
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 14 background values. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Barium Analysis Run 1/6/2026 10:56 AM View: 2025_AWQR MW-15C IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



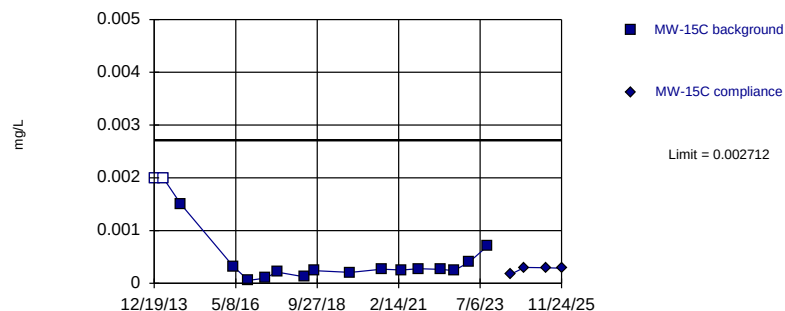
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.03102, Std. Dev.=0.02963, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.75, critical = 0.749. Kappa = 2.76 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Cadmium Analysis Run 1/6/2026 10:56 AM View: 2025_AWQR MW-15C IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



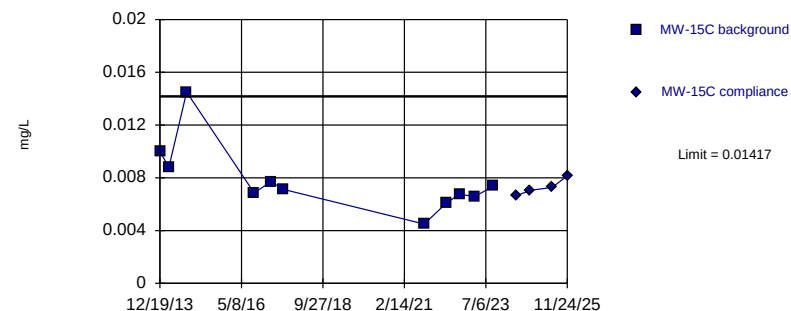
Background Data Summary (based on natural log transformation): Mean=-8.038, Std. Dev.=0.9943, n=17, 11.76% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9059, critical = 0.851. Kappa = 2.14 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Cobalt Analysis Run 1/6/2026 10:56 AM View: 2025_AWQR MW-15C IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



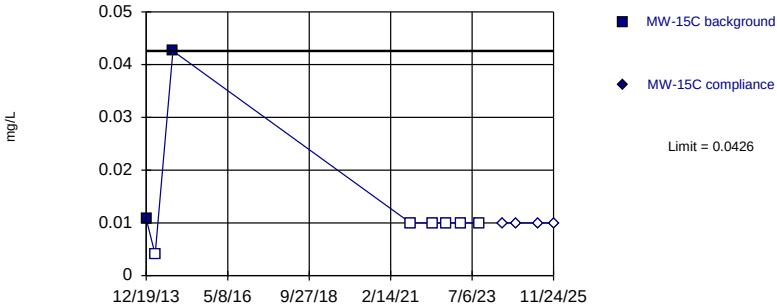
Background Data Summary: Mean=0.007845, Std. Dev.=0.002621, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8358, critical = 0.792. Kappa = 2.413 (c=5, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Nickel Analysis Run 1/6/2026 10:56 AM View: 2025_AWQR MW-15C IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Non-parametric



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

MW-44 Intrawell Prediction Limit

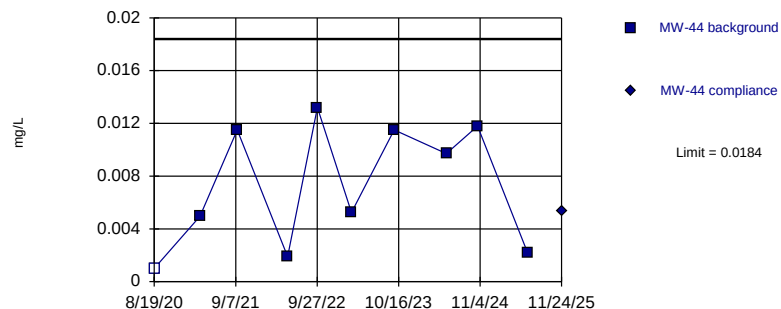
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master Printed 1/6/2026, 11:26 AM

<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>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-44	0.0184	n/a	11/24/2025	0.00532	No	10	n/a	10	No	0.00188	Param Intra 1 of 2
Barium (mg/L)	MW-44	0.0407	n/a	11/24/2025	0.019	No	10	n/a	0	No	0.00188	Param Intra 1 of 2
Cobalt (mg/L)	MW-44	0.004867	n/a	11/24/2025	0.000328J	No	10	n/a	0	sqrt(x)	0.00188	Param Intra 1 of 2
Nickel (mg/L)	MW-44	0.0025	n/a	11/24/2025	0.0025ND	No	8	n/a	87.5	n/a	0.02144	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Parametric



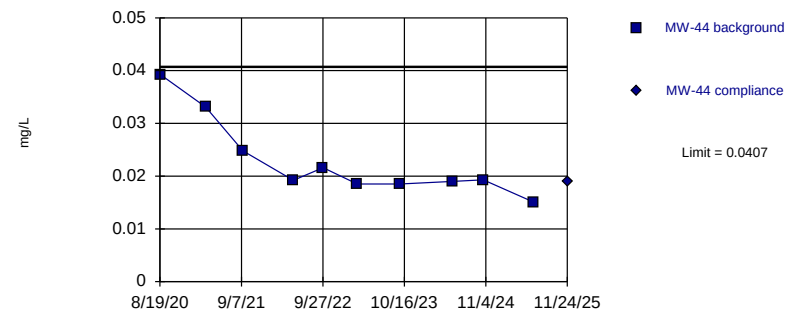
Background Data Summary: Mean=0.007301, Std. Dev.=0.004722, n=10, 10% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8721, critical = 0.781. Kappa = 2.35 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Arsenic Analysis Run 1/6/2026 11:23 AM View: 2025_AWQR MW-44 IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



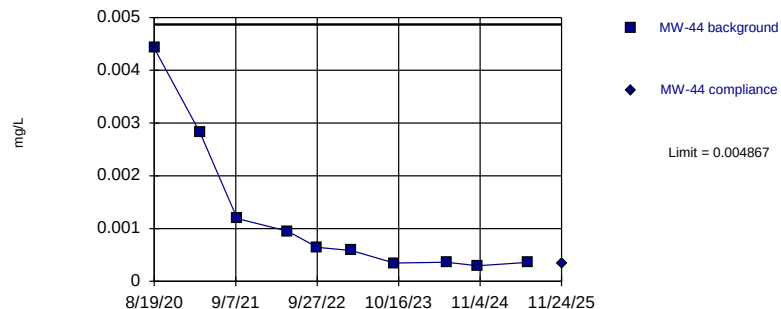
Background Data Summary: Mean=0.02284, Std. Dev.=0.007599, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.798, critical = 0.781. Kappa = 2.35 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Barium Analysis Run 1/6/2026 11:23 AM View: 2025_AWQR MW-44 IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Parametric



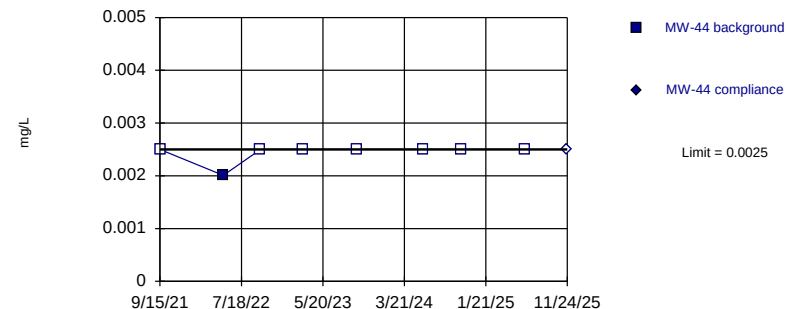
Background Data Summary (based on square root transformation): Mean=0.03081, Std. Dev.=0.01658, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8006, critical = 0.781. Kappa = 2.35 (c=4, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.00188.

Constituent: Cobalt Analysis Run 1/6/2026 11:23 AM View: 2025_AWQR MW-44 IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2).

Constituent: Nickel Analysis Run 1/6/2026 11:23 AM View: 2025_AWQR MW-44 IntraPL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Closed Master

**Intrawell Prediction Limits Summary Table and Graphs –
Open MSWLF Unit**

MW-16 Intrawell Prediction Limit

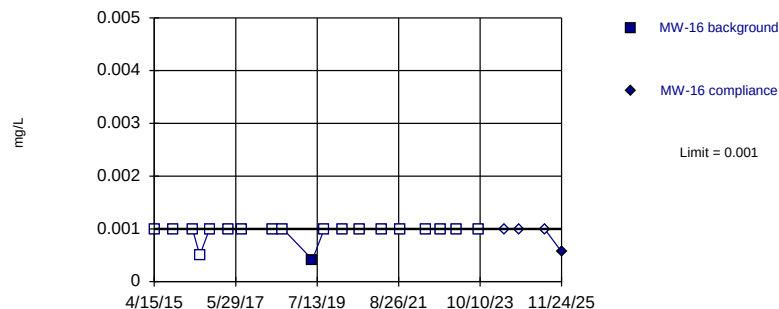
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/7/2026, 3:32 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	MW-16	0.001	n/a	11/24/2025	0.000568J	No	19	n/a	94.74	n/a	0.004832	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-16	0.3962	n/a	11/24/2025	0.132	No	19	n/a	0	No	0.0008776	Param Intra 1 of 2
Beryllium (mg/L)	MW-16	0.0005	n/a	11/24/2025	0.0005ND	No	19	n/a	94.74	n/a	0.004832	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-16	0.0002835	n/a	11/24/2025	0.0001ND	No	19	n/a	63.16	n/a	0.004832	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-16	0.0004544	n/a	11/24/2025	0.000186J	No	19	n/a	21.05	No	0.0008776	Param Intra 1 of 2
Copper (mg/L)	MW-16	0.0025	n/a	11/24/2025	0.0025ND	No	18	n/a	83.33	n/a	0.005373	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-16	0.000478	n/a	11/24/2025	0.00025ND	No	19	n/a	68.42	n/a	0.004832	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-16	0.01394	n/a	11/24/2025	0.00945	No	19	n/a	0	No	0.0008776	Param Intra 1 of 2
Silver (mg/L)	MW-16	0.000752	n/a	11/24/2025	0.0005ND	No	19	n/a	94.74	n/a	0.004832	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-16	0.001	n/a	11/24/2025	0.0005ND	No	19	n/a	94.74	n/a	0.004832	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-16	0.0025	n/a	11/24/2025	0.0025ND	No	19	n/a	89.47	n/a	0.004832	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-16	0.01	n/a	11/24/2025	0.01ND	No	19	n/a	94.74	n/a	0.004832	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



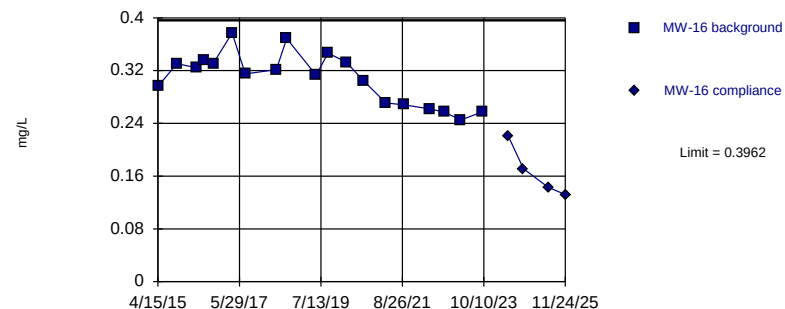
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Arsenic Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



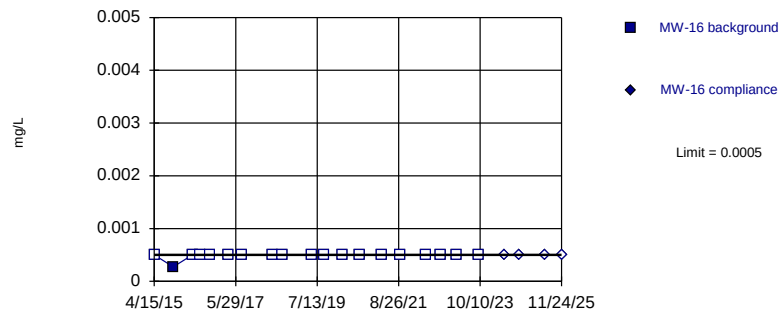
Background Data Summary: Mean=0.3083, Std. Dev.=0.03886, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9453, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Barium Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



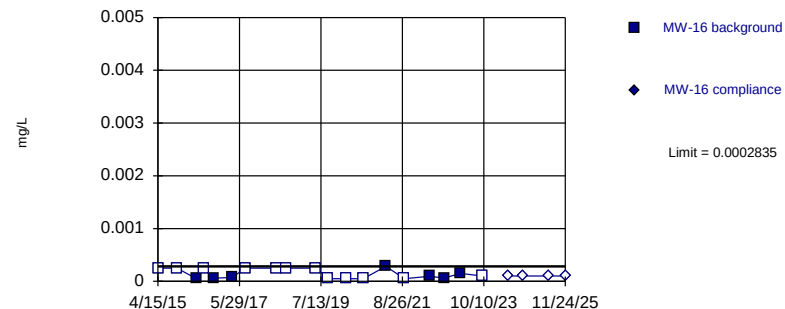
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Beryllium Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



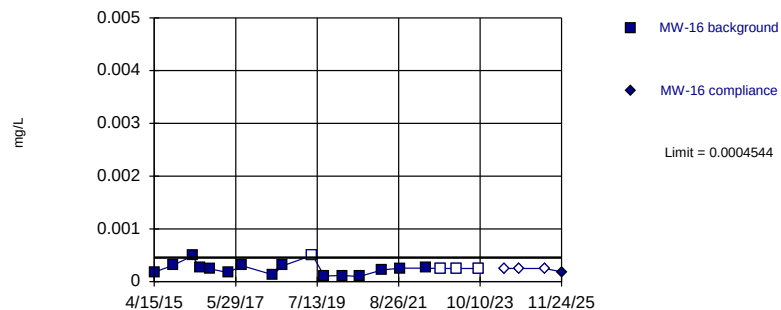
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 63.16% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Cadmium Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



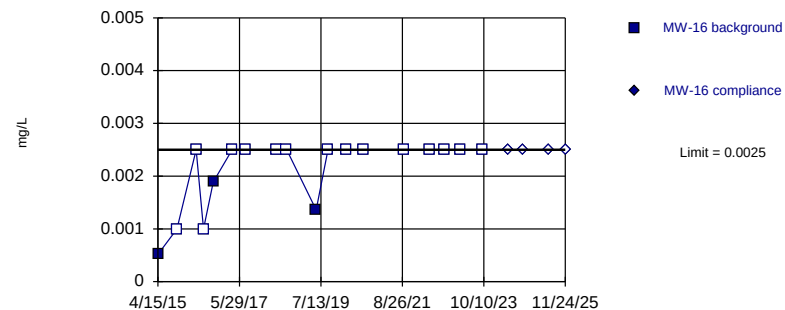
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0002298, Std. Dev.=0.00009929, n=19, 21.05% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8834, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Cobalt Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



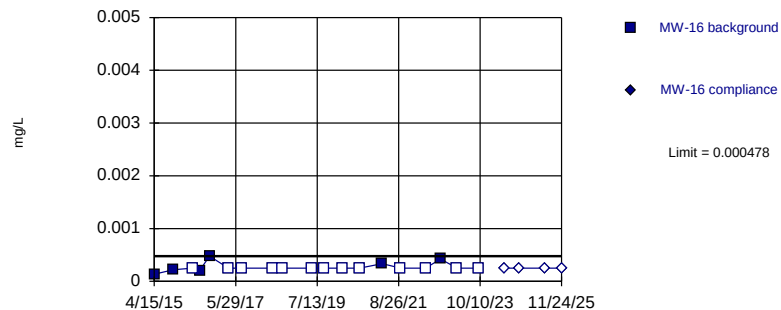
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Copper Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



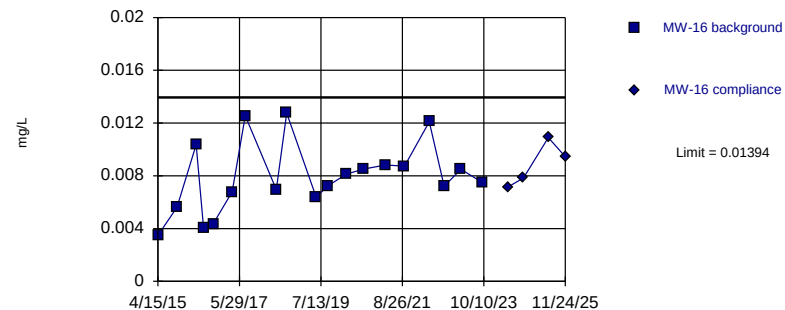
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 68.42% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Lead Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



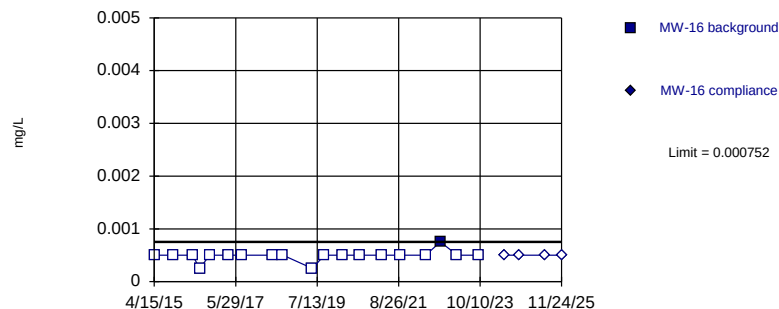
Background Data Summary: Mean=0.007898, Std. Dev.=0.002671, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.863. Kappa = 2.263 (c=12, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008776.

Constituent: Nickel Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



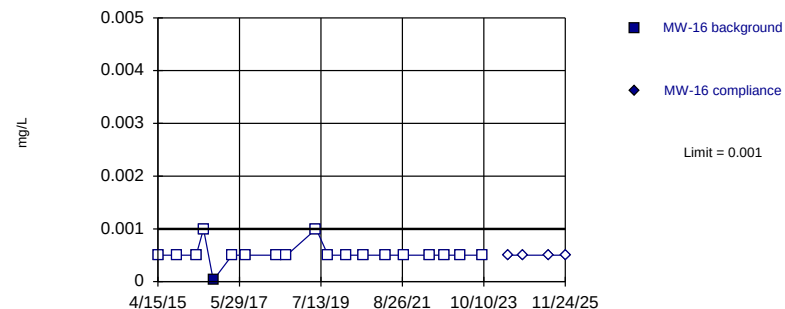
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Silver Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



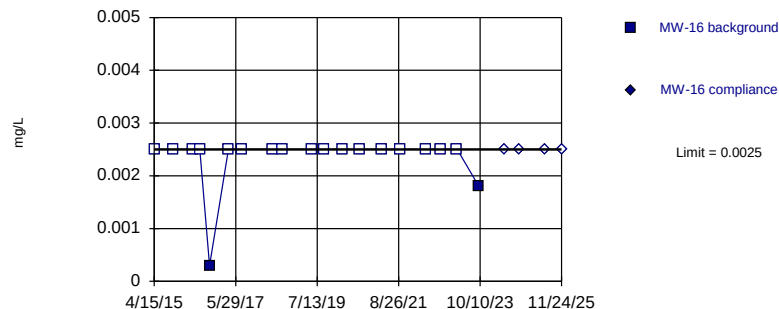
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Thallium Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



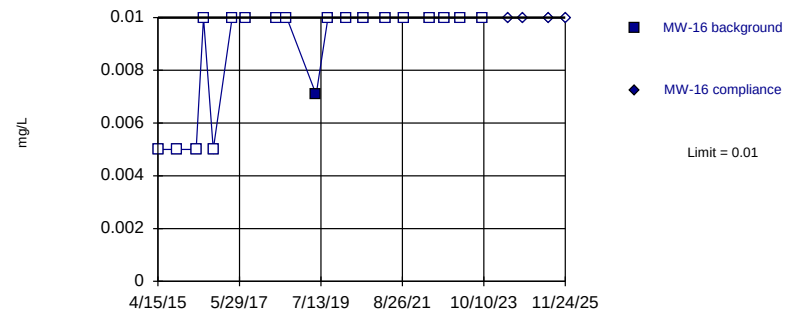
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Vanadium Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 19 background values. 94.74% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Zinc Analysis Run 1/7/2026 3:30 PM View: 2025 AWQR MW-16 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-27 Intrawell Prediction Limit

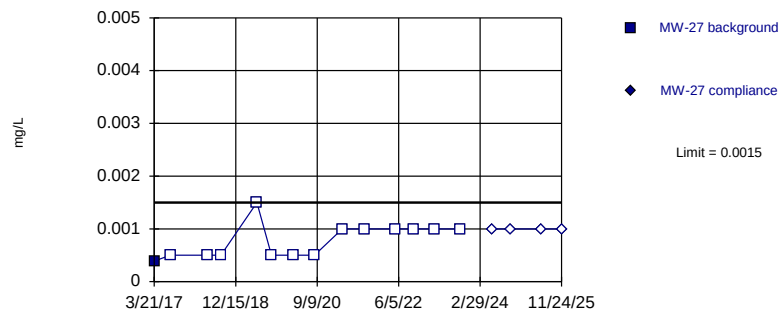
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/7/2026, 3:48 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-27	0.0015	n/a	11/24/2025	0.001ND	No	14	n/a	92.86	n/a	0.008612	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-27	0.001	n/a	11/24/2025	0.000609J	No	14	n/a	92.86	n/a	0.008612	NP Intra (NDs) 1 of 2
Barium (mg/L)	MW-27	0.03802	n/a	11/24/2025	0.0306	No	14	n/a	0	No	0.001316	Param Intra 1 of 2
Chromium (mg/L)	MW-27	0.0025	n/a	11/24/2025	0.00971	Yes	14	n/a	85.71	n/a	0.008612	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-27	0.0005	n/a	11/24/2025	0.00025ND	No	14	n/a	71.43	n/a	0.008612	NP Intra (NDs) 1 of 2
Copper (mg/L)	MW-27	0.0025	n/a	11/24/2025	0.0025ND	No	14	n/a	92.86	n/a	0.008612	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-27	0.00025	n/a	11/24/2025	0.00025ND	No	14	n/a	92.86	n/a	0.008612	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-27	0.0025	n/a	11/24/2025	0.0025ND	No	14	n/a	57.14	n/a	0.008612	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



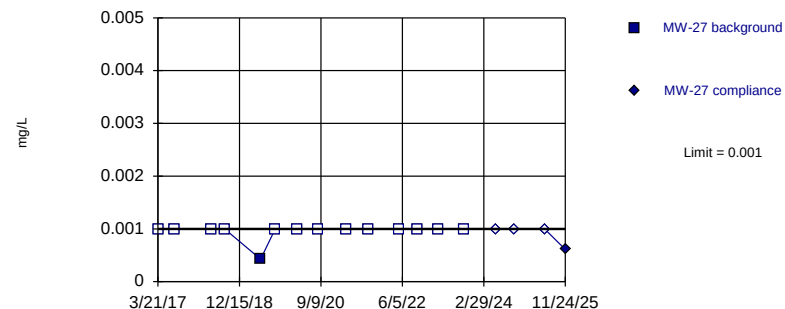
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Antimony Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



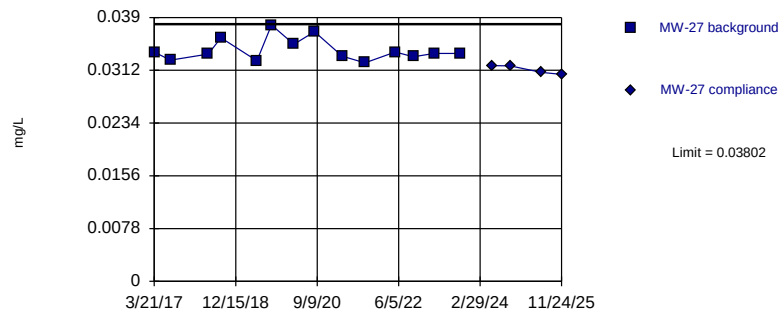
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Arsenic Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



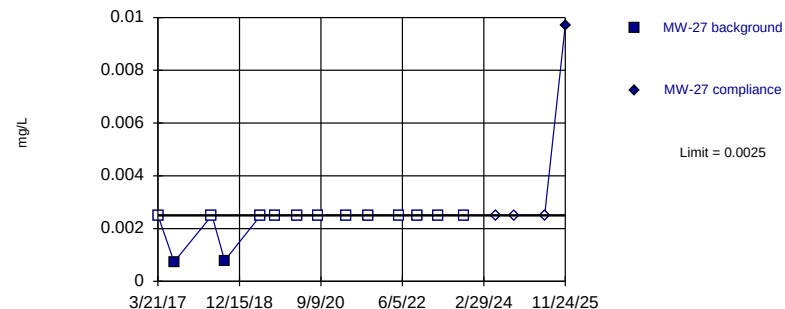
Background Data Summary: Mean=0.0342, Std. Dev.=0.001669, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8687, critical = 0.825. Kappa = 2.289 (c=8, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.001316.

Constituent: Barium Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



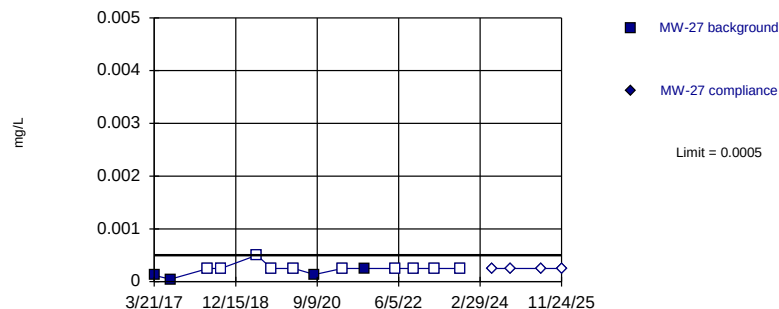
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Chromium Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



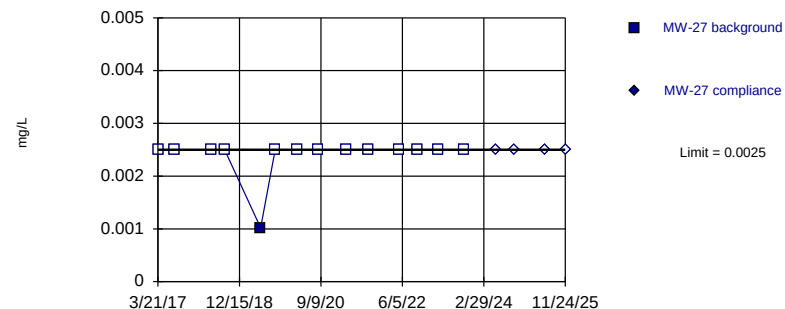
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 71.43% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Cobalt Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



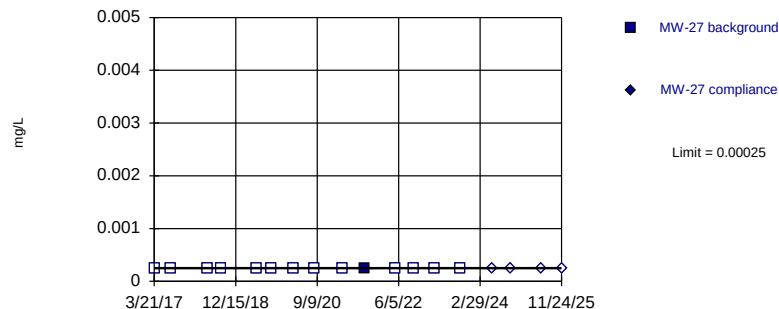
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Copper Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



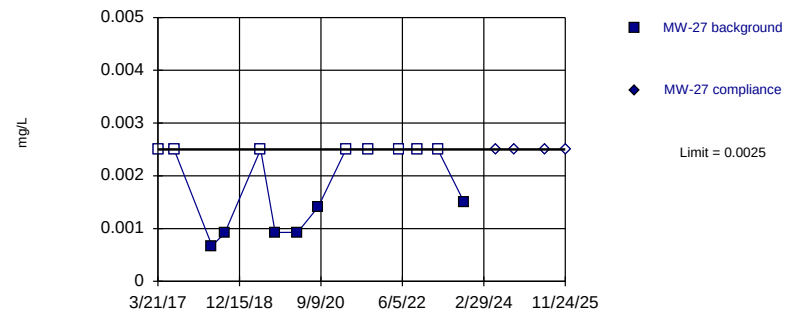
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 14 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Lead Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 14 background values. 57.14% NDs. Well-constituent pair annual alpha = 0.01715. Individual comparison alpha = 0.008612 (1 of 2).

Constituent: Vanadium Analysis Run 1/7/2026 3:43 PM View: 2025 AWQR MW-27 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

MW-35 Intrawell Prediction Limit

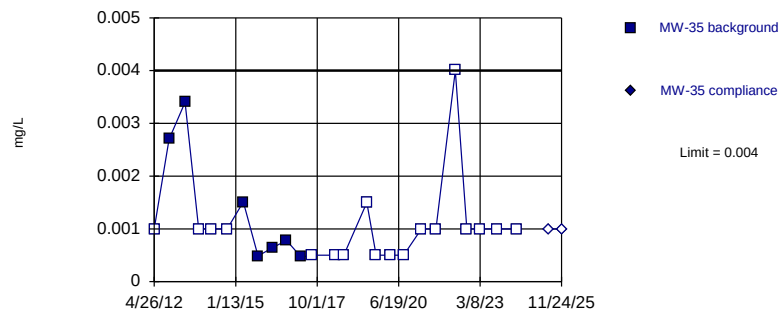
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/8/2026, 8:30 AM

<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>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-35	0.004	n/a	11/24/2025	0.001ND	No	25	n/a	72	n/a	0.002832	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-35	0.0116	n/a	11/24/2025	0.00127J	No	28	n/a	42.86	n/a	0.002337	NP Intra (normality) 1 of 2
Barium (mg/L)	MW-35	0.1	n/a	11/24/2025	0.0192	No	28	n/a	3.571	n/a	0.002337	NP Intra (normality) 1 of 2
Cadmium (mg/L)	MW-35	0.0004	n/a	11/24/2025	0.0001ND	No	28	n/a	75	n/a	0.002337	NP Intra (NDs) 1 of 2
Chromium (mg/L)	MW-35	0.005	n/a	11/24/2025	0.0025ND	No	28	n/a	92.86	n/a	0.002337	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-35	0.05224	n/a	11/24/2025	0.00563	No	25	n/a	0	sqrt(x)	0.0008101	Param Intra 1 of 2
Copper (mg/L)	MW-35	0.0212	n/a	11/24/2025	0.0025ND	No	29	n/a	86.21	n/a	0.002172	NP Intra (NDs) 1 of 2
Lead (mg/L)	MW-35	0.002	n/a	11/24/2025	0.00025ND	No	28	n/a	85.71	n/a	0.002337	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-35	0.1929	n/a	11/24/2025	0.0163	No	28	n/a	7.143	sqrt(x)	0.0008101	Param Intra 1 of 2
Selenium (mg/L)	MW-35	0.00288	n/a	11/24/2025	0.0025ND	No	28	n/a	96.43	n/a	0.002337	NP Intra (NDs) 1 of 2
Thallium (mg/L)	MW-35	0.002	n/a	11/24/2025	0.0005ND	No	28	n/a	89.29	n/a	0.002337	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-35	0.01	n/a	11/24/2025	0.0025ND	No	28	n/a	78.57	n/a	0.002337	NP Intra (NDs) 1 of 2
Zinc (mg/L)	MW-35	0.147	n/a	11/24/2025	0.01ND	No	29	n/a	75.86	n/a	0.002172	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



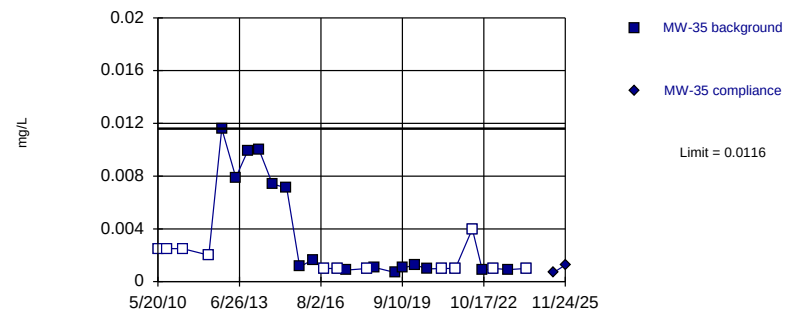
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 25 background values. 72% NDs. Well-constituent pair annual alpha = 0.005656. Individual comparison alpha = 0.002832 (1 of 2).

Constituent: Antimony Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



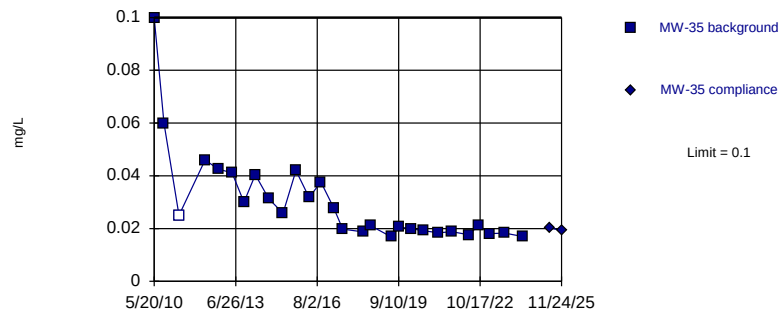
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 42.86% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Arsenic Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



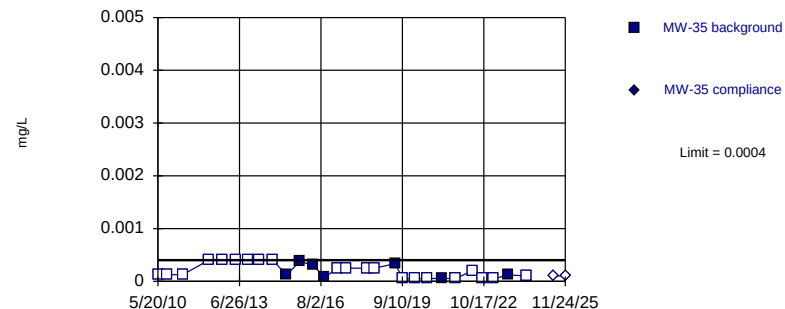
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 3.571% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Barium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



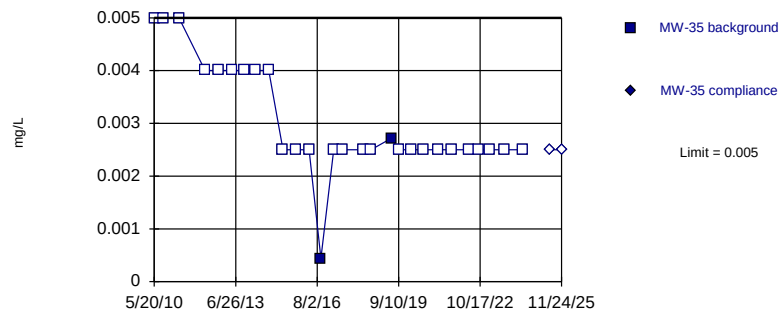
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 75% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Cadmium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



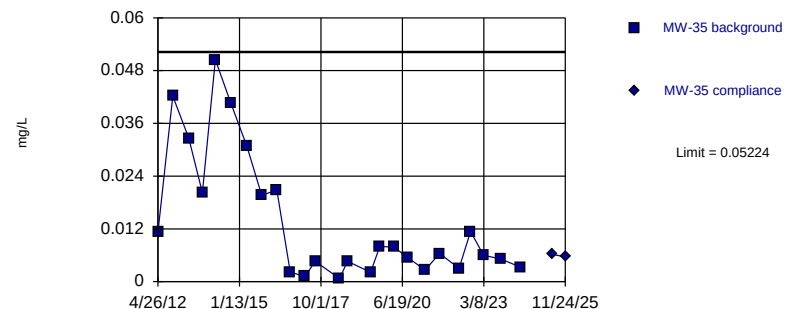
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 92.86% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Chromium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



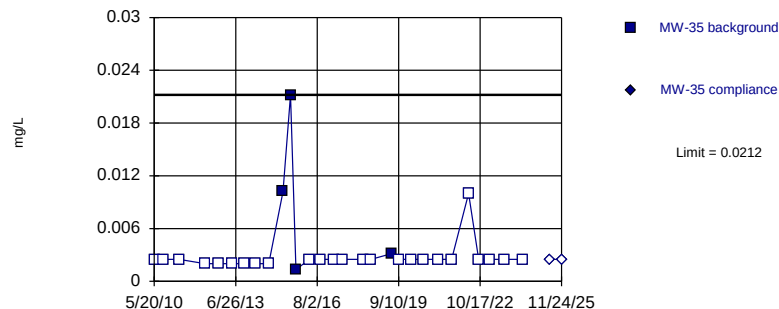
Background Data Summary (based on square root transformation): Mean=0.1024, Std. Dev.=0.05805, n=25.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9028, critical = 0.888. Kappa = 2.173 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008101.

Constituent: Cobalt Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



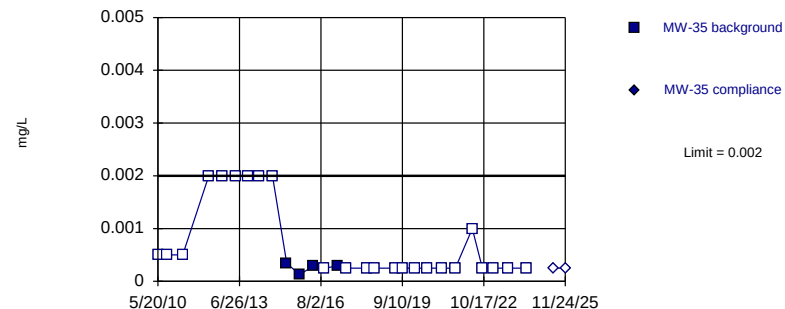
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 86.21% NDs. Well-constituent pair annual alpha = 0.00434. Individual comparison alpha = 0.002172 (1 of 2).

Constituent: Copper Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



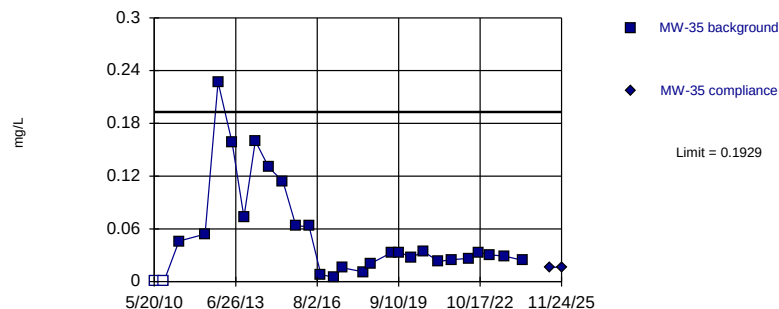
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 85.71% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Lead Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



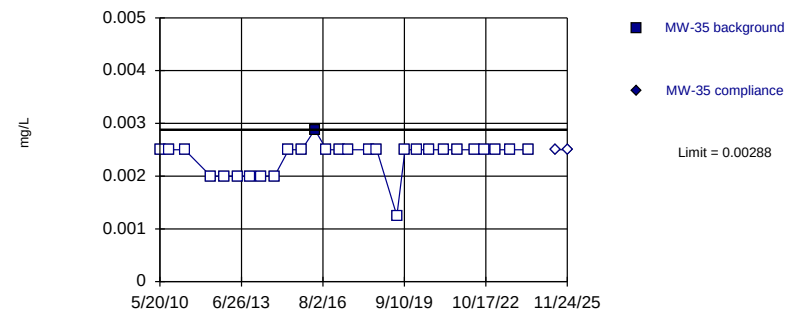
Background Data Summary (based on square root transformation): Mean=0.2014, Std. Dev.=0.111, n=28, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9319, critical = 0.896. Kappa = 2.141 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0008101.

Constituent: Nickel Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



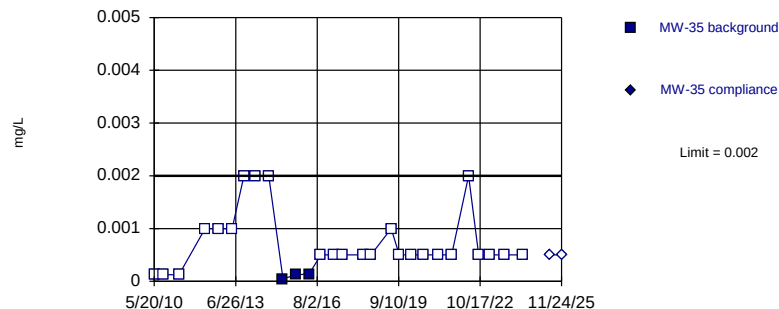
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 96.43% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Selenium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



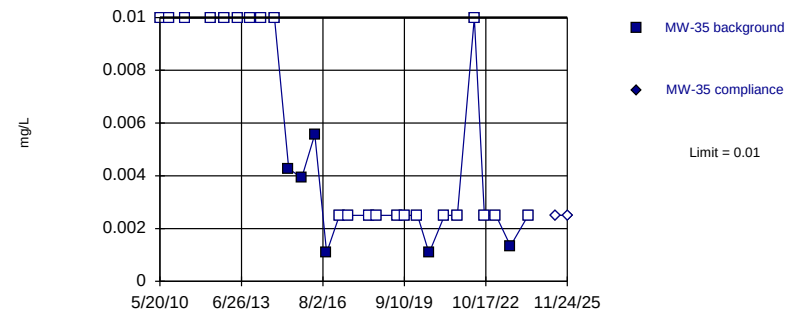
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 89.29% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Thallium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric

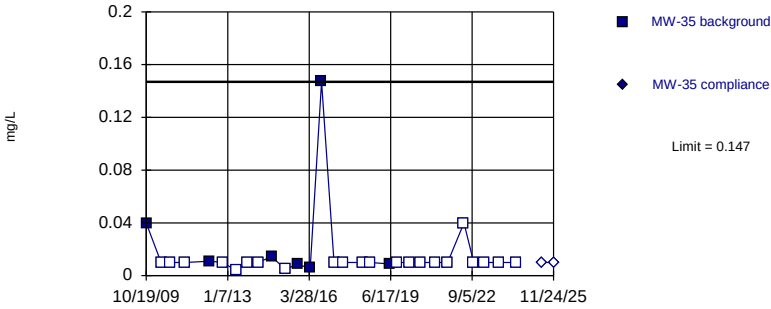


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 28 background values. 78.57% NDs. Well-constituent pair annual alpha = 0.004669. Individual comparison alpha = 0.002337 (1 of 2).

Constituent: Vanadium Analysis Run 1/8/2026 8:26 AM View: 2025 AWQR MW-35 Intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 29 background values. 75.86% NDs. Well-constituent pair annual alpha = 0.00434. Individual comparison alpha = 0.002172 (1 of 2).

MW-42R Intrawell Prediction Limit

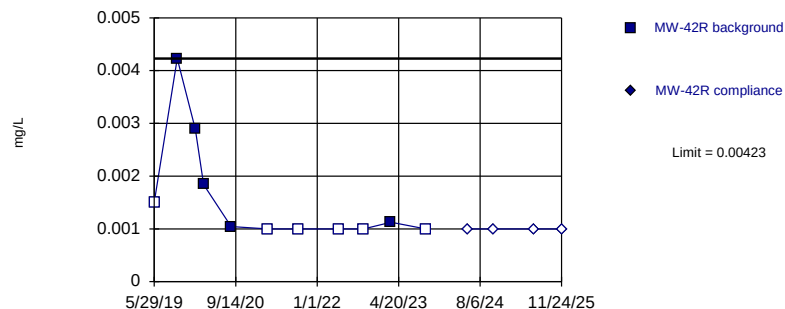
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master Printed 1/7/2026, 3:11 PM

<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>Bg Wells</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	MW-42R	0.00423	n/a	11/24/2025	0.001ND	No	11	n/a	54.55	n/a	0.01276	NP Intra (NDs) 1 of 2
Arsenic (mg/L)	MW-42R	0.001429	n/a	11/24/2025	0.0013J	No	11	n/a	27.27	No	0.0007523	Param Intra 1 of 2
Barium (mg/L)	MW-42R	0.03738	n/a	11/24/2025	0.016	No	11	n/a	0	No	0.0007523	Param Intra 1 of 2
Beryllium (mg/L)	MW-42R	0.0005	n/a	11/24/2025	0.0005ND	No	11	n/a	90.91	n/a	0.01276	NP Intra (NDs) 1 of 2
Cadmium (mg/L)	MW-42R	0.0004256	n/a	11/24/2025	0.000101J	No	11	n/a	18.18	No	0.0007523	Param Intra 1 of 2
Chromium (mg/L)	MW-42R	0.0025	n/a	11/24/2025	0.0025ND	No	11	n/a	90.91	n/a	0.01276	NP Intra (NDs) 1 of 2
Cobalt (mg/L)	MW-42R	0.0081	n/a	11/24/2025	0.00444	No	12	n/a	0	No	0.0007523	Param Intra 1 of 2
Copper (mg/L)	MW-42R	0.00905	n/a	11/24/2025	0.0025ND	No	11	n/a	45.45	n/a	0.01276	NP Intra (normality) 1 of 2
Lead (mg/L)	MW-42R	0.000635	n/a	11/24/2025	0.00025ND	No	11	n/a	81.82	n/a	0.01276	NP Intra (NDs) 1 of 2
Nickel (mg/L)	MW-42R	0.05051	n/a	11/24/2025	0.0123	No	11	n/a	0	ln(x)	0.0007523	Param Intra 1 of 2
Selenium (mg/L)	MW-42R	0.01389	n/a	11/24/2025	0.0025ND	No	11	n/a	27.27	sqrt(x)	0.0007523	Param Intra 1 of 2
Thallium (mg/L)	MW-42R	0.001	n/a	11/24/2025	0.0005ND	No	11	n/a	90.91	n/a	0.01276	NP Intra (NDs) 1 of 2
Vanadium (mg/L)	MW-42R	0.002226	n/a	11/24/2025	0.0025ND	No	11	n/a	36.36	No	0.0007523	Param Intra 1 of 2
Zinc (mg/L)	MW-42R	0.0191	n/a	11/24/2025	0.01ND	No	11	n/a	54.55	n/a	0.01276	NP Intra (NDs) 1 of 2

Within Limit

Prediction Limit

Intrawell Non-parametric



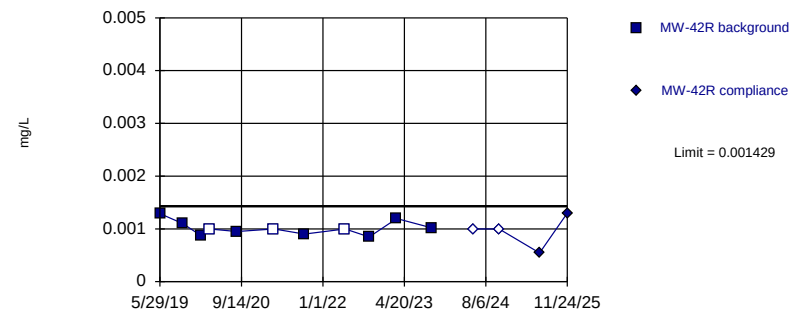
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Antimony Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



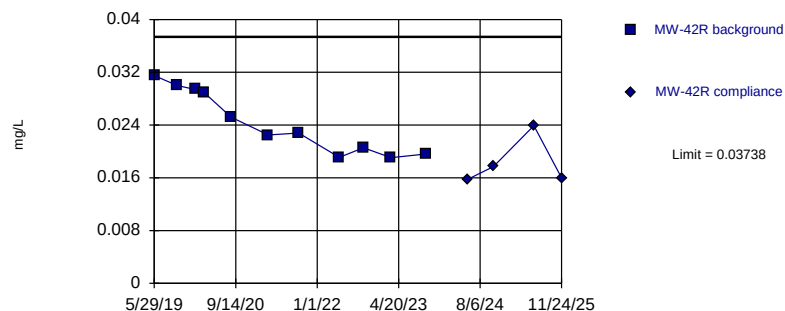
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001022, Std. Dev.=0.0001506, n=11, 27.27% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9268, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Arsenic Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



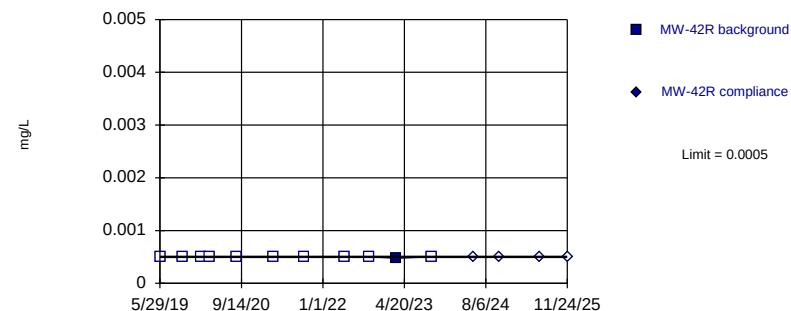
Background Data Summary: Mean=0.02443, Std. Dev.=0.004789, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8789, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Barium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



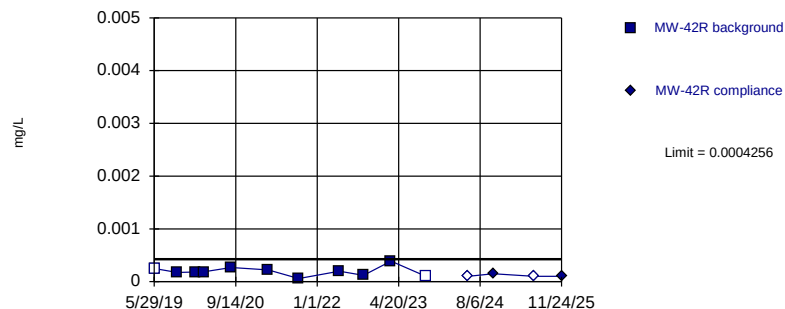
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Beryllium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



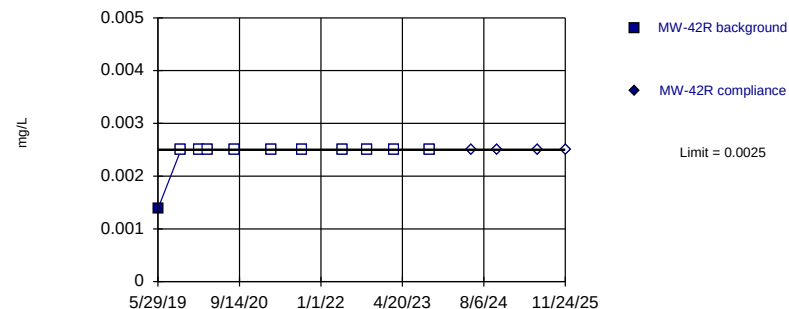
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.0001948, Std. Dev.=0.00008534, n=11, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9579, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Cadmium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



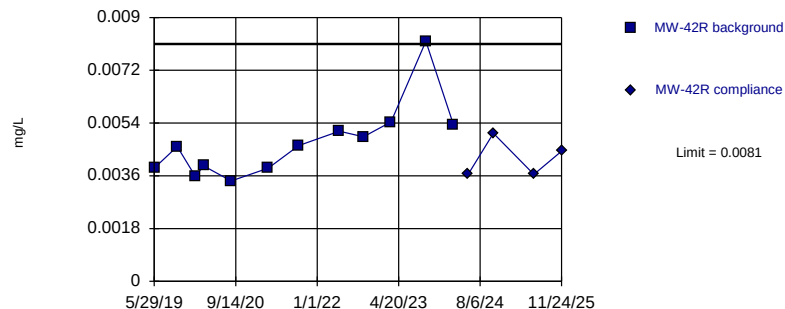
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Chromium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



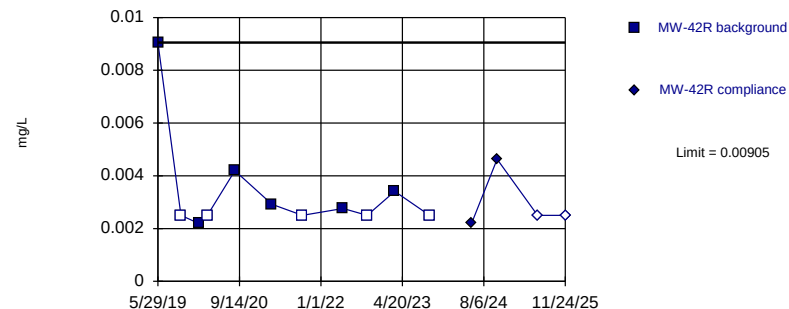
Background Data Summary: Mean=0.004744, Std. Dev.=0.001288, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8207, critical = 0.805. Kappa = 2.606 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Cobalt Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



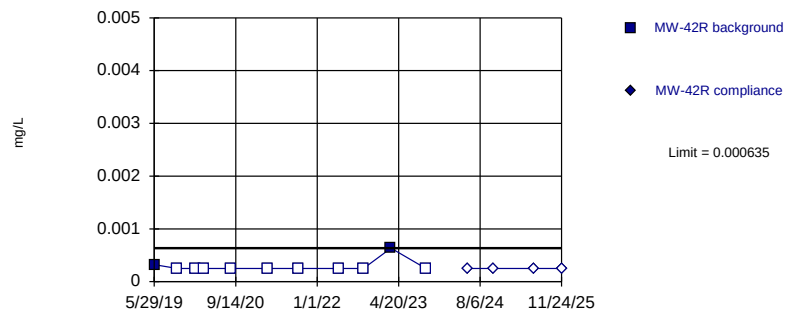
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 11 background values. 45.45% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Copper Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



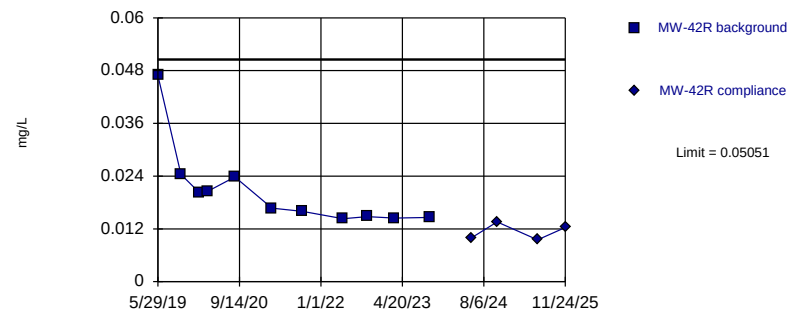
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 81.82% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Lead Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



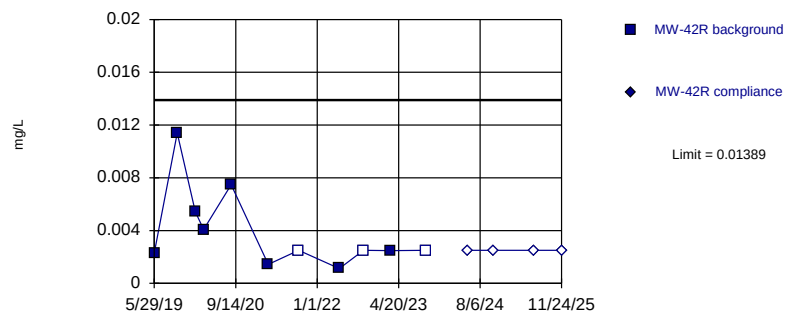
Background Data Summary (based on natural log transformation): Mean=-3.95, Std. Dev.=0.3566, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8062, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Nickel Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



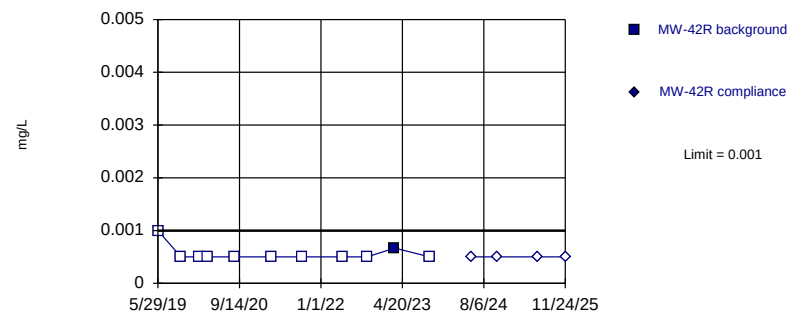
Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.05811, Std. Dev.=0.0221, n=11, 27.27% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8762, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Selenium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Non-parametric



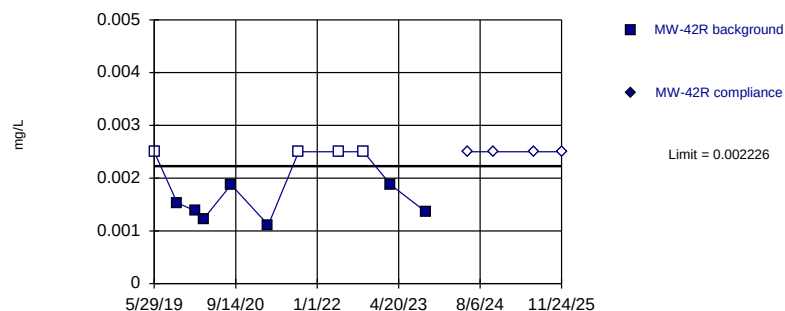
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 90.91% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Thallium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

Within Limit

Prediction Limit

Intrawell Parametric



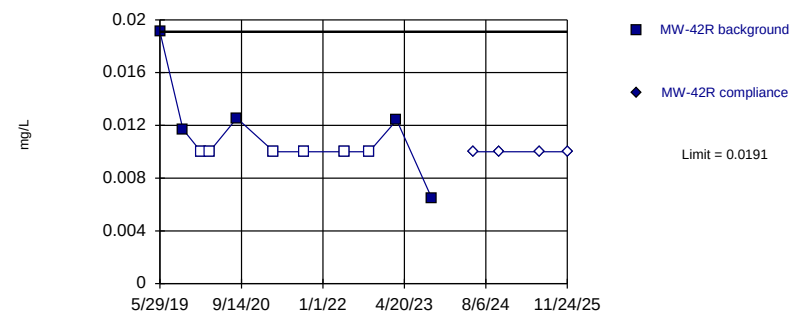
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.001479, Std. Dev.=0.0002763, n=11, 36.36% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8453, critical = 0.792. Kappa = 2.704 (c=14, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.0007523.

Constituent: Vanadium Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

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 11 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.02537. Individual comparison alpha = 0.01276 (1 of 2).

Constituent: Zinc Analysis Run 1/7/2026 3:09 PM View: 2025 AWQR MW-42R intra PL
Cherokee County Sanitary Landfill Client: SCS Engineers Data: Sanitas CHRKE Open Master

**Sen's Slope/Mann-Kendall Summary Table and Graphs –
Closed MSWLF Unit**

Trend Test

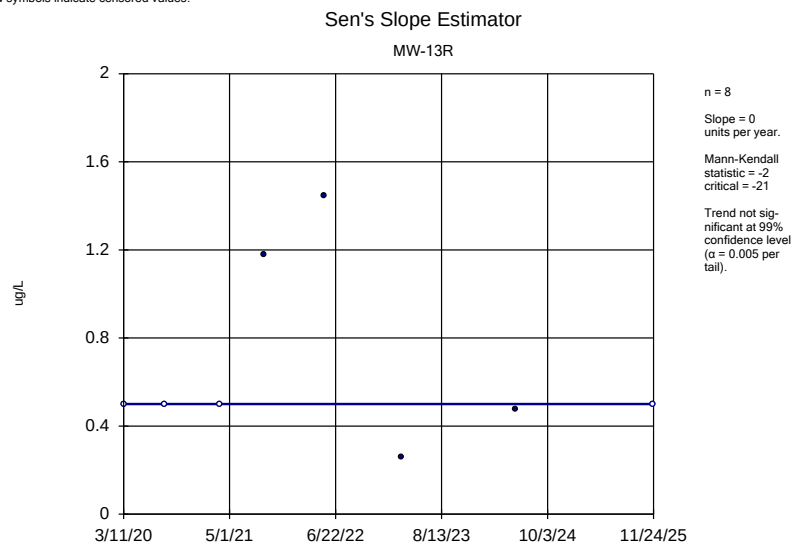
Loess Hills SLF

Client: SCS Engineers

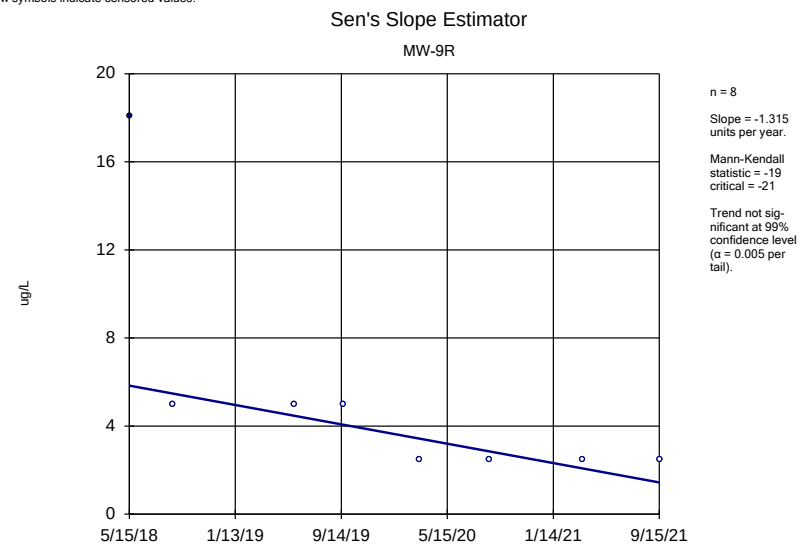
Data: CHRKE_AM_2025_AWQR

Printed 1/16/2026, 1:36 PM

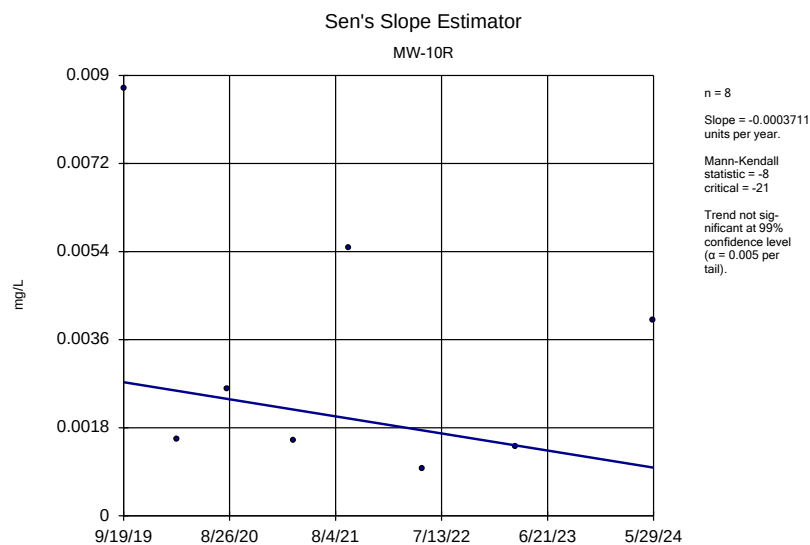
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Alpha</u>	<u>Method</u>
1,1-Dichloroethane (ug/L)	MW-13R	0	-2	-21	No	8	50	0.01	NP
Acrylonitrile (ug/L)	MW-9R	-1.315	-19	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-10R	-0.0003711	-8	-21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-12	0.0003609	6	21	No	8	12.5	0.01	NP
Arsenic (mg/L)	MW-13R	0.001105	11	21	No	8	37.5	0.01	NP
Arsenic (mg/L)	MW-44	-0.0003232	0	21	No	8	0	0.01	NP
Barium (mg/L)	MW-7	-0.00008242	-3	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-9R	0.005555	22	21	Yes	8	0	0.01	NP
Barium (mg/L)	MW-10R	-0.004455	-6	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-12	0.0008239	2	21	No	8	0	0.01	NP
Barium (mg/L)	MW-13R	-0.02302	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-15C	-0.008955	-14	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-44	-0.0001866	-6	-21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-9R	-0.00002748	-15	-21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-12	0.000008663	7	21	No	8	50	0.01	NP
Cadmium (mg/L)	MW-15C	0	4	21	No	8	62.5	0.01	NP
Carbon Disulfide (ug/L)	MW-9R	-0.1678	-12	-21	No	8	12.5	0.01	NP
Chlorobenzene (ug/L)	MW-13R	-0.3098	-14	-21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-7	-0.1196	-18	-21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-10R	-0.2283	-16	-21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-7	0.00002141	7	21	No	8	25	0.01	NP
Cobalt (mg/L)	MW-9R	0.0004462	2	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-10R	-0.0004451	-11	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-12	0.0004315	12	21	No	8	12.5	0.01	NP
Cobalt (mg/L)	MW-13R	-0.00053	-8	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-15C	-0.000001817	0	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-44	-0.0001511	-20	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-7	0	7	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-10R	0	5	21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-13R	0	7	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-10R	-0.00002	-2	-21	No	8	0	0.01	NP
Lead (mg/L)	MW-12	0	4	21	No	8	50	0.01	NP
Nickel (mg/L)	MW-9R	-0.00249	-8	-21	No	8	12.5	0.01	NP
Nickel (mg/L)	MW-10R	0.0002952	4	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-12	0.003772	10	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-13R	-0.0006289	-14	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-15C	0.0003858	18	21	No	8	0	0.01	NP
Selenium (mg/L)	MW-12	0.0007979	16	21	No	8	62.5	0.01	NP
Styrene (ug/L)	MW-9R	0	-7	-21	No	8	87.5	0.01	NP
Sulfide (mg/L)	MW-7	0.09905	8	12	No	5	80	0.01	NP
Sulfide (mg/L)	MW-9R	0.0918	12	21	No	8	62.5	0.01	NP
Trichloroethene (ug/L)	MW-7	-0.1688	-24	-21	Yes	8	0	0.01	NP



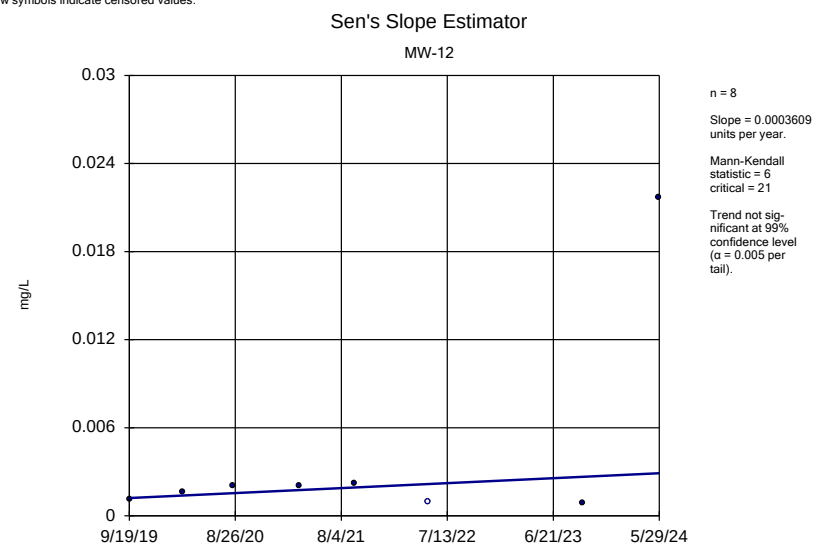
Constituent: 1,1-Dichloroethane Analysis Run 1/16/2026 1:31 PM View: 2025_AWQR-Mann_KendallAMA
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



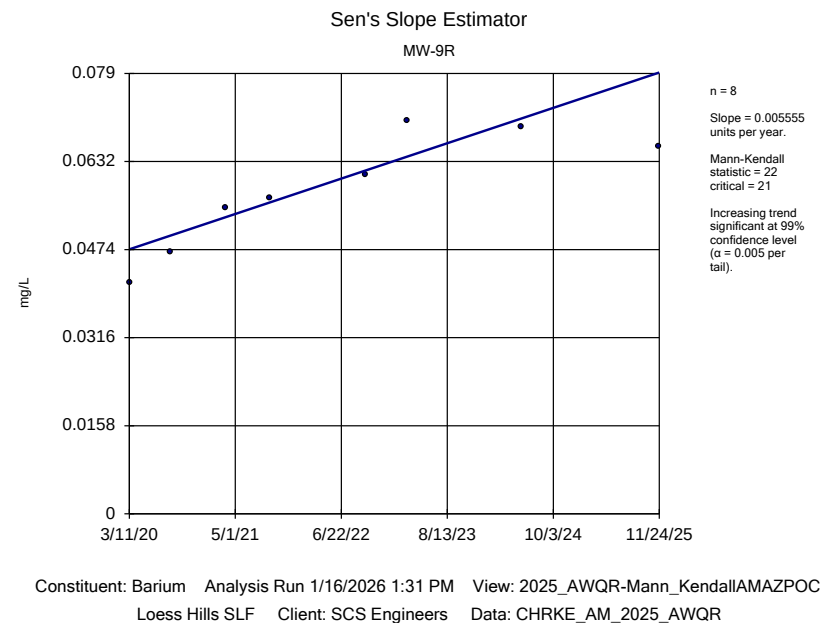
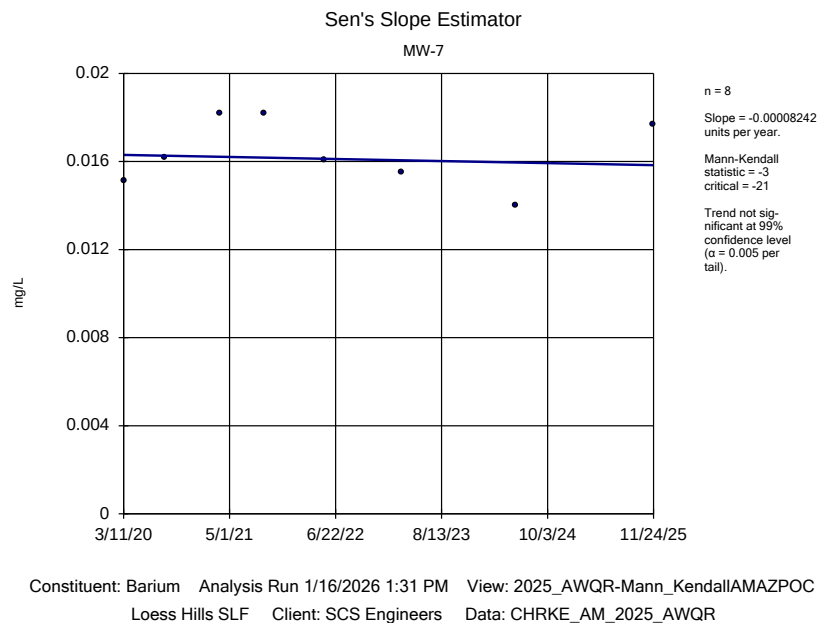
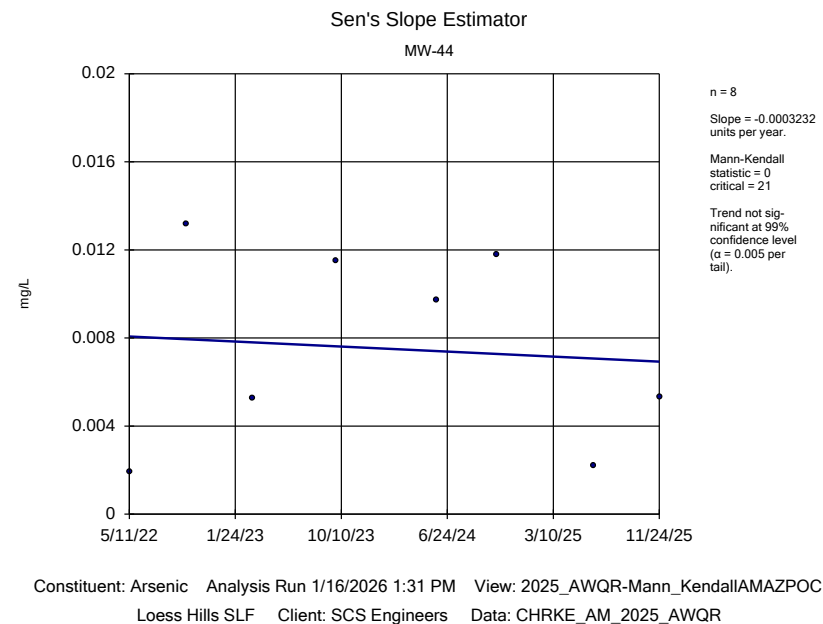
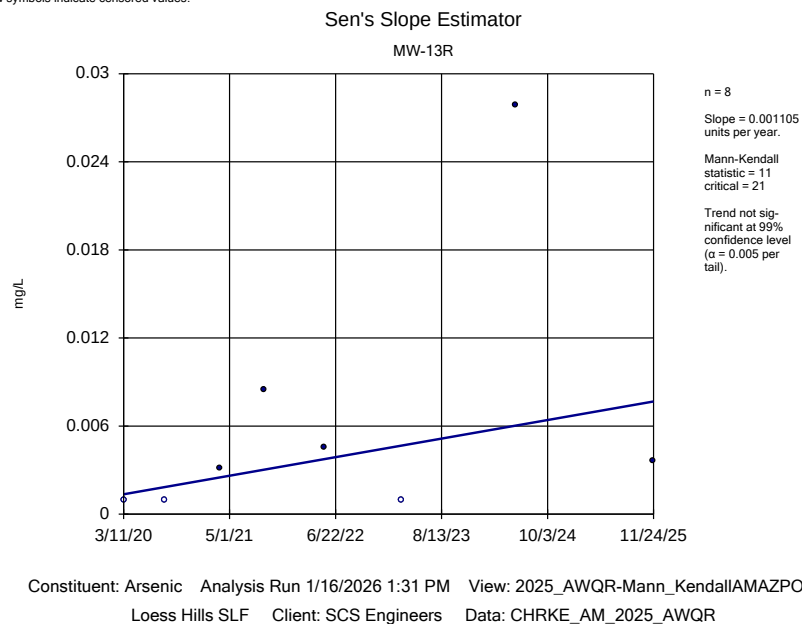
Constituent: Acrylonitrile Analysis Run 1/16/2026 1:31 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

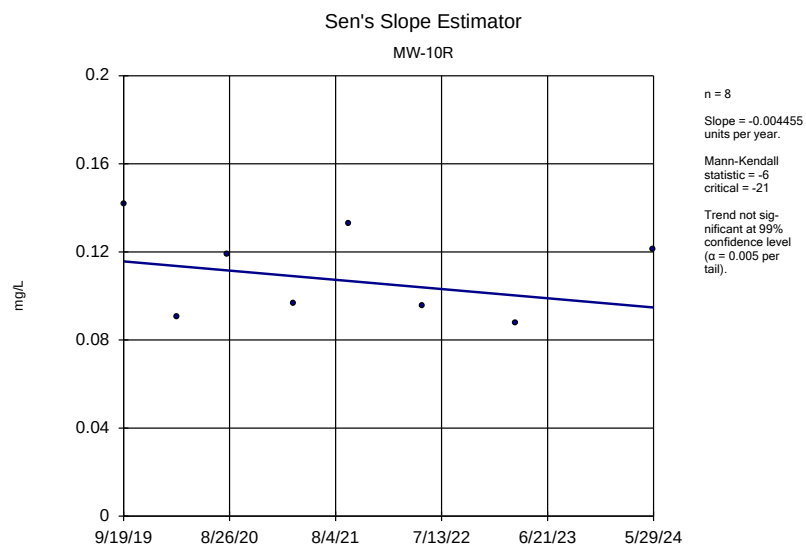


Constituent: Arsenic Analysis Run 1/16/2026 1:31 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

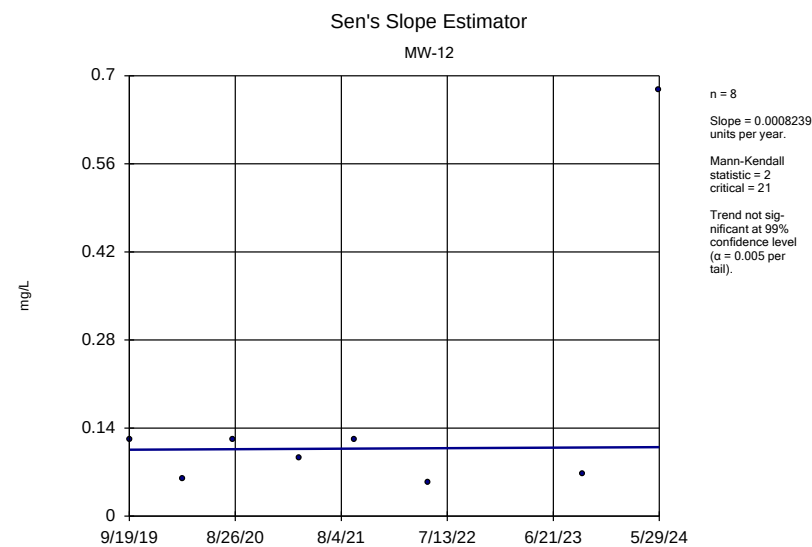


Constituent: Arsenic Analysis Run 1/16/2026 1:31 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

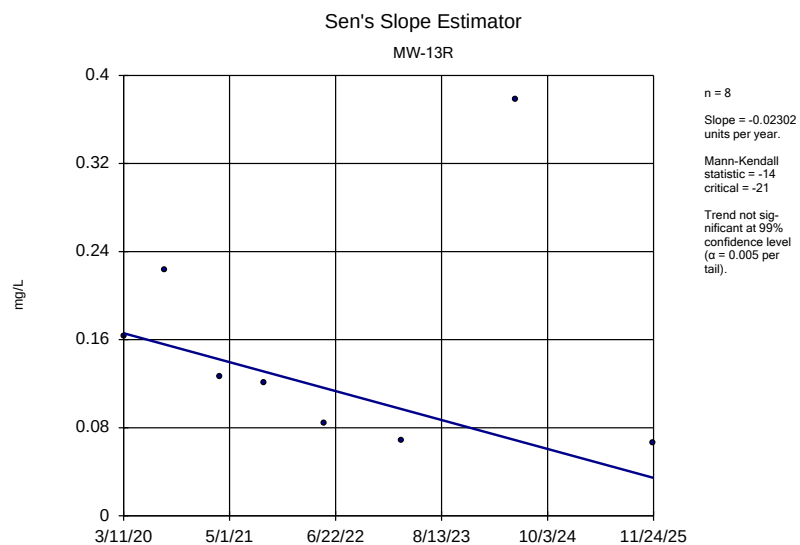




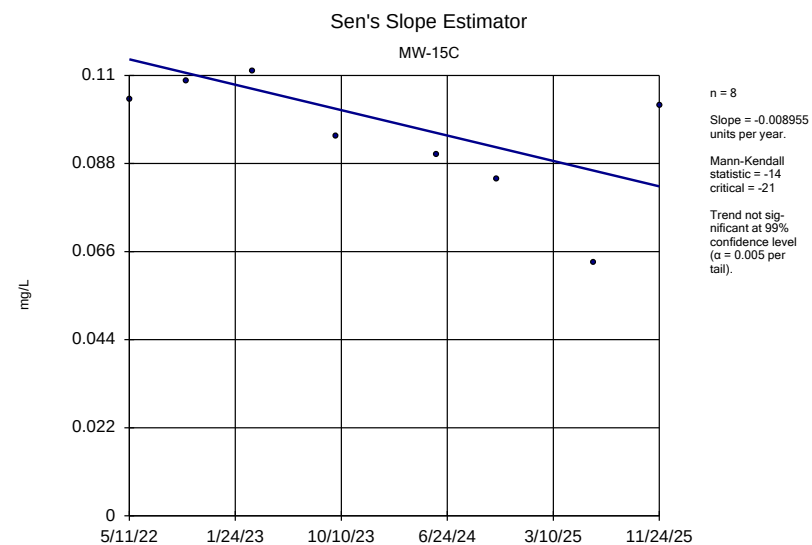
Constituent: Barium Analysis Run 1/16/2026 1:31 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



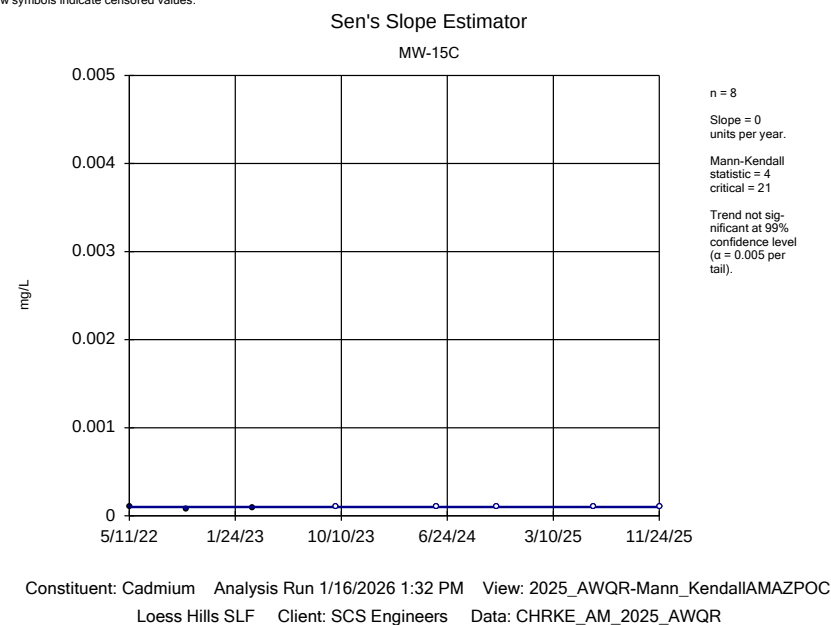
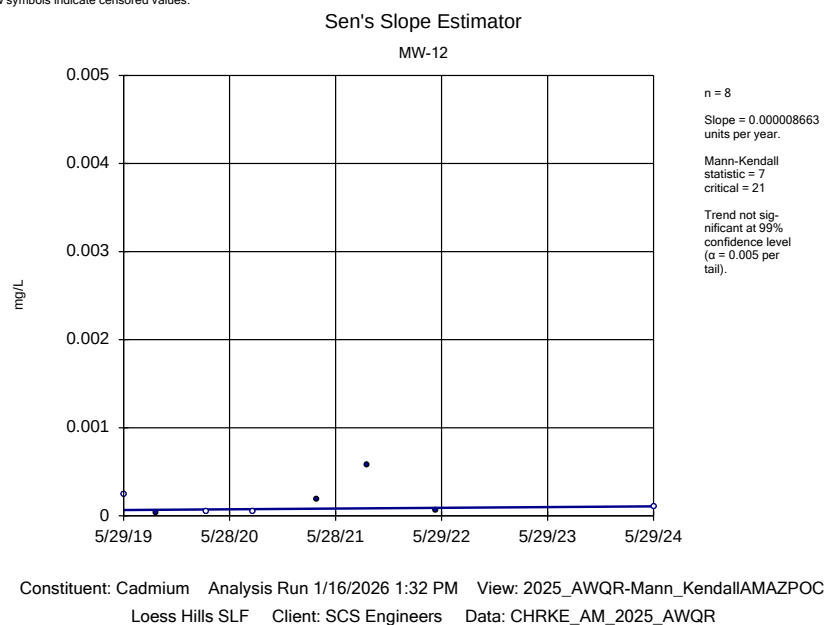
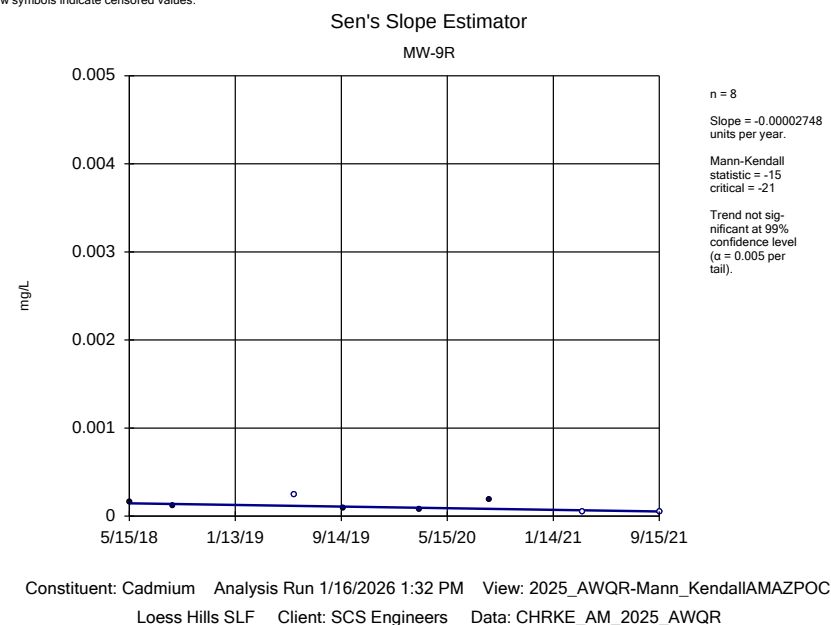
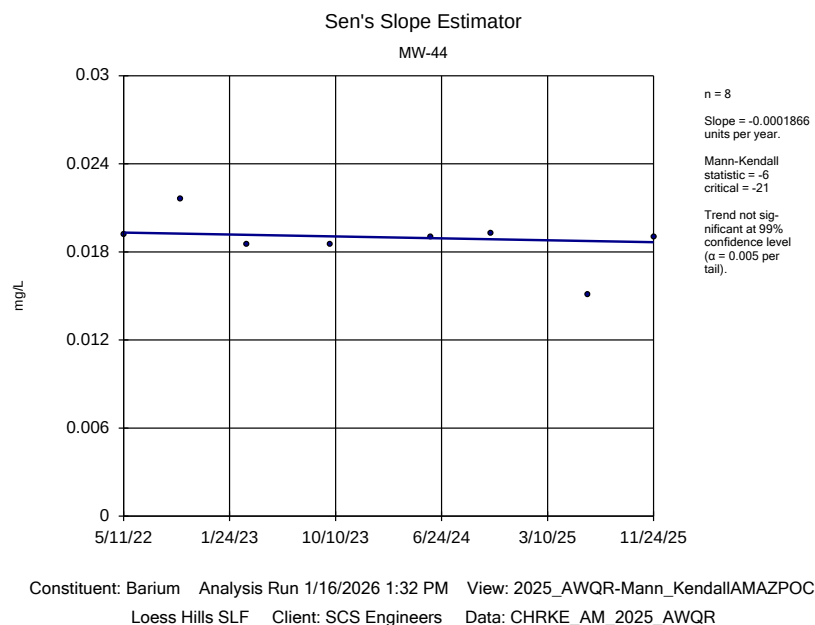
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Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

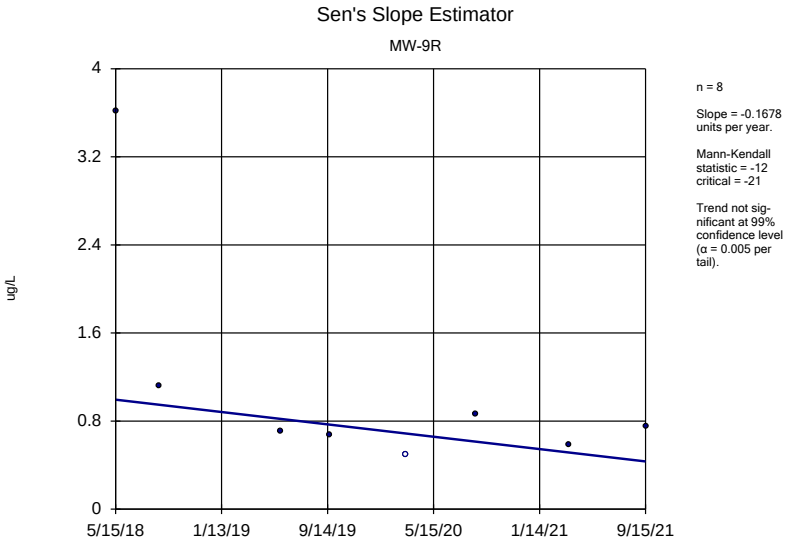


Constituent: Barium Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

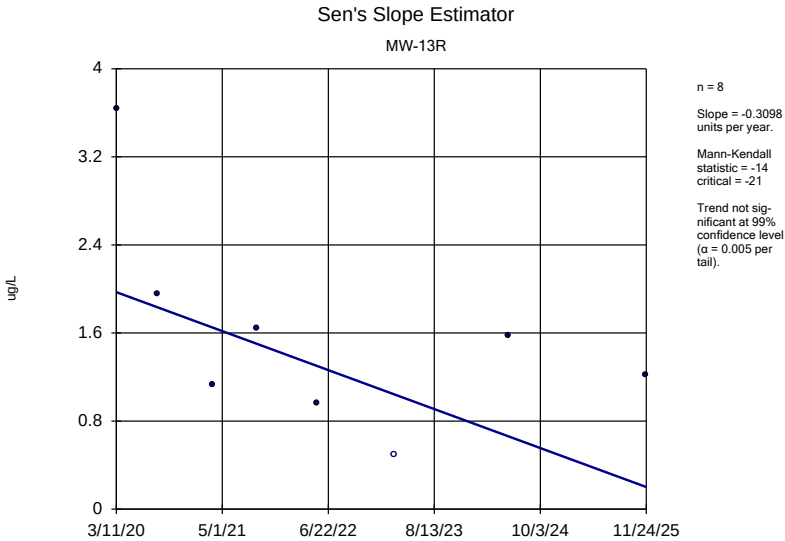


Constituent: Barium Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

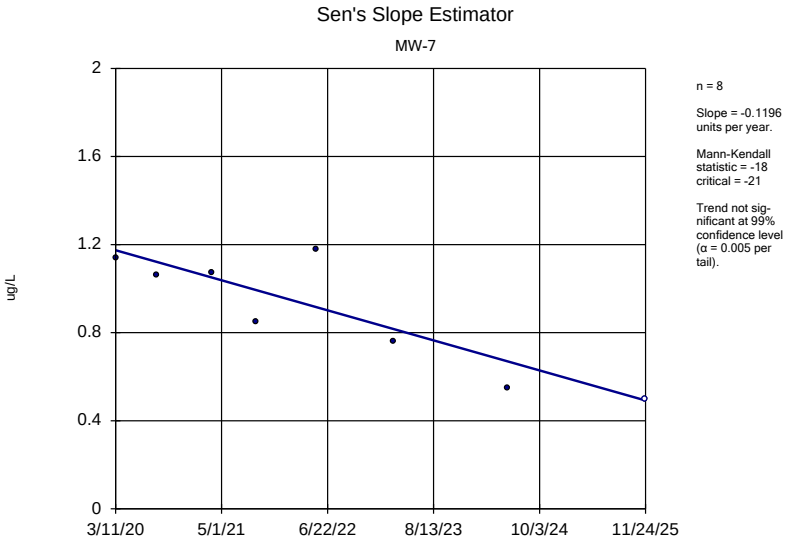




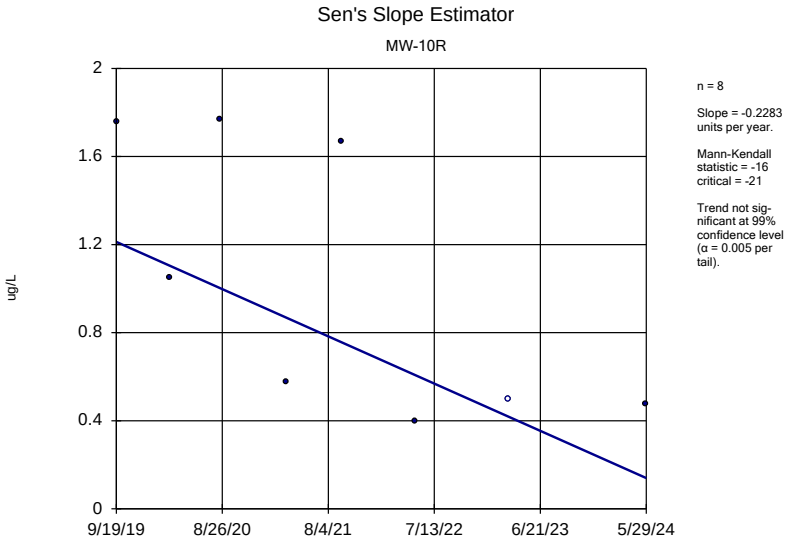
Constituent: Carbon Disulfide Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallAMAZP
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



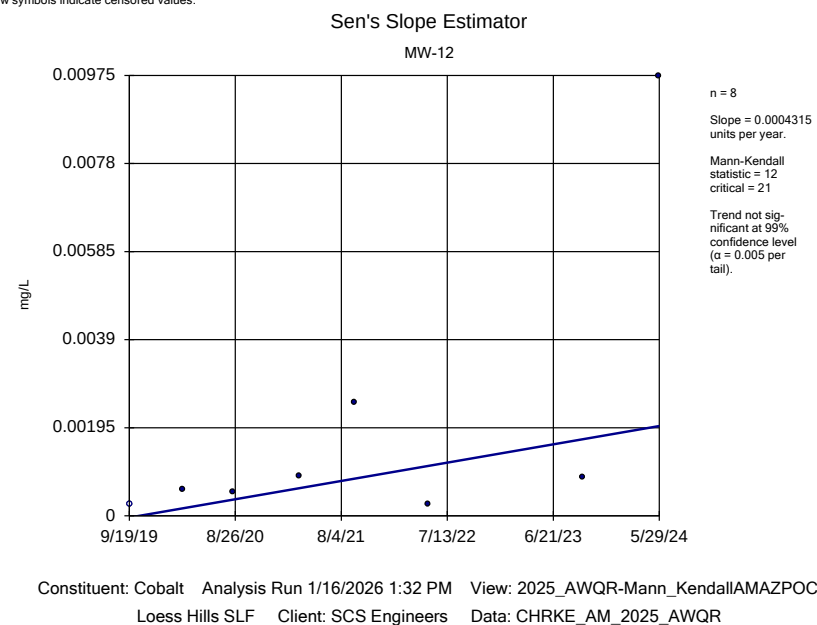
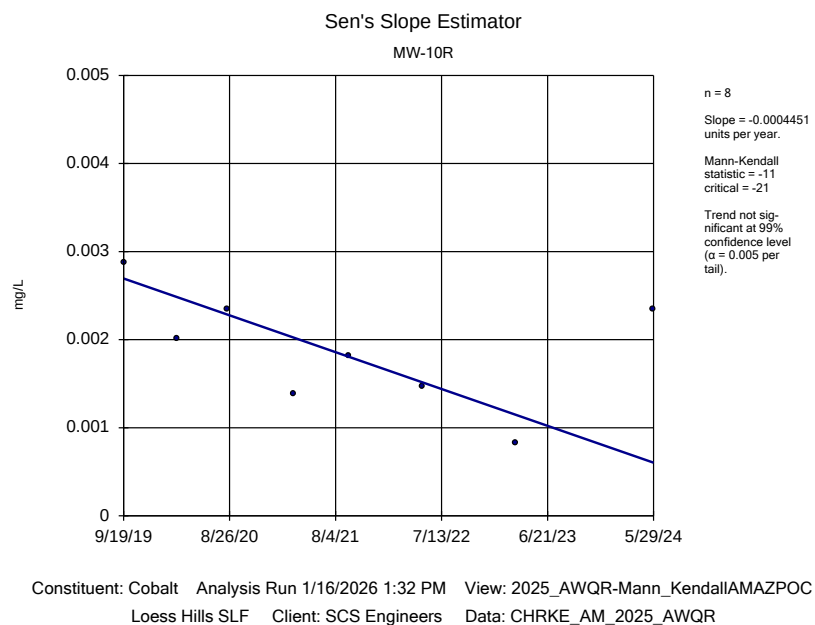
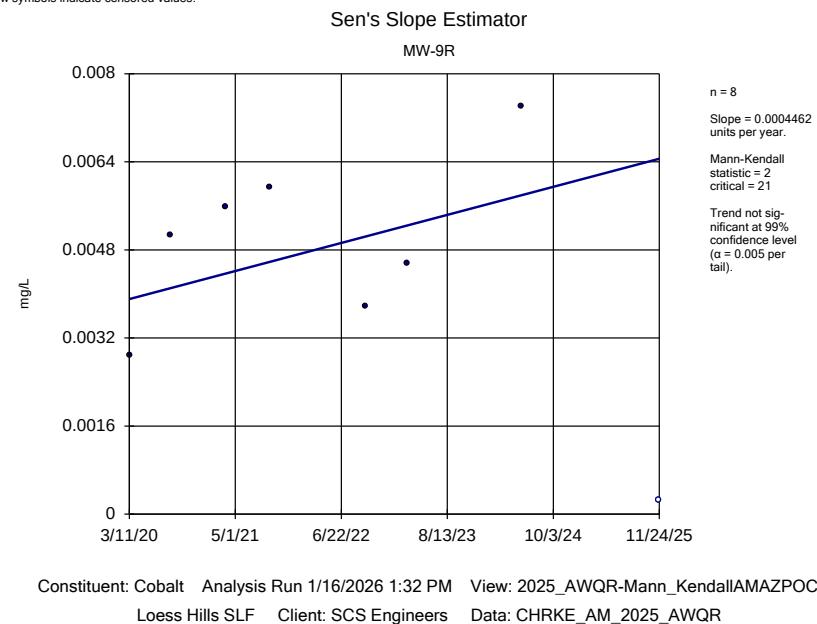
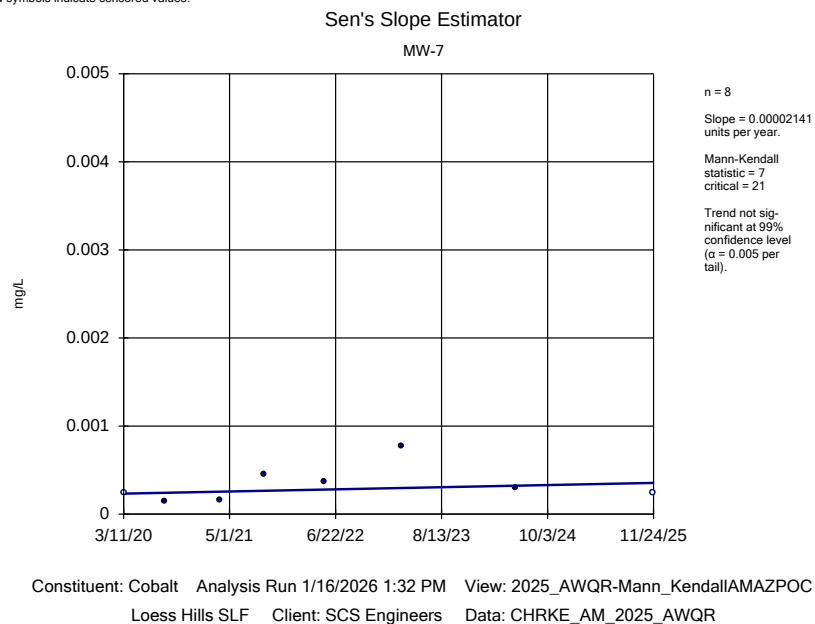
Constituent: Chlorobenzene Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallAMAZP
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

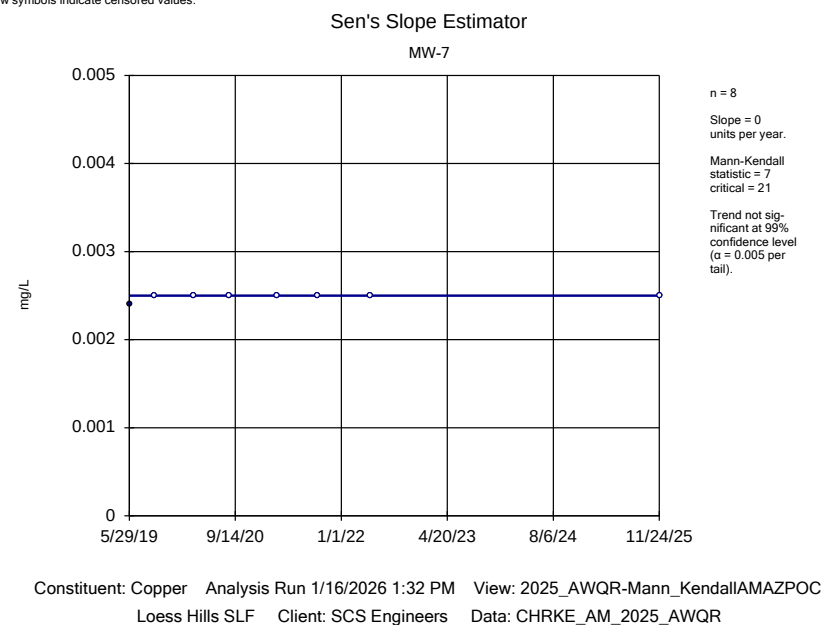
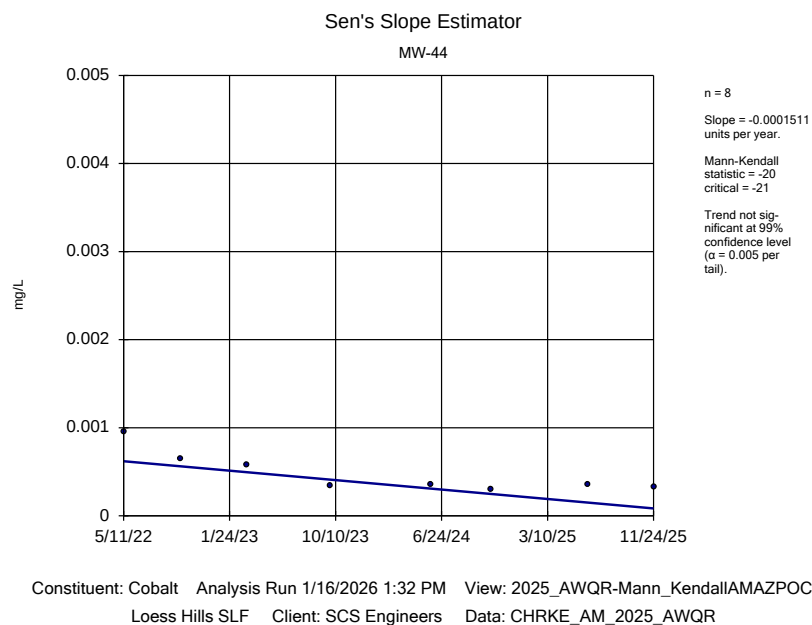
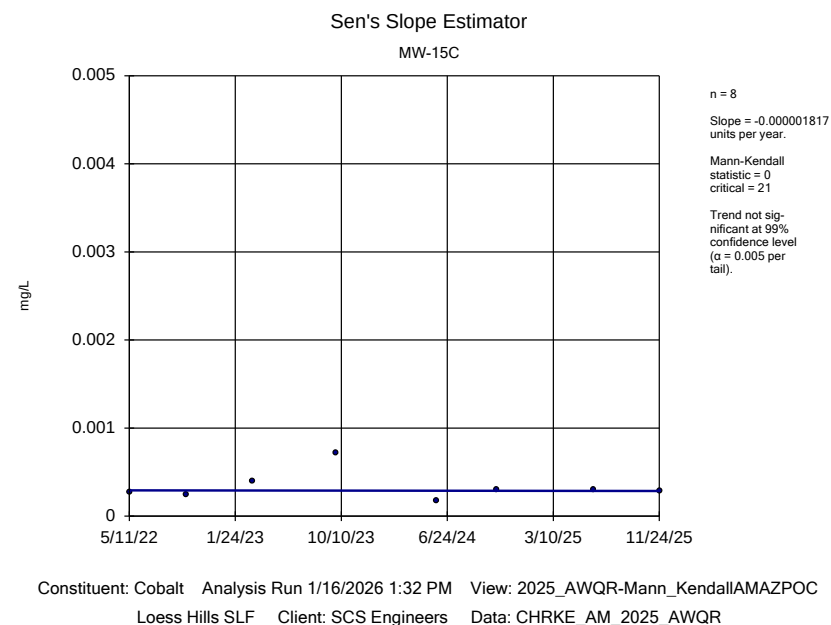
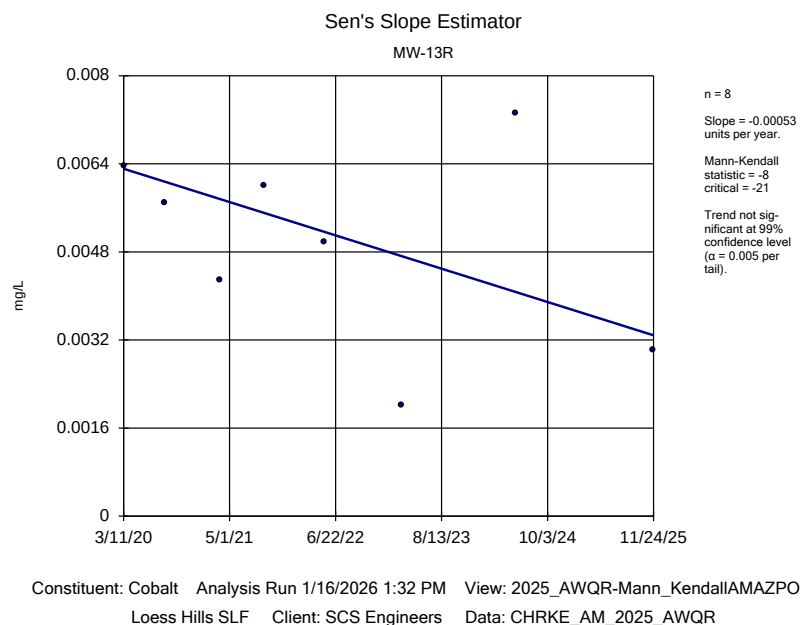


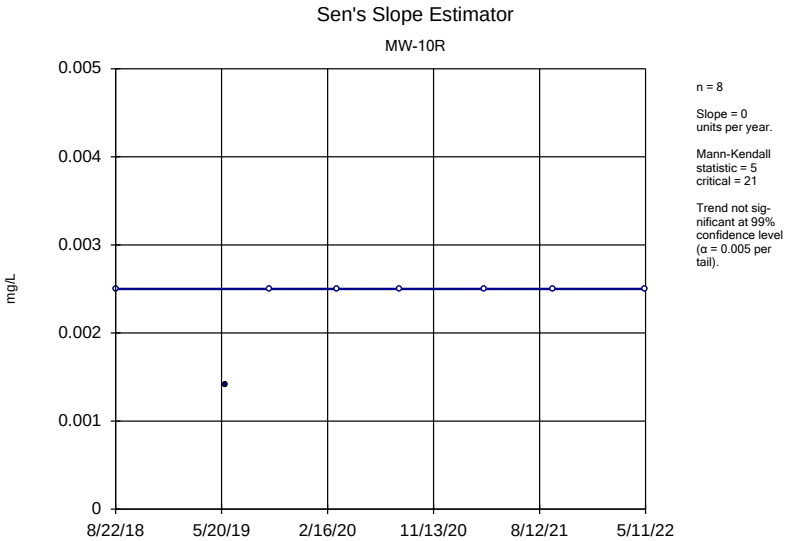
Constituent: cis-1,2-Dichloroethene Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallA
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



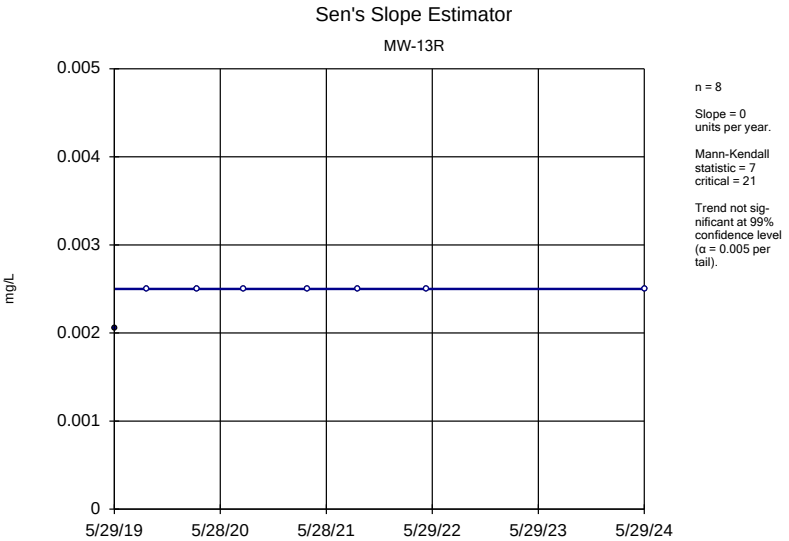
Constituent: cis-1,2-Dichloroethene Analysis Run 1/16/2026 1:32 PM View: 2025_AWQR-Mann_KendallA
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



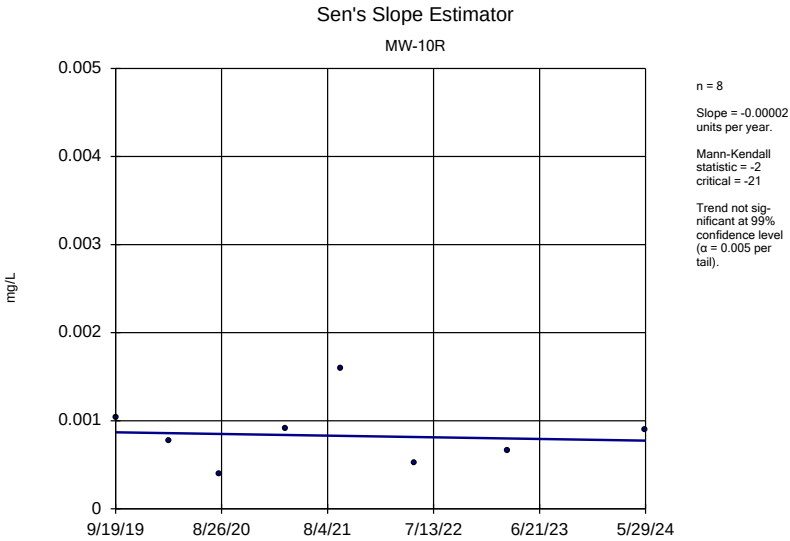




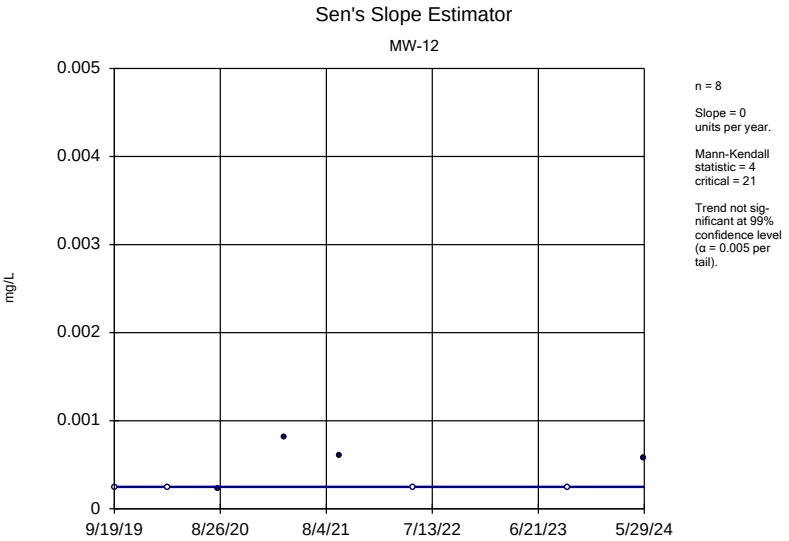
Constituent: Copper Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



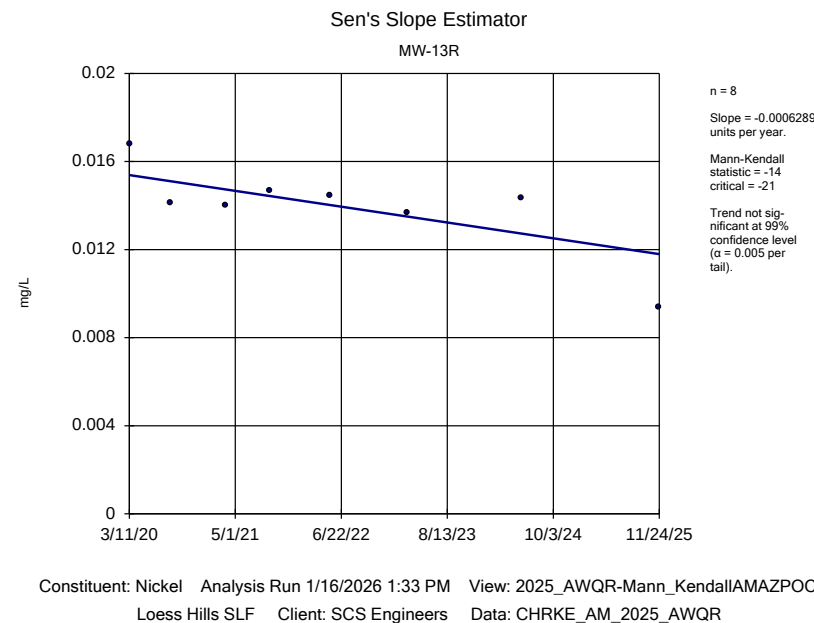
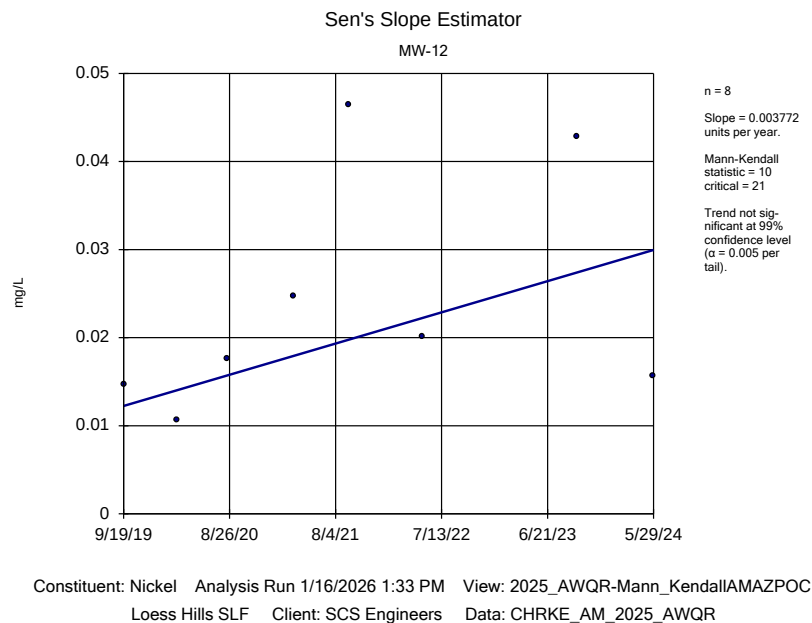
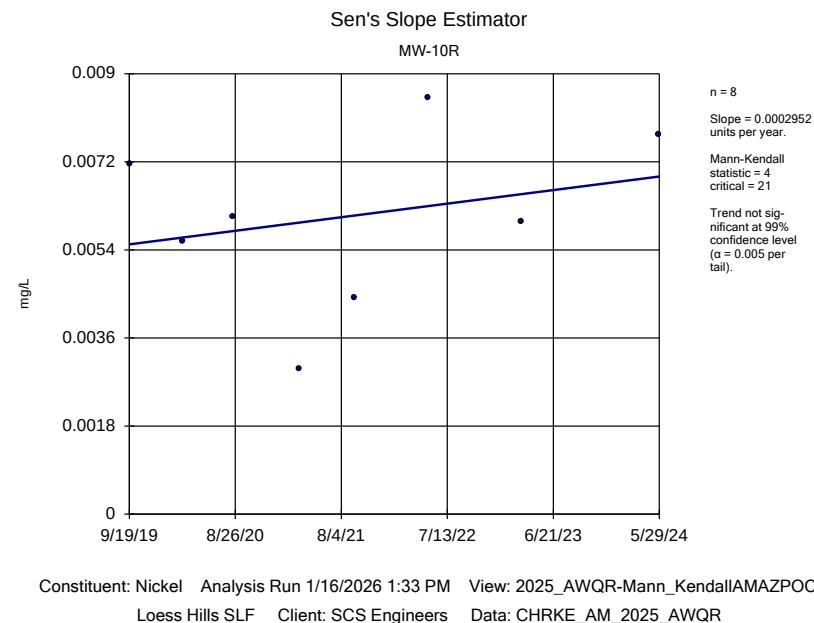
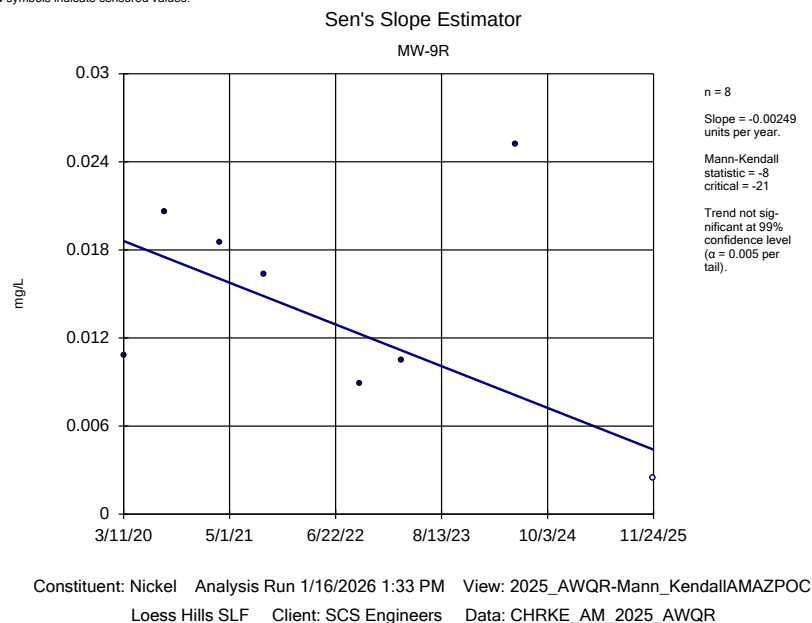
Constituent: Copper Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Lead Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

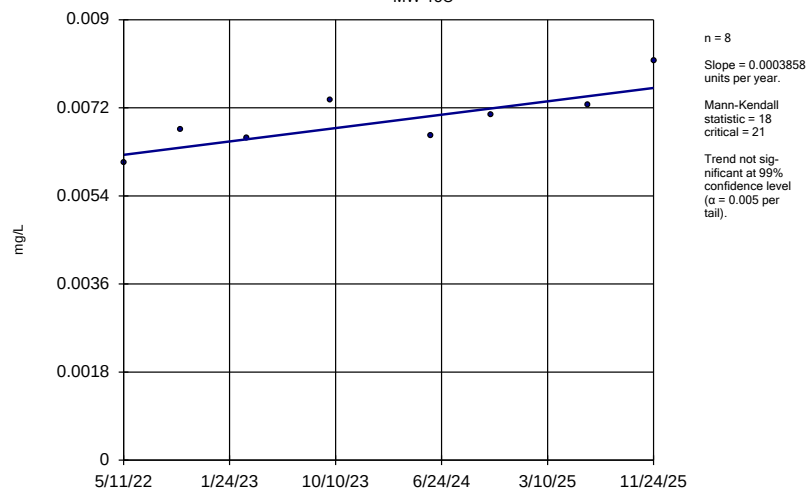


Constituent: Lead Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Sen's Slope Estimator

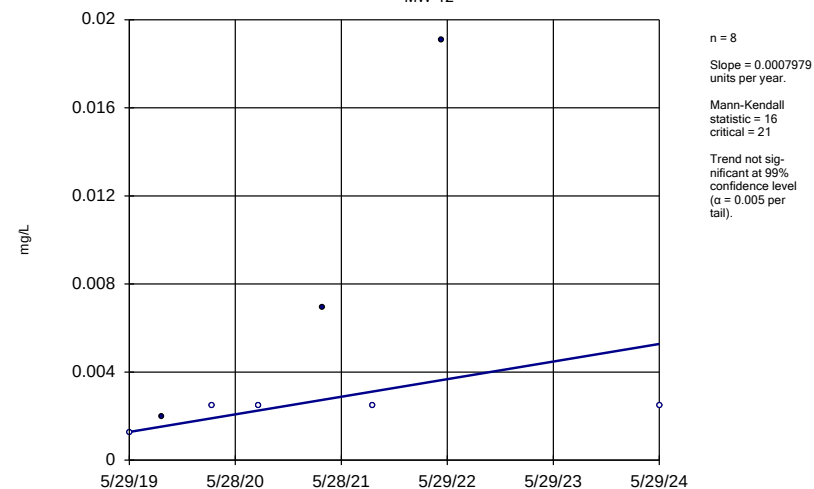
MW-15C



Constituent: Nickel Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Sen's Slope Estimator

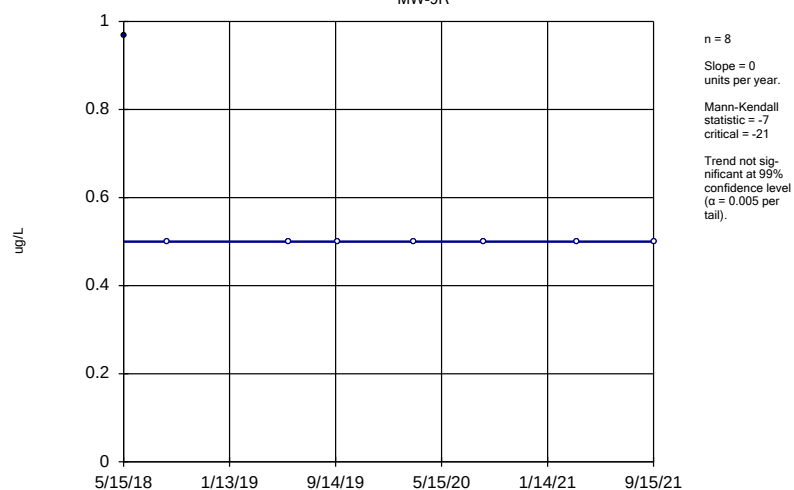
MW-12



Constituent: Selenium Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Sen's Slope Estimator

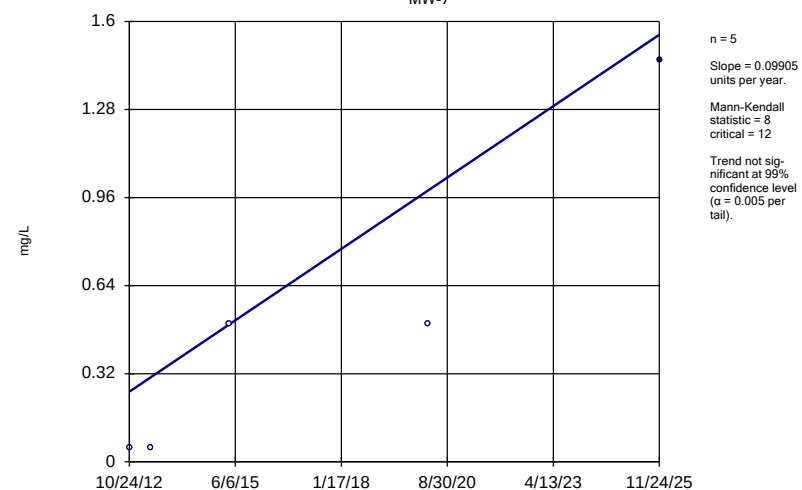
MW-9R



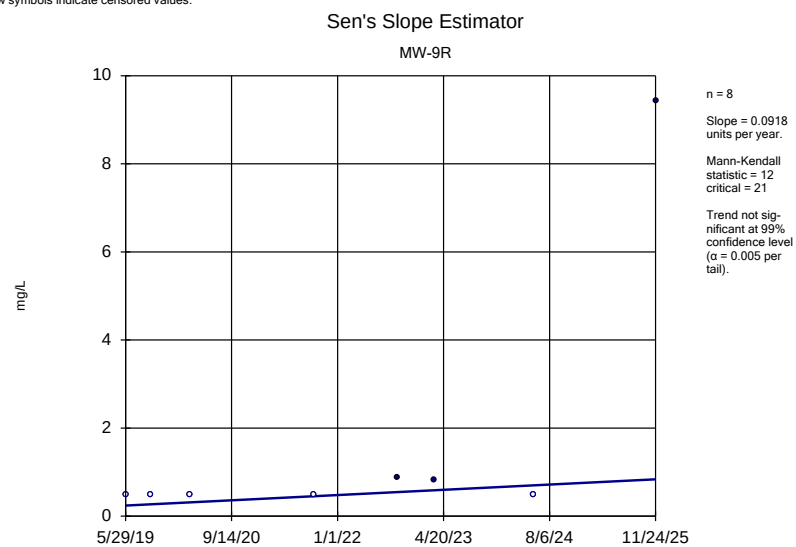
Constituent: Styrene Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Sen's Slope Estimator

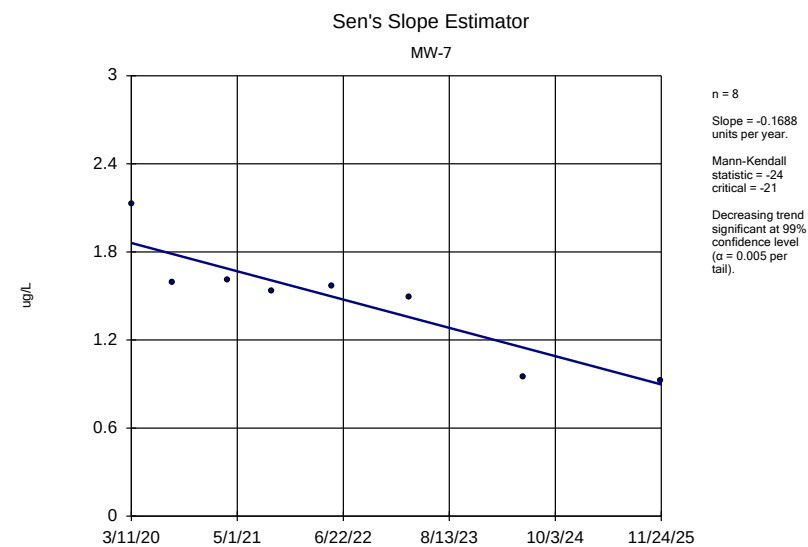
MW-7



Constituent: Sulfide Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Sulfide Analysis Run 1/16/2026 1:33 PM View: 2025_AWQR-Mann_KendallAMAZPOC
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



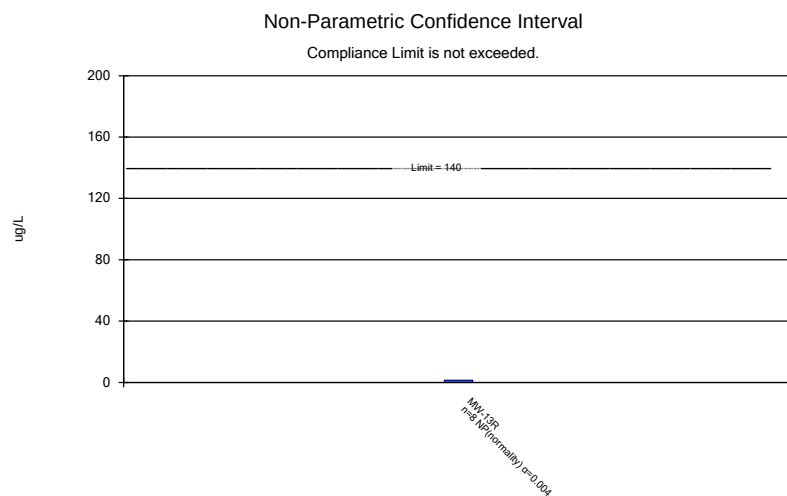
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Confidence Interval Summary Table and Graphs – Closed MSWLF Unit

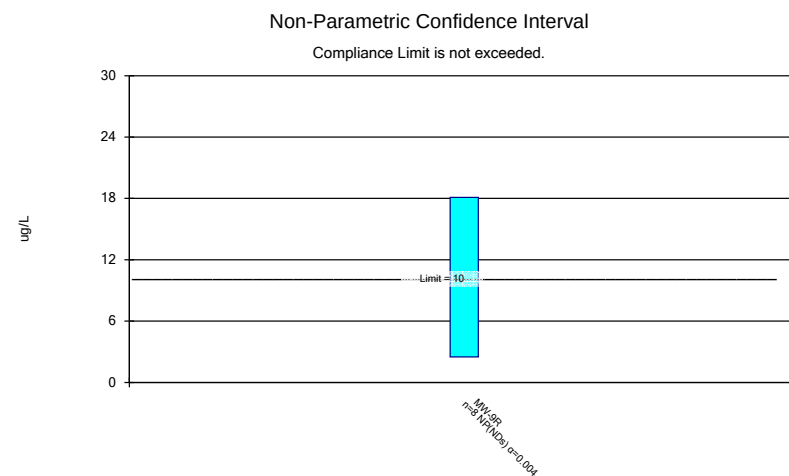
Confidence Interval

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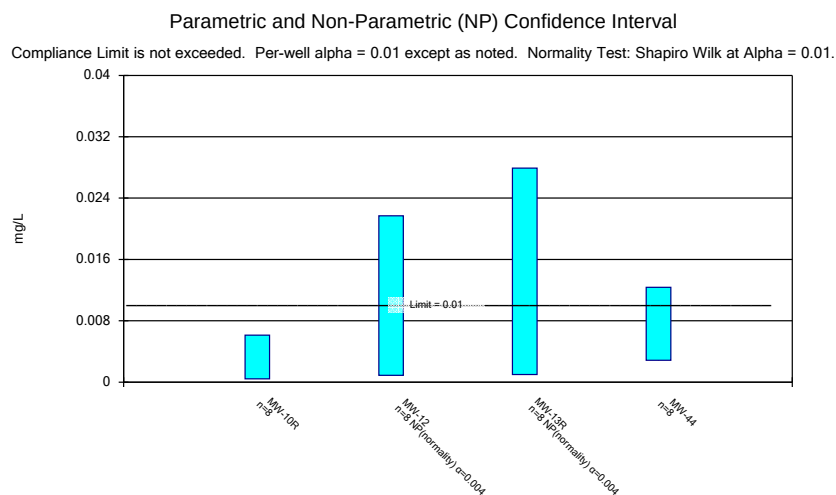
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
1,1-Dichloroethane (ug/L)	MW-13R	1.445	0.261	140	No	8	50	No	0.004	NP (normality)
Acrylonitrile (ug/L)	MW-9R	18.1	2.5	10	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-10R	0.006129	0.0004393	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	MW-12	0.0217	0.0008915	0.01	No	8	12.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-13R	0.0279	0.001	0.01	No	8	37.5	No	0.004	NP (normality)
Arsenic (mg/L)	MW-44	0.01237	0.002853	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-7	0.01801	0.01474	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-10R	0.1327	0.0887	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-12	0.678	0.0545	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-13R	0.2647	0.04272	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-15C	0.1114	0.07824	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-44	0.02066	0.01689	2	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-9R	0.0001556	0.0000683	0.0494	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-12	0.000582	0.00004	0.0494	No	8	50	No	0.004	NP (normality)
Cadmium (mg/L)	MW-15C	0.000103	0.0000715	0.0494	No	8	62.5	No	0.004	NP (NDs)
Carbon Disulfide (ug/L)	MW-9R	3.615	0.5	700	No	8	12.5	No	0.004	NP (normality)
Chlorobenzene (ug/L)	MW-13R	2.582	0.5764	100	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-7	1.17	0.6075	70	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-10R	1.681	0.3689	70	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-7	0.0005505	0.0001387	0.0074	No	8	25	No	0.01	Param.
Cobalt (mg/L)	MW-9R	0.006741	0.002126	0.0074	No	8	12.5	No	0.01	Param.
Cobalt (mg/L)	MW-10R	0.002579	0.001192	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-12	0.00975	0.000247	0.0074	No	8	12.5	No	0.004	NP (normality)
Cobalt (mg/L)	MW-13R	0.006842	0.003078	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-15C	0.0005083	0.000158	0.0074	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-44	0.000724	0.000242	0.0074	No	8	0	No	0.01	Param.
Copper (mg/L)	MW-7	0.0025	0.0024	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-10R	0.0025	0.001417	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-13R	0.0025	0.00206	1.3	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-10R	0.001239	0.0004569	0.0222	No	8	0	No	0.01	Param.
Lead (mg/L)	MW-12	0.000627	0.0001524	0.0222	No	8	50	No	0.01	Param.
Nickel (mg/L)	MW-9R	0.02192	0.006411	0.1	No	8	12.5	No	0.01	Param.
Nickel (mg/L)	MW-10R	0.00796	0.004153	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-12	0.03822	0.009929	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-13R	0.01613	0.01175	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-15C	0.007649	0.006326	0.1	No	8	0	No	0.01	Param.
Selenium (mg/L)	MW-12	0.0191	0.00125	0.05	No	8	62.5	No	0.004	NP (NDs)
Styrene (ug/L)	MW-9R	0.969	0.5	100	No	8	87.5	No	0.004	NP (NDs)
Sulfide (mg/L)	MW-7	1.46	0.05	1	No	5	80	No	0.031	NP (NDs)
Sulfide (mg/L)	MW-9R	9.44	0.5	1	No	8	62.5	No	0.004	NP (NDs)



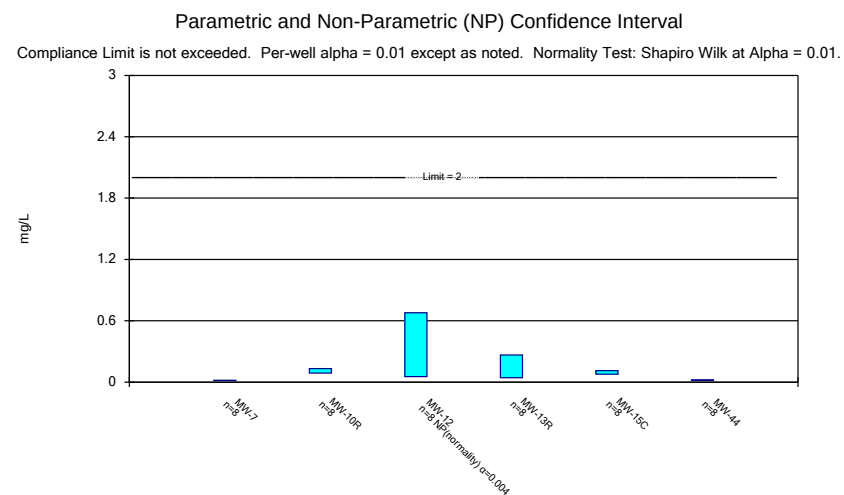
Constituent: 1,1-Dichloroethane Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Acrylonitrile Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



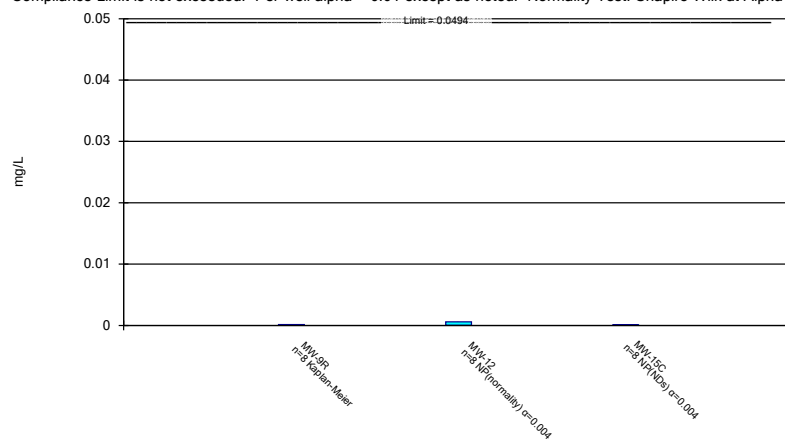
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Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Barium Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric and Non-Parametric (NP) Confidence Interval

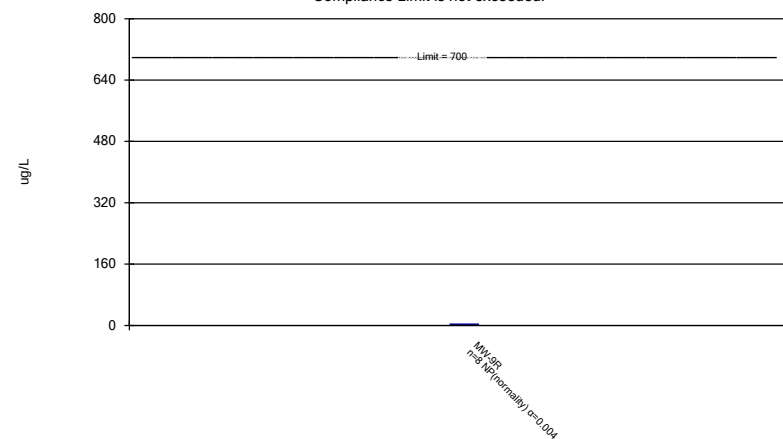
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Constituent: Cadmium Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Non-Parametric Confidence Interval

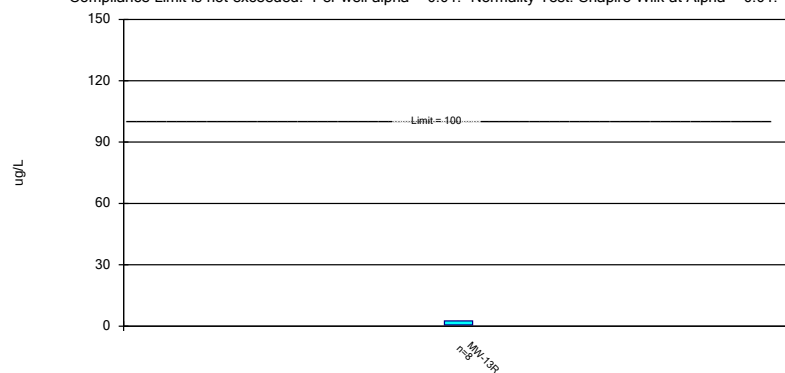
Compliance Limit is not exceeded.



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Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric Confidence Interval

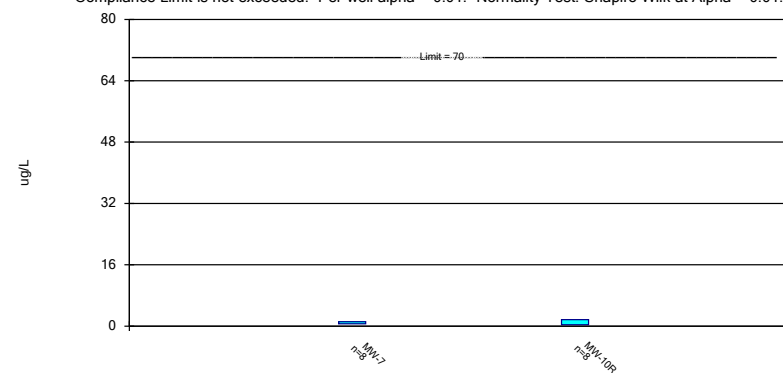
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chlorobenzene Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric Confidence Interval

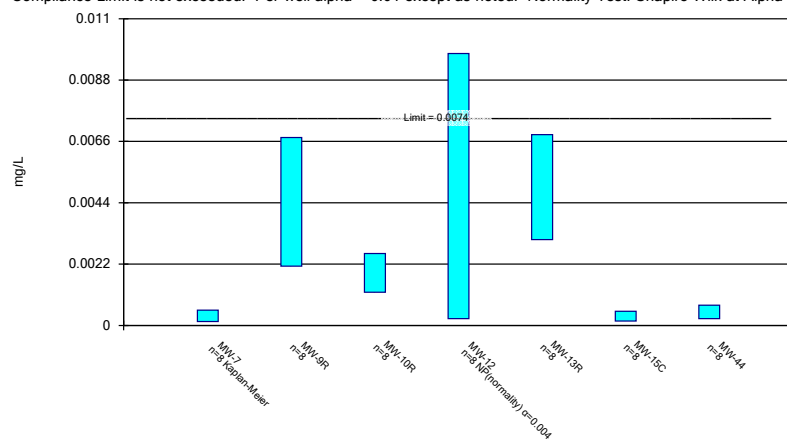
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Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric and Non-Parametric (NP) Confidence Interval

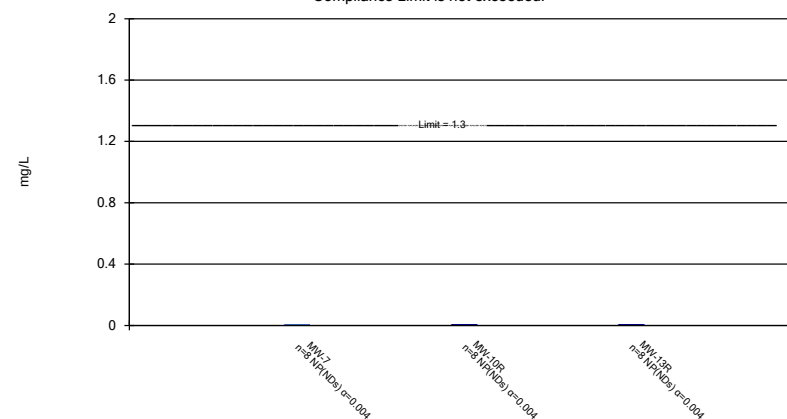
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Non-Parametric Confidence Interval

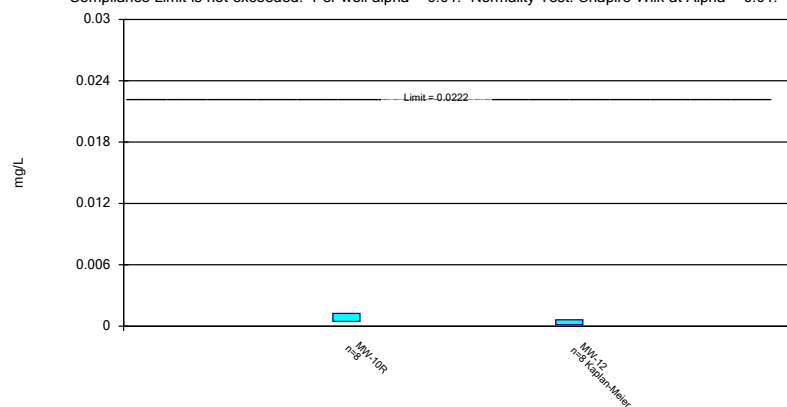
Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric Confidence Interval

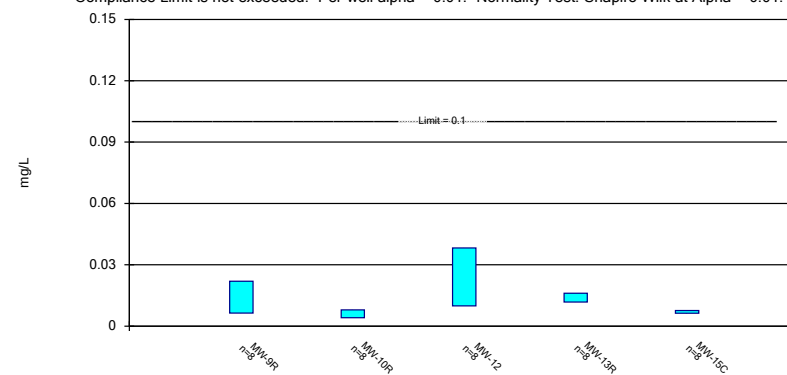
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



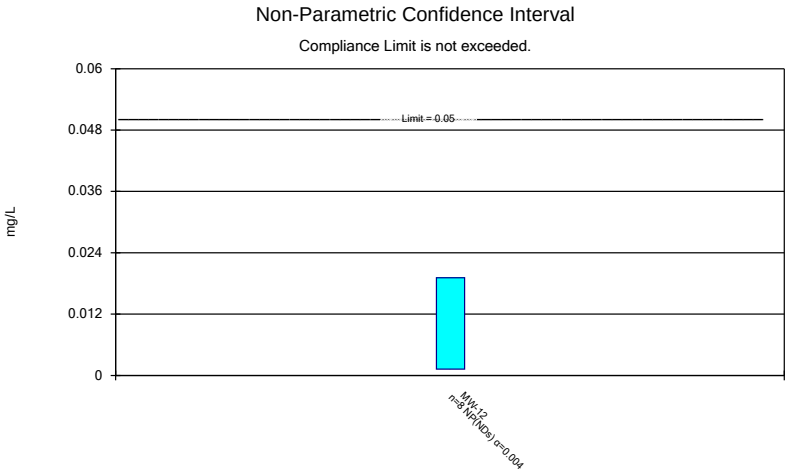
Constituent: Lead Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Parametric Confidence Interval

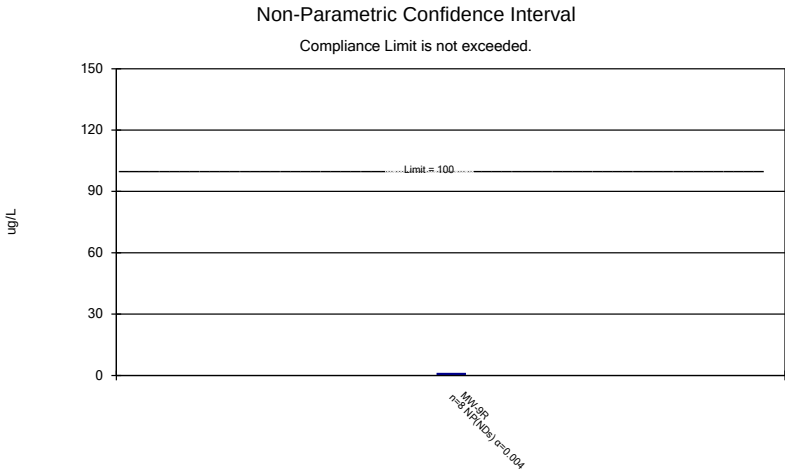
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



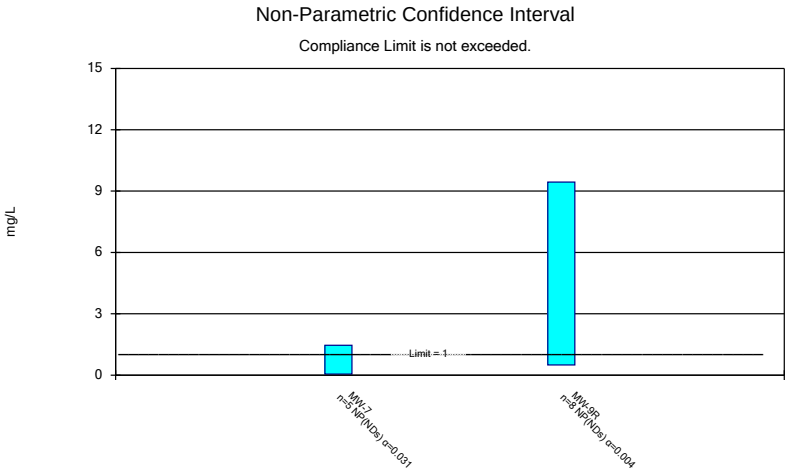
Constituent: Nickel Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Selenium Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Styrene Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



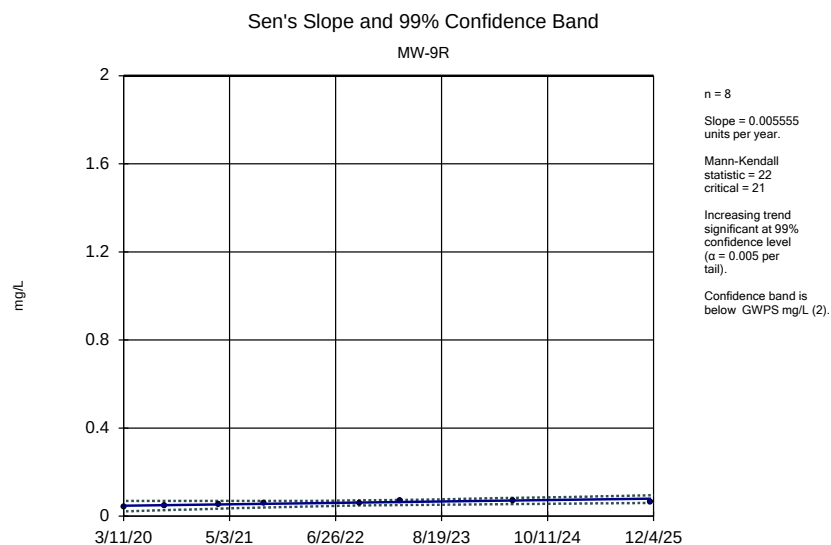
Constituent: Sulfide Analysis Run 1/16/2026 1:42 PM View: 2025_AWQR-Confidence_Interval
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Theil-Sen Summary Table and Graphs – Closed MSWLF Unit

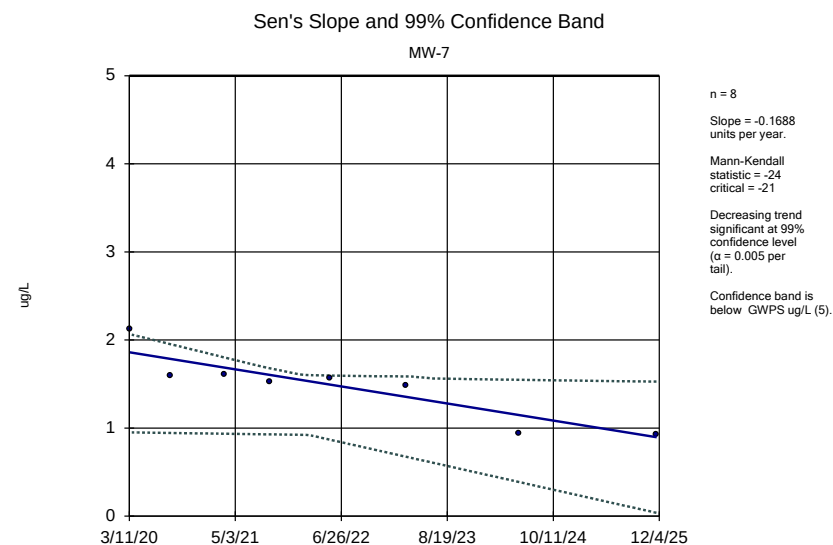
Theil Sen/Trend Test

Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR Printed 12/23/2025, 12:38 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>Alpha</u>	<u>Method</u>
Barium (mg/L)	MW-9R	0.005555	22	21	Yes	8	0	0.01	NP
Trichloroethene (ug/L)	MW-7	-0.1688	-24	-21	Yes	8	0	0.01	NP



Constituent: Barium Analysis Run 12/23/2025 12:33 PM View: 2025_AWQR-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR



Constituent: Trichloroethene Analysis Run 12/23/2025 12:33 PM View: 2025_AWQR-Theil_Sen
Loess Hills SLF Client: SCS Engineers Data: CHRKE_AM_2025_AWQR

Appendix E

2025 Leachate Control System Performance Evaluation Report

2025 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT

CHEROKEE COUNTY SANITARY LANDFILL

CHEROKEE, IOWA

SUBMITTAL DATE: FEBRUARY 2026

**PREPARED FOR:
CHEROKEE COUNTY SOLID WASTE COMMISSION**

**PREPARED BY:
SCS ENGINEERS**

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Figures

FIGURE 1 LEACHATE CONTROL SYSTEM

Attachments

ATTACHMENT A TABLE 12 – LEACHATE MANAGEMENT SUMMARY

ATTACHMENT B HISTORICAL LEACHATE COLUMN THICKNESS TABLES AND GRAPHS

ATTACHMENT C LEACHATE LABORATORY ANALYTICAL DATA SHEETS

Section 1.0

Leachate Control System

SCS Engineers (SCS), on behalf of the Cherokee County Solid Waste Commission (Commission), has prepared this Leachate Control System Performance Evaluation Report (LCSPER) for the Cherokee County Sanitary Landfill (Landfill). The purpose of this report is to evaluate the effectiveness of the leachate control system in place at the Landfill. This LCSPER was prepared in general accordance with the requirements of Iowa Administrative Code (IAC) 567-113.7"b"(14)," the site operating permit and subsequent applicable permit revisions, and additional Iowa Department of Natural Resources (DNR) requirements. This LCSPER describes the leachate control system monitoring program, provides an evaluation of the effectiveness of the system, and, if necessary, provides recommendations for additional control measures. The reporting period is January 2025 to December 2025.

1.1 Location of Control System

The Landfill property is depicted in **Figure 1**, Leachate Control System. The Landfill is located north of Linden Street, adjacent to the southeastern city limits of the City of Cherokee. The legal description is W ½ of the SW ¼, Section 36, Township 92 North, Range 40 West, in Cherokee County, Iowa.

1.1.1 Closed Unlined Area

The Closed MSWLF unit requires that leachate levels be maintained at a minimal practical head as it does not have a Subtitle D-compliant liner and does not have a leachate drainage layer. The leachate control monitoring system consists of three leachate piezometers: LM-1 (South), LM-2 (North), and LM-3 (Middle). Leachate piezometer LM-1 was approved to be abandoned by the DNR in correspondence dated April 18, 2017 (Doc #89136). The leachate control system consists of three extraction wells (EW-1, EW-2, and EW-3) along the ravine underlying the Original Landfill Area and Area B, which discharge to the leachate lagoon west of Area B. Two of the leachate extraction wells continue to run. The leachate head levels are monitored using piezometers LM-2 (North) and LM-3 (Middle).

1.1.2 Open Subtitle D Area

Phase A of the Open MSWLF unit was constructed with a bottom liner and a leachate collection system. The liner and leachate collection system of each cell slopes downward to the south end of the waste boundary where leachate gravity drains to a lift station, which then pumps the leachate to the leachate lagoon. The leachate head in the Phase A cells of the Open MSWLF unit is monitored by measuring the liquid depth in leachate piezometers LM-A1, LM-A2, LM-A3, LM-A4, LM-A5, and LM-A6. Pursuant to IAC 567-113.7(5)"b"(3), the *"MSWLF unit shall have a leachate collection system that maintains less than a 30-centimeter (i.e., 12-inch) depth of leachate over the liner."*

1.2 Effectiveness of the Leachate System

1.2.1 Closed Unlined Area

Table 12 in Attachment A provides monthly leachate column thicknesses for the closed unlined area of the Landfill. Table B.1 in Attachment B provides a table and graphs of the leachate measurement points for the period of record. The leachate column thickness in leachate piezometer LM-2 was within the historical range throughout this reporting period, with thicknesses ranging from 13.8 feet to 15.5 feet. An obstruction was noted in leachate piezometer LM-3, which prevented a level measurement from being taken. An attempt to clear the obstruction will be made in 2026.

1.2.2 Open Subtitle D Area

Table 12 in Attachment A provides monthly leachate column thicknesses for the open Subtitle D area. Table B.1 in Attachment B provides a table and graphs of the leachate measurement points for the period of record.

The leachate column thicknesses in the Open MSWLF unit leachate piezometers LM-A1, LM-A2, LM-A3, LM-A4, LM-A5, LM-A6 remained below 12 inches throughout this reporting period.

1.3 Approved Changes to System

No approved changes to the system occurred during this reporting period.

1.4 Proposed Changes to System

SCS recommends continuing to perform the following items to maintain the effectiveness of the leachate control system:

- Continue monthly monitoring of the leachate levels as required in the facility permit.
- Maintain good vegetation over the final cover and intermediate cover over the inactive areas.
- Continue operation and maintenance of the leachate control system in accordance with the approved Leachate Control System Plan.
- Continue recording the volume of leachate disposed of at the City of Cherokee publicly-owned treatment works (POTW). 1,492,400 gallons of leachate were hauled to the POTW during this reporting period. Leachate analytical testing results are included in Attachment C.
- Continue recording the volume of leachate recirculated in the Open MSWLF unit. No leachate was recirculated during this reporting period.
- Continue cleaning the leachate collection system once every three years, or more frequently if leachate head or the volume of leachate collected indicates cleaning is necessary. Cleaning of the leachate collection system last occurred in May 2023 and will occur next in 2026.

Attachment A

Table 12 – Leachate Management Summary

Table 12
Leachate Management Summary
2025 Leachate Control System Performance Evaluation Report
Cherokee County Landfill
Permit No. 18-SDP-01-75P

Unlined Cells - Column Thickness (ft)			Lined Cells - Maximum Head on Liner (ft)						Volume Recirculated (gal)	Discharged to City of Cherokee WWTP (gal)	Precipitation (in)
Month	LM-2	LM-3	LM-A1	LM-A2	LM-A3	LM-A4	LM-A5	LM-A6			
1/2025	13.8	NM	0.0	0.0	0.0	0.1	0.1	0.1		0	0.18
2/2025	14.1	NM	0.0	0.0	0.0	0.1	0.1	0.1		50,400	0.37
3/2025	14.2	NM	0.0	0.0	0.0	0.1	0.1	0.1		173,600	0.93
4/2025	15.0	NM	0.2	0.3	0.1	0.1	0.1	0.1		224,000	0.93
5/2025	15.5	NM	0.1	0.1	0.1	0.1	0.1	0.2		14,000	1.54
6/2025	14.8	NM	0.1	0.0	0.0	0.1	0.1	0.1		210,000	5.33
7/2025	15.2	NM	0.1	0.0	0.0	0.1	0.1	0.2		140,000	9.36
8/2025	15.6	NM	0.1	0.1	0.0	0.1	0.1	0.3		308,000	4.44
9/2025	15.4	NM	0.1	0.1	0.0	0.2	0.1	0.2		218,400	0.13
10/2025	15.0	NM	0.1	0.0	0.0	0.1	0.1	0.2		0	1.51
11/2025	14.5	NM	0.1	0.0	0.0	0.1	0.1	0.1		154,000	0.71
12/2025	13.9	NM	0.1	0.0	0.0	0.1	0.1	0.4		0	0.24
January 2025 - December 2025 Total Gallons									0	1,492,400	25.67

Notes:

Leachate levels measured by Landfill staff.

NM - Not Measured: An obstruction in LM-3 was noted during this reporting period. An attempt to clear the obstruction will be made in 2026.

Comments:

1. Reporting Period: January 2025 - December 2025.
2. Recommended Changes to Leachate Collection System: None.
3. Maintenance Performed on Leachate Collection System: See Narrative.
4. Last Date of Cleaning and Inspection: May 2023.
5. Date for Next Cleaning and Inspection: Leachate line cleaning and inspection will be performed next in 2026.
6. Volume of Leachate Recirculated: Leachate was not recirculated during this reporting period.
7. Volume of Leachate Treated On-Site: Leachate is not treated on-site at this facility.
8. Volume of Leachate Treated Off-Site: 1,492,400 gallons of leachate were transported for treatment off-site during this reporting period.
9. Precipitation data from https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php 2025 for Cherokee, Iowa, with the exception of January and February precipitation data coming from Sioux City, IA.

Attachment B

Historical Leachate Column Thickness Tables and Graphs

Table B.1
HISTORICAL LEACHATE COLUMN THICKNESSES AND ELEVATIONS
Cherokee County Sanitary Landfill
Permit No. 18-SDP-01-75P

Leachate Piezometer	LM-2 (North)		LM-3 (Middle)		LM-A1 (South)		LM-A2 (South)		LM-A3 (South)		LM-A4 (South)		LM-A5 (South)		LM-A6 (South)	
CONSTRUCTED WELL DEPTH	32.00		31.52		20.00		21.30		9.10		11.20		14.10			
Leachate Level & Leachate Column Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)	Leachate Level	Leachate Thickness (feet)
November-11	17.45	14.55	25.30	6.22	15.40	0.10	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
December-11	17.44	14.56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NI	NA	NI	NA
January-12	14.50	17.50	24.80	6.72	15.50	0.00	15.00	0.50	5.52	0.00	6.00	0.00	NI	NA	NI	NA
February-12	14.50	17.50	24.10	7.42	14.95	0.55	14.75	0.75	5.52	0.00	6.00	0.00	NI	NA	NI	NA
March-12	17.50	14.50	24.35	7.17	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
April-12	17.65	14.35	24.70	6.82	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
May-12	17.60	14.40	25.90	5.62	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
June-12	18.00	14.00	26.00	5.52	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
July-12	18.10	13.90	26.20	5.32	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
August-12	18.80	13.20	26.15	5.37	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
September-12	19.30	12.70	26.35	5.17	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
October-12	19.40	12.60	26.65	4.87	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
November-12	22.00	10.00	26.40	5.12	15.50	0.00	15.50	0.00	5.55	-0.03	6.00	0.00	NI	NA	NI	NA
December-12	20.00	12.00	26.45	5.07	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
January-13	19.75	12.25	26.80	4.72	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
February-13	19.90	12.10	26.95	4.57	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
March-13	19.50	12.50	26.80	4.72	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
April-13	20.20	11.80	26.65	4.87	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
May-13	19.75	12.25	26.35	5.17	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
June-13	19.60	12.40	26.65	4.87	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
July-13	19.85	12.15	26.80	4.72	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
August-13	20.60	11.40	26.55	4.97	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
September-13	21.30	10.70	26.45	5.07	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
October-13	20.90	11.10	26.30	5.22	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
November-13	20.80	11.20	26.50	5.02	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
December-13	20.60	11.40	26.60	4.92	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
January-14	20.75	11.25	26.70	4.82	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
February-14	20.60	11.40	NA	NA	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
March-14	20.85	11.15	27.10	4.42	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
April-14	20.70	11.30	27.00	4.52	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
May-14	21.40	10.60	26.90	4.62	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
June-14	21.30	10.70	26.70	4.82	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
July-14	21.20	10.80	26.70	4.82	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
August-14	21.25	10.75	26.90	4.62	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
September-14	21.25	10.75	26.70	4.82	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
October-14	21.05	10.95	26.95	4.57	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
November-14	21.45	10.55	27.20	4.32	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
December-14	21.20	10.80	26.80	4.72	15.50	0.00	15.50	0.00	5.52	0.00	6.00	0.00	NI	NA	NI	NA
January-15	21.25	10.75	26.90	4.62	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
February-15	21.40	10.60	27.05	4.47	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
March-15	20.90	11.10	26.95	4.57	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
April-15	20.95	11.05	26.50	5.02	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
May-15	20.80	11.20	26.65	4.87	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
June-15	20.95	11.05	26.50	5.02	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
July-15	21.40	10.60	26.25	5.27	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
August-15	21.20	10.80	26.90	4.62	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
September-15	20.75	11.25	27.40	4.12	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
October-15	20.75	11.25	27.85	3.67	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
November-15	20.70	11.30	26.90	4.62	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
December-15	20.50	11.50	26.70	4.82	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
January-16	20.40	11.60	26.10	5.42	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
February-16	20.60	11.40	26.60	4.92	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
March-16	20.20	11.80	25.80	5.72	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
April-16	20.15	11.85	26.10	5.42	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
May-16	20.00	12.00	26.50	5.02	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
June-16	20.60	11.40	26.70	4.82	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
July-16	20.65	11.35	26.95	4.57	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
August-16	20.80	11.20	27.40	4.12	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
September-16	20.20	11.80	27.30	4.22	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	NI	NA	NI	NA
October-16	19.85	12.15	27.50	4.02	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	9.30	0.00	NI	NA
November-16	20.20	11.80	27.60	3.92	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	9.30	0.00	NI	NA
December-16	20.75	11.25	26.85	4.67	20.00	0.00	21.30	0.00	9.10	0.00	11.20	0.00	9.30	0.00	NI	NA

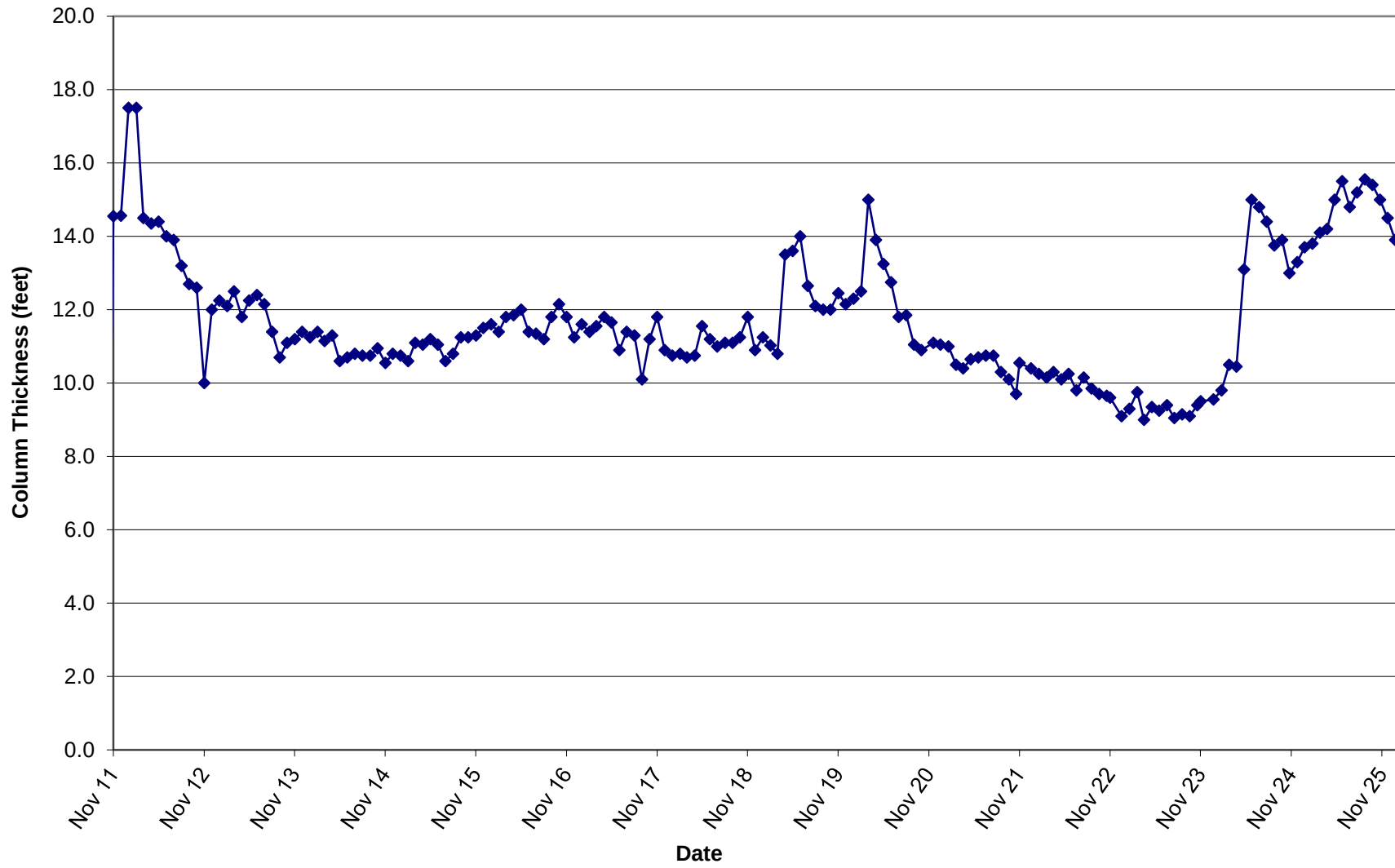
Table B.1
HISTORICAL LEACHATE COLUMN THICKNESSES AND ELEVATIONS
Cherokee County Sanitary Landfill
Permit No. 18-SDP-01-75P

Leachate Piezometer	LM-2 (North)		LM-3 (Middle)		LM-A1 (South)		LM-A2 (South)		LM-A3 (South)		LM-A4 (South)		LM-A5 (South)		LM-A6 (South)	
January-22	21.75	10.25	27.60	3.92	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
February-22	21.85	10.15	27.55	3.97	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
March-22	21.70	10.30	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
April-22	21.90	10.10	27.65	3.87	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
May-22	21.75	10.25	27.60	3.92	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
June-22	22.20	9.80	27.30	4.22	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
July-22	21.85	10.15	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
August-22	22.15	9.85	27.55	3.97	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
September-22	22.30	9.70	27.75	3.77	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
October-22	22.35	9.65	27.70	3.82	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
November-22	22.40	9.60	27.80	3.72	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.40	0.03
December-22	22.90	9.10	27.85	3.67	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	0.60	0.05
January-23	22.70	9.30	28.10	3.42	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
February-23	22.25	9.75	27.65	3.87	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
March-23	23.00	9.00	27.60	3.92	Dry	0.00	21.00	0.30	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00
April-23	22.65	9.35	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	NM	NA
May-23	22.75	9.25	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	2.60	0.22
June-23	22.60	9.40	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	5.60	0.47
July-23	22.95	9.05	27.50	4.02	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.70	0.31
August-23	22.85	9.15	27.70	3.82	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.70	0.31
September-23	22.90	9.10	27.60	3.92	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.90	0.33
October-23	22.60	9.40	27.40	4.12	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	4.50	0.38
November-23	22.50	9.50	27.40	4.12	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.20	0.27
December-23	22.45	9.55	27.60	3.92	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.20	0.27
January-24	22.20	9.80	27.40	4.12	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.70	0.31
February-24	21.50	10.50	27.20	4.32	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.20	0.27
March-24	21.55	10.45	27.65	3.87	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	Dry	0.00	3.20	0.27
April-24	18.90	13.10	27.60	3.92	19.85	0.15	21.10	0.20	8.75	0.35	Dry	0.00	13.90	0.20	3.90	0.33
May-24	17.00	15.00	27.45	4.07	19.30	0.70	21.00	0.30	9.00	0.10	11.10	0.10	13.35	0.75	3.70	0.31
June-24	17.20	14.80	27.10	4.42	19.55	0.45	21.25	0.05	8.80	0.30	11.10	0.10	13.45	0.65	3.20	0.27
July-24	17.60	14.40	27.10	4.42	19.90	0.10	Dry	0.00	8.85	0.25	11.10	0.10	14.00	0.10	1.90	0.16
August-24	18.25	13.75	27.20	4.32	19.90	0.10	Dry	0.00	8.85	0.25	11.10	0.10	14.00	0.10	1.10	0.09
September-24	18.10	13.90	27.10	4.42	Dry	0.00	Dry	0.00	8.90	0.20	11.10	0.10	14.00	0.10	1.00	0.08
October-24	19.00	13.00	NM	NA	Dry	0.00	Dry	0.00	8.90	0.20	11.10	0.10	14.00	0.10	0.20	0.02
November-24	18.70	13.30	NM	NA	Dry	0.00	21.00	0.30	8.90	0.20	11.10	0.10	14.00	0.10	0.40	0.03
December-24	18.30	13.70	NM	NA	Dry	0.00	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	0.40	0.03
January-25	18.20	13.80	NM	NA	Dry	0.00	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	0.60	0.05
February-25	17.90	14.10	NM	NA	Dry	0.00	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	0.80	0.07
March-25	17.80	14.20	NM	NA	Dry	0.00	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	0.80	0.07
April-25	17.00	15.00	NM	NA	19.80	0.20	21.00	0.30	9.00	0.10	11.10	0.10	14.00	0.10	0.80	0.07
May-25	16.50	15.50	NM	NA	19.90	0.10	21.20	0.10	9.00	0.10	11.10	0.10	14.00	0.10	2.20	0.18
June-25	17.20	14.80	NM	NA	19.90	0.10	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	1.30	0.11
July-25	16.80	15.20	NM	NA	19.90	0.10	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	2.60	0.22
August-25	16.45	15.55	NM	NA	19.90	0.10	21.20	0.10	Dry	0.00	11.10	0.10	14.00	0.10	3.50	0.29
September-25	16.60	15.40	NM	NA	19.90	0.10	21.25	0.05	Dry	0.00	11.00	0.20	14.00	0.10	2.40	0.20
October-25	17.00	15.00	NM	NA	19.90	0.10	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	1.90	0.16
November-25	17.50	14.50	NM	NA	19.90	0.10	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	1.50	0.13
December-25	18.10	13.90	NM	NA	19.90	0.10	Dry	0.00	Dry	0.00	11.10	0.10	14.00	0.10	5.00	0.42

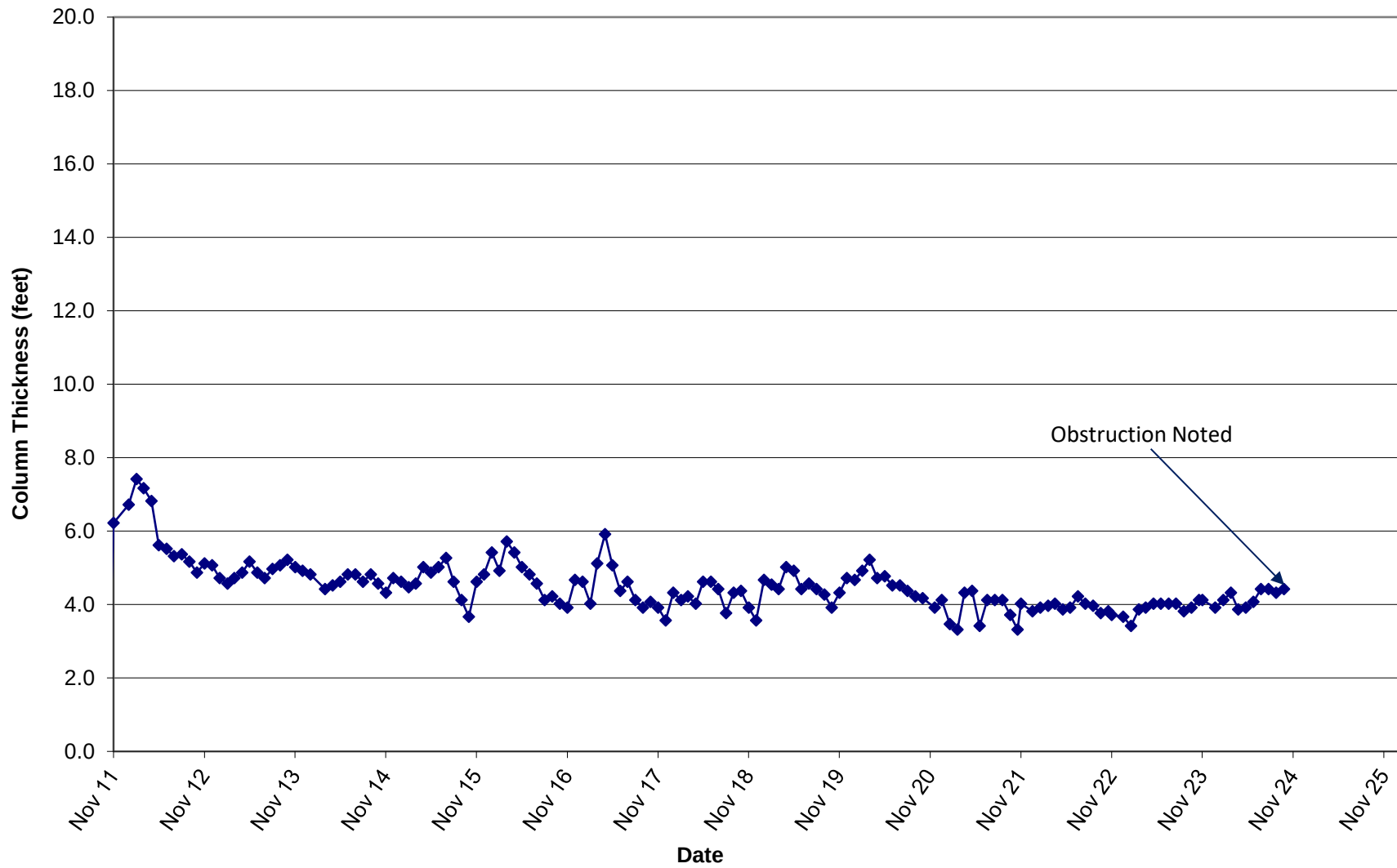
Measurements collected by Landfill staff.

* Levels not available due to heavy snow blocking access to the piezometers.

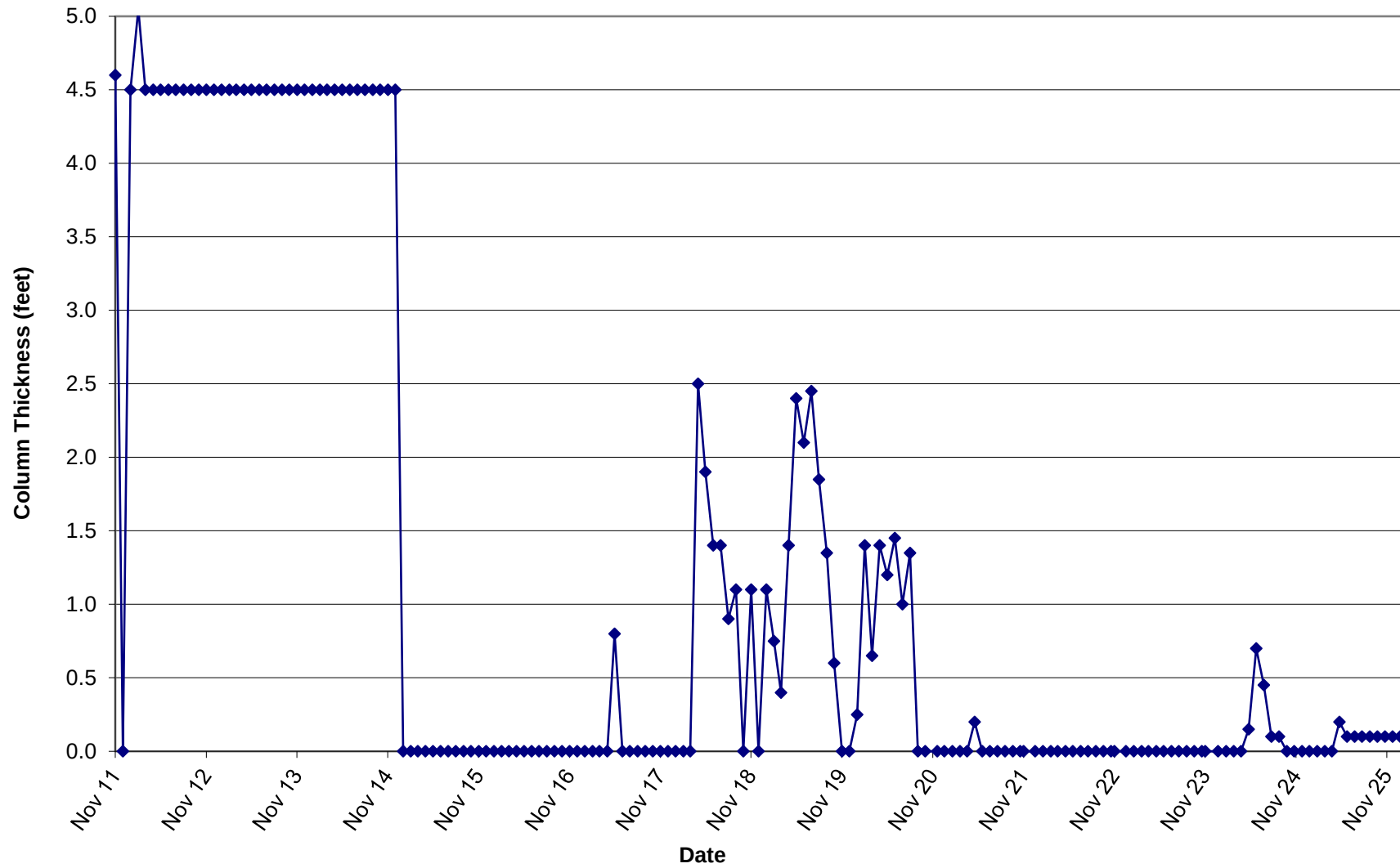
LM-2 (North) Historical Leachate Column Thicknesses



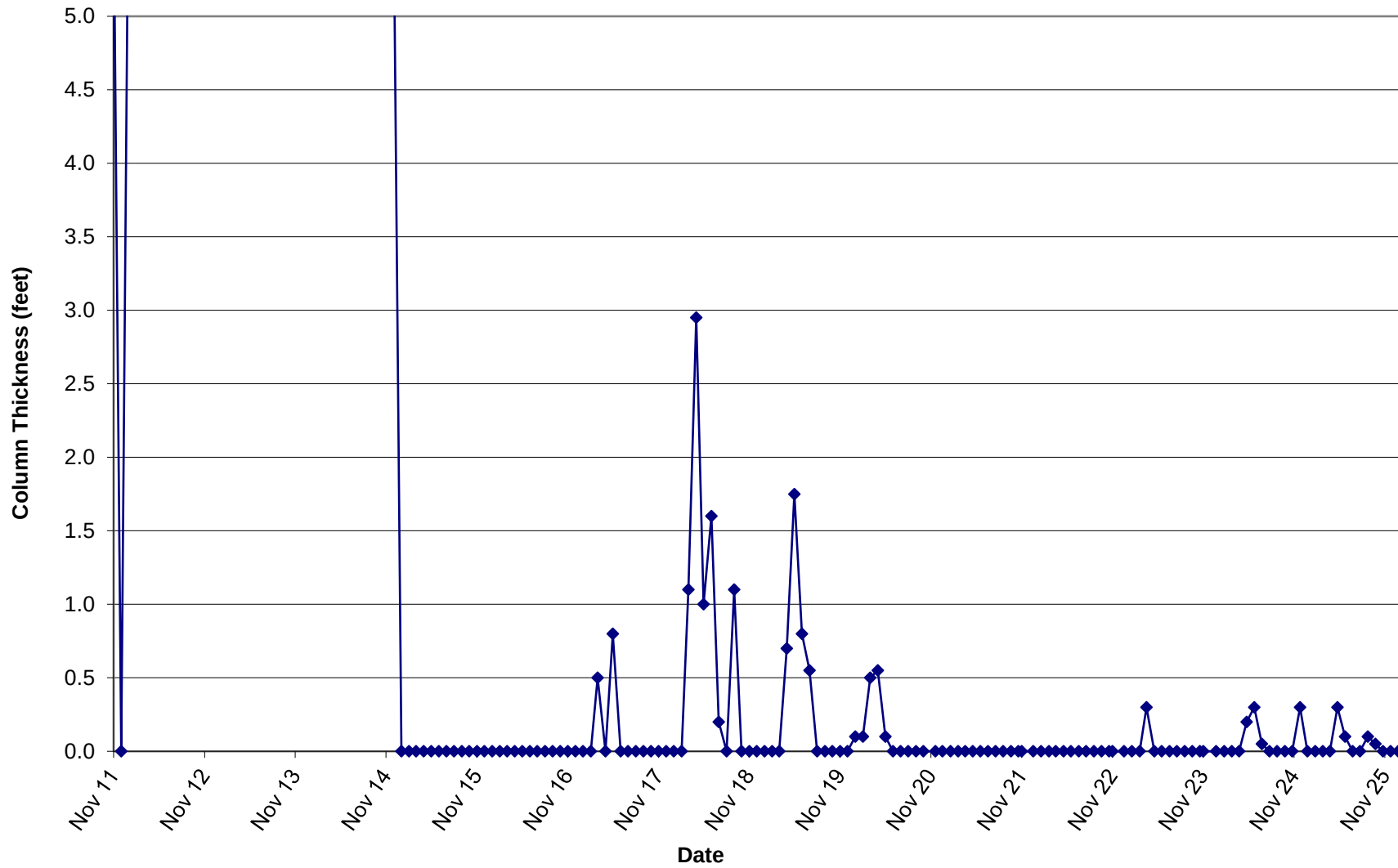
LM-3 (Middle) Historical Leachate Column Thicknesses



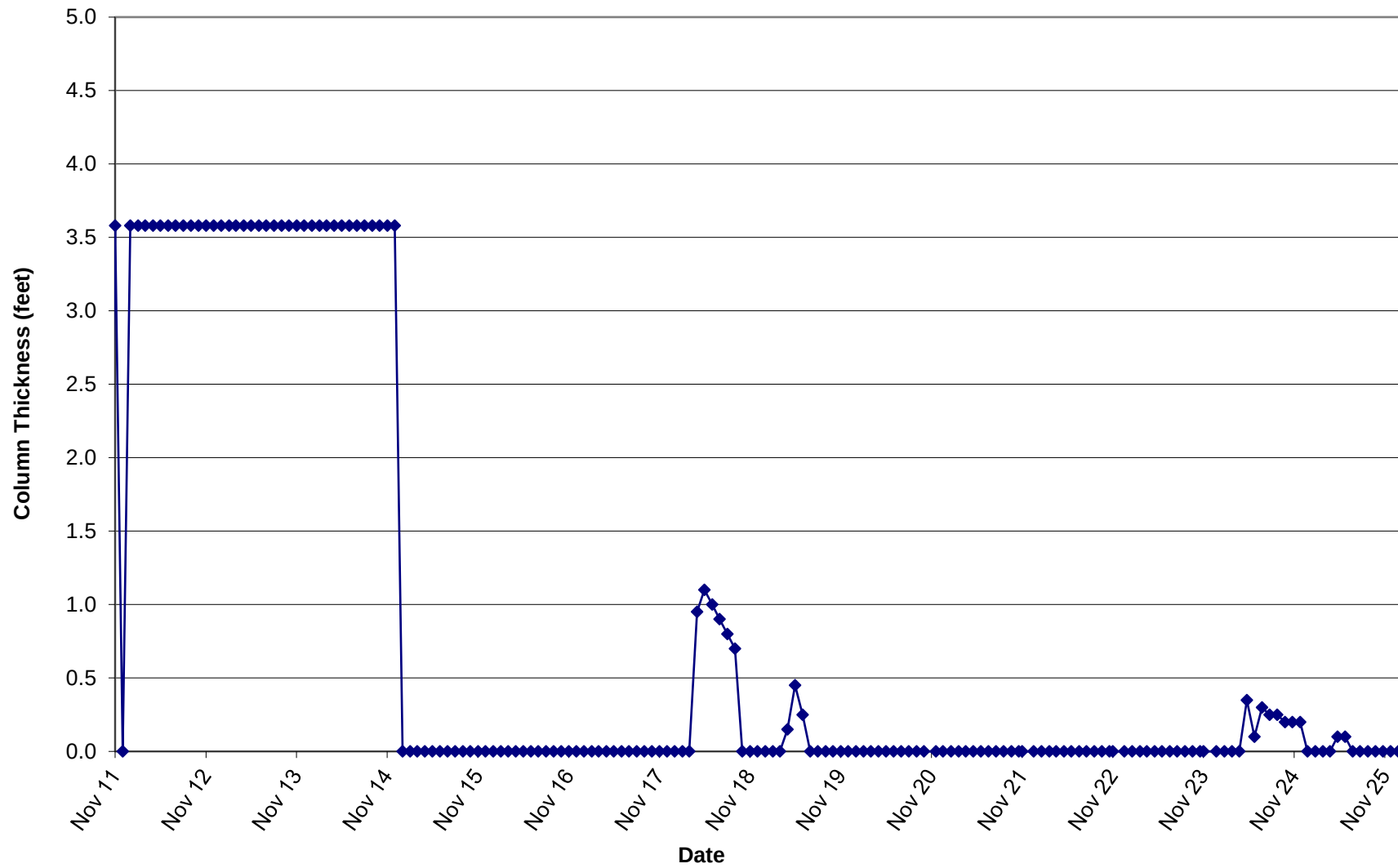
LM-A1 Cell Historical Leachate Column Thicknesses



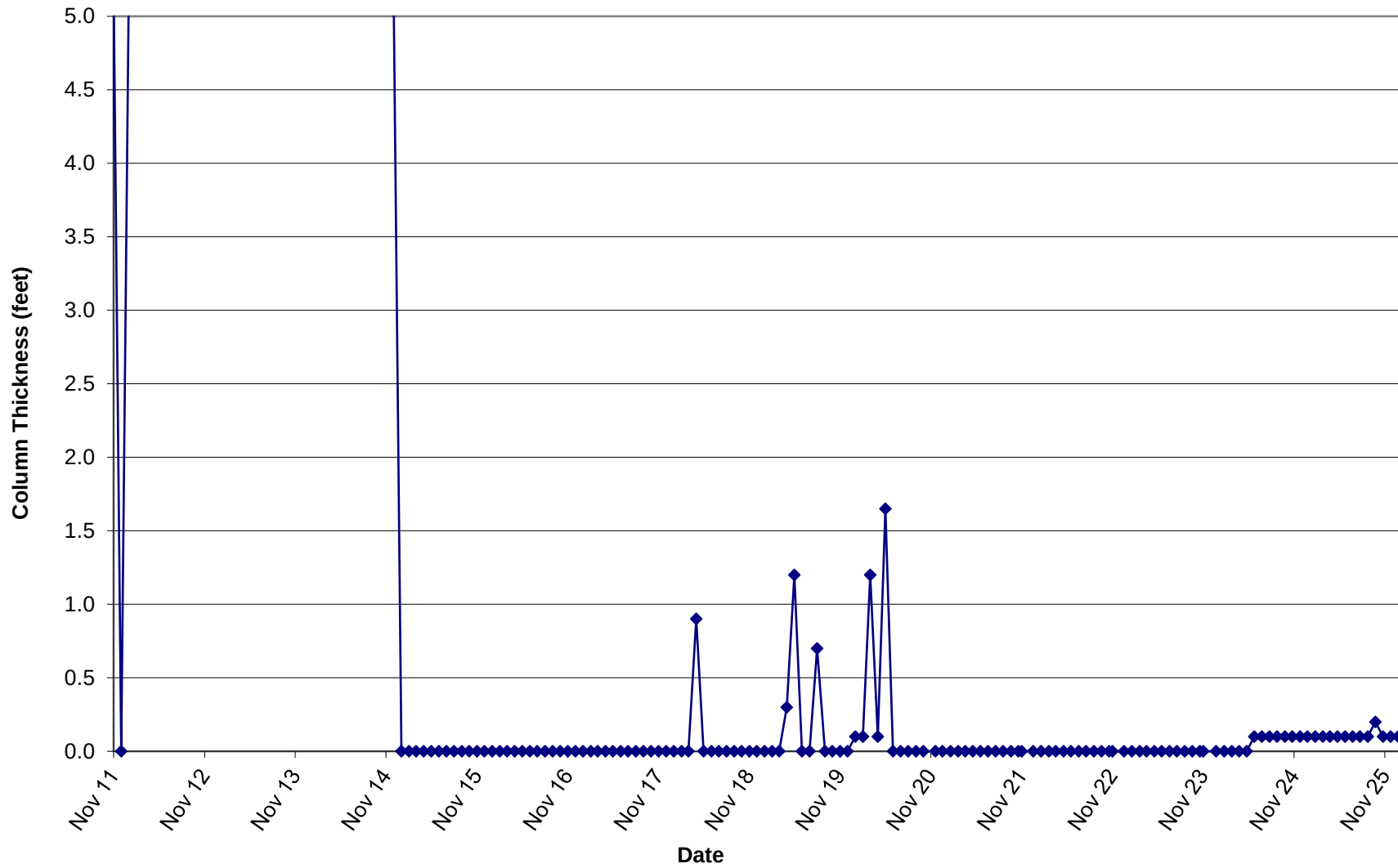
LM-A2 Cell Historical Leachate Column Thicknesses



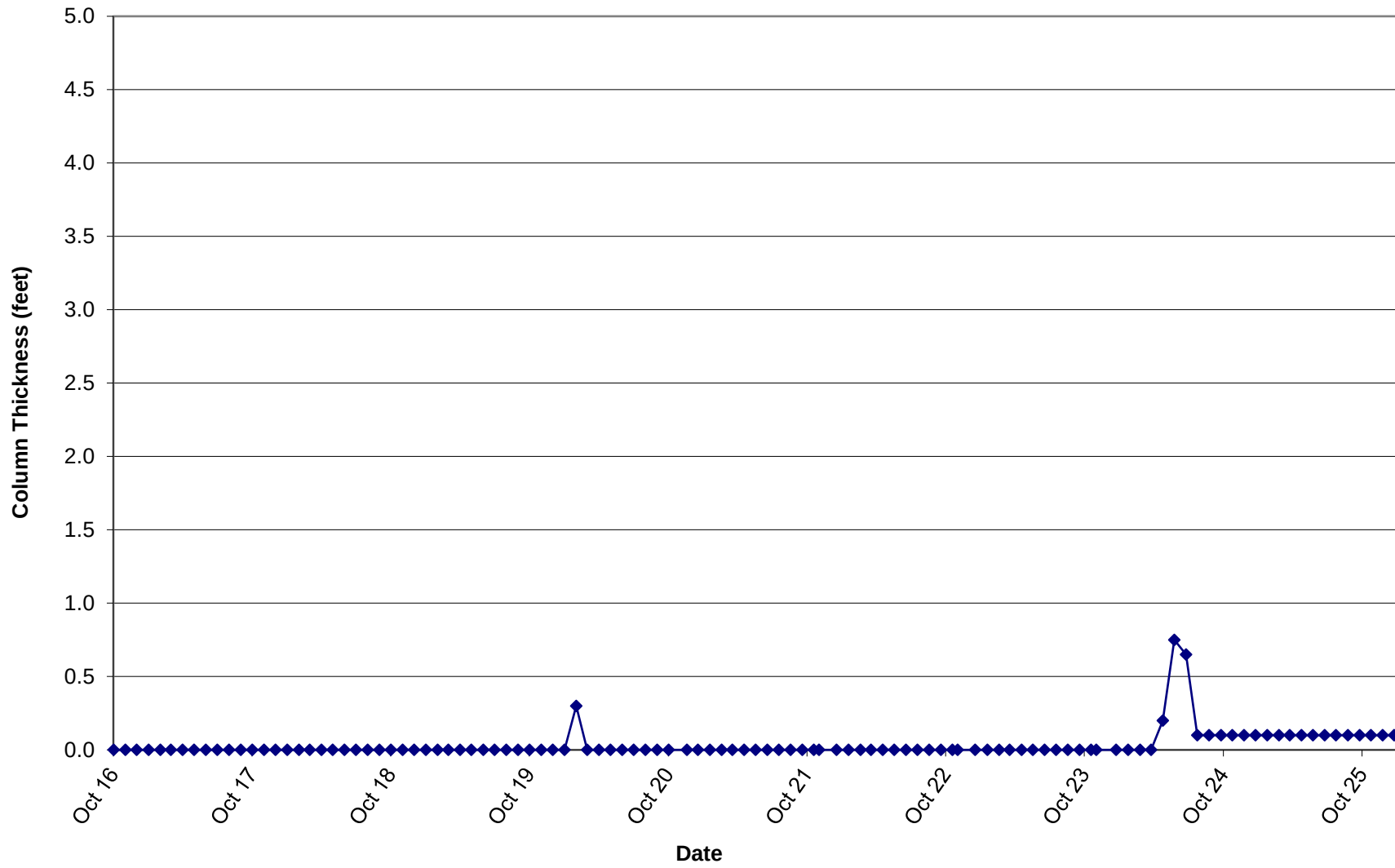
LM-A3 Cell Historic Leachate Column Thicknesses



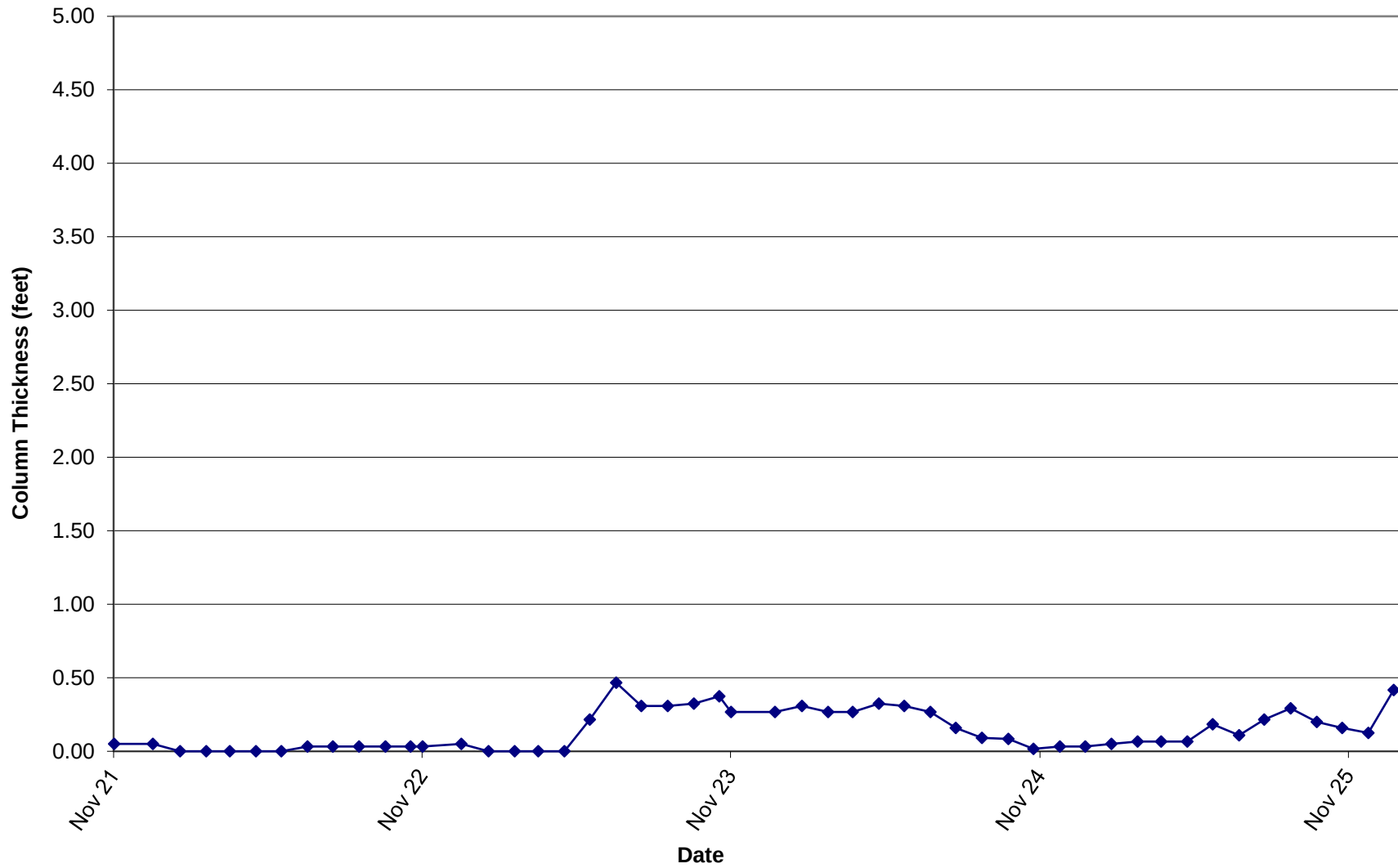
LM-A4 Cell Historical Leachate Column Thicknesses



LM-A5 Cell Historical Leachate Column Thicknesses



LM-A6 Cell Historical Leachate Column Thicknesses



Attachment C

Leachate Laboratory Analytical Data Sheets



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 12-23-2025
Report Number: 25-357-0089
Lab ID Number: 25043352

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 12-17-2025
Date Received: 12-17-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Leachate Grab
Sampled: 12-17-2025 @ 9:25 by LD
Received: 12-17-2025 @ 13:21 by SKS (12.6°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	19.7	12-17-2025 14:37	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	240	12-18-2025 8:14	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	48	12-18-2025 7:40	BJC	SM 2540 D - 2011
Ammonia as N (mg/L)	171	12-22-2025 9:41	BMG	SM 4500 NH3C - 2011
Arsenic (ppm)	0.175	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Chloride (ppm)	1438	12-17-2025 16:19	JWM	EPA 300.0
Chromium (ppm)	0.0257	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Copper (ppm)	0.00846	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Iron (ppm)	12.7	12-23-2025 11:34	SEW	SM 3120 B - 2011
Lead (ppm)	0.00689	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Nickel (ppm)	0.0541	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Selenium (ppm)	0.0374	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Sulfate (ppm)	55.7	12-19-2025 11:38	ERB	EPA 200.8 (mod)
Zinc (ppm)	0.0616	12-17-2025 16:19	JWM	EPA 300.0
		12-19-2025 11:38	ERB	EPA 200.8 (mod)

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (Ammonia as N: 0-6°C; BOD: 0-6°C; Ion Chromatography: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C) and pH guidelines not met.

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

CHAIN OF CUSTODY RECORD



S25-13844

IDNR Lab #396

723 Sleezer rd.
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

DATE: 12/17/25

Client Information

COMPANY:

City of Cherokee WWTP

SUBMITTED BY:

Matt Beckman

ADDRESS:

416 W Main Street

PHONE #:

on file

CITY/ST/ZIP:

Cherokee, IA 51012

FAX #:

on file

EMAIL ADDRESS:

on file

SAMPLE IDENTIFIER & LOCATION

DATE

TIME

GRAB OR COMP

SAMPLED BY

GW = GROUNDWATER
WW = WASTEWATER
DW = Drinking Water

OF CONTAINERS

ANALYSES REQUIRED

For Lab Use Only

HNO₃

H₂SO₄

No Preservation

Keystone Labs

PH ACCEPTABILITY

TEMPERATURE

SEALS?

YES NO

REC'D ON ICS?

YES NO

FAL LOT #

Metals¹

TKN

Ammonia Nitrogen / TKN

BOD

TSS

IC²

Chlorobenzene / EthylBenzene

P-Cresol / Phenol

Toluene

Benzoic Acid

PH ACCEPTABILITY

TEMPERATURE

SEALS?

YES NO

REC'D ON ICS?

YES NO

FAL LOT #

Leachate

12/17/25

9:25

G

LD

WW

2

X

X

X

X

X

X

X

X

X

X

N

126

3352

Leachate

12/17/25

9:25

G

LD

WW

7

X

X

X

X

X

X

X

X

X

X

N

126

3352

Remarks: Metals¹ includes: Arsenic, Chromium, Copper, Iron, Lead, Nickel, Selenium and Zinc.
IC² includes: Chloride and Sulfate

Relinquished by: (Signature)

Date: 12-17-25

Received by: (Signature)

Date: DEC 17 2025

Remarks: -

Relinquished by: (Signature)

Date: DEC 17 2025

Received by: (Signature)

Date: DEC 17 2025

Remarks: N/C

Keystone Labs containers: 2 1L Non Preserved Amber Jars + 4 HCL Vials (no air bubbles in vials)



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 12-1-2025
Report Number: 25-335-0133
Lab ID Number: 25040599

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-26-2025
Date Received: 11-26-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 11-26-2025 @ 10:00 by LD
Received: 11-26-2025 @ 10:51 by ALO (8.8°C)

Test Requested	Result	Page 1 of 1		
		Analysis Date / Time	Analyst	Method
BOD (mg/L)	110	11-26-2025 12:28	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	523	12-1-2025 7:57	RWT	CFR PAI-DK03
Total Suspended Solids (mg/L)	14	12-1-2025 7:42	BJC	SM 2540 D - 2011
pH	7.55	11-26-2025 12:45	LLA	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396



Client Information

11-26-25

Submitted By:

Luke Dobson

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

Transported by:

0
+
3
-

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell

Email: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Date: 11.26.25		Received by:		Date: 11.26.25		Remarks:	
Time: 10:31				Hustad, J		Time: 10:35		PH not good	
Date: NOV 26 2025				Received by:		Date: 11.26.25		Remarks: (checked, good)	
Time: 1051				Hustad, J		Time: 1051		Placed in storage to await	
								analysis	



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 11-26-2025
Report Number: 25-330-0073
Lab ID Number: 25040043

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-20-2025
Date Received: 11-21-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 11-20-2025 @ 9:00 by MB
Received: 11-21-2025 @ 9:45 by SKS (14.0°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	102	11-21-2025 14:28	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	458	11-25-2025 9:59	RWT	CFR PAI-DK03
Total Suspended Solids (mg/L)	44	11-25-2025 7:40	BJC	SM 2540 D - 2011
pH	7.57	11-21-2025 14:03	JRS	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-12814

Indiation
ical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

ate: 11/20/25

Company: Cherokee County Solid Waste

Address: 1805 Linden St.
City: Cherokee

State: IA

Zip Code: 51012

Telephone # : 712-225-3749

Transported by:

Submitted to:

Storage/Conditions

Received:

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@cherokee.org

wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:

Relinquished by:

Date: 11/21/25

Time: 9:18

Time:

Received by

Received by:

Date: NOV 21 2025

Time: 6:15

Time:

Remarks:

6 Ph not acid

1358	Preserved to connect with	Remarks.

Placed in storage to await

~~Appendix~~



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 11-24-2025
Report Number: 25-328-0194
Lab ID Number: 25039588

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-19-2025
Date Received: 11-19-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 11-19-2025 @ 10:15 by LD
Received: 11-19-2025 @ 11:22 by SKS (8.7°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	123	11-19-2025 13:15	LLA	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	557	11-20-2025 7:45	RWT	CFR PAI-DK03
Total Suspended Solids (mg/L)	24	11-20-2025 7:36	BJC	SM 2540 D - 2011
pH	7.51	11-19-2025 14:23	BJC	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water. Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


S25-12706

**ation
boratory**

**dy Form for Legal Samples
IDNR #396**

Client Information

Company: Cherokee County Solid Waste Department
Submitted By: Lyne Dobson

City: Cherokee State: VA

State: IA Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Luke Olson
Submitted to:

Storage/Conditions

Written Received:

Report: George Schmidt %. Cherokee Wastewater
Email: wastewater1@iowatb.com

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by: <i>[Signature]</i>		Received by: <i>[Signature]</i>	
Date: 11-19-25	Date: NOV 19 2025	Remarks: G	
Time: 10:43	Time: 1243	Placed in storage	
Date: 11-19-25	Date: NOV 19 2025	Remarks: MC	
Time: 1123	Time: 1123	to await analysis	

Placed in storage
~~to await analysis.~~



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 11-12-2025
Report Number: 25-316-0173
Lab ID Number: 25038055

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-7-2025
Date Received: 11-7-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 11-7-2025 @ 9:50 by LD
Received: 11-7-2025 @ 11:08 by ALO (9.8°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	123	11-7-2025 13:21	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	597	11-11-2025 3:01	JMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	7	11-11-2025 12:44	APH	SM 2540 D - 2011
pH	7.55	11-7-2025 11:48	EMD	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples
IDNR #396

Client Information

Submitted By: Luke Doherty

Address: 1805 Linden St

City: Cherokee State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Lake 2/5/503

Submitted to:

Storage/Conditions

Women Received:

Report: George Schmidt % Cherokee Wastewater

email: wstewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Date: 11-7-25		Received by:		Date: 11/7/25		Remarks:	
Time: 10:19				Time: 10:19				N/C	
Date: 11/7/25				Received by: [Signature]				Date: NOV 07 2025	
Time: 1108				Time: 1108				Remarks: [Signature] PH-14	



Chain of Custody Form for Legal Samples
IDNR # 396

QSI-021 7-15-2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1109	Received by: STORAGE	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1000	Received by: <i>[Signature]</i>	Remarks:
Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1030	Received by: STORAGE	Remarks: Preserved to correct pH for <i>[Signature]</i> placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use: _____ Date Broken: _____ Time: _____ Sample Stored: _____
Seal Broken by: _____ Date Testing/Analysis Completed: _____
Date Testing/Analysis Initiated: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 11-12-2025
Report Number: 25-316-0173
Lab ID Number: 25038055

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-7-2025
Date Received: 11-7-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 11-7-2025 @ 9:50 by LD
Received: 11-7-2025 @ 11:08 by ALO (9.8°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	123	11-7-2025 13:21	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	597	11-11-2025 3:01	JMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	7	11-11-2025 12:44	APH	SM 2540 D - 2011
pH	7.55	11-7-2025 11:48	EMD	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$.
All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



ay Form for Legal Samples
IDNR #396

Client Information

Submitted By: Luhe 106504

State: IA 7: 2

Telephone # : 712-225 2740

Lab Information

Transported by: Lake
Submitted to: Observer

Storage/Conditions
When Received:

Report: George Schmidt % Cherokee Wastewater
Email: wastewater@cherokee.org

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by: _____
Date: 7/2/00 _____

Relinquished by:		Received by:	
Date:	10/19	Date:	11/7/25
		Remarks:	

Date:	11/13	Received by:	Shirley & Mark	Date:	10-19	Remarks:	N/C
Time:	1108			Date:	NOV 07 2025		for PH-14



Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1109	Received by: STORAGE	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1000	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for <i>TKN</i> placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: NOV 07 2025 Time: 1030	Received by: STORAGE	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 11-10-2025
Report Number: 25-314-0125
Lab ID Number: 25037451

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 11-5-2025
Date Received: 11-5-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 11-5-2025 @ 10:07 by LD
Received: 11-5-2025 @ 11:36 by SKS (9.6°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	149	11-5-2025 12:51	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	579	11-6-2025 4:13	JMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	37.5	11-6-2025 7:48	ERB	SM 2540 D - 2011
pH	7.59	11-5-2025 13:00	APH	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

9 780143 525120 >

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

11-5-75

Submitted By: _____

Company: Cherokee County, Georgia

Address: 1805 Lind...

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Subs. 11/05/04

Submitted to:

Storage/Conditions

When Received -

Report: George Schmidt % Cherokee Wastewater
Email: wastewater@cherokee.org

email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:

Date / / 25

Received by:

Date: _____

Remarks:

Retinquished by:

Date: 1-2-2020

Received by:

1000

Remarks:

1135

Chain of Custody Form for Legal Samples
IDNR # 396

Foundation

Relinquished by: <u>[Signature]</u>	Date: 11/5/2025 Time: 1134	Received by: Storage <u>[Signature]</u>	Remarks: Placed in storage to await analysis.
Relinquished by: Storage	Date: 11/5/2025 Time: 1630	Received by: Storage <u>[Signature]</u>	Remarks: Preserved to correct pH for Placed in storage to await analysis.
Relinquished by: <u>[Signature]</u>	Date: 11/5/2025 Time: 1640	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____
Sample Stored: _____
Time: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-29-2025
Report Number: 25-272-0047
Lab ID Number: 25031499

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-23-2025
Date Received: 9-23-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 9-23-2025 @ 8:27 by MB
Received: 9-23-2025 @ 8:37 by ZDW (18.1°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	86.2	9-24-2025 8:50	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	398	9-25-2025 9:32	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	48.8	9-25-2025 7:04	SMK	SM 2540 D - 2011
pH	7.62	9-23-2025 16:43	APH	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are +/- 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



ate: 9/23/25

Submitted By: Mat Beckman

Company: Cherokee County Solid Waste
Address: 1805 Linden St.
City: Cherokee State: IA Zip

Telephone #: 712-225-3749

State: IA Zip Code: 51012

Transported by: Matth Beckmann
Submitted to:

Storage/Conditions
When Received:

Report: George Schmidt % Cherokee Wastewater
Email: wastewater@cherokee.org

Small. wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Date: 9/23/25		Received by:		Date: SEP 23 2025		Remarks:	
[Signature]		Time: 8:37		[Signature]		Time: 8:37		NC, G	
Date: SEP 23 2025		Received by:		Date: SEP 23 2025		Time: 8:37		Ph - not for good	
Time: 4:10		[Signature]		Time: 4:10		Remarks:		TEND	

IDNR # 3536

Reinhold K. B. K. K.

time: 1911
SEP 23 2025

Relinquished by:
OPPAGE

Relinquished: *Shirley J. Ties*

Relinquished by:

Regained by:

delimited by:

...liberally by

by:

10

—

100

Reinigungs- und

Reinhold Messner

Relinquished by:

Index

Sample stored

Editorial Use:

Good Broken by:

Basic Testing/Analysis Initiated:

Data Testing/Analysis Completed

1800

Remarks:

Remarks:

1. Introduction

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11

1000000

1201111

Копия

Preserved to correct pH for

Placed in storage to await analysis.



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-24-2025
Report Number: 25-267-0039
Lab ID Number: 25031121

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-19-2025
Date Received: 9-19-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 9-19-2025 @ 10:05 by LD
Received: 9-19-2025 @ 10:40 by KLH (10.4°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	104	9-19-2025 14:31	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	448	9-23-2025 9:53	RWT	CFR PAI-DK03
Total Suspended Solids (mg/L)	34	9-23-2025 7:13	SMK	SM 2540 D - 2011
pH	7.55	9-19-2025 13:18	ERB	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Sample received in customer-provided container.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.
City: Cherokee State: IA Zip
Telephone #: 712-225-3749

Submitted By:


S25-10055

Lab Information

Transported by: Luher Carlson
Submitted to: _____
Storage/Conditions _____
When Received: _____

[illegible]

Chain of Custody Record

Relinquished by:		Received by:		Remarks:	
H. Carr		H. Carr		N/C	
Date:	9/19/25	Date:	9/19/25	PH-11	
Time:	10:39	Time:	10:40		
Date:	9/19/25	Date:	SEP 19 2025		
Time:	1052	Time:	1052		
Received by:		Remarks:			
J. Carr		N/C			



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSP 02.1 7/15/2017 DY Rev 0

Remarks: Placed in storage to await analysis.

Relinquished by: [Signature] Date: SEP 19 2025
Time: 1055

rel STORAGE
Time: SEP 19 2025
Date: SEP 19 2025

Relinquished by: [Signature] Date: SEP 19 2025
Time: 1630

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
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Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Relinquished by: _____ Date: _____
Time: _____

Laboratory User:
Seal Broken by:

Date Broken:

Date Testing/Analysis Completed

Date Testing/Analysis Initiated

Preserved to correct pH for
17.0
Placed in storage to await
analysis.

Sample Stored



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-22-2025
Report Number: 25-265-0082
Lab ID Number: 25030674

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-17-2025
Date Received: 9-17-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 9-17-2025 @ 10:20 by LD
Received: 9-17-2025 @ 10:59 by SKS (14.5°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	92.2	9-17-2025 12:52	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	487	9-18-2025 7:55	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	38	9-18-2025 7:41	SMK	SM 2540 D - 2011
pH	7.63	9-17-2025 11:36	JWM	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples
IDNR #396



S25-09956

Client Information

ate: 9-17-25

Company: ABC

Address: 1805 Linden St

City: Cherokee
State: IA
Zip: 50511

Telephone #: 712-225-3749

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received

Report: George Schmidt % Cherokee Wastewater
Email: wschmidt@cherokee.org

Cell#: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Received by:		Remarks:	
Date:	SEP 17 2025	Date:	SEP 17 2025	OK G	
Time:	10:59	Time:	1059	PH not OK for TKN	
Date:	SEP 17 2025	Date:	SEP 17 2025		
Time:	1115	Time:	1115		



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 IDV Rev 0

Relinquished by:	Date: SEP 17 2025 11:16	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>Abbi Owen</i>	Time: SEP 17 2025 1430	Received by: <i>Abbi Owen</i>	Remarks: <u>Preserved to correct pH for</u> <u>TKN</u> <u>Placed in storage to await</u> <u>analysis.</u>
Relinquished by: <i>Abbi Owen</i>	Date: SEP 17 2025 1700	Received by: <i>Abbi Owen</i>	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Time: _____ Sample Stored: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-18-2025
Report Number: 25-261-0276
Lab ID Number: 25030226

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-12-2025
Date Received: 9-12-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 9-12-2025 @ 8:42 by LD
Received: 9-12-2025 @ 9:17 by SKS (14.0°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	118	9-12-2025 11:39	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	533	9-18-2025 7:55	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	26	9-16-2025 7:42	BJC	SM 2540 D - 2011
pH	7.48	9-12-2025 13:44	BJC	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.


 S25-09776

Foundation
Physical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By:

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Transported by:
Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 9.12.25	Received by:	Date: SEP 12 2025	Remarks: G
Time: 9:17		Time: 0917		
Relinquished by: Mike & Nick	Date: SEP 12 2025	Received by:	Date: SEP 12 2025	Remarks: MC not good for TYN Retained in storage to await analysis.
Time: 1055		Time: 1055		



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

STORAGE		Received by:	Remarks:
Relinquished by:	Date: SEP 12 2025 Time: 1630		Preserved to correct pH for TEN Placed in storage to await analysis.
Relinquished by:	Date: SEP 12 2025 Time: 1640		
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:
Relinquished by:	Date: _____ Time: _____	Received by:	Remarks:

Laboratory Use: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Seal Broken by: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-15-2025
Report Number: 25-258-0216
Lab ID Number: 25029776

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-10-2025
Date Received: 9-10-2025
Contact: Matt Beckman
Submitted By: Luke Doboson

Sample Description: Landfill Leachate Grab
Sampled: 9-10-2025 @ 9:37 by LD
Received: 9-10-2025 @ 10:00 by ALO (14.3°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	< 114	9-10-2025 13:31	ERB	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	567	9-12-2025 7:57	RWT	CFR PAI-DK03
Total Suspended Solids (mg/L)	22	9-11-2025 13:06	JRS	SM 2540 D - 2011
pH	7.45	9-10-2025 14:58	BJC	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396



Client Information

ate: 9-10-25

Submitted By:

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Received by:	
Date:	7-10-25	Date:	9/10/25
Time:	10:00	Time:	1000
Date:	9/10/25	Date:	9/10/25
Time:	1240	Time:	1240
STORAGE			
Remarks:		NC, pH not good for SW	



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: STORAGE		Date: SEP 10 2025	Received by: <u>JK</u>	Remarks:
Relinquished by:	Date: SEP 10 2025	Received by: STORAGE	Remarks: Preserved to correct pH for <u>JK</u>	
Relinquished by: <u>JK</u>	Time: 1630	Received by:	Place in storage to await analysis.	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	

Laboratory Use: Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C

Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-11-2025
Report Number: 25-254-0094
Lab ID Number: 25029166

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-5-2025
Date Received: 9-5-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 9-5-2025 @ 9:10 by LD
Received: 9-5-2025 @ 9:36 by BRR (10.5°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	157	9-5-2025 13:11	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	648	9-11-2025 8:04	HMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	26	9-9-2025 8:03	JRS	SM 2540 D - 2011
pH	7.44	9-5-2025 16:04	BJC	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C, Total Suspended Solids: 0-6°C). pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Sample

IDNR #396

Client Information

9-5-25

Submitted By:

Lab Information

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Call 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 9-5-25	Received by:	Date: SEP 05 2025	Remarks:
Time: 9:38		Time: 936		NC & PH no
Relinquished by: [Signature]	Date: SEP 05 2025	Received by: [Signature]	Date: SEP 05 2025	Remarks:
Time: 1147		Time: 1147		



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>Abbi Ogden</i>	Date: SEP 05 2025 Time: 11:41	RECEIVED STORAGE	Remarks:
Relinquished by: <i>Abbi Ogden</i>	Date: SEP 05 2025 Time: 11:00	Received by: <i>Abbi Ogden</i>	Remarks: Preserved to correct pH for <i>PH</i>
Relinquished by: <i>Abbi Ogden</i>	Date: SEP 05 2025 Time: 11:05	STORAGE	Remarks: Placed in storage to await analysis.
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-8-2025
Report Number: 25-251-0076
Lab ID Number: 25028569

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 9-3-2025
Date Received: 9-3-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 9-3-2025 @ 8:40 by LD
Received: 9-3-2025 @ 9:11 by BRR (12.3°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	168	9-3-2025 11:03	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	638	9-5-2025 8:04	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	34	9-4-2025 7:14	SMK	SM 2540 D - 2011
pH	7.33	9-3-2025 10:42	BJC	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Sample received in customer-provided container.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C, Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

9-3-25

Submitted By:

Lucie O'Brien

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749


S25-09303

Transported by: _____
Submitted to: _____

Lab Informant
Luke Wilson

Storage/Conditions
When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 9-3-25	Received by:	Date: SEP 03 2025	Remarks: G NC
Time: 9:11		Time: 911		P1-N Ten
Date: SEP 03 2025		Date: SEP 03 2025		
Time: 9:53		Time: 9:53		



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>zh</i>	Date: <i>SEP 03 2025</i> Time: <i>9:55</i>	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>zh</i>	Date: <i>SEP 03 2025</i> Time: <i>16:00</i>	Received by: <i>zh</i>	Remarks: Preserved to correct pH for <i>TCN</i>
Relinquished by: <i>zh</i>	Date: <i>SEP 03 2025</i> Time: <i>16:50</i>	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Seal Broken by: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-5-2025
Report Number: 25-248-0087
Lab ID Number: 25028360

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-29-2025
Date Received: 8-29-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-29-2025 @ 9:12 by LD
Received: 8-29-2025 @ 10:00 by BRR (10.9°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	196	8-29-2025 11:48	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	663	9-4-2025 7:52	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	30	9-4-2025 7:14	SMK	SM 2540 D - 2011
pH	7.34	8-29-2025 15:36	APH	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

8-2905

Company: Cherokee County Solid Waste

Submitted By:

City: Cherokee State: IA

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Lucy Baber

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 8-29-25	Received by:	Date: AUG 29 2025	Remarks:
	Time: 10:00	Both Birt	Time: 10:00	UC
Relinquished by:	Date: AUG 29 2025	Received by:	Date: AUG 29 2025	Remarks:
	Time: 10:18	Backer	Time: 10:18	

BACK TO AWAIT ANALYSIS.

[illegible]

Laboratory Use:
Seal Broken by:

Date Broken:-

Time:

Sample Stored:

Date Testing/Analysis Completed

Date Testing/Analysis Initiated:



Foundation Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 9-2-2025
Report Number: 25-245-0079
Lab ID Number: 25027915

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-27-2025
Date Received: 8-27-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-27-2025 @ 9:08 by LD
Received: 8-27-2025 @ 9:38 by ZDW (11.3°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	174	8-28-2025 9:25	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	687	8-29-2025 8:00	HMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	60	8-29-2025 7:53	SEW	SM 2540 D - 2011
pH	7.36	8-27-2025 14:54	APH	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are +/- 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-09049

Indication

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Client Information
Submitted By: Lucy Johnson

Lab Information

City: Cherokee State: IA Zip Code: 51012

Transported by: Lake Johnson
Submitted to: _____
Storage/Conditions _____
When Received: _____
Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Call 712-260-2102

[illegible]

Chain of Custody Record

Relinquished by:	Date: 8-27-25	Received by:	Date: AUG 27 2025	Remarks:
Time: 9:36		Time: 9:38		C-1 PH not good for the
Date: AUG 27 2025		Date: AUG 27 2025		
Relinquished by:	Time:	Received by:	Date:	Remarks:
Time: 11:10		Time: 11:10		

Analytical Laboratory

IDNR # 396

preserved to correct pH for

Date: AUG 27 2025

Received by: 28

111

Relinquished by: 7/8/14

Date: AUG 27 2025

Received by:

Remarks:

Date: _____
Time: _____

Received by:

Remarks:

Date: _____
Time: _____

Received by:

Remarks:

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Received by:

Results

Time:

Received by

Reminders

Date:	
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Received by

Remarks

Time:

Received by

2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467

Time:
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Remark	

Date: _____

Time: _____

Received by

Date Broken:

Time:

Sample Stored:

5.

Date Testing/Analysis Initiated: _____

Date Testing/Analysis Completed:



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 8-25-2025
Report Number: 25-237-0071
Lab ID Number: 25027295

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-20-2025
Date Received: 8-20-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-20-2025 @ 11:50 by LD
Received: 8-20-2025 @ 12:28 by BRR (12.3°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	336	8-20-2025 14:21	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	753	8-21-2025 8:16	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	44	8-21-2025 8:32	BJC	SM 2540 D - 2011
pH	7.32	8-20-2025 16:46	APH	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



ndation
ial Laboratory

Lucy D. Han

Submitted By:

ate: 8-20-25

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@lowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by: <i>[Signature]</i>	Date: 8-20-25	Received by: <i>Beth Burt</i>	Date: AUG 20 2025	Remarks:
	Time: 12:28		Time: 1228	
Relinquished by: <i>Beth Burt</i>	Date: AUG 20 2025	Received by: <i>[Signature]</i>	Date: AUG 20 2025	Remarks:
	Time: 1351		Time: 1351	



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 8-26-2025
Report Number: 25-238-0100
Lab ID Number: 25027678

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-22-2025
Date Received: 8-22-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate (2) Grab
Sampled: 8-22-2025 @ 13:05 by unknown
Received: 8-22-2025 @ 13:31 by ZDW (13.1°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
Total Kjeldahl Nitrogen (mg/L)	694	8-26-2025 8:24	HMS	CFR PAI-DK03

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met.

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 8-27-2025
Report Number: 25-239-0009
Lab ID Number: 25027676

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-22-2025
Date Received: 8-22-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate (1) Grab
Sampled: 8-22-2025 @ 13:05 by LD
Received: 8-22-2025 @ 13:31 by ZDW (13.1°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	343	8-22-2025 15:22	SMK	SM 5210B - 2011
Total Suspended Solids (mg/L)	40	8-26-2025 12:02	BJC	SM 2540 D - 2011
pH	7.34	8-22-2025 14:54	EMD	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR #396



S25-08925

Client Information

Submitted By: Luke Olson

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Luke Olson

Submitted to: _____

Storage/Conditions _____

When Received: _____

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@jowatelecom.net Cell 712-260-2107

Sample ID	Date Sampled	Time Sampled	Matrix		Analyze for:										Temperature When Received	Preservation	Sampled By:	FAL Lot Number
			SL = Sludge	WW = Wastewater	Number of Bottles	G = Grab	C = Composite	PH	TKN	TSS	BOD	Chloride	Copper	Ammonia				
Landfill Leachate(1)	8-22-25	1:05	G	1	ww	X	X	X	X	X						No Treat	2716716	
Landfill Leachate(2)	8-22-25	1:05	G	1	ww											H2SO4	2716718	

Remarks: (reason for investigation, clinical symptoms, background info, condition of sample) Municipal Flow = _____ MGD Industrial Flow = _____ MGD

Chain of Custody Record

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Remarks:
<u>[Signature]</u>	8-22-25	13:30	<u>[Signature]</u>	AUG 22 2025	1331	C PH+V
<u>[Signature]</u>	8-22-25	14:04	<u>[Signature]</u>	AUG 22 2025	14:04	

Chain of Custody Form for Legal Samples
IDNR # 396



Relinquished by: <i>[Signature]</i>	Date: AUG 22 2025 Time: 14:08	Received by: <i>[Signature]</i>	Remarks:
Relinquished by: <i>[Signature]</i>	Date: AUG 22 2025 Time: 16:30	Received by: <i>[Signature]</i>	Remarks:
Relinquished by: <i>[Signature]</i>	Date: AUG 22 2025 Time: 16:40	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for <i>TKN</i> Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 8-20-2025
Report Number: 25-232-0153
Lab ID Number: 25026829

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-15-2025
Date Received: 8-15-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-15-2025 @ 9:22 by LD
Received: 8-15-2025 @ 9:37 by SKS (10.7°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	457	8-15-2025 12:38	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	753	8-20-2025 7:59	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	45	8-19-2025 7:41	BJC	SM 2540 D - 2011
pH	7.33	8-15-2025 11:15	PAB	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids 0-6°C) pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-08635

dation
Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Rate: 8-15.25

Submitted By:

Lab information

ate: 8-13-0

Company: Cherokee County Solid Waste

Submitted By: E. A. Gibson

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Transported by: Car 100319
Submitted to: _____

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date:	Received by:	Date:	Remarks:
<i>[Signature]</i>	8/15/25	<i>[Signature]</i>	AUG 15 2025	OK not good
Time:	7:37	Time:	0937	
Relinquished by:	Date:	Received by:	Date:	Remarks:
<i>[Signature]</i>	AUG 15 2025	<i>[Signature]</i>	AUG 15 2025	Placed in storage to await analysis
Time:	0945	Time:	0945	



Chain of Custody Form for Legal Samples

IDNR # 396

QSF-021 7/15/2017 ID# Rev 0

[illegible]

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 8-18-2025
Report Number: 25-230-0141
Lab ID Number: 25026389

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-13-2025
Date Received: 8-13-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-13-2025 @ 9:50 by LD
Received: 8-13-2025 @ 10:23 by ZDW (13.5°C)

Test Requested	Result	Analysis Date / Time	Page 1 of 1	
			Analyst	Method
BOD (mg/L)	357	8-13-2025 13:34	MOM	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	706	8-15-2025 7:51	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	48	8-14-2025 8:33	ERB	SM 2540 D - 2011
pH	7.34	8-13-2025 14:10	SEW	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

ate: 8-13-15

Submitted By:

Lehrer Oyster

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

525-08519

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@jowalele.com nat C-11 -

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 8-13-15	Received by:	Date: AUG 13 2015	Remarks:
	Time: 10:23		Time: 10:23	Code, pH not good for TRU
Relinquished by:	Date: AUG 13 2015	Received by:	Date: AUG 13 2015	
	Time: 1301	STORAGE	Time: 1301	Remarks:



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: STORAGE	Date: AUG 13 2025 Time: 1600	Received by: [Signature]	Remarks:
Relinquished by: [Signature]	Date: AUG 13 2025 Time: 1630	Received by: STORAGE	Remarks: Preserved to correct pH for [Signature] Place in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Seal Broken by: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Certificate of Analysis

Report Date: 8-12-2025
Report Number: 25-224-0090
Lab ID Number: 25025239

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-6-2025
Date Received: 8-6-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-6-2025 @ 10:38 by LD
Received: 8-6-2025 @ 10:53 by KLH (6.7°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	282	8-7-2025 9:45	ERB	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	723	8-7-2025 7:45	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	34	8-7-2025 7:46	BJC	SM 2540 D - 2011
pH	7.34	8-6-2025 11:41	PAB	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



S25-08195

Chain of Custody Form for Legal Samples

IDNR #396

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Client Information

Lab Information

Date: 8-6-25 Submitted By: Luke Olson Transported by: Luke Olson
Company: Cherokee County Solid Waste Submitted to: _____
Address: 1805 Linden St. Storage/Conditions _____
City: Cherokee State: IA Zip Code: 51012 When Received: _____
Telephone #: 712-225-3749 Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@jowatelecom.net Cell 712-260-2107

Sample ID	Date Sampled	Time Sampled	Matrix		Analyze for:										Temperature When Received	FAL Lot Number	
			Number of Bottles	Wastewater	SL = Sludge	PH	TKN	TSS	BOD	Chloride	Copper	Ammonia	Phosphorus	Nitrate / Nitrite			Preservation
Landfill Leachate(1)	8-6-25	10:38	G = Grab	1	ww	X	X	X	X	X	X	X	X	X	No Treat	6.7	5234
Landfill Leachate(2)	8-6-25	10:38	G = Grab	1	ww										H2SO4		

Remarks: (reason for investigation, clinical symptoms, background info, condition of sample) Municipal Flow = _____ MGD Industrial Flow = _____ MGD

Chain of Custody Record

Relinquished by:	Date:	Received by:	Date:	Remarks:
<u>[Signature]</u>	8-6-25	<u>[Signature]</u>	8/6/25	Ph not good for TKN
	Time: 10:53		Time: 10:53	
Relinquished by:	Date:	Received by:	Date:	Remarks:
<u>[Signature]</u>	8/6/25	<u>[Signature]</u>	8/6/25	
	Time: 11:14		Time: 11:14	

Chain of Custody Form for Legal Samples
IDNR # 396

IDNR # 396

[illegible]

Laboratory Use:

Seal Broken by:

Date Broken:

Time:

Sample Stored:

2

Date Testing/Analysis Initiated:

Date Testing/Analysis Completed



Certificate of Analysis

Report Date: 8-6-2025
Report Number: 25-218-0158
Lab ID Number: 25024728

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 8-1-2025
Date Received: 8-1-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 8-1-2025 @ 8:43 by LD
Received: 8-1-2025 @ 9:09 by BRR (10.9°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	154	8-1-2025 10:40	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	612	8-6-2025 8:21	JMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	16	8-5-2025 9:58	BJC	SM 2540 D - 2011
pH	7.32	8-1-2025 10:37	JWM	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

pH analyzed in duplicate prior to reporting

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-07985

bundation
alytical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By:

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

Telephone #: 712-225-3749

Chain of Custody Record

Relinquished by:		Received by:		Remarks:	
Date:	8-1-25	Date:	909	N.C. Print good	
Time:	9:09	Time:			
Date:		Date:			
Time:	0944	Time:	0944		
Relinquished by:		Received by:		Remarks:	
<i>[Signature]</i>		<i>[Signature]</i>			

[illegible]



Foundation

Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSL-021 7/15/2017 DY Rev 0

Relinquished by: <i>Shirley D. Taylor</i>	Date: <i>0947</i>	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>Shirley D. Taylor</i>	Date: <i>1030</i>	Received by: <i>Shirley D. Taylor</i>	Remarks: Preserved to correct pH for <i>14d</i> placed in storage to await analysis.
Relinquished by: <i>Shirley D. Taylor</i>	Date: <i>1040</i>	Received by: STORAGE	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 7-30-2025
Report Number: 25-211-0097
Lab ID Number: 25024121

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 7-24-2025
Date Received: 7-25-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 7-24-2025 @ 11:50 by LD
Received: 7-25-2025 @ 8:46 by ZDW (10.6°C)

Test Requested	Result	Analysis Date / Time	Page 1 of 1	
			Analyst	Method
BOD (mg/L)	150	7-25-2025 11:21	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	677	7-30-2025 7:53	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	38	7-29-2025 8:21	JRS	SM 2540 D - 2011
pH	7.32	7-25-2025 12:19	PAB	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN 0-6°C, Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Illinois
Analytical Laboratory

Chain of Custody Form for Legal Samples

IDNR # 396

OSF 021 7/15/2017 DY Rev 0

Relinquished by:

STORAGE

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Relinquished by:

Date: JUL 25 2025
Time: 9:39

Date: JUL 25 2025
Time: 1600

Date: JUL 25 2025
Time: 1630

Date: JUL 25 2025
Time: 1630

Date: JUL 25 2025
Time: 1630

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Date: JUL 25 2025
Time: 1630

Date: JUL 25 2025
Time: 1630

Received by: STORAGE

Received by:

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Received by:

Received by:

Received by:

Received by:

Received by:

Received by:

Remarks: PLACED IN STORAGE TO AWAIT ANALYSIS

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

Presented to correct pH for

Placed in storage to await
analysis.

Laboratory Use:

Test Broken by:

Date Testing/Analysis Initiated

Date Broken:

Time:

Date Testing/Analysis Completed

Sample Source:



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By:

Game 2050x

ate.

Company: Cherokee County Solid Waste

Address: 1805 Linden St._

City: Cherokee State: IA Zip Code: 51012

Telephone # : 712-225-3749

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

Lab Information

Transported by:—

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 7.25.25	Received by:	Date: JUL 25 2025	Remarks:
	Time: 8:46		Time: 8:46	
Relinquished by:	Date: JUL 25 2025	Received by:	Date: JUL 25 2025	Remarks:
	Time: 939		Time: —	



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 7-28-2025
Report Number: 25-209-0066
Lab ID Number: 25023692

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 7-23-2025
Date Received: 7-23-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 7-23-2025 @ 8:40 by LD
Received: 7-23-2025 @ 9:36 by ZDW (15.3°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	138	7-23-2025 12:37	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	716	7-24-2025 9:23	ELW	CFR PAI-DK03
Total Suspended Solids (mg/L)	8	7-24-2025 10:24	BJC	SM 2540 D - 2011
pH	7.30	7-23-2025 13:11	BMA	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

**** End Certificate of Analysis ****

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are $\pm 1^\circ\text{C}$. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

 S25-07656

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Chain of Custody Form for Legal Samples

IDNR #396

Client Information

ate: 7.23.25

Client Information

Submitted By: _____

Luke Olson

Lab Information

Company: Cherokee County Solid Waste
Address: 1805 Linden St.
City: Cherokee

State: IA Zip Code: 51012

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 7-23-25	Received by:	Date: JUL 23 2025	Remarks:
Time: 8:35		Time: 9:30		C 1 pH not good for TRL
Date: JUL 23 2025		Date: JUL 23 2025		
Time: 1105		Time: 1105		

IDNR # 396

44. 2 - 2025

7107

JUL 2 19 2025

1930

preserved to correct pH for

Placed in storage to await analysis.

Received by: STORAGE

Received by: 78

Received by:

Received by:

Received by:

Received by:

Received by:

received by:

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

10

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466

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Remarks: PLACED IN STORAGE TO AWAIT ANALYSIS

Remarks:

Remarks:

Remarks

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466

[illegible]

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Investment

References

Laboratory Use:
Seal Broken by:

Date Testing/Analysis Initiated:

Date Broker:

Time:

Date Testing/Analysis Completed

Example stored:



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 7-2-2025
Report Number: 25-183-0036
Lab ID Number: 25020384

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-27-2025
Date Received: 6-27-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 6-27-2025 @ 8:36 by LD
Received: 6-27-2025 @ 9:07 by SKS (8.2°C)

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	92.4	6-27-2025 14:08	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	458	6-30-2025 7:56	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	30	7-1-2025 8:11	JRS	SM 2540 D - 2011
pH	7.42	6-27-2025 16:40	BMA	SM 4500-H B - 2011

Page 1 of 1

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are +/- 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Indation
tical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Client Information
Submitted By: Luke Hobson
6-27-25
ate:

Lab Information

Transported by: Luke Olson

Company: Cherokee County Solid Waste
Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@jowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 6/27/25	Received by:	Date: JUN 27 2025	Remarks:
Time: 9:07		Time: 0907		NC PH not good for TX
Date: JUN 27 2025		Date: JUN 27 2025		
Time: 0939		Time: 0939		
Relinquished by: Mike & Jill		Received by:		Remarks:
		Time: 0907		Placed in storage
Date: JUN 27 2025		Date: JUN 27 2025		
Time: 0939		Time: 0939		

Placed in storage to await analysis



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 6-30-2025
Report Number: 25-181-0085
Lab ID Number: 25019996

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-25-2025
Date Received: 6-25-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 6-25-2025 @ 9:12 by LD
Received: 6-25-2025 @ 9:35 by ZDW (10.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	93.2	6-25-2025 13:14	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	483	6-26-2025 7:44	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	38	6-26-2025 7:49	SMK	SM 2540 D - 2011
pH	7.46	6-25-2025 10:48	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples
IDNR # 396

IDNR # 396

QSF-021 7/15/2017 DY Rev 0

[illegible]

Laboratory Use:

Seal Broken by:

Time:

5

Date Testing/Analysis:

Date Testing/Analysis:



Validation
al Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

ate: 0-0-823

Submitted By

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date:	Received by:	Date:	Remarks:
<i>[Signature]</i>	6-25-25	<i>[Signature]</i>	JUN 25 2025	Coded, pH not good for F&U
Time:	9:35	Time:	9:35	
Relinquished by:	Date:	Received by:	Date:	Remarks:
<i>[Signature]</i>	JUN 25 2025	<i>[Signature]</i>	JUN 25 2025	
Time:	1611	Time:	1011	



Certificate of Analysis

Report Date: 6-26-2025
Report Number: 25-177-0010
Lab ID Number: 25019705

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-20-2025
Date Received: 6-20-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 6-19-2025 @ 14:03 by LD
Received: 6-20-2025 @ 9:13 by ZDW (10.4°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	46.9	6-20-2025 14:03	MOM	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	438	6-24-2025 7:48	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	30	6-24-2025 9:35	APH	SM 2540 D - 2011
pH	7.50	6-20-2025 11:42	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

pH analyzed in duplicate prior to reporting

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By:

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone # : 712-225-3749

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

Lab Information

Transported by:

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 6-20-23	Received by:	Date: JUN 20 2025	Remarks:
	Time: 9:12		Time: 9:13	Cooled, pH not good for FW
Relinquished by:	Date: JUN 20 2025	Received by:	Date: JUN 20 2025	Remarks:
	Time: 9:31		Time: 9:31	



Chain of Custody Form for Legal Samples
IDNR # 396

STORAGE

Relinquished by:	Date:	Received by:	Remarks:	Preserved to correct pH for
<i>Shyla Stief</i>	JUN 20 2025 Time: 16:28	<i>Shyla Stief</i>		<i>then</i>
Relinquished by:	Date:	Received by:	Remarks:	Placed in storage to await analysis.
<i>Shyla Stief</i>	JUN 20 2025 Time: 16:30	STORAGE		
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	

Laboratory Use:

Sealed by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C

Analysis Initiated: _____ Analysis Completed: _____



Certificate of Analysis

Report Date: 6-23-2025
Report Number: 25-174-0043
Lab ID Number: 25019348

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-17-2025
Date Received: 6-18-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 6-17-2025 @ 13:56 by LD
Received: 6-18-2025 @ 8:46 by SKS (3.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	87.5	6-18-2025 11:05	ERB	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	370	6-19-2025 7:45	ELW	CFR PAI-DK03
Total Suspended Solids (mg/L)	36	6-19-2025 7:49	BMG	SM 2540 D - 2011
pH	7.52	6-18-2025 9:47	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Chain of Custody Form for Legal Samples
IDNR # 396

Foundation
Analytical Laboratory

Relinquished by: STORAGE	Date: JUN 19 2025 Time: 1030	Received by: <i>[Signature]</i>	Remarks:	Preserved to correct pH for TKN
Relinquished by: <i>[Signature]</i>	Date: JUN 19 2025 Time: 1040	Received by: STORAGE	Remarks:	Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C

Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Certificate of Analysis

Report Date: 6-18-2025
Report Number: 25-169-0045
Lab ID Number: 25018823

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-12-2025
Date Received: 6-12-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 6-12-2025 @ 8:31 by LD
Received: 6-12-2025 @ 9:04 by BRR (13.4°C)

Page 1 of 1

Test Requested	Result	Analysis Date /	Analyst	Method
		Time		
BOD (mg/L)	80.6	6-13-2025 7:51	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	419	6-17-2025 7:48	ELW	CFR PAI-DK03
Total Suspended Solids (mg/L)	46	6-17-2025 8:00	BMG	SM 2540 D - 2011
pH	7.58	6-12-2025 16:03	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

pH analyzed in duplicate prior to reporting

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

9780203015250

ndation
al Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

ate:

6-12-25

Submitted By:

Luke Olson

Lab Information

Transported by:

Lucy Colson

Company: Cherokee County Solid Waste
Address: 1805 Linden St

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date:	Received by:	Date:	Remarks:
Time:	6-12 25	Time:	JUN 12 2025	Ph - nest good
Date:	6/04	Time:	904	
Relinquished by:	Date:	Received by:	Date:	Remarks:
Time:	JUN 12 2025	Time:	JUN 12 2025	N/C
Date:	1302	Date:	1302	

Analytical Laboratory

IDNR # 396

Relinquished

STORAGE

Reliability Study:

Reinforced by:

Relinquish Control

Reinforced by:

Rechnungen ab:

References

Resin Impregnated Paper

ACKNOWLEDGMENTS

Date: JAN 17 2025

Time: 1:00

JUN 12 2025

Time: 16:30

JUN 17 2023

16-50

Received by: Storage

Received by *[Signature]*

RECEIVED BY:

5

Received by:

Received by:

RECEIVED BY:

Received by:

Reviewed by

Atty. Gen. J. W. H. H. H.

Remarks: Placed in storage to await analysis.

Remarks:

Remarks:

Remarks:

Remarks:

Remarks:

федеральных

Remarks

References

References

12

Preserved to correct pH for

Placed in storage to await analysis.



Certificate of Analysis

Report Date: 6-16-2025
Report Number: 25-167-0164
Lab ID Number: 25018451

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-11-2025
Date Received: 6-11-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 6-11-2025 @ 8:50 by LD
Received: 6-11-2025 @ 9:10 by SKS (6.6°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	87.8	6-11-2025 12:52	ERB	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	435	6-13-2025 7:49	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	38	6-12-2025 7:58	SEW	SM 2540 D - 2011
pH	7.55	6-11-2025 11:48	BJC	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

925-06017

Foundation
Physical Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By: 6-11-25

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Levi's 460532

Submitted to: _____

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Cell 712-260-2107

Chain of Custody Record

Relinquished by: <i>[Signature]</i>	Date:	6/11/25	Received by: <i>[Signature]</i>	Date:	JUN 11 2025	Remarks: <i>NE PT not OK for TKU</i>
	Time:	7:10		Time:	0910	
	Date:	JUN 11 2025		Date:	JUN 11 2025	
Relinquished by: <i>[Signature]</i>	Time:	1109	Received by: STORAGE	Time:	1101	

Remarks: (reason for investigation, clinical symptoms, background info, condition of sample)	Municipal Flow = _____	MGD	Industrial Flow = _____	MGD

[illegible]

Placed in storage to await analysis

[illegible]

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Seal Type Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Certificate of Analysis

Report Date: 6-11-2025
Report Number: 25-162-0065
Lab ID Number: 25018013

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-6-2025
Date Received: 6-6-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 6-5-2025 @ 10:52 by MB
Received: 6-6-2025 @ 11:06 by ZDW (10.5°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	80.9	6-6-2025 14:11	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	492	6-10-2025 7:51	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	40	6-10-2025 7:54	SEW	SM 2540 D - 2011
pH	7.30	6-6-2025 14:35	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C) and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Certificate of Analysis

Report Date: 6-11-2025
Report Number: 25-162-0066
Lab ID Number: 25018014

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 6-6-2025
Date Received: 6-6-2025
Contact: Matt Beckman

Sample Description: Landfill Leachate Grab
Sampled: 6-6-2025 @ 10:50 by MB
Received: 6-6-2025 @ 11:06 by ZDW (10.5°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	77.2	6-6-2025 14:13	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	446	6-10-2025 7:51	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	26	6-10-2025 7:54	SEW	SM 2540 D - 2011
pH	7.32	6-6-2025 14:36	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C) and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-05859

IDNR #396

Lab Information

M4 D-100

Transported by: 17971 Deckman

Submitted to: _____

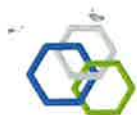
Storage/Condition

Report: Matt Beckman/ Cherokee Wastewater

[illegible]

Chain of Custody Record

Relinquished by:	Date:	Received by:	Date:	Remarks:
Mark Baker	6/6/25	(Signature)	JUN 0 5 2025	NC 1 pt good
Time: 11:04		Time: 11:06		
Relinquished by:	Date:	Received by:	Date:	Remarks:
(Signature)	JUN 0 5 2025	Mark Baker	JUN 0 5 2025	
Time: 11:54		Time: 11:54		



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 5-1-2025
Report Number: 25-121-0095
Lab ID Number: 25012801

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-25-2025
Date Received: 4-25-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Lechate Grab
Sampled: 4-25-2025 @ 13:48 by LD
Received: 4-25-2025 @ 14:25 by ALO (8.9°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	80.5	4-25-2025 14:42	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	421	5-1-2025 7:56	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	15	4-29-2025 11:16	SMK	SM 2540 D - 2011
pH	7.62	4-25-2025 14:50	RWT	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396



S25-04206

Client Information

ate: 7-25-25

Submitted By:

Leche Ojeda

Lab Insurance

Company: Cherokee County Solid Waste

Lehrer

Address: 1805 Linden St.

City: Cherokee

State: IA

Zip Code: 51012

Transported by:

Lab Inquirer
Linda Johnson

Submitted to:

Storage/Conditions

When Received:

Telephone # : 712-225-3749

Email: wastewater1@iowatelecom.net

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Remarks:
<i>[Signature]</i>	4-25-25	14:25	<i>[Signature]</i>	4/25/25	1435	Placed in storage to await analysis.
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Remarks:
<i>[Signature]</i>	APR 25 2025	1431	<i>[Signature]</i>	APR 25 2025	1431	Placed in storage to await analysis.



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by:	Date: APR 25 2025	Received by:	Remarks:
Relinquished by: <i>[Signature]</i>	Time: 1000	Received by: <i>[Signature]</i>	Placed in storage to await analysis.
Relinquished by:	Date: APR 25 2025	Received by:	Remarks:
Relinquished by:	Time: 1030	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Certificate of Analysis

Report Date: 5-1-2025
Report Number: 25-121-0095
Lab ID Number: 25012801

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-25-2025
Date Received: 4-25-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Lechate Grab
Sampled: 4-25-2025 @ 13:48 by LD
Received: 4-25-2025 @ 14:25 by ALO (8.9°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	80.5	4-25-2025 14:42	ELW	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	421	5-1-2025 7:56	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	15	4-29-2025 11:16	SMK	SM 2540 D - 2011
pH	7.62	4-25-2025 14:50	RWT	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Day Form for Legal Samples
IDNR #396


S25-04206

Client Information

Submitted By: Lucy Gosok

Leche Obsor

Lab Innovation

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Transported by: Lynn Wilson
Submitted to: _____

When Received: _____

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by: <i>[Signature]</i>	Date: 4-25-25	Received by: <i>[Signature]</i>	Date: 4/25/25	Remarks: PH not ok placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: APR 25 2025	Received by: <i>[Signature]</i>	Date: APR 25 2025	
Time: 1:31	Time: 19:25	Time: 1431	Time: 1431	



Chain of Custody Form for Legal Samples

IDNR # 396

OSF-021 7/15/2017 DY Rev 0

[illegible]

Laboratory Use:
Seal Broken by:

Date Broken:..

Time:

Sample Stored:

5

Date Testing/Analysis Initiated: _____

Date Testing/Analysis Completed

Foundation
Analytical Laboratory

Lab Information

57.67.1

Luke Gibson

Transported by: Lucy Carlson

Submitted to: _____

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

E-mail: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record			
Relinquished by:	Date:	Received by:	Date:
	4-24-25		APR 24 2025
	Time:		Time:
	1418		1418
Remarks:	pH not good for TAP		
Coiled 1			
Relinquished by:	Date:	Received by:	Date:
	APR 24 2025		APR 24 2025
	Time:		Time:
	1435		1435
Remarks:	Time sampled according to bottle		
	is 13:40		

Chain of Custody Form for Legal Samples
IDNR # 396

Relinquished by:	Date: APR 24, 2025 Time: 1435	Received by: STORAGE	Remarks: PLACED IN STORAGE TO AWAIT ANALYSIS.
Relinquished by: STORAGE	Date: APR 24, 2025 Time: 1435	Received by: [Signature]	Remarks: preserved to correct pH for
Relinquished by: [Signature]	Date: APR 24, 2025 Time: 1435	Received by: STORAGE	Remarks: placed in storage to await analysis.
Relinquished by:	Date: APR 24, 2025 Time: 1440	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:

Laboratory Use:

Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____ °C

Date Testing/Analysis Initiated

Date Testing/Analysis Completed



Certificate of Analysis

Report Date: 4-23-2025
Report Number: 25-113-0101
Lab ID Number: 25011902

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-17-2025
Date Received: 4-17-2025
Contact: Cherokee Wastewater
Submitted By: Rob Stines

Sample Description: Landfill Leachate Grab
Sampled: 4-17-2025 @ 12:30 by RS
Received: 4-17-2025 @ 14:55 by SKS (10.6°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	69.1	4-17-2025 15:54	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	402	4-23-2025 7:39	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	28	4-22-2025 8:01	JRS	SM 2540 D - 2011
pH	7.70	4-17-2025 15:55	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-03903

dation
Laboratory

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By 4/17/25 Date: 4/17/25

Lab Information

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Transported by: _____
Submitted to: _____
Storage/Conditions _____
When Received: _____
Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell 712-260-2107

Chain of Custody Record

[illegible]

Relinquished by:	Date:	Received by:	Date:	Remarks:
Mike & Troy	4/17/25	Mike & Troy	APR 17 2025	OK PH not used
Relinquished by:	Date:	Received by:	Date:	Remarks:
Mike & Troy	2:55	Mike & Troy	1435	Placed in storage to await analysis.
Time:	Date:	Time:	Date:	
Time:	APR 17 2025	Time:	APR 17 2025	
SOX		SOX		



Foundation

Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by:	Date: APR 17 2025	Received by:	Remarks:	Preserved to correct for
STORAGE	Time: 1630	Received by:	Remarks:	Placed in storage to await analysis.
Relinquished by:	Date: APR 17 2025	Received by:	Remarks:	
Relinquished by:	Time: 1640	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	
Relinquished by:	Date:	Received by:	Remarks:	
Relinquished by:	Time:	Received by:	Remarks:	

Laboratory Use:
Seal Broken by:

Date Broken:

Time:

Sample Stored:

Date: by/Anal:

Date: by/Anal:



Certificate of Analysis

Report Date: 4-30-2025
Report Number: 25-120-0007
Lab ID Number: 25012701

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-24-2025
Date Received: 4-24-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate (1) Grab
Sampled: 4-24-2025 @ 13:40 by LD
Received: 4-24-2025 @ 14:18 by ZDW (8.4°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	69	4-25-2025 9:01	ELW	SM 5210B - 2011
Total Suspended Solids (mg/L)	24	4-29-2025 11:16	SMK	SM 2540 D - 2011
pH	7.62	4-24-2025 15:11	EMD	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Sample received in customer-provided container.

Upon receipt sample met requirements for analysis EXCEPT maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Certificate of Analysis

Report Date: 4-28-2025
Report Number: 25-118-0117
Lab ID Number: 25012702

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-24-2025
Date Received: 4-24-2025
Contact: Matt Beckman
Submitted By: Luke Dobson

Sample Description: Landfill Leachate (2) Grab
Sampled: 4-24-2025 @ 13:40 by LD
Received: 4-24-2025 @ 14:18 by ZDW (8.4°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
Total Kjeldahl Nitrogen (mg/L)	398	4-28-2025 7:57	BMG	CFR PAI-DK03

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Sample received in customer-provided container.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met.

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Certificate of Analysis

Report Date: 4-21-2025
Report Number: 25-111-0207
Lab ID Number: 25011678

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-16-2025
Date Received: 4-16-2025
Contact: Cherokee Wastewater
Submitted By: Rob Stines

Sample Description: Landfill Leachate Grab
Sampled: 4-15-2025 @ 13:30 by RS
Received: 4-16-2025 @ 14:55 by ZDW (10.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date /	Analyst	Method
		Time		
BOD (mg/L)	105	4-16-2025 15:32	LLA	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	417	4-21-2025 8:48	MOM	CFR PAI-DK03
Total Suspended Solids (mg/L)	43	4-17-2025 13:30	SEW	SM 2540 D - 2011
pH	7.45	4-16-2025 16:01	JWM	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



S25-03863

Chain of Custody Form for Legal Samples IDNR #396

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laboratory

Client Information

Lab Information

ate: 4/16/25 Submitted By: Rob Stines
Company: Cherokee County Solid Waste
Address: 1805 Linden St.
City: Cherokee State: IA Zip Code: 51012
Telephone #: 712-225-3749
Transported by: _____
Submitted to: _____
Storage/Conditions _____
When Received: _____
Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell 712-260-2107

Sample ID	Date Sampled	Time Sampled	Matrix		Analyze for:										Preservation	Temperature When Received	FAL Lot Number
			Number of Bottles	C = Composite G = Grab	Wastewater	SL = Sludge MW =	PH	TKN	TSS	BOD	Chloride	Copper	Ammonia	Phosphorus			
Landfill Leachate(1)	4/15/25	1:30	G	1	ww	X	X	X	X	X	X	X	X	X	No Treat	10.8	71678
Landfill Leachate(2)	4/15/25	1:40	G	1	ww										H2SO4		

Remarks: (reason for investigation, clinical symptoms, background info, condition of sample) Municipal Flow = _____ MGD Industrial Flow = _____ MGD

Chain of Custody Record

Relinquished by: <u>[Signature]</u>	Date: <u>4/16/25</u>	Received by: <u>[Signature]</u>	Date: <u>4/16/25</u>	Remarks: <u>pH not good for TXU</u>
Relinquished by: <u>[Signature]</u>	Time: <u>12:51</u>	Received by: <u>[Signature]</u>	Time: <u>1455</u>	
Relinquished by: <u>[Signature]</u>	Date: <u>APR 16 2025</u>	Received by: <u>[Signature]</u>	Date: <u>APR 16 2025</u>	
Relinquished by: <u>[Signature]</u>	Time: <u>9:4</u>	Received by: <u>[Signature]</u>	Time: <u>1514</u>	

[illegible]

Auto broken
line:
sample stored:

Date Testing:



Certificate of Analysis

Report Date: 4-14-2025
Report Number: 25-104-0109
Lab ID Number: 25010501

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-8-2025
Date Received: 4-8-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 4-8-2025 @ 14:00 by LD
Received: 4-8-2025 @ 14:25 by ZDW (7.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	92	4-9-2025 10:14	SMK	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	533	4-10-2025 8:51	ELW	CFR PAI-DK03
Total Suspended Solids (mg/L)	37.1	4-10-2025 7:16	SMK	SM 2540 D - 2011
pH	7.48	4-8-2025 16:12	EMD	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

S25-03441

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a1 Laboratory/

Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By 7-8-5

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: LCR 10/9/2022

Submitted to: _____

Storage/Conditions

When Received: _____

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Received by:	Remarks:
Date: 4-8-05	Date: APR 08 2005	Cooled pH not 8.000 for pH
Time: 14:25	Time: 14:25	
Date: APR 08 2005	Date: APR 08 2005	
Relinquished by:	Received by:	Remarks:
Date: 4-8-05	Date: APR 08 2005	
Time: 15:35	Time: 15:35	



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 IDY Rev 0

Relinquished by: 	Date: APR 18 2025 Time: 1537	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: 	Date: APR 18 2025 Time: 1630	Received by: 	Remarks: Preserved to correct pH for
Relinquished by: 	Date: APR 18 2025 Time: 1640	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by:

Date Broken:

Time:

Sample Stored:

Date:

Date:



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 4-14-2025
Report Number: 25-104-0116
Lab ID Number: 25010714

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 4-9-2025
Date Received: 4-9-2025
Contact: Cherokee Wastewater

Sample Description: Landfill Leachate (1) Grab
Sampled: 4-9-2025 @ 11:52 by LO
Received: 4-9-2025 @ 14:15 by SKS (5.6°C)

Page 1 of 1

Test Requested	Result	Analysis Date /	Analyst	Method
		Time		
BOD (mg/L)	187	4-9-2025 15:31	SMK	SM 5210B - 2011
Total Suspended Solids (mg/L)	42	4-10-2025 7:16	SMK	SM 2540 D - 2011
pH	7.51	4-9-2025 16:02	SEW	SM 4500-H B - 2011
Total Kjeldahl Nitrogen (mg/L)	486	4-14-2025 7:57	JMS	CFR PAI-DK03

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: APR 09 2025 Time: 1436	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: APR 09 2025 Time: 1620	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: APR 09 2025 Time: 1640	Received by: <i>[Signature]</i>	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:
Relinquished by:	Date: Time:	Received by:	Remarks:



Certificate of Analysis

Report Date: 3-31-2025
Report Number: 25-090-0083
Lab ID Number: 25008696

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 3-26-2025
Date Received: 3-26-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate(1) Grab
Sampled: 3-26-2025 @ 8:13 by LD
Received: 3-26-2025 @ 8:44 by SKS (4.6°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	< 97.2	3-26-2025 9:50	SMK	SM 5210B - 2011
Total Suspended Solids (mg/L)	30	3-27-2025 8:04	SEW	SM 2540 D - 2011
pH	7.64	3-26-2025 14:12	LLA	SM 4500-H B - 2011
Total Kjeldahl Nitrogen (mg/L)	530	3-27-2025 7:54	BMG	CFR PAI-DK03

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Brittany Erickson
Quality Manager

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Relinquished by:	Date:	3-26-15	Received by:	Date:	MAR 26 2015	Remarks:
	Time:	8:49		Time:		
Relinquished by:	Date:	MAR 26 2015	Received by:	Date:	MAR 26 2015	Remarks:
	Time:	1:21		Time:	1:21	W/C PH not good



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: MAR 20 2025	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Time: 9:34	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for <i>TN</i>
Relinquished by: <i>[Signature]</i>	Date: MAY 20 2025	Received by: <i>[Signature]</i>	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Time: 1630	Received by: STORAGE	Remarks:
Relinquished by: <i>[Signature]</i>	Date: MAR 20 2025	Received by:	Remarks:
Relinquished by:	Time: 1640	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Time:	Received by:	Remarks:

Foundation
IDNR # 396



Certificate of Analysis

Report Date: 3-26-2025
Report Number: 25-085-0104
Lab ID Number: 25008402

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 3-21-2025
Date Received: 3-21-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 3-21-2025 @ 11:11 by LD
Received: 3-21-2025 @ 11:35 by KLH (4.4°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	191	3-21-2025 13:51	LLA	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	538	3-26-2025 7:55	BMG	CFR PAI-DK03
Total Suspended Solids (mg/L)	22	3-25-2025 7:43	SMK	SM 2540 D - 2011
pH	7.69	3-21-2025 13:39	JRS	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



S25-02736

Chain of Custody Form for Legal Samples

IDNR #396



Client Information

Submitted By: Wm. J. J. J. 3-21-25

Submitted By: Wm. J. J. J. 3-21-25

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Lab Information

Transported by: Vehicle 60220A

Submitted to: _____

Storage/Conditions

When Received: _____

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:	Date: 3-21-25	Received by:	Date: 3/21/25	Remarks:
	Time: 11:35	K. H. Green	Time: 11:35	Good, PH OK
Relinquished by:	Date:	Received by:	Date: MAR 21 2025	Remarks:
K. H. Green	Time: 12:05	PH 01 OPEN	Time: 12:05	



Certificate of Analysis

Report Date: 3-17-2025
Report Number: 25-076-0227
Lab ID Number: 25007505

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 3-12-2025
Date Received: 3-12-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 3-12-2025 @ 13:17 by LD
Received: 3-12-2025 @ 14:08 by ZDW (8.0°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	87.3	3-12-2025 15:27	MOM	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	691	3-14-2025 8:19	HMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	22.4	3-13-2025 11:05	SMK	SM 2540 D - 2011
pH	7.56	3-12-2025 15:22	JWM	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



S25-02448

ation

IDNR #396

Lab Information

Submitted By Luke Johnson

Luke Dobson

Submitted to:

State: IA

When Received:

Report: George Schmidt % Cherokee Wastewater

Cell 712-260-2107

[illegible]

Chain of Custody Record

Relinquished by:		Received by:		Remarks:
Date: 3/12/25		Date: MAR 17 2025		Not cooked, pH not good for TKV
Time: 19:07		Time: 1498		
Date: MAR 11 2025		Date: MAR 17 2025		Remarks:
Time: 1435		Time: 1438		



Foundation

Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSA 021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: MAR 17 2025	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: MAR 17 2025	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for analysis.
Relinquished by: <i>[Signature]</i>	Date: MAR 17 2025	Received by: <i>[Signature]</i>	Remarks: Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by:

Date Broken: _____ Time: _____ Sample Stored: _____ °C

Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



Certificate of Analysis

Report Date: 3-20-2025
Report Number: 25-079-0043
Lab ID Number: 25007863

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 3-14-2025
Date Received: 3-14-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 3-14-2025 @ 9:25 by LD
Received: 3-14-2025 @ 10:08 by SKS (5.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	134	3-14-2025 14:19	MOM	SM 5210B - 2011
Total Suspended Solids (mg/L)	15.1	3-18-2025 8:23	JRS	SM 2540 D - 2011
pH	7.56	3-14-2025 16:00	BJC	SM 4500-H B - 2011
Total Kjeldahl Nitrogen (mg/L)	606	3-17-2025 12:54	BMG	CFR PAI-DK03

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSF-021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 11:43	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 11:43	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 1630	Received by: <i>[Signature]</i>	Remarks: Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____ Date Broken: _____ Time: _____ Sample Stored: _____
Date Testing/Analysis Initiated: _____ Date Testing/Analysis Completed: _____



S25-02537

Lab Informații:

Transported by: Lake Ladoga

Submitted to: _____

Storage/Conditions

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell 712-260-2107

					Matrix	Analyze for:												
Sample ID	Date Sampled	Time Sampled	G = Grab C = Composite	Number of Bottles	SL = Sludge WW = Wastewater	PH	TKN	TSS	BOD	Chloride	Copper	Ammonia	Phosphorus	Nitrate / Nitrite	Sampled By	Preservation	Temperature When Received	FAL Lot Number
Landfill Leachate(1)	3/14/2025	9:25 AM	G	1	ww	X		X	X						LD	No Treat		
Landfill Leachate(2)	3/14/2025	9:25 AM	G	1	ww		X								LD	H2SO4		
Landfill Leachate(3)			G	1	ww	X		X	X							No Treat		
Landfill Leachate(4)			G	1	ww		X									H2SO4		
										</								

Chain of Custody Record	
Relinquished by:	Received by:
Date: 3-14-25	Date: MAR 14 2025
Time: 11:38	Time: 1008
Relinquished by: [Signature]	Received by: [Signature]
Date: MAR 14 2025	Date: MAR 14 2025
Time: 11:38	Time: 11:38
Remarks:	Remarks: NC, pH not good for TPAU



Certificate of Analysis

Report Date: 3-20-2025
Report Number: 25-079-0043
Lab ID Number: 25007863

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 3-14-2025
Date Received: 3-14-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate Grab
Sampled: 3-14-2025 @ 9:25 by LD
Received: 3-14-2025 @ 10:08 by SKS (5.8°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	134	3-14-2025 14:19	MOM	SM 5210B - 2011
Total Suspended Solids (mg/L)	15.1	3-18-2025 8:23	JRS	SM 2540 D - 2011
pH	7.56	3-14-2025 16:00	BJC	SM 4500-H B - 2011
Total Kjeldahl Nitrogen (mg/L)	606	3-17-2025 12:54	BMG	CFR PAI-DK03

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard

Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Relinquished by:	Date: 3/14/23	Received by:	Date: MAR 14 2023	Remarks:
Time: 10:08		Time: 1008		NC, pH not good for
Relinquished by: [Signature]	Date: MAR 14 2023	Received by: [Signature]	Date: MAR 14 2023	Remarks:
Time: 11:38		Time: 11:38		



Foundation
Analytical Laboratory

Chain of Custody Form for Legal Samples
IDNR # 396

QSI-021 7/15/2017 DY Rev 0

Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 11:43	Received by: Storage	Remarks: Placed in storage to await analysis.
Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 11:43	Received by: <i>[Signature]</i>	Remarks: Preserved to correct pH for <i>[Signature]</i>
Relinquished by: <i>[Signature]</i>	Date: MAR 14, 2025 Time: 1630	Received by: <i>[Signature]</i>	Remarks: Placed in storage to await analysis.
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:
Relinquished by:	Date:	Received by:	Remarks:

Laboratory Use:
Seal Broken by: _____
Date Testing/Analysis Initiated: _____

Date Broken: _____ Time: _____
Date Testing/Analysis Completed: _____

Sample Stored: _____



Foundation
Analytical Laboratory

723 Sleezer Road
Cherokee, IA 51012
Phone: 712-225-6989
www.foundationanalytical.com

Certificate of Analysis

Report Date: 3-3-2025
Report Number: 25-062-0123
Lab ID Number: 25005805

Cherokee County Solid Waste Agency
1805 Linden Street
Cherokee, IA 51012

Date Submitted: 2-26-2025
Date Received: 2-26-2025
Contact: Cherokee Wastewater
Submitted By: Luke Dobson

Sample Description: Landfill Leachate (1) Grab
Sampled: 2-26-2025 @ 9:45 by LD
Received: 2-26-2025 @ 10:13 by BRR (6.6°C)

Page 1 of 1

Test Requested	Result	Analysis Date / Time	Analyst	Method
BOD (mg/L)	< 124	2-26-2025 13:36	MOM	SM 5210B - 2011
Total Kjeldahl Nitrogen (mg/L)	708	2-27-2025 7:40	JMS	CFR PAI-DK03
Total Suspended Solids (mg/L)	67	2-27-2025 8:21	ERB	SM 2540 D - 2011
pH	7.43	2-26-2025 14:41	NJW	SM 4500-H B - 2011

Comments

Foundation Analytical Lab (IDNR Lab #396, USEPA Lab #IA01138) is certified by the Iowa Department of Natural Resources for the testing of wastewater and drinking water.

Upon receipt sample met requirements for analysis EXCEPT sample temperature (BOD: 0-6°C; pH: 0-6°C; TKN: 0-6°C; Total Suspended Solids: 0-6°C), pH guidelines not met and maximum hold time exceeded (pH).

Respectfully submitted by

Molly Lundsgaard
Laboratory Administrator

**** End Certificate of Analysis ****

Samples were received in acceptable condition unless denoted in the comments section of this report. Any temperature(s) recorded at receipt are + / - 1°C. All data for this report has been approved by Foundation Analytical Laboratory Management. The results depicted in this report apply to samples as submitted. It is not possible for Foundation Analytical Laboratory to guarantee that a test result obtained on a particular sample will be the same on any other sample unless all conditions affecting the sample are the same, including sampling by Foundation Analytical Laboratory. As a mutual protection to clients, the public, and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.



Chain of Custody Form for Legal Samples

IDNR #396

Client Information

Submitted By: 2-26-25

Company: Cherokee County Solid Waste

Address: 1805 Linden St.

City: Cherokee State: IA Zip Code: 51012

Telephone #: 712-225-3749

Report: George Schmidt % Cherokee Wastewater
Email: wastewater1@iowatelecom.net Cell 7

Cell 712-260-2107

Lab Information:

Transported by: Luke Hobson

Submitted to:

Storage/Conditions

When Received:

Report: George Schmidt % Cherokee Wastewater

Email: wastewater1@iowatelecom.net Cell 712-260-2107

Analyze for:													Temperature When Received	FAL Lot Number				
Matrix		Analyze for:																
Sample ID	Date Sampled	Time Sampled	G = Grab C = Composite	Number of Bottles	SL = Sludge MW = WW = Wastewater	PH	TKN	TSS	BOD	Chloride	Copper	Ammonia	Phosphorus	Nitrate / Nitrite	Sampled By:	Preservation		
Landfill Leachate(1)	4-26-25	9:45	G	1	ww	X	X	X	X						LD	No Treat	6.6	5415
Landfill Leachate(2)			G	1	ww	X	X									H2SO4		
Landfill Leachate(3)			G	1	ww	X	X	X	X							No Treat		
Landfill Leachate(4)			G	1	ww	X	X									H2SO4		

Remarks: (reason for investigation, clinical symptoms, background info, condition of sample) Municipal Flow = _____ MGD Industrial Flow = _____ MGD

Chain of Custody Record

Chain of Custody Record			
Relinquished by:	Date: 2-26-25	Received by:	Date: FEB 26 2025
	Time: 0049		Time: 1013
Remarks:		Remarks: N/C	
Relinquished by:	Date: FEB 26 2025	Received by:	Date: FEB 26 2025
	Time: 1040		Time: 1040
Remarks:		Remarks:	

Chain of Custody Form for Legal Samples
IDNR # 396

Cellulose Laboratory
Cellulose Division

POLYMER LETTERS

Appendix F
2025 Landfill Gas Annual Report

Table 13
Gas Monitoring Summary
2025 Gas Monitoring Report
Cherokee County Landfill
Permit No. 18-SDP-01-75P

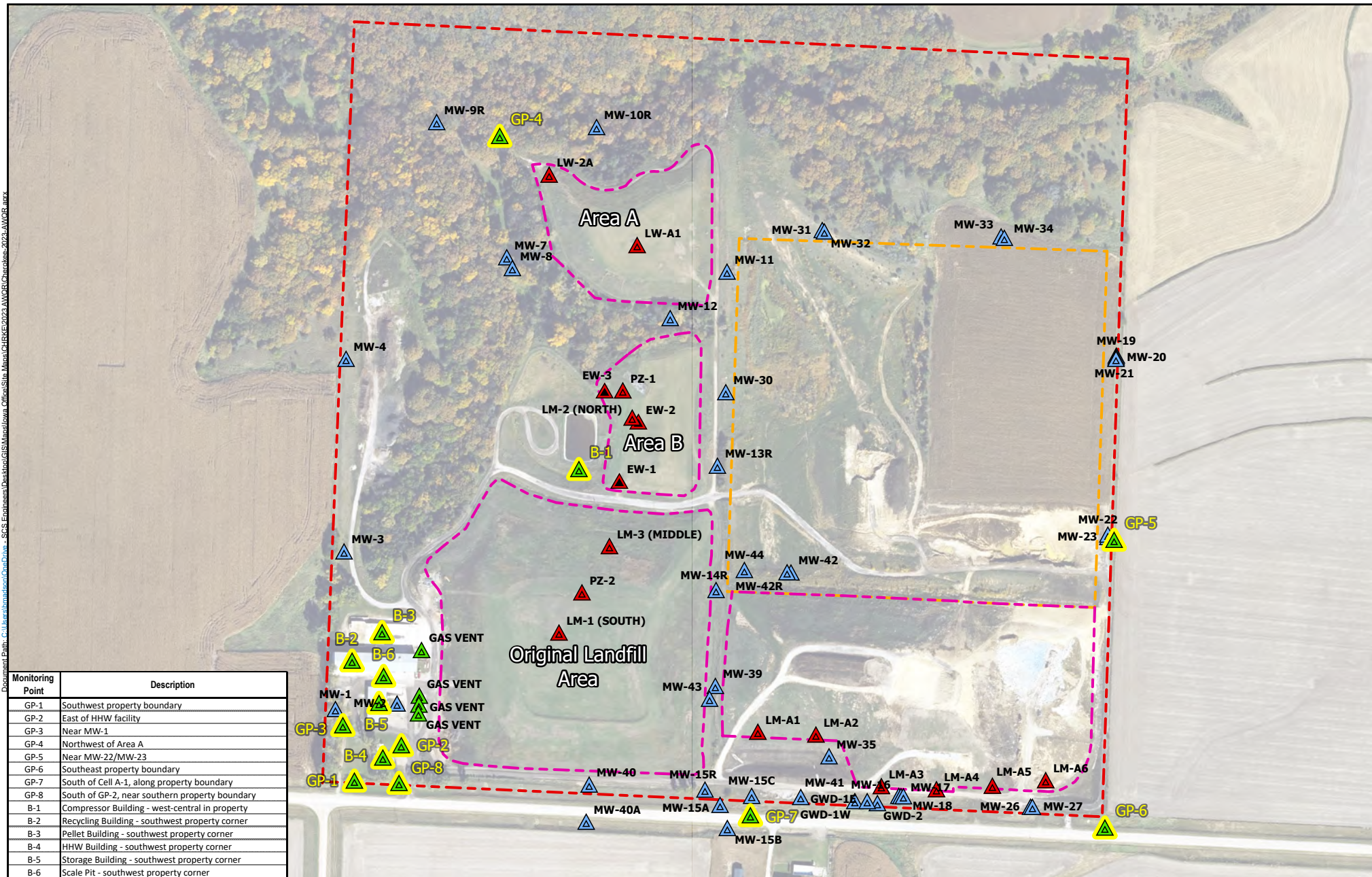
Monitoring Points				Methane Results (% LEL)							
Number	Name	Type	Description	3/14/2025	S (Y/N)*	6/24/2025	S (Y/N)*	9/26/2025	S (Y/N)*	12/19/2025	S (Y/N)*
GP-1	Subsurface gas probe	Subsurface	Southwest property boundary	0%	N	0%	N	0%	N	0%	N
GP-2	Subsurface gas probe	Subsurface	East of HHW facility	100%	N	100%	N	100%	N	100%	N
GP-3	Subsurface gas probe	Subsurface	Near MW-1	0%	N	0%	N	0%	N	0%	N
GP-4	Subsurface gas probe	Subsurface	Northwest of Area A	0%	N	0%	N	0%	N	0%	N
GP-5	Subsurface gas probe	Subsurface	Near MW-22/MW-23	0%	N	0%	N	0%	N	0%	N
GP-6	Subsurface gas probe	Subsurface	Southeast property boundary	0%	N	0%	N	0%	N	0%	N
GP-7	Subsurface gas probe	Subsurface	South of Cell A-1, along property boundary	0%	N	0%	N	0%	N	0%	N
GP-8	Subsurface gas probe	Subsurface	South of GP-2, near southern property boundary	0%	N	0%	N	0%	N	0%	N
B-1	Compressor Building	Indoor	Compressor Building - west-central in property	0%		0%		0%		0%	
B-2	Recycling Building	Indoor	Recycling Building - southwest property corner	0%		0%		0%		0%	
B-4	HHW Building	Indoor	HHW Building - southwest property corner	0%		0%		0%		0%	
B-5	Storage Building	Indoor	Storage Building - southwest property corner	0%		0%		0%		0%	
B-6	Scale Pit	Indoor	Scale Pit - southwest property corner	0%		0%		0%		0%	

S(Y/N)* - Was screen submerged, yes or no or blank is non-applicable

100% LEL measurements at monitoring point GP-2 were bracketed by non-detect measurements at the property

* - The top of screens for gas monitoring probes GP-1 through GP-6 range from 5.6 to 6.7 feet below ground surface.

Groundwater levels through the majority of the site are greater than ten feet, indicating the screens of the gas



Monitoring Point	Description
GP-1	Southwest property boundary
GP-2	East of HHW facility
GP-3	Near MW-1
GP-4	Northwest of Area A
GP-5	Near MW-22/MW-23
GP-6	Southeast property boundary
GP-7	South of Cell A-1, along property boundary
GP-8	South of GP-2, near southern property boundary
B-1	Compressor Building - west-central in property
B-2	Recycling Building - southwest property corner
B-3	Pellet Building - southwest property corner
B-4	HHW Building - southwest property corner
B-5	Storage Building - southwest property corner
B-6	Scale Pit - southwest property corner

Legend

- Methane Monitoring Location
- Gas Vent
- Monitoring Well
- Leachate Monitoring Location
- Approximate Waste Boundary
- Approximate Future Waste Boundary
- Approximate Property Boundary

FIGURE 1
Cherokee County Sanitary Landfill
Methane Monitoring Network
Cherokee, Iowa

SCS ENGINEERS

27225283.26

February 2026

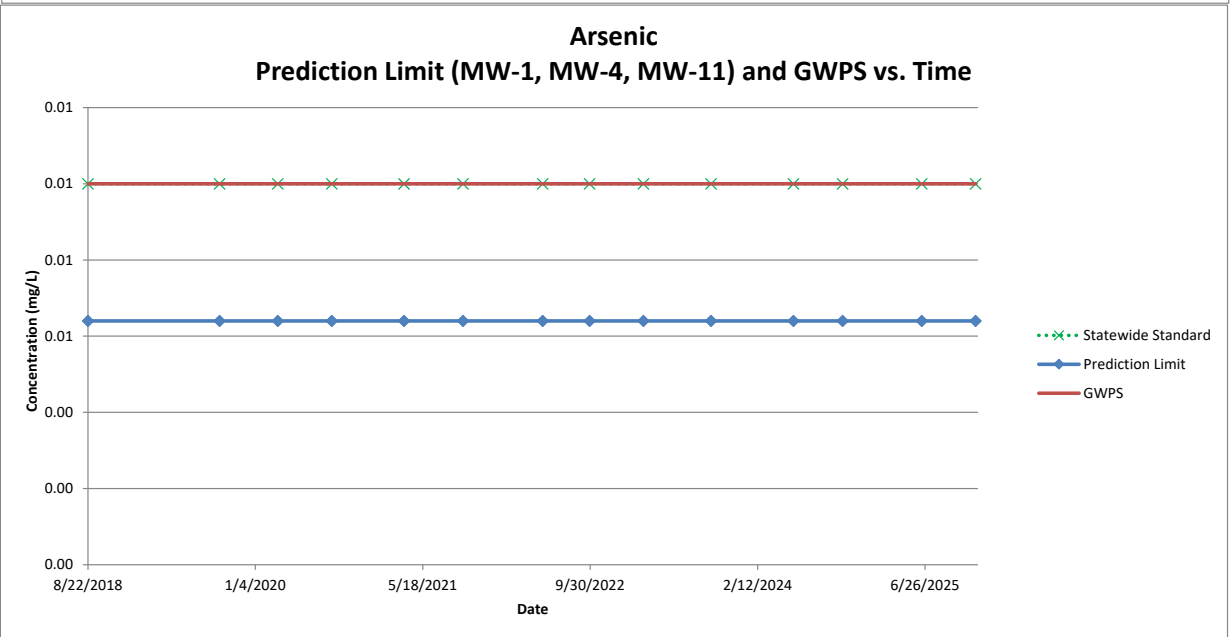
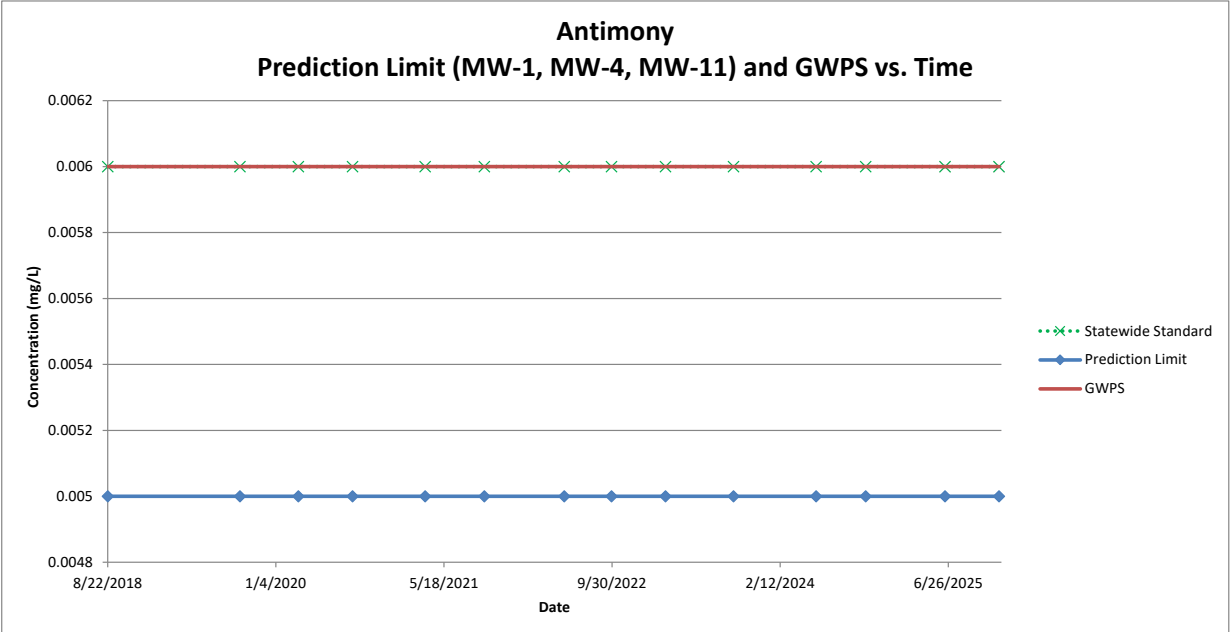
0 500 Feet

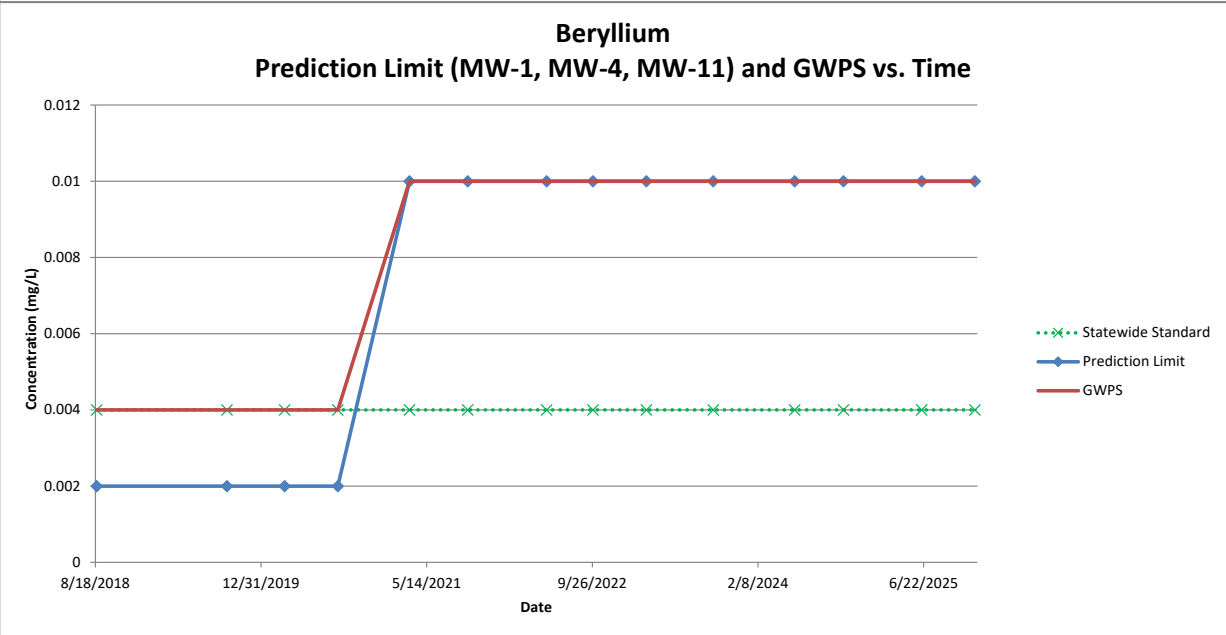
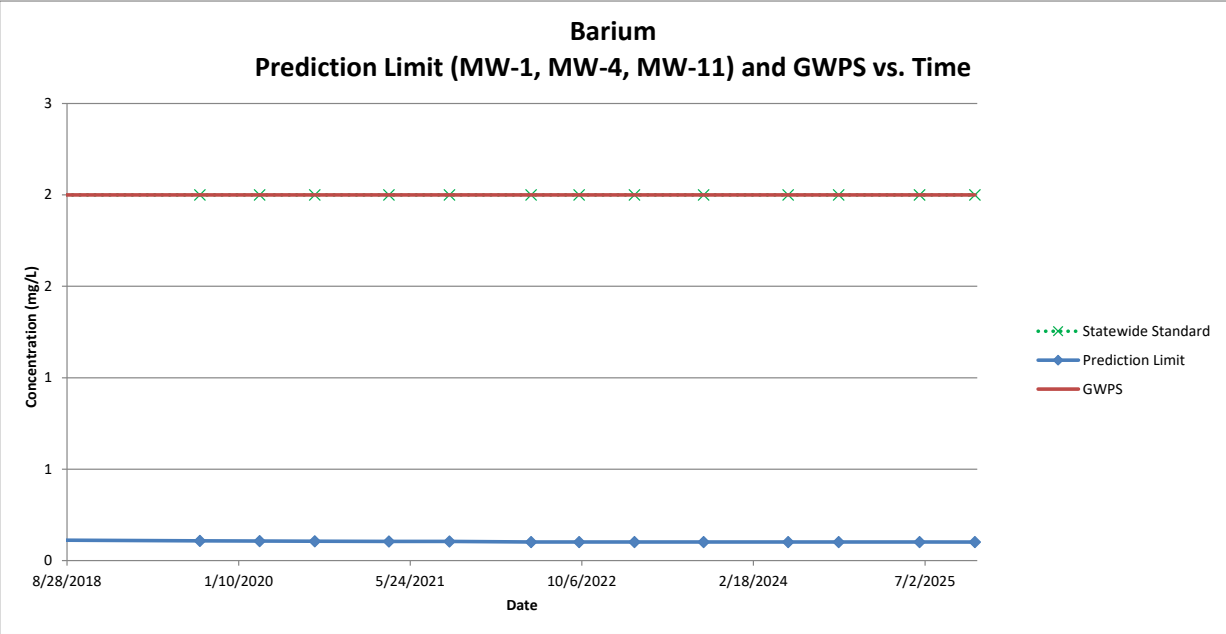


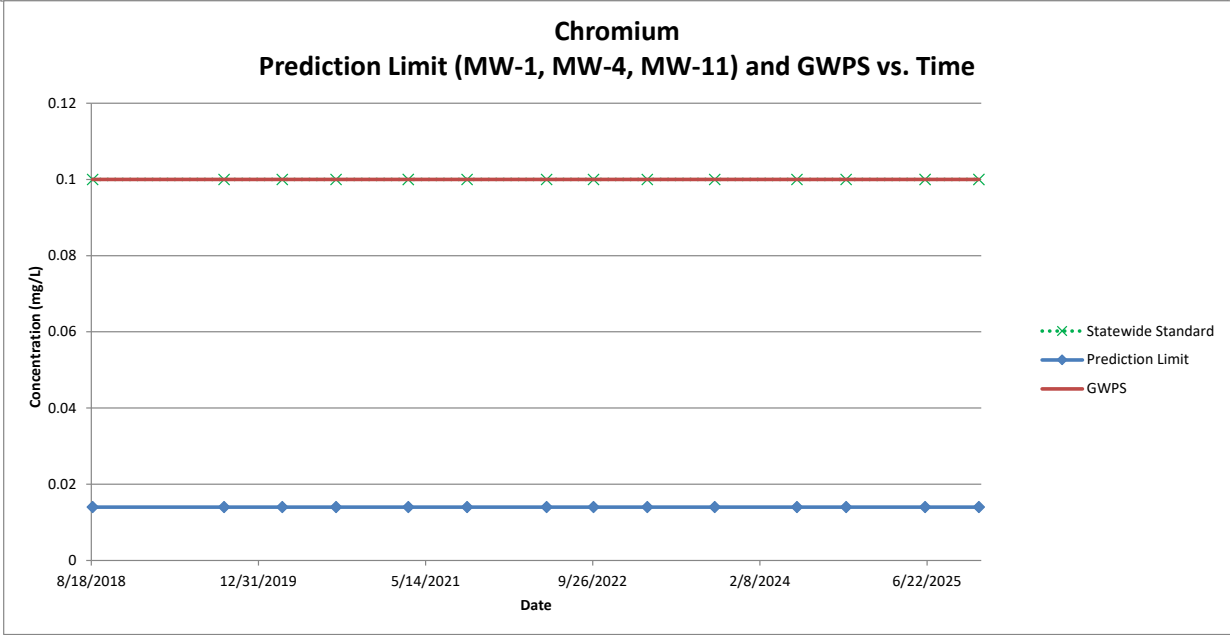
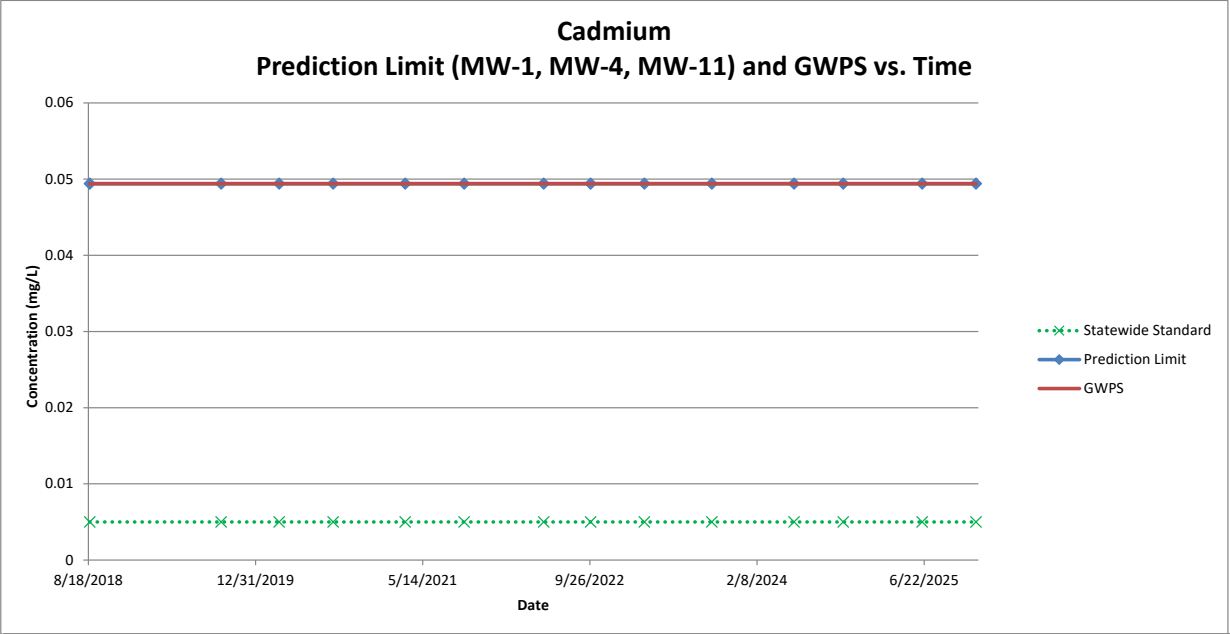


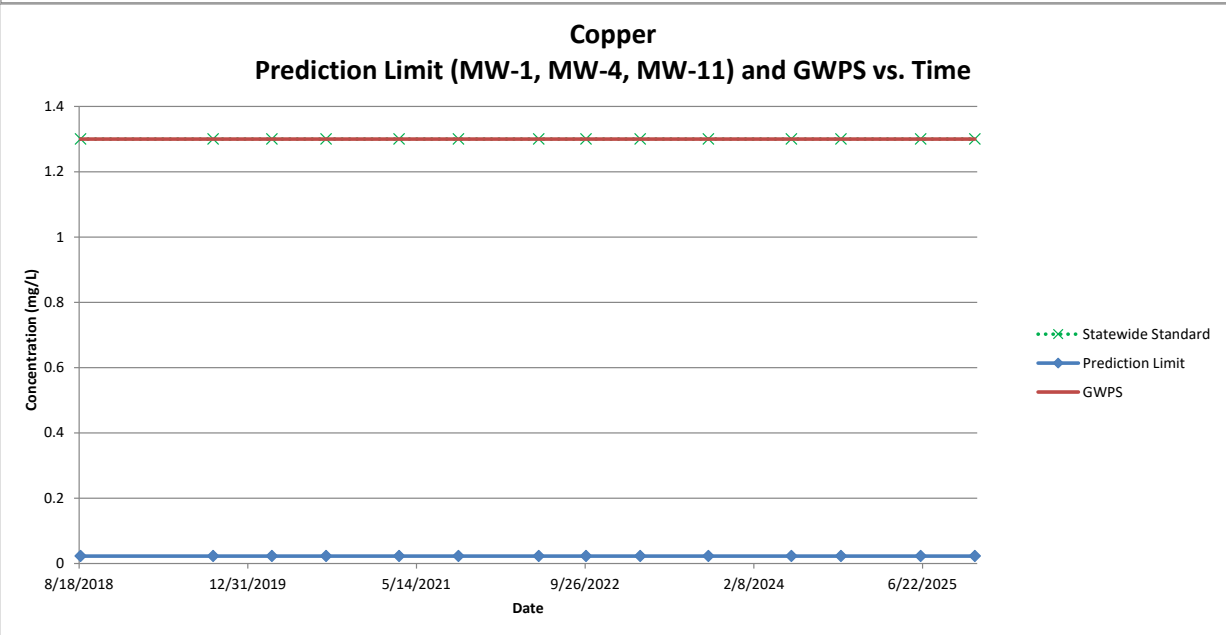
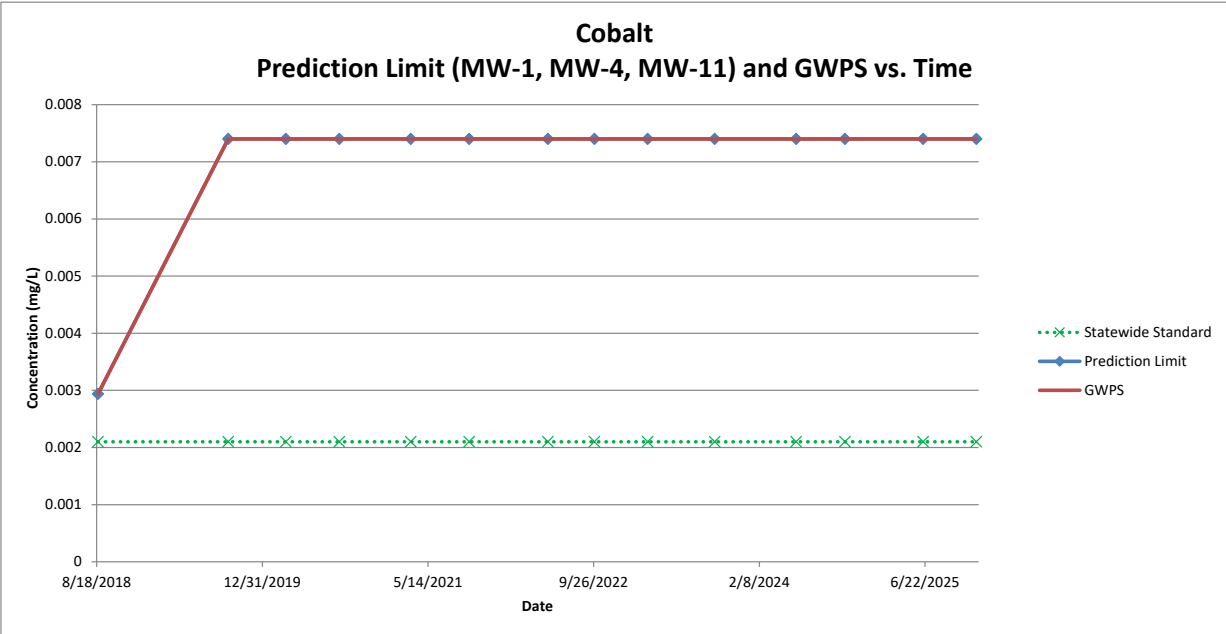
Appendix G

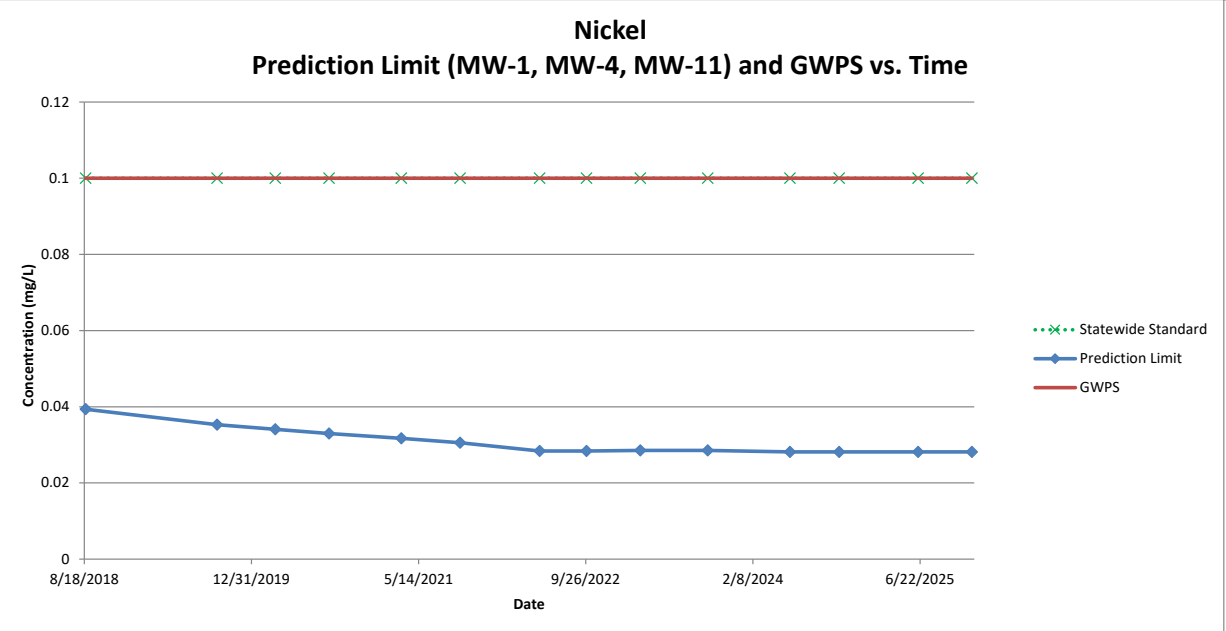
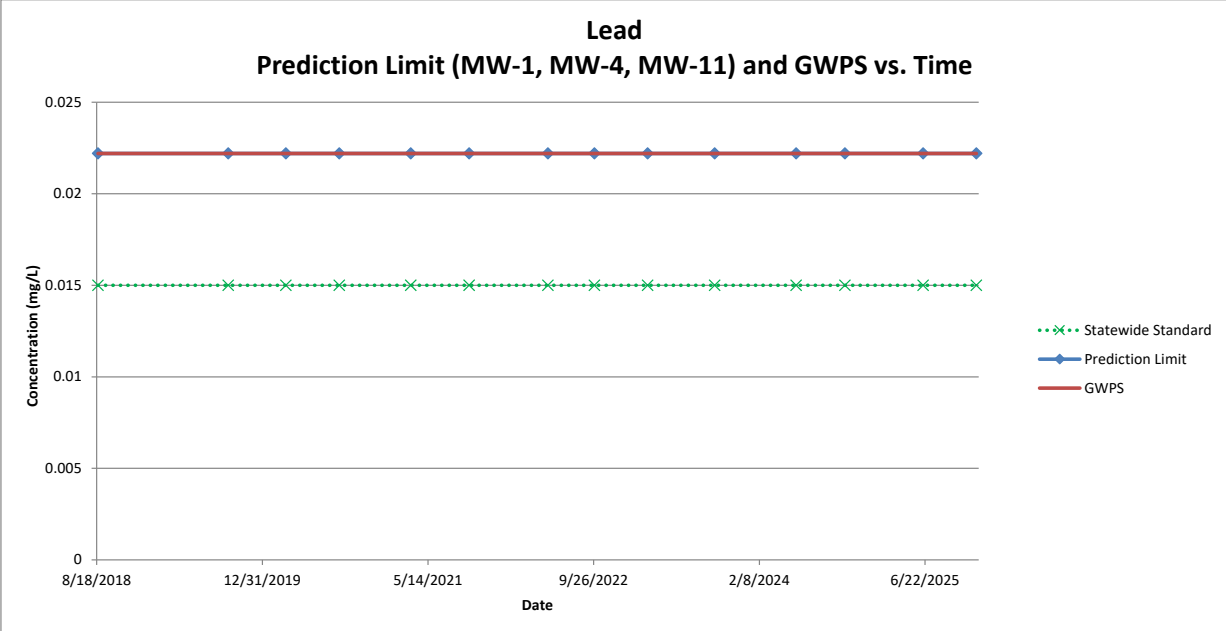
Standards History Graphs

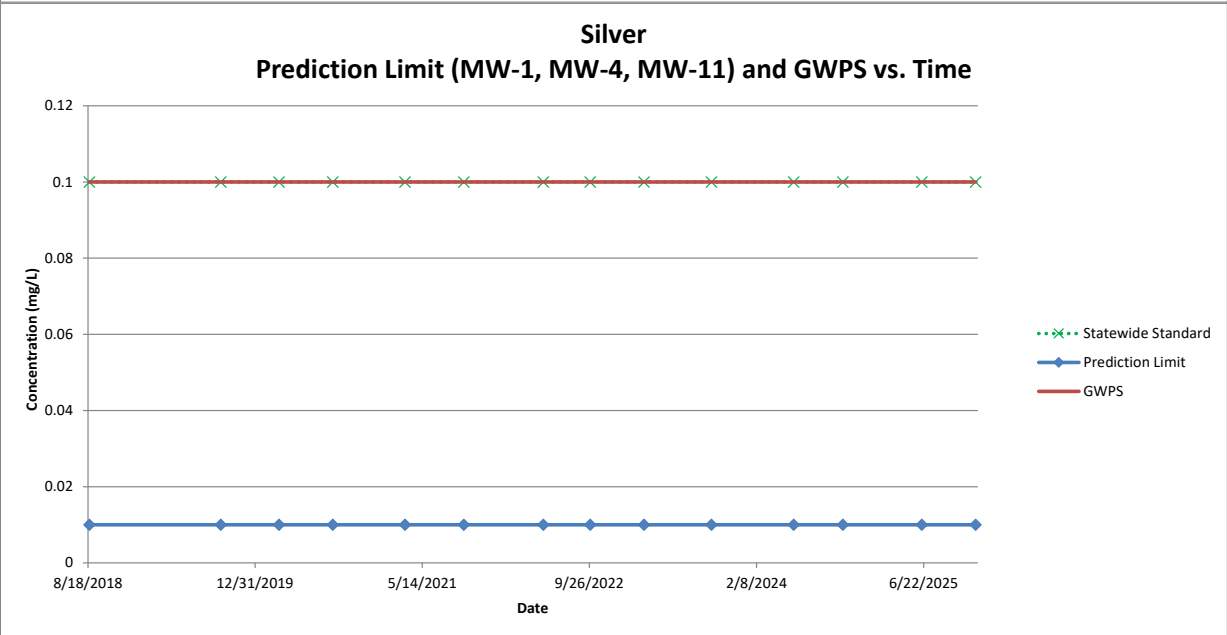
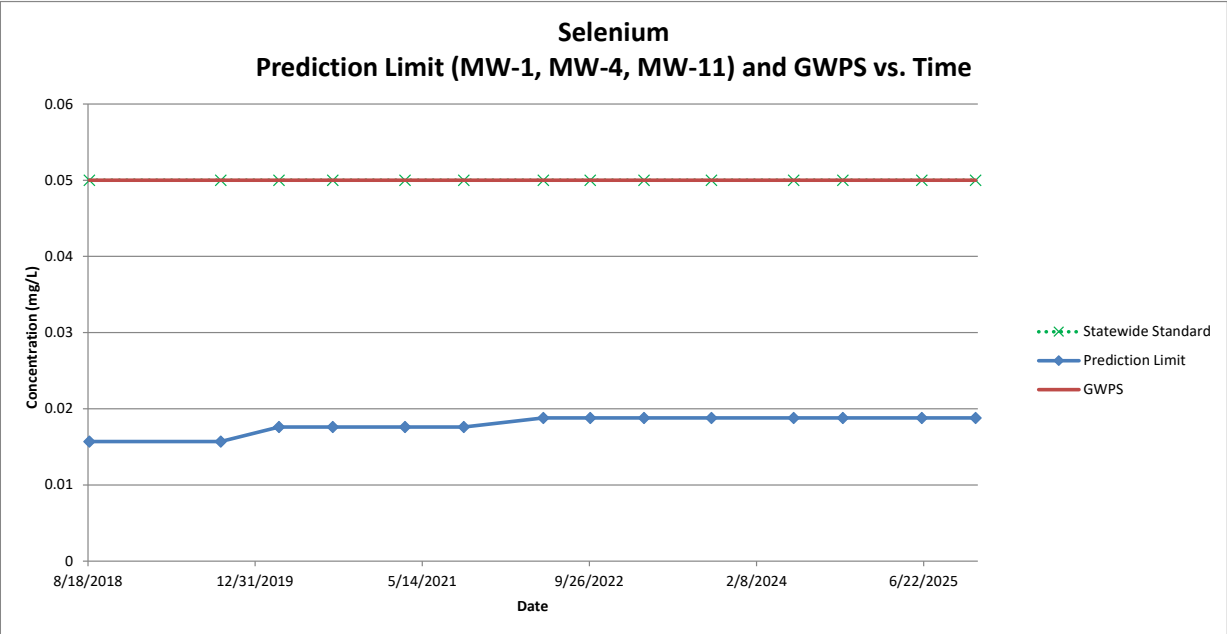


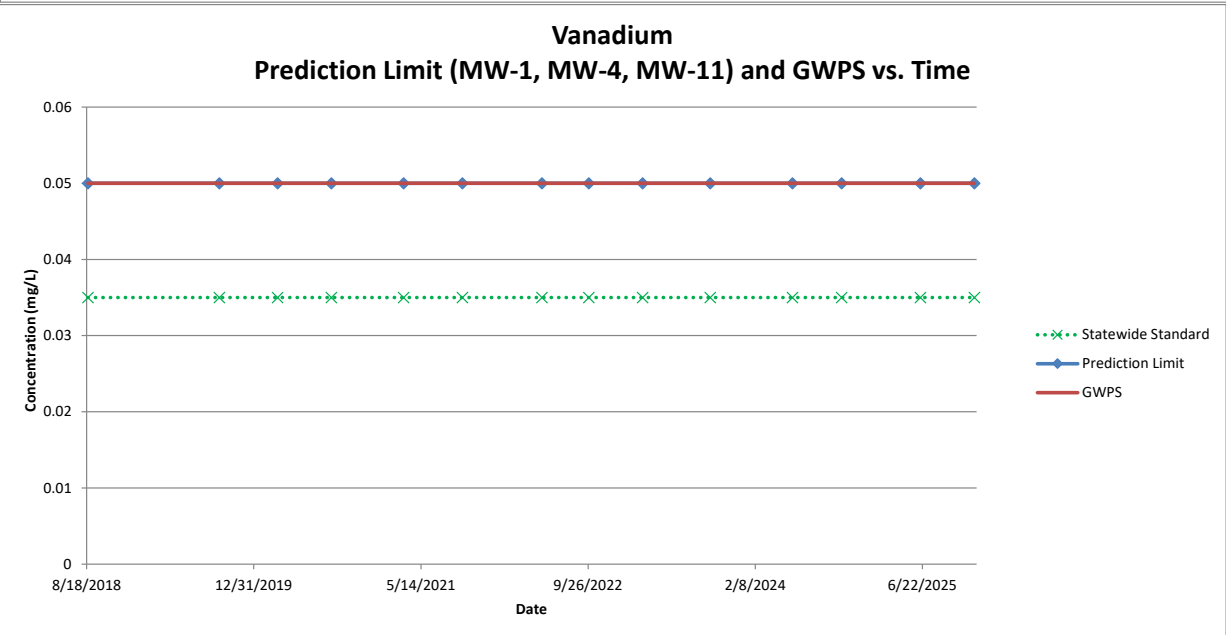
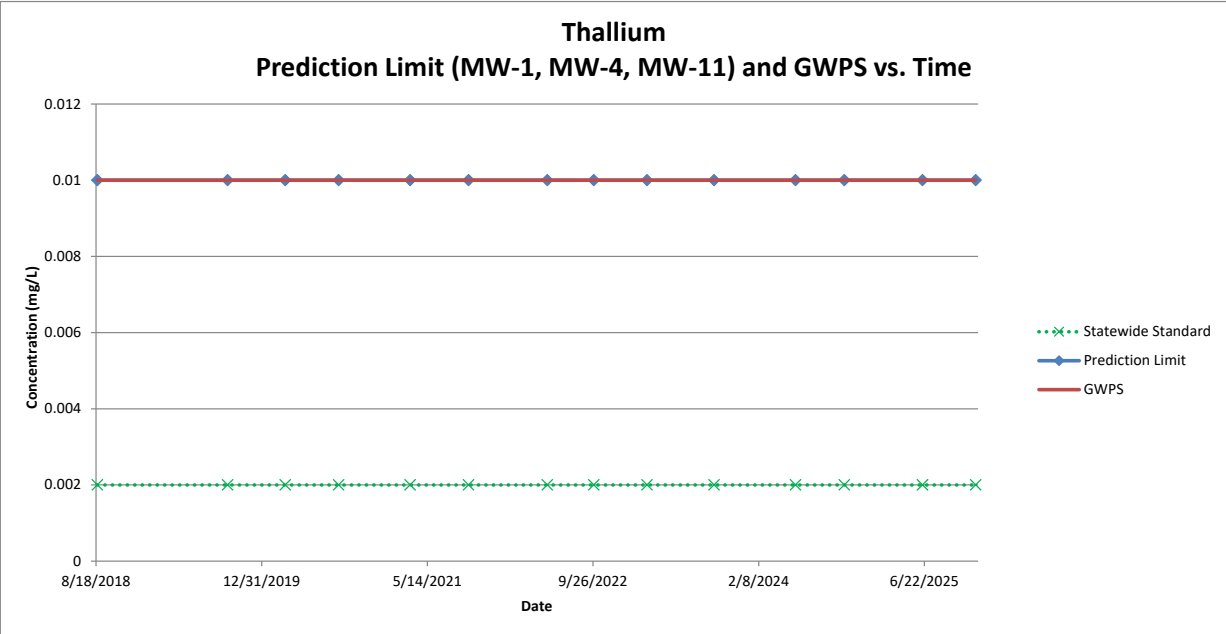


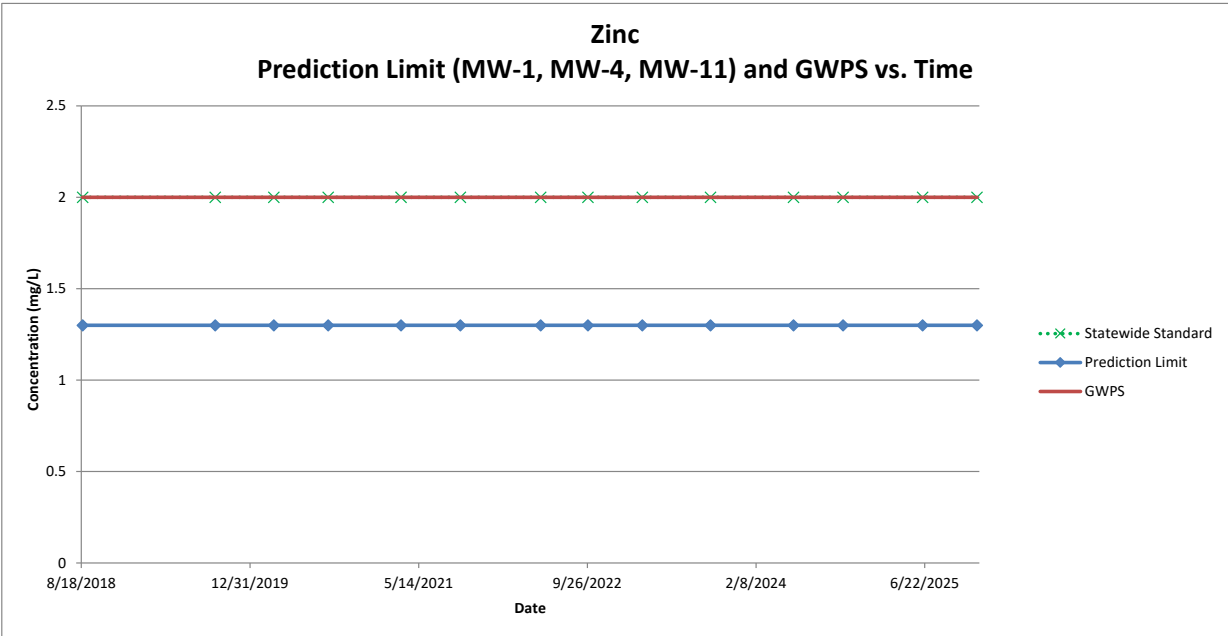














Appendix H

Mann-Kendall Trend Test Summary Table and Graphs – Source Wells

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-14R	1,1-Dichloroethane		-6	
	Barium		0	
	Benzene		-7	
	Cadmium		-5	
	Cobalt		3	
	Nickel		-10	
	Thallium		-1	
MW-15R	1,4-Dichlorobenzene		11	
	Arsenic			14
	Barium		2	
	Benzene			18
	Cadmium		8	
	Chlorobenzene			14
	Cobalt		6	
	Lead		-2	
	Nickel		-11	
	Vinyl Chloride		2	
MW-39	1,4-Dichlorobenzene		7	
	Acetone		5	
	Arsenic		-3	
	Barium		-2	
	Benzene		-10	
	Carbon Disulfide		-9	
	Chlorobenzene		-2	
	Cobalt		-8	
	Lead	-15		
	Nickel		-8	
	Vinyl Chloride		-7	