SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	Anderson Ex Co.,CY24 Env Comp,CL,IA 27224173.02	DATE:	11/27/2024
SUBJECT:	Anderson Excavating Carter Lake C&D Landfill - 78-SDP-02-80C - 2024 Annual Water Quality Report	TRANSMITTAL ID:	00003
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
Semir Omerovic West Des Moines, IA	SCS Engineers	SOmerovic@scsengineers.com	+1-515-415-9224

TO

NAME	COMPANY	EMAIL	PHONE
Mick Leat United States		mick.leat@dnr.iowa.gov	

REMARKS:

Mick -

Please find for your download the Anderson Excavating Carter Lake C&D Landfill 2024 Annual Water Quality Report. Let us know if you have any questions or comments.

Thank you,

Semir Omerovic
Technical Associate
SCS Engineers
1690 All-State Court, Suite 100
West Des Moines, Iowa 50265
515-988-3237 (C)
somerovic@scsengineers.com

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	11/27/2024	Anderson Excavating Landfill Carter Lake - 78-SDP-02-80C - 2024 Annual Water Quality Report 11.27.2024.pdf	

COPIES:

Becky Jolly
Tim Buelow (SCS Engineers)
Semir Omerovic (SCS Engineers)

Transmittal

DATE: 11/27/2024
TRANSMITTAL ID: 00003

Virginia Anderson (Anderson Excavating Company)

November 27, 2024
File No. 27224173.02

Mr. Mick Leat
Iowa Department of Natural Resources
Land Quality Bureau
6200 Park Avenue
Des Moines, Iowa 50321

Subject: 2024 Annual Water Quality Report & Landfill Gas Annual Report
Anderson Excavating Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Dear Mick:

SCS Engineers, on behalf of Anderson Excavating Company, has completed the water quality monitoring and assessment for the closed Carter Lake C&D Landfill for the year 2024. Our services were performed in general accordance with Iowa Administrative Code (IAC) 567-103 and the current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP). Please find enclosed the 2024 Annual Water Quality Report and 2024 Landfill Gas Annual Report for the Carter Lake C&D Landfill.

If you have any questions regarding this report, please contact Semir Omerovic at (515) 988-3237.

Sincerely,

Semir Omerovic
Technical Associate
SCS Engineers

Timothy C. Buelow, P.E.
Senior Project Advisor
SCS Engineers

SO/SAM/TCB

Copies: Ms. Virginia Anderson, Anderson Excavating

2024 Annual Water Quality Report & Landfill Gas Annual Report

Anderson Excavating C&D Landfill
Carter Lake, Iowa
Solid Waste Permit Number: 78-SDP-02-80C

Prepared for:

Anderson Excavating Company

SCS ENGINEERS

27224173.02 | November 27, 2024

1690 All-State Court, Suite 100
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515-631-6160

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CERTIFICATION

Prepared by: _____ Date: 11/27/2024

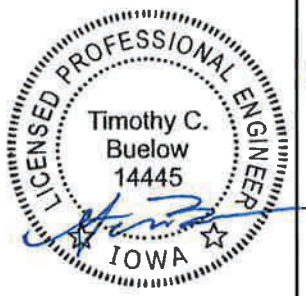
Typed: Semir Omerovic

Reviewed by: _____ Date: 11/27/2024

Typed: Timothy C. Buelow, P.E.

Certification page (114.26(8)"d")

An annual report summarizing the effect of the facility on groundwater and surface water quality shall be submitted to the department each year. The summary is to be prepared by an engineer registered in the state of Iowa.



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

_____ Date: 11/27/2024

Timothy C. Buelow, P.E.

License No. 14445

My license renewal date is December 31, 2025.

Pages or sheets covered by this seal:

All except Appendix B-1.

EXECUTIVE SUMMARY

ES.1 Period of Report Coverage

SCS Engineers (SCS), on behalf of Anderson Excavating Company, has completed the required groundwater sampling of the closed Carter Lake Construction & Demolition (C&D) Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results since the 2023 AWQR up to and including the October 2024 semi-annual sampling event. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-103 (1994 version), the site closure permit, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

ES.2 Report Priority

The following summarizes report priorities associated with groundwater compliance at the Landfill:

- 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: See Section 5.2 for a request to remove beryllium, silver, and vanadium from the monitoring program analyte list.

ES.3 Site Status and Applicable Rules

- Landfill Status: Closed.
- Types of waste accepted: Previously C&D.
- Applicable IAC rules: 1994 IAC 567-103.

ES.4 Comments

The following summarizes points of special emphasis:

As discussed in Section 4.2 of this report, Mann-Kendall trend analysis indicated that 74% of the monitoring well/constituent pairs were considered stable or decreasing during the 2024 annual statistical evaluation. This indicates generally stable groundwater concentrations at the Landfill.

Due to the previous drought conditions in the region, downgradient monitoring wells MW-3 and MW-5 did not produce samples during the 2024 spring sampling event. Both wells produced samples during the October 2024 fall sampling event.

ACRONYMS/ABBREVIATIONS

AWQR = Annual Water Quality Report

C&D = Construction & Demolition

GWPS = Groundwater Protection Standard

HMSP = Hydrologic Monitoring System Plan

IAC = Iowa Administrative Code

MW = Monitoring Well

QA = Quality Assurance

QC = Quality Control

SCS = SCS Engineers

TSS = Total Suspended Solids

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Carter Lake C&D Landfill (Landfill) is located at the intersection of 13th Street and Locust Street in Carter Lake, Iowa. The legal description is Lots "A" and "N" in auditor's subdivision of Lot Thirteen (13), being located within the SW ¼ of the NW ¼ of Section 21, T75N, R44W, in Carter Lake, Pottawattamie County, Iowa; and the West 611.8 feet of Lot 14 in auditor's subdivision of Government Lot 3 of Section 21, T75N, R44W, Pottawattamie County, Iowa, and also a strip of ground 10 feet wide North and South and 611.8 feet along the East and West adjoining the above described tract on the North.

1.2 FACILITY

Prior land use information has not been obtained. However, the 1960 Iowa Department of Transportation aerial photograph providing coverage of the Landfill was reviewed for the *Preliminary Groundwater Assessment* dated April 8, 1998, prepared by Barker, Lemar & Associates (Doc #35285). The following is an excerpt from the report:

> *In the 1960 aerial photograph, the site appears to be covered with small vegetation. Trees appear to be present around the perimeter of the property and in the northwest corner. Objects typical of an auto salvage yard appear to be present to the west of the site. Trees and brush along with some small structures are present to the east of the site. Trees and brush surrounding a large open area are present to the south of the site. Trees and brush along with some small structures are present to the north of the site.*

The property was used as a C&D landfill from 1980 through 1989. The Landfill has since been covered and vegetated with grass and alfalfa. The Landfill property covers approximately 20 acres, of which approximately 7 acres were used as a landfill. The closure permit was issued on May 1, 1996.

1.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

The *Hydrogeologic Investigation Report,* dated July 26, 1995, prepared by Geotechnical Services Inc. (Doc #35231) provided the following geological description:

> *The site is situated in the flood plain between Carter Lake and the Missouri River. This area is characterized by alluvial bedding plains consisting of sandy and silty clays with sand seams.*
>
> *The near surface strata consists of fill; primarily consisting of silty sand, mixed with wood and brick pieces. Blow counts for the split spoon sampler indicated this strata to be well compacted. The fill extends to approximately 15 feet below grade. Alluvium consisting of silty clay was identified below the fill and was found to be saturated with groundwater and showed less consistency than the surface fill. The alluvium changed to fine to well graded sand at a depth of 20-25 feet below grade. Clay lenses were found to be interbedded within the sandy alluvium. The fine grained alluvial sand encountered at the site extended to depths in excess of 90 feet. Bedrock was not encountered in any of the soil borings performed at the site.*

The above-referenced *Hydrogeological Investigation Report* provided the following hydrogeologic description:

> *The near surface groundwater was found to be approximately 10-15 feet below grade. Well clusters were installed at the site with the well screens at 5-20 feet below grade, 45-55 feet below grade, and 75-85 feet below grade. Monitoring wells forming each individual well cluster exhibited the same static water levels: therefore, the surficial aquifer beneath the site appears to be extending to depths in excess of 90 feet below grade. These observations are consistent with the data obtained from the Geologic Survey of Omaha, Council Bluffs (1968).*
>
> *The local groundwater flow direction at the site was found to be in a southeasterly direction near the surface and northeasterly at 50 feet below the groundwater table. The proximity of Carter Lake and the Missouri River appears to have influenced the groundwater flow direction at the site.*
>
> *Slug tests were performed to determine the hydraulic conductivity of the water bearing strata beneath the site. Whereas, the near surface clayey fill, as well as the sandy alluvial aquifer, exhibited rapid groundwater recharge; distinct differences were observed in the rate of recharge from both of these water bearing units. The fine grained sandy aquifer failed to show any draw down when the groundwater was withdrawn from the monitoring well at a rate of 15 gallons per minute. Due to this extremely rapid recharge, slug test data could not be gathered from any of the deeper monitoring wells. The hydraulic conductivity for the monitoring wells screened partially in the near surface clays, was found to be in the range of 0.40 – 1.04 m/d.*
>
> *The installation of monitoring wells at the site resulted in three well clusters located to the east, west, and south of the site. The vertical groundwater flow gradient was calculated by comparing the groundwater levels in the individual wells of each well cluster. The vertical groundwater flow gradient ranged from 0.019 to 0.055 ft/ft upwards and 0.052 ft/ft downwards.*

2.0 FIGURES DISCUSSION

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrologic monitoring system plan (HMSP) network is depicted in **Figure 1**. **Figure 1** indicates the locations of each monitoring well and its respective monitoring program.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured during the October 2024 sampling event is included as **Figure 2**. The groundwater contours for the water table aquifer are presented in **Figure 2**. Monitoring well MW-8 was removed from the HMSP in permit amendment #6 dated June 9, 2017 (Doc #89659). Therefore, since there are only two monitoring wells remaining in deep flow aquifer monitoring, the deep flow aquifer contours are not drawn.

Review of the groundwater flow pattern indicates that the general flow direction of the water table aquifer is from the northwest to the east-southeast. It should be noted that historical groundwater

flow directions have been variable, and the potentiometric surface is generally flat. Historical predominant flow directions can be found in the 2020 AWQR (Doc #99003).

3.0 QA/QC SUMMARY

The quality assurance/quality control (QA/QC) program for the Landfill 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 feasibly with the laboratory method utilized and where such standards exist. 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 **Appendices B-1**, Laboratory Data, and **B-2**, Data Validation, respectively. The QA/QC review indicated that the data was acceptable.

4.0 ANALYTICAL DATA EVALUATION

Statistical evaluation in accordance with the requirements of 1994 IAC 567-103 and Permit Amendment #6 (Doc #83317) was conducted for the groundwater analytical data collected during the April and October 2024 sampling events. The statistical output for samples collected during the 2024 sampling events is located in **Appendix D** of this report.

4.1 DATA EVALUATION

Groundwater monitoring for the Landfill consists of the collection of samples from monitoring wells along the perimeter of the Landfill. The water table upgradient monitoring well MW-7R2 is located along the west side of the Landfill. The deep flow upgradient monitoring wells MW-4 and MW-6 are located along the south and east sides of the Landfill. There are no downgradient monitoring points in the deep flow regime. Monitoring wells MW-3 and MW-5 did not produce samples during the 2024 spring sampling event, likely due to the previous extreme drought in the region. Both wells produced samples during the October 2024 fall sampling event.

Multiple constituents exceeded the upper control limits in monitoring wells MW-1R and MW-3 during the 2024 reporting period as indicated in **Tables 1**, **6**, and **7**. Arsenic in monitoring wells MW-1R, MW-4, MW-5, MW-6, and MW-7R2, cobalt in monitoring wells MW-1R, MW-3, MW-6, and MW-7R2, and lead in upgradient monitoring well MW-7R2 exceeded their respective groundwater protection standards (GWPSs) during this reporting period as indicated in **Table 9**. The groundwater protection standard for lead in monitoring well MW-7R2 was only exceeded during the 2024 spring sampling event as indicated in **Table 9**.

As stated in the 2010 AWQR (Doc #62718), it does not appear that the Landfill is the source of the high arsenic concentrations based on the widespread occurrence of arsenic in both the upgradient and downgradient monitoring wells. Additionally, as discussed in Section 1.2 of the 2010 AWQR, reducing conditions in the monitored aquifer are likely contributing to or are the cause of the elevated arsenic concentrations.

It should also be noted that cobalt concentrations historically present in the upgradient monitoring wells are occasionally above the GWPS, which could indicate that cobalt concentrations are in part naturally occurring and not indicative of a release from the Landfill.

Time series plots of the recent and historical data can be found in the 2024 Statistical Output included in **Appendix D**.

4.2 TRENDING IN MONITORING WELLS

There were numerous statistically significant trends identified by Mann-Kendall analysis at 99% confidence (α=0.01) during this reporting period as summarized in the table below. The statistically significant increasing trends were present in the upgradient monitoring wells.

Statistically Significant Trends		
Monitoring Point	**Constituent**	**Trend**
MW-4 (u)	Ammonia	Increasing
	Chloride	Increasing
MW-5	Nickel	Decreasing
MW-6 (u)	Chloride	Increasing
	Cobalt	Increasing
MW-7R2 (u)	Chloride	Decreasing
	Total Organic Halogens	Increasing

The trend analysis output is included in **Appendix D**.

Although not necessarily statistically significant, the Mann-Kendall statistics can provide an indication of general trending in the data. Trend indications for wells in the monitoring program are shown in the table below. Trends classified as decreasing or increasing exhibited a statistically significant trend with 80% confidence (α=0.20) using the most recent eight data points. Trends classified as stable did not exhibit a statistically significant trend with 80% confidence using the eight most recent data points. A summary of Mann-Kendall statistics by constituent in each monitoring point is included in **Appendix E**.

Trending in Monitoring Wells				
Monitoring Well	**Decreasing Trends**	**Stable Trends**	**Increasing Trends**	**Number of Constituents Analyzed**
MW-1R	6.67%	86.67%	6.67%	15
MW-3	6.67%	86.67%	6.67%	15
MW-4 (u)	8.33%	41.67%	50.00%	12
MW-5	25.00%	50.00%	25.00%	16
MW-6 (u)	8.33%	25.00%	66.67%	12
MW-7R2 (u)	26.67%	60.00%	13.33%	15
Site Wide	**14.12%**	**60.00%**	**25.88%**	**85**

(u) indicates an upgradient monitoring point.

Mann-Kendall trend analysis indicated that 74% of the monitoring well/constituent pairs were considered stable or decreasing during the 2024 annual statistical evaluation. The majority of the increasing trends were present in the upgradient monitoring well data sets.

5.0 RECOMMENDATIONS

5.1 SITE IMPACT ON GROUNDWATER

Approximately 74% of the groundwater parameters detected at the Landfill have stable or decreasing concentration trends as indicated by statistical trend analysis. The majority of the increasing concentration trends were present in the upgradient monitoring well data sets.

Previous evaluations have demonstrated that elevated arsenic and cobalt concentrations measured in the Landfill monitoring network are likely due to either industrial activity in the area and/or naturally occurring concentrations and are not the result of a release from the Landfill.

5.2 PROPOSED MONITORING

Removal of the following metals from the monitoring program are recommended:

- Beryllium: Since October 2015, all measured concentrations have been non-detected with a single J-flag detection in monitoring well MW-3 in the October 2024 sample. The estimated J-flag concentration was less than 20% of the MCL.
- Silver: Only J-flag detections have been measured in period of record and the detections are intermittent with the most recent being in April 2022. The highest J-flag concentration was less than 4% of the SWS and the other J-flag concentrations were less than 1% of the SWS.
- Vanadium: Only J-flag detections have been measured in the period of record. The highest J-flag concentration was measured in 2015 and was approximately 10% of the SWS.

No other changes to the monitoring program are recommended at this time.

5.3 PROPOSED MONITORING WELL CHANGES

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

Tables

Table 1
Monitoring Program Summary
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	Control Limit Exceedances	Total Number of Samples in Each Monitoring Program Since January 1, 2018		
					Routine	Supplemental	Remedial Action
MW-7R2	Gray clay with sand	Upgradient	None	Not applicable	12	-	-
MW-1R	Silty clay	Compliance	None	Chloride, Total Organic Halogens	13	-	-
MW-3	Alluvium with sand	Compliance	None	Cobalt, Nickel	9	-	-
MW-4	Sand with silt and clay seams	Upgradient	None	Not applicable	13	-	-
MW-5	Silty clay with fine sand	Compliance	None	None	9	-	-
MW-6	Clay with fine sand	Upgradient	None	Not applicable	13	-	-

Notes:

[1] Obtained from screened interval on boring logs.

Table 2
Monitoring Program Implementation Schedule
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents	
	April 2024	October 2024	April 2025	October 2025
MW-7R2	IAC 567-114.26(4)"e", Metals List, TSS	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS
MW-1R	IAC 567-114.26(4)"e", Metals List, TSS	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS
MW-3	No sample (insufficient water)	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS
MW-4	IAC 567-114.26(4)"e", Metals List, TSS	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS
MW-5	No sample (insufficient water)	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS
MW-6	IAC 567-114.26(4)"e", Metals List, TSS	IAC 567-114.26(4)"e"&"f", Metals List, TSS	IAC 567-114.26(4)"e", Metals List*, TSS	IAC 567-114.26(4)"e"&"f", Metals List*, TSS

Notes:

TSS: Total Suspended Solids.

Metals List: antimony, arsenic, barium, beryllium, cadmium, cobalt, copper, lead, nickel, silver, thallium, vanadium, and zinc.

* = See Section 5.2 of the Annual Water Quality Report for a request to remove beryllium, silver, and vanadium from the monitoring program analyte list.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Compliance with:	2022	2023	2024	2025	2026
567 IAC 114.21(2)"a" high and low water levels	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"b" changes in the hydrologic setting and flow paths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"c" well depths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 114.21(2)"d" in-situ permeability tests*	Completed		Included		Scheduled

Comments:
* = In accordance with Permit Amendment #7 (Doc #104256), biennial evaluations of well recharge rates measured from groundwater monitoring events will be conducted in lieu of 567 IAC 114.21(2)"d" in-situ permeability tests.

Table 4
Monitoring Well Performance and Maintenance Summary
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements 4/18/2024	Date of Measurements 10/8/2024	Maximum Depth Discrepancy (ft)	Initial Flow Rate (L/min) 10/4/2016	Recent Flow Rate (L/min) 10/8/2024	% Change
MW-1R	985.4	969.0	22.9	Groundwater Level (ft)	18.95	14.94	-0.2	0.276	0.142	-49%
				Groundwater Elevation (Ft MSL)	966.42	970.43				
				Measured Well Depth (ft)	23.1	23.0				
				Submerged screen	N	Y				
MW-3	986.3	979.4	23.5	Groundwater Level (ft)	22.00	18.11	0.0	0.284	0.183	-35%
				Groundwater Elevation (Ft MSL)	964.3	968.19				
				Measured Well Depth (ft)	23.5	23.5				
				Submerged screen	N	N				
MW-4	985.7	935.6	58.4	Groundwater Level (ft)	21.37	17.45	-0.2	0.433	0.175	-60%
				Groundwater Elevation (Ft MSL)	964.29	968.21				
				Measured Well Depth (ft)	58.6	58.5				
				Submerged screen	Y	Y				
MW-5	984.6	977.9	23.3	Groundwater Level (ft)	19.68	16.20	0.3	0.158	0.175	11%
				Groundwater Elevation (Ft MSL)	964.95	968.43				
				Measured Well Depth (ft)	23.0	23.0				
				Submerged screen	N	N				
MW-6	984.9	938.1	56.6	Groundwater Level (ft)	19.50	15.94	0.8	0.276	0.167	-40%
				Groundwater Elevation (Ft MSL)	965.37	968.93				
				Measured Well Depth (ft)	55.8	55.8				
				Submerged screen	Y	Y				
MW-7R2	982.7	970.6	21.0	Groundwater Level (ft)	16.35	12.53	-0.9	0.308	0.158	-49%
				Groundwater Elevation (Ft MSL)	966.33	970.15				
				Measured Well Depth (ft)	21.9	20.9				
				Submerged screen	N	N				

Comments:

(1) Measured well depths were within 1.0 foot of the installed depths, indicating siltation is not affecting the ability of the wells to produce samples.

(2) It should be noted that initial flow rates were calculated from the first semi-annual sampling event utilizing low-flow sampling apparatuses and should not be considered necessarily representative of a monitoring well's flow rate under all water level conditions.

NA - Not Applicable

Table 5
Background and GWPS Summary
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Interwell Background/GWPS (MW-7R2)

Constituent	Units	Samples	Detections	Background Level	Statistical Test	Action Level	Source
Inorganics							
Antimony (Sb)	mg/L	17	6	0.003093	M+/-2SD	0.006	MCL
Arsenic (As)	mg/L	16	16	0.1506	M+/-2SD	0.01	MCL
Barium (Ba)	mg/L	17	17	1.274	M+/-2SD	2.0	MCL
Beryllium (Be)	mg/L	17	0	< 0.004	DQR	0.004	MCL
Cadmium (Cd)	mg/L	17	4	0.0003216	M+/-2SD	0.005	MCL
Cobalt (Co)	mg/L	17	16	0.007134	M+/-2SD	0.0021	SWS
Copper (Cu)	mg/L	17	5	0.008816	M+/-2SD	1.3	MCL
Lead (Pb)	mg/L	17	13	0.01469	M+/-2SD	0.015	MCL
Nickel (Ni)	mg/L	17	15	0.01833	M+/-2SD	0.1	SWS
Silver (Ag)	mg/L	17	0	< 0.02	DQR	0.1	SWS
Thallium (Tl)	mg/L	17	1	0.00143	DQR	0.002	MCL
Vanadium (V)	mg/L	17	15	0.01538	M+/-2SD	0.035	SWS
Zinc (Zn)	mg/L	17	14	0.1819	M+/-2SD	2.0	SWS
Other							
Ammonia as N	mg/L	35	33	7.687	M+/-2SD	30	MCL
Chemical Oxygen Demand	mg/L	35	35	185.7	M+/-2SD	None	None
Chloride	mg/L	35	35	131.3	M+/-2SD	None	None
Iron, Dissolved	mg/L	35	34	81.6	M+/-2SD	None	None
pH	S.U.	35	35	7.679	M+/-2SD	None	None
Specific Conductance	umos/cm	34	34	3826	M+/-2SD	None	None
Total Organic Halogens	mg/L	23	22	0.1872	M+/-2SD	None	None
Total Phenols	mg/L	22	4	0.1231	M+/-2SD	None	None

Notes:

1) Background levels based on calculated control limits or reporting limit, as applicable.

Acronyms/Abbreviations:

RL = Reporting Limit
GWPS = Groundwater Protection Standard
SSS = Site-Specific GWPS
SWS = Statewide Standard
M+/-2SD = Mean Plus/Minus Two Standard Deviations
MCL = EPA Maximum Contaminant Level

Comments:

1) **Water quality results and effectiveness of the statistical data evaluation criteria**: Statistical evaluations consist of control limits.

2) **Changes to the previous statistical method during reporting period:** There were no changes to the statistical method during the 2024 reporting period.

Table 6
Summary of Well/Detected Constituent Pairs With No Immediately Preceding Control Limit Exceedances
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Well	Constituent	Units	Most Recent Result	Background Standard
MW-1R	Total Organic Halogens	mg/L	0.314	0.1872
MW-3	Cobalt	mg/L	0.01165	0.007134
	Nickel	mg/L	0.02825	0.01833

Notes:

(1) A new control limit exceedance is defined as a well/constituent pair having a control limit exceedance during the current reporting period and not during the immediately preceding reporting period.

Comments:

1) **Problems with the current HMSP network:** None.
2) **Schedule to implement remedies:** Not applicable.
3) **Alternative constituent or sample frequency changes:** See Section 5.2 of the report.
4) **Significant changes to control limits:** None.

Table 7
Summary Table of Ongoing and Newly Identified Control Limit Exceedances
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Well	Constituent	Units	Most Recent Result	Background Standard	Action Level/ Statewide Standard
MW-1R	Chloride	mg/L	252	131.9	None
	Total Organic Halogens	mg/L	0.314	0.1872	None
MW-3	Cobalt	mg/L	0.01165	0.007134	0.0021
	Nickel	mg/L	0.02825	0.01833	0.1

Notes:

(1) Ongoing control limit exceedance is defined as a well/constituent pair having a control limit exceedance during the current reporting period and during the immediately preceding reporting period.

Shaded indicates a newly identified SSI, as defined under Table 6.

Comments:

1) **Problems with the current HMSP network:** Deep aquifer monitoring points MW-4 and MW-6 are upgradient and do not have a downgradient monitoring point.
2) **Proposed remedies:** None.
3) **Alternative constituent or sample frequency changes:** See Section 5.2 of the report.
4) **Plume delineation strategies:** Not Applicable.
5) **Property owner notifications:** Pursuant to DNR guidance, if MCLs are exceeded at any monitoring point, information is to be provided on potential receptors. As shown above, action levels were exceeded in monitoring well MW-3. Additional action level exceedances are shown in **Table 9**. According to parcel information obtained from the Pottawattamie County Geographical Information System (GIS) website (http://gis.pottcounty.com/silverlight) and the Douglas County GIS website (http://www.dcgis.org/dogis), the adjacent property to the east is a vacant parking lot and to the south and southeast is a motel. No residential properties were identified downgradient of the site. In addition, a DNR well search performed in October 2018 indicated there are no wells within 1,000 feet of the site. Potential receptors downgradient from the Landfill include Carter Lake and the Missouri River.

Table 8
Summary of Groundwater Chemistry
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

The Summary of Groundwater Chemistry is located in Appendix C.

Table 9
Historical Control Limit and Action Level Exceedances
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Key

Control Limit Exceedance

MCL/Action Level Exceedance

Well	Constituent	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024
MW-1R	Arsenic								
	Chloride								
	Cobalt								
	Nickel								
	Thallium								
	pH								
	Total Organic Halogens								
MW-3	Cobalt			NS		NS	NS	NS	
	Nickel			NS		NS	NS	NS	
MW-4 (u)	Arsenic								
MW-5	Arsenic			NS		NS	NS	NS	
	Cadmium			NS		NS	NS	NS	
	Copper			NS		NS	NS	NS	
	Zinc			NS		NS	NS	NS	
MW-6 (u)	Arsenic								
	Cobalt								
MW-7R2 (u)	Arsenic				NS				
	Cobalt				NS				
	Lead				NS				

Comments: (u) indicates upgradient monitoring point.

NS: Not Sampled. The drought in 2022 and 2023 resulted in insufficient water for sampling in multiple wells.

Table 10
Groundwater Quality Assessment Plan Trend Analysis
2024 Annual Water Quality Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Well	Current SSL	Trend
None		

Notes:

There is no Groundwater Quality Assessment Plan required for this facility.

Figures

Monitoring Well	Monitoring Program
Water Table	
MW-7R2	Upgradient
MW-1R	Compliance
MW-3	Compliance
MW-5	Compliance
Deep Flow	
MW-4	Upgradient
MW-6	Upgradient

SCS ENGINEERS
environmental consultants and contractors

Approved Monitoring Network

Figure 1

Legend

- Deep Flow HMSP Monitoring Well
- Water Table HMSP Monitoring Well
- Monitoring Well
- Approximate Property Boundary

Anderson Excavating Carter Lake Landfill
Carter Lake, Iowa
Project No: 27224173.02
Drawing Date: November 2024

N
W E
S

0 65 130 260
Feet

Groundwater Contours

Figure 2

SCS ENGINEERS
environmental consultants and contractors

Legend

- Approximate Groundwater Contours Based on Field Measurments Taken April 16, 2024
- Monitoring Well
- Approximate Property Boundary

Anderson Excavating Carter Lake Landfill
Carter Lake, Iowa
Project No: 27224173.02
Drawing Date: November 2024

N
W E
S

0 65 130 260
Feet

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-1R**	Date:	**4/18/2024**
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):	23.1
Initial Static Water Level (feet):	18.95
Initial Groundwater Elevation (ft-amsl):	966.42
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
3:51 PM	Purging start time.						
3:54 PM	14.2	0.6	3019.6	6.51	-111.8	NM	
3:57 PM	14.0	0.1	3025.4	6.53	-118.8	NM	
4:00 PM	14.1	<0.1	3025.8	6.54	-123.0	NM	
4:03 PM	14.1	<0.1	3018.8	6.55	-126.0	NM	
	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-Yellow tint Odor-None Equipment malfunction - turbidity not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**4/18/2024**
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):	22.00
Initial Groundwater Elevation (ft-amsl):	964.30
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well did not have sufficient water to sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-4**	Date:	**4/18/2024**
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):	58.6
Initial Static Water Level (feet):	21.37
Initial Groundwater Elevation (ft-amsl):	964.29
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
3:13 PM	Purging start time.						
3:16 PM	14.6	1.5	2434.3	6.90	-62.3	NM	
3:19 PM	14.7	0.3	2584.9	6.86	-84.7	NM	
3:22 PM	14.8	0.1	2728.5	6.87	-126.2	NM	
3:25 PM	14.6	<0.1	2804.5	6.88	-143.1	NM	
	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-Yellow tint Odor-none Equipment malfunction - turbidity not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**4/18/2024**
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):	23.0
Initial Static Water Level (feet):	19.68
Initial Groundwater Elevation (ft-amsl):	964.95
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
	Purging start time.						
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	0.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Well did not have sufficient water to sample.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-6**	Date:	**4/18/2024**
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):	55.8
Initial Static Water Level (feet):	19.50
Initial Groundwater Elevation (ft-amsl):	965.37
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
2:16 PM	Purging start time.						
2:19 PM	13.8	0.8	2417.9	6.96	-140.7	NM	
2:22 PM	14.1	0.2	2509.4	6.94	-160.5	NM	
2:25 PM	13.9	<0.1	2533.9	6.95	-169.1	NM	
2:28 PM	13.8	<0.1	2536.9	6.96	-173.3	NM	
	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 Equipment malfunction - turbidity not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-7R2**	Date:	**4/18/2024**
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):	21.9
Initial Static Water Level (feet):	16.35
Initial Groundwater Elevation (ft-amsl):	966.33
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
4:22 PM	Purging start time.						
4:25 PM	14.3	0.5	1148.1	6.63	-97.5	143.5	
4:28 PM	14.3	<0.1	1135.4	6.67	-114.4	33.0	
4:31 PM	14.1	<0.1	864.5	6.66	-103.7	NM	
4:34 PM	14.2	<0.1	825.7	6.59	-94.9	NM	
4:37 PM	14.2	<0.1	835.2	6.59	-96.1	NM	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	113.33

D. WELL MAINTENANCE		
Does the well require any future maintenance?	No	
If yes, explain:		

Additional Comments:	Color-Brownish Odor-Sulfur Equipment malfunction - turbidity not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-1R**	Date:	**10/8/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	23.0
Initial Static Water Level (feet):	14.94
Initial Groundwater Elevation (ft-amsl):	970.43
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
4:32 PM	Purging start time.						
4:35 PM	18.8	0.5	2494.7	6.48	-122.5	24.7	
4:38 PM	18.4	0.4	2494.5	6.50	-127.8	3.6	
4:41 PM	18.4	0.3	2483.5	6.51	-131.3	2.7	
4:44 PM	18.9	0.3	2483.8	6.51	-133.9	4.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.7
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	141.67

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:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**10/8/2024**
Gradient:	Down	Sampler:	Cole Tesar

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):	18.11
Initial Groundwater Elevation (ft-amsl):	968.19
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
5:07 PM	Purging start time.						
5:10 PM	17.1	0.5	1993.6	6.59	-22.0	18.4	
5:13 PM	17.2	0.3	1958.7	6.60	-28.6	20.1	
5:16 PM	17.1	0.2	1949.6	6.61	-34.3	15.0	
5:19 PM	17.1	0.2	1938.4	6.61	-36.2	28.5	
	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: Swampy

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-4**	Date:	**10/8/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	58.5
Initial Static Water Level (feet):	17.45
Initial Groundwater Elevation (ft-amsl):	968.21
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
5:48 PM	Purging start time.						
5:51 PM	16.9	0.7	2656.9	6.83	-119.9	77.4	
5:54 PM	16.6	0.4	2651.5	6.85	-125.1	77.8	
5:57 PM	16.6	0.3	2651.0	6.85	-127.9	72.1	
6:00 PM	16.6	0.3	2657.9	6.85	-130.1	70.2	
	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: Orange Tint Odor: Swampy

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**10/8/2024**
Gradient:	Down	Sampler:	Cole Tesar

A. MW/PIEZOMETER CONDITIONS		
Well/Piezometer Capped?	No	Well did not have a cap.
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	23.0
Initial Static Water Level (feet):	16.20
Initial Groundwater Elevation (ft-amsl):	968.65
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
7:07 PM	Purging start time.						
7:10 PM	14.9	0.7	1971.3	6.63	-90.5	27.3	
7:13 PM	14.8	0.4	1948.8	6.59	-73.3	31.8	
7:16 PM	14.9	0.4	1929.4	6.57	-58.5	19.3	
7:19 PM	14.9	0.3	1913.2	6.57	-53.9	30.8	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.1
Was well pumped/bailed dry?	Yes
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 has been obstructed and has no top.	

Additional Comments:	Color: Yellow tint Odor: Swampy

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-6**	Date:	**10/8/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	55.8
Initial Static Water Level (feet):	15.94
Initial Groundwater Elevation (ft-amsl):	968.93
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
6:25 PM	Purging start time.						
6:28 PM	15.4	0.7	2305.4	6.95	-151.6	5.0	
6:31 PM	15.1	0.4	2302.3	6.95	-158.8	2.6	
6:34 PM	15.2	0.3	2294.6	6.95	-162.4	3.0	
6:37 PM	15.7	0.3	2274.1	6.97	-164.5	11.2	
	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: Yellow Tint Odor: Sampy

FORM FOR GROUNDWATER SAMPLING

Project:	**Anderson Excavating Carter Lake C&D Landfill**		
Monitoring Well/Piezometer ID:	**MW-7R2**	Date:	**10/8/2024**
Gradient:	Up	Sampler:	Cole Tesar

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):	20.9
Initial Static Water Level (feet):	12.53
Initial Groundwater Elevation (ft-amsl):	970.15
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 Conductivity (µS/cm) +/- 10%	pH (S.U.) +/- 0.1	ORP (mV)	Turbidity (FNU)	
7:45 PM	Purging start time.						
7:48 PM	16.4	1.4	2520.0	6.66	-122.3	61.0	
7:51 PM	16.6	0.7	2541.1	6.64	-132.7	19.0	
7:54 PM	16.5	0.4	2548.4	6.64	-138.8	12.7	
7:57 PM	16.1	0.3	2567.6	6.64	-141.9	40.9	
	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: Swampy

Appendix B-1

Laboratory Analytical Data Sheets

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

Anderson Excavating - Carter Lake

JOB NUMBER

310-279517-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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Job Narrative
310-279517-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 4/22/2024 6:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C.

HPLC/IC
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.

Sample Summary

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279517-1	MW-1R	Water	04/18/24 16:09	04/22/24 06:00
310-279517-2	MW-4	Water	04/18/24 15:41	04/22/24 06:00
310-279517-3	MW-6	Water	04/18/24 14:42	04/22/24 06:00
310-279517-4	MW-7R2	Water	04/18/24 16:41	04/22/24 06:00
310-279517-5	MW-D	Water	04/18/24 15:41	04/22/24 06:00

Detection Summary

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-1R — Lab Sample ID: 310-279517-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	330		10.0	4.50	mg/L	10		9056A	Total/NA
Arsenic	0.0617		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0980		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000711		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00309	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Iron	1.70		0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	1.88		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	45.5		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 310-279517-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	161		10.0	4.50	mg/L	10		9056A	Total/NA
Arsenic	0.0296		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.213		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000305	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Iron	35.6		0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	2.57		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	28.4		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 310-279517-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	128		10.0	4.50	mg/L	10		9056A	Total/NA
Arsenic	0.0699		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	2.21		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00248		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00215	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Iron	28.2		0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	6.61		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	120		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-7R2 — Lab Sample ID: 310-279517-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.1		10.0	4.50	mg/L	10		9056A	Total/NA
Arsenic	0.0436		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.204		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00486		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00630		0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.0185		0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.00811		0.00500	0.00210	mg/L	1		6020B	Total/NA
Zinc	0.0962		0.0200	0.00970	mg/L	1		6020B	Total/NA
Cadmium	0.000151	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Vanadium	0.00269	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Ammonia	1.31		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	59.9		5.00	4.80	mg/L	1		5220D LL	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-279517-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	167		10.0	4.50	mg/L	10		9056A	Total/NA
Arsenic	0.0374		0.00200	0.000530	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-D (Continued)
Lab Sample ID: 310-279517-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.205		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000302	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Iron	36.6		0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	2.62		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	29.4		5.00	4.80	mg/L	1		5220D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-1R
Lab Sample ID: 310-279517-1
Date Collected: 04/18/24 16:09
Matrix: Water
Date Received: 04/22/24 06:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	330		10.0	4.50	mg/L			04/26/24 16:14	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0617		0.00200	0.000530	mg/L		04/23/24 09:00	04/26/24 15:30	1
Barium	0.0980		0.00200	0.000660	mg/L		04/23/24 09:00	04/26/24 15:30	1
Cobalt	0.000711		0.000500	0.000170	mg/L		04/23/24 09:00	04/26/24 15:30	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/23/24 09:00	04/26/24 15:30	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/23/24 09:00	04/26/24 15:30	1
Nickel	0.00309	J	0.00500	0.00210	mg/L		04/23/24 09:00	04/26/24 15:30	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/23/24 09:00	04/26/24 15:30	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/23/24 09:00	04/26/24 15:30	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/23/24 09:00	04/26/24 15:30	1
Antimony	<0.00200		0.00200	0.00100	mg/L		04/23/24 09:00	04/26/24 15:30	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/23/24 09:00	04/26/24 15:30	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/23/24 09:00	04/26/24 15:30	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/23/24 09:00	04/26/24 15:30	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/23/24 09:00	04/26/24 15:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1.70		0.100	0.0360	mg/L		04/25/24 09:00	04/29/24 21:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	1.88		0.200	0.100	mg/L			04/30/24 20:00	1
Chemical Oxygen Demand (SM 5220D LL)	45.5		5.00	4.80	mg/L			04/29/24 10:06	1

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-4
Lab Sample ID: 310-279517-2
Date Collected: 04/18/24 15:41
Matrix: Water
Date Received: 04/22/24 06:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	161		10.0	4.50	mg/L			04/26/24 16:50	10

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		04/29/24 09:30	04/30/24 14:16	1
Arsenic	0.0296		0.00200	0.000530	mg/L		04/29/24 09:30	04/30/24 14:16	1
Barium	0.213		0.00200	0.000660	mg/L		04/29/24 09:30	04/30/24 14:16	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/29/24 09:30	04/30/24 14:16	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/29/24 09:30	04/30/24 14:16	1
Cobalt	0.000305	J	0.000500	0.000170	mg/L		04/29/24 09:30	04/30/24 14:16	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/29/24 09:30	04/30/24 14:16	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/29/24 09:30	04/30/24 14:16	1
Nickel	<0.00500		0.00500	0.00210	mg/L		04/29/24 09:30	04/30/24 14:16	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/29/24 09:30	04/30/24 14:16	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/29/24 09:30	04/30/24 14:16	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/29/24 09:30	04/30/24 14:16	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/29/24 09:30	04/30/24 14:16	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/29/24 09:30	04/30/24 14:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	35.6		0.100	0.0360	mg/L		04/23/24 09:00	04/29/24 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	2.57		0.200	0.100	mg/L			04/30/24 20:03	1
Chemical Oxygen Demand (SM 5220D LL)	28.4		5.00	4.80	mg/L			04/29/24 10:06	1

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-6
Lab Sample ID: 310-279517-3
Date Collected: 04/18/24 14:42
Matrix: Water
Date Received: 04/22/24 06:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	128		10.0	4.50	mg/L			04/26/24 17:02	10

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		04/29/24 09:30	04/30/24 14:18	1
Arsenic	0.0699		0.00200	0.000530	mg/L		04/29/24 09:30	04/30/24 14:18	1
Barium	2.21		0.00200	0.000660	mg/L		04/29/24 09:30	04/30/24 14:18	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/29/24 09:30	04/30/24 14:18	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/29/24 09:30	04/30/24 14:18	1
Cobalt	0.00248		0.000500	0.000170	mg/L		04/29/24 09:30	04/30/24 14:18	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/29/24 09:30	04/30/24 14:18	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/29/24 09:30	04/30/24 14:18	1
Nickel	0.00215	J	0.00500	0.00210	mg/L		04/29/24 09:30	04/30/24 14:18	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/29/24 09:30	04/30/24 14:18	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/29/24 09:30	04/30/24 14:18	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/29/24 09:30	04/30/24 14:18	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/29/24 09:30	04/30/24 14:18	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/29/24 09:30	04/30/24 14:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	28.2		0.100	0.0360	mg/L		04/23/24 09:00	04/29/24 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	6.61		0.200	0.100	mg/L			04/30/24 20:03	1
Chemical Oxygen Demand (SM 5220D LL)	120		5.00	4.80	mg/L			04/29/24 10:06	1

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-7R2
Lab Sample ID: 310-279517-4
Date Collected: 04/18/24 16:41
Matrix: Water
Date Received: 04/22/24 06:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.1		10.0	4.50	mg/L			04/26/24 17:14	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0436		0.00200	0.000530	mg/L		04/23/24 09:00	04/26/24 15:32	1
Barium	0.204		0.00200	0.000660	mg/L		04/23/24 09:00	04/26/24 15:32	1
Cobalt	0.00486		0.000500	0.000170	mg/L		04/23/24 09:00	04/26/24 15:32	1
Copper	0.00630		0.00500	0.00180	mg/L		04/23/24 09:00	04/26/24 15:32	1
Lead	0.0185		0.000500	0.000260	mg/L		04/23/24 09:00	04/26/24 15:32	1
Nickel	0.00811		0.00500	0.00210	mg/L		04/23/24 09:00	04/26/24 15:32	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/23/24 09:00	04/26/24 15:32	1
Zinc	0.0962		0.0200	0.00970	mg/L		04/23/24 09:00	04/26/24 15:32	1
Cadmium	0.000151	J	0.000200	0.000100	mg/L		04/23/24 09:00	04/26/24 15:32	1
Antimony	<0.00200		0.00200	0.00100	mg/L		04/23/24 09:00	04/26/24 15:32	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/23/24 09:00	04/26/24 15:32	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/23/24 09:00	04/26/24 15:32	1
Vanadium	0.00269	J	0.00500	0.00110	mg/L		04/23/24 09:00	04/26/24 15:32	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/23/24 09:00	04/26/24 15:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		04/25/24 09:00	04/29/24 21:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	1.31		0.200	0.100	mg/L			04/30/24 20:05	1
Chemical Oxygen Demand (SM 5220D LL)	59.9		5.00	4.80	mg/L			04/29/24 10:06	1

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-D
Lab Sample ID: 310-279517-5
Date Collected: 04/18/24 15:41
Matrix: Water
Date Received: 04/22/24 06:00

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		10.0	4.50	mg/L			04/26/24 17:26	10

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		04/29/24 09:30	04/30/24 14:20	1
Arsenic	0.0374		0.00200	0.000530	mg/L		04/29/24 09:30	04/30/24 14:20	1
Barium	0.205		0.00200	0.000660	mg/L		04/29/24 09:30	04/30/24 14:20	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/29/24 09:30	04/30/24 14:20	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/29/24 09:30	04/30/24 14:20	1
Cobalt	0.000302	J	0.000500	0.000170	mg/L		04/29/24 09:30	04/30/24 14:20	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/29/24 09:30	04/30/24 14:20	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/29/24 09:30	04/30/24 14:20	1
Nickel	<0.00500		0.00500	0.00210	mg/L		04/29/24 09:30	04/30/24 14:20	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/29/24 09:30	04/30/24 14:20	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/29/24 09:30	04/30/24 14:20	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/29/24 09:30	04/30/24 14:20	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/29/24 09:30	04/30/24 14:20	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/29/24 09:30	04/30/24 14:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	36.6		0.100	0.0360	mg/L		04/23/24 09:00	04/29/24 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	2.62		0.200	0.100	mg/L			04/30/24 20:05	1
Chemical Oxygen Demand (SM 5220D LL)	29.4		5.00	4.80	mg/L			04/29/24 10:06	1

Qualifiers

Metals

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-420137/3
Matrix: Water
Analysis Batch: 420137

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			04/26/24 12:00	1

Lab Sample ID: LCS 310-420137/4
Matrix: Water
Analysis Batch: 420137

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	10.40		mg/L		104	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-419476/1-A
Matrix: Water
Analysis Batch: 420080

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419476

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/23/24 09:00	04/26/24 14:21	1
Barium	<0.00200		0.00200	0.000660	mg/L		04/23/24 09:00	04/26/24 14:21	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/23/24 09:00	04/26/24 14:21	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/23/24 09:00	04/26/24 14:21	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/23/24 09:00	04/26/24 14:21	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/23/24 09:00	04/26/24 14:21	1
Antimony	<0.00200		0.00200	0.00100	mg/L		04/23/24 09:00	04/26/24 14:21	1
Nickel	<0.00500		0.00500	0.00210	mg/L		04/23/24 09:00	04/26/24 14:21	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/23/24 09:00	04/26/24 14:21	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/23/24 09:00	04/26/24 14:21	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/23/24 09:00	04/26/24 14:21	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/23/24 09:00	04/26/24 14:21	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/23/24 09:00	04/26/24 14:21	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/23/24 09:00	04/26/24 14:21	1

Lab Sample ID: LCS 310-419476/2-A
Matrix: Water
Analysis Batch: 420080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419476

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2105		mg/L		105	80 - 120
Barium	0.100	0.1104		mg/L		110	80 - 120
Cobalt	0.100	0.1100		mg/L		110	80 - 120
Copper	0.200	0.2139		mg/L		107	80 - 120
Cadmium	0.100	0.1005		mg/L		101	80 - 120
Lead	0.200	0.2166		mg/L		108	80 - 120
Antimony	0.200	0.2144		mg/L		107	80 - 120
Nickel	0.200	0.2118		mg/L		106	80 - 120
Selenium	0.400	0.4014		mg/L		100	80 - 120
Beryllium	0.100	0.1029		mg/L		103	80 - 120
Thallium	0.100	0.1137		mg/L		114	80 - 120
Zinc	0.200	0.1903		mg/L		95	80 - 120
Vanadium	0.100	0.09364		mg/L		94	80 - 120

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

Lab Sample ID: LCS 310-419476/2-A
Matrix: Water
Analysis Batch: 420080

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419476

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	0.100	0.1086		mg/L		109	80 - 120

Lab Sample ID: MB 310-419482/1-A
Matrix: Water
Analysis Batch: 420191

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419482

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		04/23/24 09:00	04/29/24 15:45	1

Lab Sample ID: LCS 310-419482/2-A
Matrix: Water
Analysis Batch: 420191

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419482

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.200	0.2193		mg/L		110	80 - 120

Lab Sample ID: MB 310-420019/1-A
Matrix: Water
Analysis Batch: 420319

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 420019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		04/29/24 09:30	04/30/24 13:17	1
Barium	<0.00200		0.00200	0.000660	mg/L		04/29/24 09:30	04/30/24 13:17	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		04/29/24 09:30	04/30/24 13:17	1
Copper	<0.00500		0.00500	0.00180	mg/L		04/29/24 09:30	04/30/24 13:17	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		04/29/24 09:30	04/30/24 13:17	1
Lead	<0.000500		0.000500	0.000260	mg/L		04/29/24 09:30	04/30/24 13:17	1
Antimony	<0.00200		0.00200	0.00100	mg/L		04/29/24 09:30	04/30/24 13:17	1
Nickel	<0.00500		0.00500	0.00210	mg/L		04/29/24 09:30	04/30/24 13:17	1
Selenium	<0.00500		0.00500	0.00140	mg/L		04/29/24 09:30	04/30/24 13:17	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		04/29/24 09:30	04/30/24 13:17	1
Thallium	<0.00100		0.00100	0.000570	mg/L		04/29/24 09:30	04/30/24 13:17	1
Zinc	<0.0200		0.0200	0.00970	mg/L		04/29/24 09:30	04/30/24 13:17	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		04/29/24 09:30	04/30/24 13:17	1
Silver	<0.00100		0.00100	0.000500	mg/L		04/29/24 09:30	04/30/24 13:17	1

Lab Sample ID: LCS 310-420019/2-A
Matrix: Water
Analysis Batch: 420319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2101		mg/L		105	80 - 120
Barium	0.100	0.1080		mg/L		108	80 - 120
Cobalt	0.100	0.1116		mg/L		112	80 - 120
Copper	0.200	0.2186		mg/L		109	80 - 120
Cadmium	0.100	0.1035		mg/L		104	80 - 120
Lead	0.200	0.2180		mg/L		109	80 - 120
Antimony	0.200	0.2224		mg/L		111	80 - 120
Nickel	0.200	0.2138		mg/L		107	80 - 120
Selenium	0.400	0.4102		mg/L		103	80 - 120

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

Lab Sample ID: LCS 310-420019/2-A
Matrix: Water
Analysis Batch: 420319

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 420019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.100	0.1025		mg/L		102	80 - 120
Thallium	0.100	0.1104		mg/L		110	80 - 120
Zinc	0.200	0.1992		mg/L		100	80 - 120
Vanadium	0.100	0.09545		mg/L		95	80 - 120
Silver	0.100	0.1186		mg/L		119	80 - 120

Lab Sample ID: 310-279517-2 DU
Matrix: Water
Analysis Batch: 420191

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 419482

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	35.6		36.26		mg/L		2	20

Lab Sample ID: MB 310-419605/1-B
Matrix: Water
Analysis Batch: 420191

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 419749

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		04/25/24 09:00	04/29/24 21:19	1

Lab Sample ID: LCS 310-419605/2-B
Matrix: Water
Analysis Batch: 420191

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 419749

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	0.200	0.2167		mg/L		108	80 - 120

Lab Sample ID: 310-279517-1 MS
Matrix: Water
Analysis Batch: 420191

Client Sample ID: MW-1R
Prep Type: Dissolved
Prep Batch: 419749

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Iron	1.70		0.200	1.953	4	mg/L		126	75 - 125

Lab Sample ID: 310-279517-1 MSD
Matrix: Water
Analysis Batch: 420191

Client Sample ID: MW-1R
Prep Type: Dissolved
Prep Batch: 419749

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	1.70		0.200	1.888	4	mg/L		93	75 - 125	3	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-420286/122
Matrix: Water
Analysis Batch: 420286

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.100	mg/L			04/30/24 19:44	1

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: LCS 310-420286/123
Matrix: Water
Analysis Batch: 420286

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Ammonia			8.55	9.279		mg/L		109	90 - 110		

Method: 5220D LL - COD

Lab Sample ID: MB 310-420108/60
Matrix: Water
Analysis Batch: 420108

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.80	mg/L			04/29/24 10:06	1

Lab Sample ID: LCS 310-420108/63
Matrix: Water
Analysis Batch: 420108

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chemical Oxygen Demand			125	117.6		mg/L		94	85 - 115		

HPLC/IC

Analysis Batch: 420137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Total/NA	Water	9056A	
310-279517-2	MW-4	Total/NA	Water	9056A	
310-279517-3	MW-6	Total/NA	Water	9056A	
310-279517-4	MW-7R2	Total/NA	Water	9056A	
310-279517-5	MW-D	Total/NA	Water	9056A	
MB 310-420137/3	Method Blank	Total/NA	Water	9056A	
LCS 310-420137/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 419476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Total/NA	Water	3005A	
310-279517-4	MW-7R2	Total/NA	Water	3005A	
MB 310-419476/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419476/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 419482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-2	MW-4	Dissolved	Water	3005A	
310-279517-3	MW-6	Dissolved	Water	3005A	
310-279517-5	MW-D	Dissolved	Water	3005A	
MB 310-419482/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419482/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-279517-2 DU	MW-4	Dissolved	Water	3005A	

Filtration Batch: 419605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Dissolved	Water	Filtration	
310-279517-4	MW-7R2	Dissolved	Water	Filtration	
MB 310-419605/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-419605/2-B	Lab Control Sample	Dissolved	Water	Filtration	
310-279517-1 MS	MW-1R	Dissolved	Water	Filtration	
310-279517-1 MSD	MW-1R	Dissolved	Water	Filtration	

Prep Batch: 419749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Dissolved	Water	3005A	419605
310-279517-4	MW-7R2	Dissolved	Water	3005A	419605
MB 310-419605/1-B	Method Blank	Dissolved	Water	3005A	419605
LCS 310-419605/2-B	Lab Control Sample	Dissolved	Water	3005A	419605
310-279517-1 MS	MW-1R	Dissolved	Water	3005A	419605
310-279517-1 MSD	MW-1R	Dissolved	Water	3005A	419605

Prep Batch: 420019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-2	MW-4	Total/NA	Water	3005A	
310-279517-3	MW-6	Total/NA	Water	3005A	
310-279517-5	MW-D	Total/NA	Water	3005A	
MB 310-420019/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-420019/2-A	Lab Control Sample	Total/NA	Water	3005A	

Metals

Analysis Batch: 420080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Total/NA	Water	6020B	419476
310-279517-4	MW-7R2	Total/NA	Water	6020B	419476
MB 310-419476/1-A	Method Blank	Total/NA	Water	6020B	419476
LCS 310-419476/2-A	Lab Control Sample	Total/NA	Water	6020B	419476

Analysis Batch: 420191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Dissolved	Water	6020B	419749
310-279517-2	MW-4	Dissolved	Water	6020B	419482
310-279517-3	MW-6	Dissolved	Water	6020B	419482
310-279517-4	MW-7R2	Dissolved	Water	6020B	419749
310-279517-5	MW-D	Dissolved	Water	6020B	419482
MB 310-419482/1-A	Method Blank	Total/NA	Water	6020B	419482
MB 310-419605/1-B	Method Blank	Dissolved	Water	6020B	419749
LCS 310-419482/2-A	Lab Control Sample	Total/NA	Water	6020B	419482
LCS 310-419605/2-B	Lab Control Sample	Dissolved	Water	6020B	419749
310-279517-1 MS	MW-1R	Dissolved	Water	6020B	419749
310-279517-1 MSD	MW-1R	Dissolved	Water	6020B	419749
310-279517-2 DU	MW-4	Dissolved	Water	6020B	419482

Analysis Batch: 420319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-2	MW-4	Total/NA	Water	6020B	420019
310-279517-3	MW-6	Total/NA	Water	6020B	420019
310-279517-5	MW-D	Total/NA	Water	6020B	420019
MB 310-420019/1-A	Method Blank	Total/NA	Water	6020B	420019
LCS 310-420019/2-A	Lab Control Sample	Total/NA	Water	6020B	420019

General Chemistry

Analysis Batch: 420108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Total/NA	Water	5220D LL	
310-279517-2	MW-4	Total/NA	Water	5220D LL	
310-279517-3	MW-6	Total/NA	Water	5220D LL	
310-279517-4	MW-7R2	Total/NA	Water	5220D LL	
310-279517-5	MW-D	Total/NA	Water	5220D LL	
MB 310-420108/60	Method Blank	Total/NA	Water	5220D LL	
LCS 310-420108/63	Lab Control Sample	Total/NA	Water	5220D LL	

Analysis Batch: 420286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279517-1	MW-1R	Total/NA	Water	350.1	
310-279517-2	MW-4	Total/NA	Water	350.1	
310-279517-3	MW-6	Total/NA	Water	350.1	
310-279517-4	MW-7R2	Total/NA	Water	350.1	
310-279517-5	MW-D	Total/NA	Water	350.1	
MB 310-420286/122	Method Blank	Total/NA	Water	350.1	
LCS 310-420286/123	Lab Control Sample	Total/NA	Water	350.1	

Lab Chronicle

Client: SCS Engineers
Project/Site: Anderson Excavating - Carter Lake

Job ID: 310-279517-1

Client Sample ID: MW-1R

Lab Sample ID: 310-279517-1

Date Collected: 04/18/24 16:09

Matrix: Water

Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	420137	QTZ5	EET CF	04/26/24 16:14
Dissolved	Filtration	Filtration			419605	QTZ5	EET CF	04/23/24 16:20
Dissolved	Prep	3005A			419749	KM3E	EET CF	04/25/24 09:00
Dissolved	Analysis	6020B		1	420191	NFT2	EET CF	04/29/24 21:23
Total/NA	Prep	3005A			419476	QTZ5	EET CF	04/23/24 09:00
Total/NA	Analysis	6020B		1	420080	NFT2	EET CF	04/26/24 15:30
Total/NA	Analysis	350.1		1	420286	ZJX4	EET CF	04/30/24 20:00
Total/NA	Analysis	5220D LL		1	420108	ENB7	EET CF	04/29/24 10:06

Client Sample ID: MW-4

Lab Sample ID: 310-279517-2

Date Collected: 04/18/24 15:41

Matrix: Water

Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	420137	QTZ5	EET CF	04/26/24 16:50
Dissolved	Prep	3005A			419482	QTZ5	EET CF	04/23/24 09:00
Dissolved	Analysis	6020B		1	420191	NFT2	EET CF	04/29/24 16:37
Total/NA	Prep	3005A			420019	KM3E	EET CF	04/29/24 09:30
Total/NA	Analysis	6020B		1	420319	NFT2	EET CF	04/30/24 14:16
Total/NA	Analysis	350.1		1	420286	ZJX4	EET CF	04/30/24 20:03
Total/NA	Analysis	5220D LL		1	420108	ENB7	EET CF	04/29/24 10:06

Client Sample ID: MW-6

Lab Sample ID: 310-279517-3

Date Collected: 04/18/24 14:42

Matrix: Water

Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	420137	QTZ5	EET CF	04/26/24 17:02
Dissolved	Prep	3005A			419482	QTZ5	EET CF	04/23/24 09:00
Dissolved	Analysis	6020B		1	420191	NFT2	EET CF	04/29/24 16:42
Total/NA	Prep	3005A			420019	KM3E	EET CF	04/29/24 09:30
Total/NA	Analysis	6020B		1	420319	NFT2	EET CF	04/30/24 14:18
Total/NA	Analysis	350.1		1	420286	ZJX4	EET CF	04/30/24 20:03
Total/NA	Analysis	5220D LL		1	420108	ENB7	EET CF	04/29/24 10:06

Client Sample ID: MW-7R2

Lab Sample ID: 310-279517-4

Date Collected: 04/18/24 16:41

Matrix: Water

Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	420137	QTZ5	EET CF	04/26/24 17:14
Dissolved	Filtration	Filtration			419605	QTZ5	EET CF	04/23/24 16:20
Dissolved	Prep	3005A			419749	KM3E	EET CF	04/25/24 09:00
Dissolved	Analysis	6020B		1	420191	NFT2	EET CF	04/29/24 21:33

Lab Chronicle

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Client Sample ID: MW-7R2
Lab Sample ID: 310-279517-4
Date Collected: 04/18/24 16:41
Matrix: Water
Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			419476	QTZ5	EET CF	04/23/24 09:00
Total/NA	Analysis	6020B		1	420080	NFT2	EET CF	04/26/24 15:32
Total/NA	Analysis	350.1		1	420286	ZJX4	EET CF	04/30/24 20:05
Total/NA	Analysis	5220D LL		1	420108	ENB7	EET CF	04/29/24 10:06

Client Sample ID: MW-D
Lab Sample ID: 310-279517-5
Date Collected: 04/18/24 15:41
Matrix: Water
Date Received: 04/22/24 06:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		10	420137	QTZ5	EET CF	04/26/24 17:26
Dissolved	Prep	3005A			419482	QTZ5	EET CF	04/23/24 09:00
Dissolved	Analysis	6020B		1	420191	NFT2	EET CF	04/29/24 16:44
Total/NA	Prep	3005A			420019	KM3E	EET CF	04/29/24 09:30
Total/NA	Analysis	6020B		1	420319	NFT2	EET CF	04/30/24 14:20
Total/NA	Analysis	350.1		1	420286	ZJX4	EET CF	04/30/24 20:05
Total/NA	Analysis	5220D LL		1	420108	ENB7	EET CF	04/29/24 10:06

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

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

Method Summary

Client: SCS Engineers
Job ID: 310-279517-1
Project/Site: Anderson Excavating - Carter Lake

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

None = None

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

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

Laboratory References:

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

eurofins | Environment Testing America

310-279517 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE: IA | Project:

Receipt Information

Date/Time Received: DATE: 4/22/24 | TIME: 0600 | Received By:

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☐ No	*If yes:* Cooler # _____ 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? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: T | Correction Factor (°C): +0.0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.2 | Corrected Temp (°C): 3.2

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
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

Missing MW 3 +5

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613-6907
phone 319.277.2401 fax 319.277.2425

Chain of Custody Record

eurofins

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No.
SCS Engineers	Email: bmadson@scsengineers.com	Lab Contact: Mary Yang	Carrier:	_____ of _____ COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler:
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
	Other:_____			Lab Sampling:
Project Name: 1st 2024 Semi-Annual Groundwater Sampling	☐ 2 weeks			
Site: Anderson Excavating - Carter Lake	☐ 1 week			Job / SDG No.:
P O # 27224173.02	☐ 2 days			
	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	"e" list	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium	Total Cobalt	Total Copper	Total Lead	Total Nickel	Total Silver	Total Thallium	Total Vanadium	Total Zinc	Total Suspended Solids	Trip Blank	Sample Specific Notes
MW-1R			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		IAC 567-114.26(4)"e" list: Arsenic, Barium, Cobalt, Copper, Lead, Nickel, Selenium, and Zinc.
MW-3			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-4			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-5			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-7R2			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-D			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Trip Blank																							X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No..		Cooler Temp. (°C): Obs'd:_____ Corr'd:_____		Therm ID No.:_____
Relinquished by	Company:	Date/Time	Received by	Company	Date/Time.
Relinquished by	Company	Date/Time	Received by	Company	Date/Time:
Relinquished by	Company	Date/Time	Received in Laboratory by	Company	Date/Time. 4/22/24 0600

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

5/1/2024

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613-6907
phone 319.277.2401 fax 319.277.2425

Chain of Custody Record

TestAmerica Des Moines SC eurofins
214

Regulatory Program: DW NPDES RCRA Other:

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email bmadson@scsengineers com	Lab Contact: Mary Yang	Carrier:	____ of ____ COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler:
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	CALENDAR DAYS WORKING DAYS			Walk-in Client:
	Other:			Lab Sampling
Project Name 1st 2024 Semi-Annual Groundwater Sampling	2 weeks			Job / SDG No
Site Anderson Excavating - Carter Lake	1 week			
P O # 27224173 02	2 days			
	1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	"e" list	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium	Total Cobalt	Total Copper	Total Lead	Total Nickel	Total Silver	Total Thallium	Total Vanadium	Total Zinc	Total Suspended Solids	Trip Blank	Sample Specific Notes
MW-1R	4-18-24		G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		IAC 567 114.26(4)"e" list: Arsenic, Barium, Cobalt, Copper Lead Nickel Selenium, and Zinc.
MW-3			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-4			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-5			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-7R2			G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-D	↓		G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Trip Blank																							X	*Include trip blanks in every cooler containing VOC sample containers.*

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact. Yes No	Custody Seal No		Cooler Temp (°C). Obs'd ____ Corr'd ____		Therm ID No ____
Relinquished by: Konner Roth	Company: SCS	Date/Time: 4-19 / 12:30	Received by:	Company: FIC	Date/Time: 4-19-24 1235
Relinquished by:	Company: ETA	Date/Time: 4-20 0700	Received by:	Company	Date/Time
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company	Date/Time: 4/22/24 0600

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

Eurofins TestAmerica, Cedar Falls
3019 Venture Way

Cedar Falls, IA 50613-6907
phone 319.277.2401 fax 319.277.2425

Chain of Custody Record

TestAmerica Des Moines SC eurofins
214

TestAmerica Laboratories, Inc. d/b/a Eurofins TestAmerica

Regulatory Program: DW NPDES RCRA Other

Client Contact	Project Manager: Ben Madson	Site Contact: Ben Madson	Date:	COC No
SCS Engineers	Email bmadson@scsengineers com	Lab Contact: Mary Yang	Carrier:	____ of ____ COCs
1690 All-State Court, Suite 100	Cell 515-776-9255			Sampler
West Des Moines, IA 50265	**Analysis Turnaround Time**			**For Lab Use Only:**
515-631-6160	CALENDAR DAYS WORKING DAYS			Walk-in Client:
	Other:_____			Lab Sampling
Project Name 1st 2024 Semi-Annual Groundwater Sampling	2 weeks			Job / SDG No
Site Anderson Excavating - Carter Lake	1 week			
P O # 27224173 02	2 days			
	1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	"e" list	Total Antimony	Total Arsenic	Total Barium	Total Beryllium	Total Cadmium	Total Cobalt	Total Copper	Total Lead	Total Nickel	Total Silver	Total Thallium	Total Vanadium	Total Zinc	Total Suspended Solids	Trip Blank	Sample Specific Notes
MW-1R	4-18-24	16:09	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		IAC 567 114.26(4)"e" list: Arsenic, Barium, Cobalt, Copper Lead Nickel Selenium, and Zinc.
~~MW-3~~		—	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-4		15:41	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
~~MW-5~~		—	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-6		14:42	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-7R2		16:41	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-D		15:41	G	GW				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
Trip Blank																							X	Include trip blanks in every cooler containing VOC sample containers.

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample

Non-Hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return to Client Disposal by Lab Archive for Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact. Yes No | Custody Seal No | Cooler Temp (°C) Obs'd _____ Corr'd _____ | Therm ID No _____

Relinquished by: Konner Roth	Company: SCS	Date/Time: 4-19-24 12:30	Received by:	Company: EX	Date/Time: 4-19-24 1235
Relinquished by:	Company: EX	Date/Time: 4-20-24	Received by:	Company	Date/Time
Relinquished by:	Company:	Date/Time	Received in Laboratory by:	Company	Date/Time: 4/22/24 0600

Form No. CA-C-WI-002, Rev. 4.23, dated 4/16/2019

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-279517-1

Login Number: 279517

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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.	False	Missing samples MW-3 and MW-5
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.	False	No date or time on COC or sample containers
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 10/29/2024 5:07:15 PM

JOB DESCRIPTION

2nd 2024 Semi-Annual Groundwater Event

JOB NUMBER

310-292493-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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

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

Authorization

Generated
10/29/2024 5:07:15 PM

Authorized for release by
Samuel Miller, Project Management Assistant I
Samuel.Miller@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-292493-1 **Eurofins Cedar Falls**

Job Narrative
310-292493-1

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 10/10/2024 10:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.1°C and 3.3°C.

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

Metals
Method 6020B: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: MW-6 (310-292493-5), MW-7R2 (310-292493-6) and MW-D (310-292493-7). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B: 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-5 (310-292493-4). The sample(s) was preserved to the appropriate pH in the laboratory.

Method 6020B - Dissolved: The reference method requires samples to be preserved to a pH of <2. The following samples were received with insufficient preservation at a pH of >2: MW-1R (310-292493-1), MW-6 (310-292493-5), MW-7R2 (310-292493-6), MW-D (310-292493-7), (310-292493-A-1 MS) and (310-292493-A-1 MSD). The sample(s) was preserved to the appropriate pH in the laboratory.

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

General Chemistry
Method 9020B: Breakthrough exceeded 10% for the following samples:MW-1R (310-292493-1), MW-3 (310-292493-2), MW-4 (310-292493-3), MW-5 (310-292493-4) and MW-6 (310-292493-5).

Method 9020B: Breakthrough exceeded 10% for the following samples:MW-4 (310-292493-3), MW-7R2 (310-292493-6) and MW-D (310-292493-7).

Method 9020B: Sample duplicate results are outside 20% RPD requirement. Reanalysis was performed with concurring results. The data has been reported.

MW-D (310-292493-7)

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

Sample Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292493-1	MW-1R	Water	10/08/24 16:32	10/10/24 10:53
310-292493-2	MW-3	Water	10/08/24 17:07	10/10/24 10:53
310-292493-3	MW-4	Water	10/08/24 17:48	10/10/24 10:53
310-292493-4	MW-5	Water	10/08/24 19:07	10/10/24 10:53
310-292493-5	MW-6	Water	10/08/24 18:25	10/10/24 10:53
310-292493-6	MW-7R2	Water	10/08/24 14:45	10/10/24 10:53
310-292493-7	MW-D	Water	10/08/24 17:07	10/10/24 10:53

Detection Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Client Sample ID: MW-1R
Lab Sample ID: 310-272973-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	169		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0861		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0912		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000310		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00364		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000699		0.000500	0.000260	mg/L	1		6020B	Total/NA
Iron	45.5		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	3.68	B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	1.74		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	38.1		10.0	9.60	mg/L	2		5220D LL	Total/NA
Halogens, Total Organic	314		50.0	17.5	ug/L	1		9020B	Total/NA
Total Suspended Solids	76.0		30.0	22.2	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-3
Lab Sample ID: 310-272973-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	48.3		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.00479		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.168		0.00200	0.000660	mg/L	1		6020B	Total/NA
Beryllium	0.000695	J	0.00100	0.000330	mg/L	1		6020B	Total/NA
Cadmium	0.000461		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.0118		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00356	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.00171		0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.0291		0.00500	0.00210	mg/L	1		6020B	Total/NA
Vanadium	0.00167	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Zinc	0.0114	J	0.0200	0.00970	mg/L	1		6020B	Total/NA
Iron	2.58		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	0.0435	J B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	0.501		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	38.7		5.00	4.80	mg/L	1		5220D LL	Total/NA
Halogens, Total Organic	144		40.0	14.0	ug/L	1		9020B	Total/NA
Total Suspended Solids	9.75		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-9
Lab Sample ID: 310-272973-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	211		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0365		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.234		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000450	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Thallium	0.00149		0.00100	0.000570	mg/L	1		6020B	Total/NA
Iron	35.8		0.500	0.180	mg/L	5		6020B	Dissolved
Iron	0.536	B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	2.47		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	25.2		10.0	9.60	mg/L	2		5220D LL	Total/NA
Halogens, Total Organic	102		40.0	14.0	ug/L	1		9020B	Total/NA
Total Suspended Solids	46.5		7.50	5.55	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Client Sample ID: MW-T — Lab Sample ID: 310-272973-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	39.0		5.00	2.25	mg/L	5		9056A	Total/NA
Antimony	0.00241		0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.0472		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0602		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000300		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00175		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00539		0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.00126		0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.00694		0.00500	0.00210	mg/L	1		6020B	Total/NA
Thallium	0.000821	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Vanadium	0.00136	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Zinc	0.119		0.0200	0.00970	mg/L	1		6020B	Total/NA
Iron	14.2		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	0.0962	J B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	0.897		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	96.4		5.00	4.80	mg/L	1		5220D LL	Total/NA
Halogens, Total Organic	185		40.0	14.0	ug/L	1		9020B	Total/NA
Total Suspended Solids	40.0		15.0	11.1	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-4 — Lab Sample ID: 310-272973-T

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	113		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0753		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	1.82		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00240		0.000500	0.000170	mg/L	1		6020B	Total/NA
Thallium	0.000655	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Iron	28.9		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	0.139	B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	6.06		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	105		10.0	9.60	mg/L	2		5220D LL	Total/NA
Halogens, Total Organic	222		40.0	14.0	ug/L	1		9020B	Total/NA
Total Suspended Solids	82.0		15.0	11.1	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-6R2 — Lab Sample ID: 310-272973-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42.6		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.0582		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.723		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00307		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00200	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.00376		0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.00217	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Thallium	0.000733	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Vanadium	0.00245	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Zinc	0.0381		0.0200	0.00970	mg/L	1		6020B	Total/NA
Iron	29.6		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	0.175	B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	5.81		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	123		5.00	4.80	mg/L	1		5220D LL	Total/NA
Halogens, Total Organic	159		40.0	14.0	ug/L	1		9020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Client Sample ID: MW-6R2 (Continueh)
Lab Sample ID: 310-272973-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	88.0		15.0	11.1	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D
Lab Sample ID: 310-272973-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	48.9		5.00	2.25	mg/L	5		9056A	Total/NA
Arsenic	0.00487		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.170		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.0115		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000417	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.0274		0.00500	0.00210	mg/L	1		6020B	Total/NA
Thallium	0.000829	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Iron	2.42		0.100	0.0360	mg/L	1		6020B	Dissolved
Iron	0.0456	J B	0.100	0.0360	mg/L	1		6020B	Dissolved
Ammonia	0.512		0.200	0.100	mg/L	1		350.1	Total/NA
Chemical Oxygen Demand	40.8		10.0	9.60	mg/L	2		5220D LL	Total/NA
Halogens, Total Organic	135		40.0	14.0	ug/L	1		9020B	Total/NA
Total Suspended Solids	7.13		1.88	1.39	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1R
Lab Sample ID: 310-292493-1
Date Collected: 10/08/24 16:32
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**169**		5.00	2.25	mg/L			10/18/24 18:55	5

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		10/15/24 09:30	10/21/24 16:25	1
Arsenic	**0.0861**		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:25	1
Barium	**0.0912**		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 13:49	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 13:49	1
Cadmium	**0.000310**		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 13:49	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 13:49	1
Cobalt	**0.00364**		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 13:49	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 13:49	1
Lead	**0.000699**		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 13:49	1
Nickel	<0.00500		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:25	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:25	1
Thallium	<0.00100		0.00100	0.000570	mg/L		10/15/24 09:30	10/21/24 16:25	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 13:49	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 13:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**45.5**		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:14	1
Iron	**3.68**	**B**	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**1.74**		0.200	0.100	mg/L			10/10/24 21:28	1
Chemical Oxygen Demand (SM 5220D LL)	**38.1**		10.0	9.60	mg/L			10/16/24 10:09	2
Halogens, Total Organic (SW846 9020B)	**314**		50.0	17.5	ug/L		10/23/24 10:23	10/24/24 06:40	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:15	1
Total Suspended Solids (USGS I-3765-85)	**76.0**		30.0	22.2	mg/L			10/11/24 13:36	1

Client Sample ID: MW-3
Lab Sample ID: 310-292493-2
Date Collected: 10/08/24 17:07
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.3		5.00	2.25	mg/L			10/22/24 13:41	5

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		10/15/24 09:30	10/21/24 16:31	1
Arsenic	0.00479		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:31	1
Barium	0.168		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 14:04	1
Beryllium	0.000695	J	0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 14:04	1
Cadmium	0.000461		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 14:04	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 14:04	1
Cobalt	0.0118		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 14:04	1
Copper	0.00356	J	0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 14:04	1
Lead	0.00171		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 14:04	1
Nickel	0.0291		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:31	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:31	1
Thallium	<0.00100		0.00100	0.000570	mg/L		10/15/24 09:30	10/21/24 16:31	1
Vanadium	0.00167	J	0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 14:04	1
Zinc	0.0114	J	0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 14:04	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	2.58		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:29	1
Iron	0.0435	J B	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.501		0.200	0.100	mg/L			10/10/24 21:29	1
Chemical Oxygen Demand (SM 5220D LL)	38.7		5.00	4.80	mg/L			10/16/24 10:09	1
Halogens, Total Organic (SW846 9020B)	144		40.0	14.0	ug/L		10/23/24 10:23	10/24/24 07:01	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:16	1
Total Suspended Solids (USGS I-3765-85)	9.75		1.88	1.39	mg/L			10/11/24 13:36	1

Client Sample ID: MW-4
Lab Sample ID: 310-292493-3
Date Collected: 10/08/24 17:48
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		5.00	2.25	mg/L			10/22/24 13:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		10/15/24 09:30	10/21/24 16:34	1
Arsenic	0.0365		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:34	1
Barium	0.234		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 14:08	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 14:08	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 14:08	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 14:08	1
Cobalt	0.000450	J	0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 14:08	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 14:08	1
Lead	<0.000500		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 14:08	1
Nickel	<0.00500		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:34	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:34	1
Thallium	0.00149		0.00100	0.000570	mg/L		10/15/24 09:30	10/22/24 15:25	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 14:08	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	35.8		0.500	0.180	mg/L		10/16/24 09:30	10/18/24 14:55	5
Iron	0.536	B	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	2.47		0.200	0.100	mg/L			10/10/24 21:31	1
Chemical Oxygen Demand (SM 5220D LL)	25.2		10.0	9.60	mg/L			10/16/24 10:09	2
Halogens, Total Organic (SW846 9020B)	102		40.0	14.0	ug/L		10/24/24 08:18	10/24/24 14:39	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:16	1
Total Suspended Solids (USGS I-3765-85)	46.5		7.50	5.55	mg/L			10/11/24 13:36	1

Client Sample ID: MW-5
Lab Sample ID: 310-292493-4
Date Collected: 10/08/24 19:07
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	39.0		5.00	2.25	mg/L			10/22/24 14:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00241		0.00200	0.00100	mg/L		10/23/24 09:30	10/29/24 15:34	1
Arsenic	0.0472		0.00200	0.000530	mg/L		10/23/24 09:30	10/24/24 21:00	1
Barium	0.0602		0.00200	0.000660	mg/L		10/23/24 09:30	10/26/24 15:44	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/23/24 09:30	10/26/24 15:44	1
Cadmium	0.000300		0.000200	0.000100	mg/L		10/23/24 09:30	10/26/24 15:44	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/23/24 09:30	10/26/24 15:44	1
Cobalt	0.00175		0.000500	0.000170	mg/L		10/23/24 09:30	10/24/24 21:00	1
Copper	0.00539		0.00500	0.00180	mg/L		10/23/24 09:30	10/26/24 15:44	1
Lead	0.00126		0.000500	0.000260	mg/L		10/23/24 09:30	10/26/24 15:44	1
Nickel	0.00694		0.00500	0.00210	mg/L		10/23/24 09:30	10/26/24 15:44	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/23/24 09:30	10/24/24 21:00	1
Thallium	0.000821	J	0.00100	0.000570	mg/L		10/23/24 09:30	10/29/24 15:34	1
Vanadium	0.00136	J	0.00500	0.00110	mg/L		10/23/24 09:30	10/26/24 15:44	1
Zinc	0.119		0.0200	0.00970	mg/L		10/23/24 09:30	10/26/24 15:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	14.2		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:36	1
Iron	0.0962	J B	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	0.897		0.200	0.100	mg/L			10/10/24 21:32	1
Chemical Oxygen Demand (SM 5220D LL)	96.4		5.00	4.80	mg/L			10/16/24 10:09	1
Halogens, Total Organic (SW846 9020B)	185		40.0	14.0	ug/L		10/23/24 10:23	10/24/24 09:05	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 09:53	10/14/24 23:19	1
Total Suspended Solids (USGS I-3765-85)	40.0		15.0	11.1	mg/L			10/11/24 13:36	1

Client Sample ID: MW-6
Lab Sample ID: 310-292493-5
Date Collected: 10/08/24 18:25
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	113		5.00	2.25	mg/L			10/22/24 14:17	5

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		10/15/24 09:30	10/21/24 16:36	1
Arsenic	0.0753		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:36	1
Barium	1.82		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 14:12	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 14:12	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 14:12	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 14:12	1
Cobalt	0.00240		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 14:12	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 14:12	1
Lead	<0.000500		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 14:12	1
Nickel	<0.00500		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:36	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:36	1
Thallium	0.000655	J	0.00100	0.000570	mg/L		10/15/24 09:30	10/22/24 15:27	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 14:12	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 14:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	28.9		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:55	1
Iron	0.139	B	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	6.06		0.200	0.100	mg/L			10/10/24 21:33	1
Chemical Oxygen Demand (SM 5220D LL)	105		10.0	9.60	mg/L			10/16/24 10:09	2
Halogens, Total Organic (SW846 9020B)	222		40.0	14.0	ug/L		10/23/24 10:23	10/24/24 09:53	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:17	1
Total Suspended Solids (USGS I-3765-85)	82.0		15.0	11.1	mg/L			10/11/24 13:36	1

Client Sample ID: MW-7R2
Lab Sample ID: 310-292493-6
Date Collected: 10/08/24 14:45
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42.6		5.00	2.25	mg/L			10/22/24 14:29	5

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		10/15/24 09:30	10/21/24 16:38	1
Arsenic	0.0582		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:38	1
Barium	0.723		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 14:15	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 14:15	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 14:15	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 14:15	1
Cobalt	0.00307		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 14:15	1
Copper	0.00200	J	0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 14:15	1
Lead	0.00376		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 14:15	1
Nickel	0.00217	J	0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:38	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:38	1
Thallium	0.000733	J	0.00100	0.000570	mg/L		10/15/24 09:30	10/22/24 15:29	1
Vanadium	0.00245	J	0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 14:15	1
Zinc	0.0381		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 14:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	29.6		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:59	1
Iron	0.175	B	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	5.81		0.200	0.100	mg/L			10/10/24 21:34	1
Chemical Oxygen Demand (SM 5220D LL)	123		5.00	4.80	mg/L			10/16/24 10:09	1
Halogens, Total Organic (SW846 9020B)	159		40.0	14.0	ug/L		10/24/24 08:18	10/24/24 16:23	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:17	1
Total Suspended Solids (USGS I-3765-85)	88.0		15.0	11.1	mg/L			10/11/24 13:36	1

Client Sample ID: MW-D
Lab Sample ID: 310-292493-7
Date Collected: 10/08/24 17:07
Matrix: Water
Date Received: 10/10/24 10:53

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.9**		5.00	2.25	mg/L			10/22/24 14:41	5

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		10/15/24 09:30	10/21/24 16:40	1
Arsenic	**0.00487**		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:40	1
Barium	**0.170**		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 14:19	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 14:19	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 14:19	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 14:19	1
Cobalt	**0.0115**		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 14:19	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 14:19	1
Lead	**0.000417**	**J**	0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 14:19	1
Nickel	**0.0274**		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:40	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:40	1
Thallium	**0.000829**	**J**	0.00100	0.000570	mg/L		10/15/24 09:30	10/22/24 15:31	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 14:19	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 14:19	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	**2.42**		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 17:03	1
Iron	**0.0456**	**J B**	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (EPA 350.1)	**0.512**		0.200	0.100	mg/L			10/10/24 21:34	1
Chemical Oxygen Demand (SM 5220D LL)	**40.8**		10.0	9.60	mg/L			10/16/24 10:09	2
Halogens, Total Organic (SW846 9020B)	**135**		40.0	14.0	ug/L		10/24/24 08:18	10/25/24 08:54	1
Phenols, Total (SW846 9066)	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:17	1
Total Suspended Solids (USGS I-3765-85)	**7.13**		1.88	1.39	mg/L			10/11/24 13:36	1

Qualifiers

Metals

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-436852/3
Matrix: Water
Analysis Batch: 436852

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			10/18/24 11:54	1

Lab Sample ID: LCS 310-436852/4
Matrix: Water
Analysis Batch: 436852

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.522		mg/L		95	90 - 110

Lab Sample ID: MB 310-437195/3
Matrix: Water
Analysis Batch: 437195

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.00		1.00	0.450	mg/L			10/22/24 10:15	1

Lab Sample ID: LCS 310-437195/4
Matrix: Water
Analysis Batch: 437195

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.599		mg/L		96	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-436191/1-A
Matrix: Water
Analysis Batch: 436543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.00200		0.00200	0.000660	mg/L		10/15/24 09:30	10/16/24 13:26	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/15/24 09:30	10/16/24 13:26	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/15/24 09:30	10/16/24 13:26	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/15/24 09:30	10/16/24 13:26	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/15/24 09:30	10/16/24 13:26	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/15/24 09:30	10/16/24 13:26	1
Lead	<0.000500		0.000500	0.000260	mg/L		10/15/24 09:30	10/16/24 13:26	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/15/24 09:30	10/16/24 13:26	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/15/24 09:30	10/16/24 13:26	1

Lab Sample ID: MB 310-436191/1-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		10/15/24 09:30	10/21/24 16:11	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		10/15/24 09:30	10/21/24 16:11	1
Nickel	<0.00500		0.00500	0.00210	mg/L		10/15/24 09:30	10/21/24 16:11	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/15/24 09:30	10/21/24 16:11	1
Thallium	<0.00100		0.00100	0.000570	mg/L		10/15/24 09:30	10/21/24 16:11	1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: LCS 310-436191/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 436543
Prep Batch: 436191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.09189		mg/L		92	80 - 120
Beryllium	0.100	0.09396		mg/L		94	80 - 120
Cadmium	0.100	0.09014		mg/L		90	80 - 120
Chromium	0.100	0.09270		mg/L		93	80 - 120
Cobalt	0.100	0.09513		mg/L		95	80 - 120
Copper	0.200	0.1874		mg/L		94	80 - 120
Lead	0.200	0.1917		mg/L		96	80 - 120
Vanadium	0.100	0.08956		mg/L		90	80 - 120
Zinc	0.200	0.1771		mg/L		89	80 - 120

Lab Sample ID: LCS 310-436191/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 437043
Prep Batch: 436191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2201		mg/L		110	80 - 120
Arsenic	0.200	0.2228		mg/L		111	80 - 120
Nickel	0.200	0.2221		mg/L		111	80 - 120
Silver	0.100	0.1091		mg/L		109	80 - 120
Thallium	0.100	0.08712		mg/L		87	80 - 120

Lab Sample ID: 310-292493-1 MS
Client Sample ID: MW-1R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 436543
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.0912		0.100	0.1784		mg/L		87	75 - 125
Beryllium	<0.00100		0.100	0.1025		mg/L		102	75 - 125
Cadmium	0.000310		0.100	0.09361		mg/L		93	75 - 125
Chromium	<0.00500		0.100	0.09722		mg/L		97	75 - 125
Cobalt	0.00364		0.100	0.09760		mg/L		94	75 - 125
Copper	<0.00500		0.200	0.1793		mg/L		90	75 - 125
Lead	0.000699		0.200	0.1885		mg/L		94	75 - 125
Vanadium	<0.00500		0.100	0.09689		mg/L		97	75 - 125
Zinc	<0.0200		0.200	0.1758		mg/L		88	75 - 125

Lab Sample ID: 310-292493-1 MS
Client Sample ID: MW-1R
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 437043
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200		0.200	0.2193		mg/L		110	75 - 125
Arsenic	0.0861		0.200	0.3104		mg/L		112	75 - 125
Nickel	<0.00500		0.200	0.2316		mg/L		116	75 - 125
Silver	<0.00100		0.100	0.1080		mg/L		108	75 - 125
Thallium	<0.00100		0.100	0.07735		mg/L		77	75 - 125

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

Lab Sample ID: 310-292493-1 MS
Matrix: Water
Analysis Batch: 437173

Client Sample ID: MW-1R
Prep Type: Total/NA
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Thallium	<0.00100		0.100	0.07980		mg/L		80	75 - 125		

Lab Sample ID: 310-292493-1 MSD
Matrix: Water
Analysis Batch: 436543

Client Sample ID: MW-1R
Prep Type: Total/NA
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Barium	0.0912		0.100	0.1952		mg/L		104	75 - 125	9	20
Beryllium	<0.00100		0.100	0.1106		mg/L		111	75 - 125	8	20
Cadmium	0.000310		0.100	0.1024		mg/L		102	75 - 125	9	20
Chromium	<0.00500		0.100	0.1032		mg/L		103	75 - 125	6	20
Cobalt	0.00364		0.100	0.1071		mg/L		103	75 - 125	9	20
Copper	<0.00500		0.200	0.1937		mg/L		97	75 - 125	8	20
Lead	0.000699		0.200	0.2084		mg/L		104	75 - 125	10	20
Vanadium	<0.00500		0.100	0.1055		mg/L		105	75 - 125	9	20
Zinc	<0.0200		0.200	0.1923		mg/L		96	75 - 125	9	20

Lab Sample ID: 310-292493-1 MSD
Matrix: Water
Analysis Batch: 437043

Client Sample ID: MW-1R
Prep Type: Total/NA
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200		0.200	0.2218		mg/L		111	75 - 125	1	20
Arsenic	0.0861		0.200	0.3111		mg/L		113	75 - 125	0	20
Nickel	<0.00500		0.200	0.2392		mg/L		120	75 - 125	3	20
Silver	<0.00100		0.100	0.1103		mg/L		110	75 - 125	2	20
Thallium	<0.00100		0.100	0.07945		mg/L		79	75 - 125	3	20

Lab Sample ID: 310-292493-1 MSD
Matrix: Water
Analysis Batch: 437173

Client Sample ID: MW-1R
Prep Type: Total/NA
Prep Batch: 436191

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	<0.00100		0.100	0.08295		mg/L		83	75 - 125	4	20

Lab Sample ID: MB 310-436352/1-A
Matrix: Water
Analysis Batch: 436698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	<0.100		0.100	0.0360	mg/L		10/16/24 09:30	10/17/24 16:06	1

Lab Sample ID: LCS 310-436352/2-A
Matrix: Water
Analysis Batch: 436698

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436352

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	0.200	0.1884		mg/L		94	80 - 120		

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

Lab Sample ID: MB 310-437139/1-A
Matrix: Water
Analysis Batch: 437519

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 437139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		10/23/24 09:30	10/24/24 20:10	1
Barium	0.001687	J	0.00200	0.000660	mg/L		10/23/24 09:30	10/24/24 20:10	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		10/23/24 09:30	10/24/24 20:10	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		10/23/24 09:30	10/24/24 20:10	1
Chromium	<0.00500		0.00500	0.00120	mg/L		10/23/24 09:30	10/24/24 20:10	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		10/23/24 09:30	10/24/24 20:10	1
Copper	<0.00500		0.00500	0.00180	mg/L		10/23/24 09:30	10/24/24 20:10	1
Lead	<0.000500		0.000500	0.000260	mg/L		10/23/24 09:30	10/24/24 20:10	1
Silver	<0.00100		0.00100	0.000500	mg/L		10/23/24 09:30	10/24/24 20:10	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		10/23/24 09:30	10/24/24 20:10	1
Zinc	<0.0200		0.0200	0.00970	mg/L		10/23/24 09:30	10/24/24 20:10	1

Lab Sample ID: MB 310-437139/1-A
Matrix: Water
Analysis Batch: 437720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 437139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00500		0.00500	0.00210	mg/L		10/23/24 09:30	10/26/24 15:15	1
Thallium	<0.00100		0.00100	0.000570	mg/L		10/23/24 09:30	10/26/24 15:15	1

Lab Sample ID: MB 310-437139/1-A
Matrix: Water
Analysis Batch: 437975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 437139

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		10/23/24 09:30	10/29/24 15:23	1

Lab Sample ID: LCS 310-437139/2-A
Matrix: Water
Analysis Batch: 437519

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.1716		mg/L		86	80 - 120
Cobalt	0.100	0.07978		mg/L		80	80 - 120
Silver	0.100	0.08271		mg/L		83	80 - 120

Lab Sample ID: LCS 310-437139/2-A
Matrix: Water
Analysis Batch: 437720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437139

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	0.100	0.09334		mg/L		93	80 - 120
Beryllium	0.100	0.09820		mg/L		98	80 - 120
Cadmium	0.100	0.09568		mg/L		96	80 - 120
Chromium	0.100	0.09838		mg/L		98	80 - 120
Copper	0.200	0.1955		mg/L		98	80 - 120
Lead	0.200	0.1853		mg/L		93	80 - 120
Nickel	0.200	0.1958		mg/L		98	80 - 120
Vanadium	0.100	0.09441		mg/L		94	80 - 120

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

Lab Sample ID: LCS 310-437139/2-A
Matrix: Water
Analysis Batch: 437720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437139

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Zinc			0.200	0.1854		mg/L		93	80 - 120		

Lab Sample ID: LCS 310-437139/2-A
Matrix: Water
Analysis Batch: 437975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 437139

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Antimony			0.200	0.2118		mg/L		106	80 - 120		
Thallium			0.100	0.09056		mg/L		91	80 - 120		

Lab Sample ID: 310-292493-1 MS
Matrix: Water
Analysis Batch: 436698

Client Sample ID: MW-1R
Prep Type: Dissolved
Prep Batch: 436352

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	45.5		0.200	46.78	4	mg/L		659	75 - 125		

Lab Sample ID: 310-292493-1 MSD
Matrix: Water
Analysis Batch: 436698

Client Sample ID: MW-1R
Prep Type: Dissolved
Prep Batch: 436352

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	45.5		0.200	45.14	4	mg/L		-163	75 - 125	4	20

Lab Sample ID: MB 310-436281/1-B
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 436578

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	0.06108	J	0.100	0.0360	mg/L		10/17/24 09:30	10/21/24 19:17	1

Lab Sample ID: LCS 310-436281/2-B
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 436578

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron			0.200	0.2270		mg/L		114	80 - 120		

Lab Sample ID: 310-292493-1 MS
Matrix: Water
Analysis Batch: 437043

Client Sample ID: MW-1R
Prep Type: Dissolved
Prep Batch: 436578

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Iron	3.68	B	0.200	3.859	4	mg/L		92	75 - 125		

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

Lab Sample ID: 310-292493-1 MSD — **Client Sample ID: MW-1R**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 437043 — **Prep Batch: 436578**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Iron	3.68	B	0.200	3.990	4	mg/L		157	75 - 125	3	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 310-435888/163 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.200		0.200	0.100	mg/L			10/10/24 21:15	1

Lab Sample ID: LCS 310-435888/164 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 435888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Ammonia	8.55	8.725		mg/L		102	90 - 110

Method: 5220D LL - COD

Lab Sample ID: MB 310-436415/32 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<5.00		5.00	4.80	mg/L			10/16/24 10:09	1

Lab Sample ID: LCS 310-436415/33 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chemical Oxygen Demand	125	131.0		mg/L		105	85 - 110

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 680-861025/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 861035 — **Prep Batch: 861025**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<40.0		40.0	14.0	ug/L		10/23/24 10:23	10/23/24 13:13	1

Lab Sample ID: LCS 680-861025/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 861035 — **Prep Batch: 861025**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	399.6		ug/L		100	60 - 140

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: MB 680-861236/1-A
Matrix: Water
Analysis Batch: 861251

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 861236

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	<40.0		40.0	14.0	ug/L		10/24/24 08:18	10/24/24 13:25	1

Lab Sample ID: LCS 680-861236/2-A
Matrix: Water
Analysis Batch: 861251

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 861236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	400	416.4		ug/L		104	60 - 140

Lab Sample ID: 310-292493-3 MS
Matrix: Water
Analysis Batch: 861251

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 861236

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Halogens, Total Organic	102		400	523.5		ug/L		105	60 - 140

Lab Sample ID: 310-292493-3 MSD
Matrix: Water
Analysis Batch: 861251

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 861236

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Halogens, Total Organic	102		400	495.6		ug/L		98	60 - 140	5	40

Method: 9066 - Phenolics, Total Recoverable

Lab Sample ID: MB 310-436090/1-A
Matrix: Water
Analysis Batch: 436206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436090

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200	0.0100	mg/L		10/14/24 08:29	10/14/24 23:07	1

Lab Sample ID: LCS 310-436090/2-A
Matrix: Water
Analysis Batch: 436206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436090

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenols, Total	0.100	0.09833		mg/L		98	90 - 110

Lab Sample ID: MB 310-436105/1-A
Matrix: Water
Analysis Batch: 436206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	<0.0200		0.0200	0.0100	mg/L		10/14/24 09:53	10/14/24 23:18	1

Method: 9066 - Phenolics, Total Recoverable (Continued)

Lab Sample ID: LCS 310-436105/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436206 — **Prep Batch: 436105**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Phenols, Total			0.100	0.1093		mg/L		109	90 - 110		

Lab Sample ID: 310-292493-4 MS — **Client Sample ID: MW-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436206 — **Prep Batch: 436105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Phenols, Total	<0.0200		0.100	0.1085		mg/L		108	76 - 119		

Lab Sample ID: 310-292493-4 MSD — **Client Sample ID: MW-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436206 — **Prep Batch: 436105**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Phenols, Total	<0.0200		0.100	0.1103		mg/L		110	76 - 119	2	16

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

Lab Sample ID: MB 310-436002/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436002

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			10/11/24 13:36	1

Lab Sample ID: LCS 310-436002/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436002

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	98.00		mg/L		98	81 - 116		

Lab Sample ID: 310-292493-5 DU — **Client Sample ID: MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 436002

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Suspended Solids	82.0			79.00		mg/L				4	35

HPLC/IC

Analysis Batch: 436852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	9056A	
MB 310-436852/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436852/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 437195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-2	MW-3	Total/NA	Water	9056A	
310-292493-3	MW-4	Total/NA	Water	9056A	
310-292493-4	MW-5	Total/NA	Water	9056A	
310-292493-5	MW-6	Total/NA	Water	9056A	
310-292493-6	MW-7R2	Total/NA	Water	9056A	
310-292493-7	MW-D	Total/NA	Water	9056A	
MB 310-437195/3	Method Blank	Total/NA	Water	9056A	
LCS 310-437195/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 436191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	3005A	
310-292493-2	MW-3	Total/NA	Water	3005A	
310-292493-3	MW-4	Total/NA	Water	3005A	
310-292493-5	MW-6	Total/NA	Water	3005A	
310-292493-6	MW-7R2	Total/NA	Water	3005A	
310-292493-7	MW-D	Total/NA	Water	3005A	
MB 310-436191/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-436191/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-292493-1 MS	MW-1R	Total/NA	Water	3005A	
310-292493-1 MSD	MW-1R	Total/NA	Water	3005A	

Filtration Batch: 436281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Dissolved	Water	Filtration	
310-292493-2	MW-3	Dissolved	Water	Filtration	
310-292493-3	MW-4	Dissolved	Water	Filtration	
310-292493-4	MW-5	Dissolved	Water	Filtration	
310-292493-5	MW-6	Dissolved	Water	Filtration	
310-292493-6	MW-7R2	Dissolved	Water	Filtration	
310-292493-7	MW-D	Dissolved	Water	Filtration	
MB 310-436281/1-B	Method Blank	Dissolved	Water	Filtration	
LCS 310-436281/2-B	Lab Control Sample	Dissolved	Water	Filtration	
310-292493-1 MS	MW-1R	Dissolved	Water	Filtration	
310-292493-1 MSD	MW-1R	Dissolved	Water	Filtration	

Prep Batch: 436352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Dissolved	Water	3005A	
310-292493-2	MW-3	Dissolved	Water	3005A	
310-292493-3	MW-4	Dissolved	Water	3005A	
310-292493-4	MW-5	Dissolved	Water	3005A	
310-292493-5	MW-6	Dissolved	Water	3005A	

Metals (Continued)

Prep Batch: 436352 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-6	MW-7R2	Dissolved	Water	3005A	
310-292493-7	MW-D	Dissolved	Water	3005A	
MB 310-436352/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-436352/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-292493-1 MS	MW-1R	Dissolved	Water	3005A	
310-292493-1 MSD	MW-1R	Dissolved	Water	3005A	

Analysis Batch: 436543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	6020B	436191
310-292493-2	MW-3	Total/NA	Water	6020B	436191
310-292493-3	MW-4	Total/NA	Water	6020B	436191
310-292493-5	MW-6	Total/NA	Water	6020B	436191
310-292493-6	MW-7R2	Total/NA	Water	6020B	436191
310-292493-7	MW-D	Total/NA	Water	6020B	436191
MB 310-436191/1-A	Method Blank	Total/NA	Water	6020B	436191
LCS 310-436191/2-A	Lab Control Sample	Total/NA	Water	6020B	436191
310-292493-1 MS	MW-1R	Total/NA	Water	6020B	436191
310-292493-1 MSD	MW-1R	Total/NA	Water	6020B	436191

Prep Batch: 436578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Dissolved	Water	3005A	436281
310-292493-2	MW-3	Dissolved	Water	3005A	436281
310-292493-3	MW-4	Dissolved	Water	3005A	436281
310-292493-4	MW-5	Dissolved	Water	3005A	436281
310-292493-5	MW-6	Dissolved	Water	3005A	436281
310-292493-6	MW-7R2	Dissolved	Water	3005A	436281
310-292493-7	MW-D	Dissolved	Water	3005A	436281
MB 310-436281/1-B	Method Blank	Dissolved	Water	3005A	436281
LCS 310-436281/2-B	Lab Control Sample	Dissolved	Water	3005A	436281
310-292493-1 MS	MW-1R	Dissolved	Water	3005A	436281
310-292493-1 MSD	MW-1R	Dissolved	Water	3005A	436281

Analysis Batch: 436698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Dissolved	Water	6020B	436352
310-292493-2	MW-3	Dissolved	Water	6020B	436352
310-292493-4	MW-5	Dissolved	Water	6020B	436352
310-292493-5	MW-6	Dissolved	Water	6020B	436352
310-292493-6	MW-7R2	Dissolved	Water	6020B	436352
310-292493-7	MW-D	Dissolved	Water	6020B	436352
MB 310-436352/1-A	Method Blank	Total/NA	Water	6020B	436352
LCS 310-436352/2-A	Lab Control Sample	Total/NA	Water	6020B	436352
310-292493-1 MS	MW-1R	Dissolved	Water	6020B	436352
310-292493-1 MSD	MW-1R	Dissolved	Water	6020B	436352

Analysis Batch: 436888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-3	MW-4	Dissolved	Water	6020B	436352

Metals

Analysis Batch: 437043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Dissolved	Water	6020B	436578
310-292493-1	MW-1R	Total/NA	Water	6020B	436191
310-292493-2	MW-3	Dissolved	Water	6020B	436578
310-292493-2	MW-3	Total/NA	Water	6020B	436191
310-292493-3	MW-4	Dissolved	Water	6020B	436578
310-292493-3	MW-4	Total/NA	Water	6020B	436191
310-292493-4	MW-5	Dissolved	Water	6020B	436578
310-292493-5	MW-6	Dissolved	Water	6020B	436578
310-292493-5	MW-6	Total/NA	Water	6020B	436191
310-292493-6	MW-7R2	Dissolved	Water	6020B	436578
310-292493-6	MW-7R2	Total/NA	Water	6020B	436191
310-292493-7	MW-D	Dissolved	Water	6020B	436578
310-292493-7	MW-D	Total/NA	Water	6020B	436191
MB 310-436191/1-A	Method Blank	Total/NA	Water	6020B	436191
MB 310-436281/1-B	Method Blank	Dissolved	Water	6020B	436578
LCS 310-436191/2-A	Lab Control Sample	Total/NA	Water	6020B	436191
LCS 310-436281/2-B	Lab Control Sample	Dissolved	Water	6020B	436578
310-292493-1 MS	MW-1R	Dissolved	Water	6020B	436578
310-292493-1 MS	MW-1R	Total/NA	Water	6020B	436191
310-292493-1 MSD	MW-1R	Dissolved	Water	6020B	436578
310-292493-1 MSD	MW-1R	Total/NA	Water	6020B	436191

Prep Batch: 437139

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-4	MW-5	Total/NA	Water	3005A	
MB 310-437139/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-437139/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 437173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-3	MW-4	Total/NA	Water	6020B	436191
310-292493-5	MW-6	Total/NA	Water	6020B	436191
310-292493-6	MW-7R2	Total/NA	Water	6020B	436191
310-292493-7	MW-D	Total/NA	Water	6020B	436191
310-292493-1 MS	MW-1R	Total/NA	Water	6020B	436191
310-292493-1 MSD	MW-1R	Total/NA	Water	6020B	436191

Analysis Batch: 437519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-4	MW-5	Total/NA	Water	6020B	437139
MB 310-437139/1-A	Method Blank	Total/NA	Water	6020B	437139
LCS 310-437139/2-A	Lab Control Sample	Total/NA	Water	6020B	437139

Analysis Batch: 437720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-4	MW-5	Total/NA	Water	6020B	437139
MB 310-437139/1-A	Method Blank	Total/NA	Water	6020B	437139
LCS 310-437139/2-A	Lab Control Sample	Total/NA	Water	6020B	437139

Metals

Analysis Batch: 437975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-4	MW-5	Total/NA	Water	6020B	437139
MB 310-437139/1-A	Method Blank	Total/NA	Water	6020B	437139
LCS 310-437139/2-A	Lab Control Sample	Total/NA	Water	6020B	437139

General Chemistry

Analysis Batch: 435888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	350.1	
310-292493-2	MW-3	Total/NA	Water	350.1	
310-292493-3	MW-4	Total/NA	Water	350.1	
310-292493-4	MW-5	Total/NA	Water	350.1	
310-292493-5	MW-6	Total/NA	Water	350.1	
310-292493-6	MW-7R2	Total/NA	Water	350.1	
310-292493-7	MW-D	Total/NA	Water	350.1	
MB 310-435888/163	Method Blank	Total/NA	Water	350.1	
LCS 310-435888/164	Lab Control Sample	Total/NA	Water	350.1	

Analysis Batch: 436002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	I-3765-85	
310-292493-2	MW-3	Total/NA	Water	I-3765-85	
310-292493-3	MW-4	Total/NA	Water	I-3765-85	
310-292493-4	MW-5	Total/NA	Water	I-3765-85	
310-292493-5	MW-6	Total/NA	Water	I-3765-85	
310-292493-6	MW-7R2	Total/NA	Water	I-3765-85	
310-292493-7	MW-D	Total/NA	Water	I-3765-85	
MB 310-436002/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-436002/2	Lab Control Sample	Total/NA	Water	I-3765-85	
310-292493-5 DU	MW-6	Total/NA	Water	I-3765-85	

Prep Batch: 436090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	Distill/Phenol	
310-292493-2	MW-3	Total/NA	Water	Distill/Phenol	
310-292493-3	MW-4	Total/NA	Water	Distill/Phenol	
310-292493-5	MW-6	Total/NA	Water	Distill/Phenol	
310-292493-6	MW-7R2	Total/NA	Water	Distill/Phenol	
310-292493-7	MW-D	Total/NA	Water	Distill/Phenol	
MB 310-436090/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-436090/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	

Prep Batch: 436105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-4	MW-5	Total/NA	Water	Distill/Phenol	
MB 310-436105/1-A	Method Blank	Total/NA	Water	Distill/Phenol	
LCS 310-436105/2-A	Lab Control Sample	Total/NA	Water	Distill/Phenol	
310-292493-4 MS	MW-5	Total/NA	Water	Distill/Phenol	
310-292493-4 MSD	MW-5	Total/NA	Water	Distill/Phenol	

General Chemistry

Analysis Batch: 436206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	9066	436090
310-292493-2	MW-3	Total/NA	Water	9066	436090
310-292493-3	MW-4	Total/NA	Water	9066	436090
310-292493-4	MW-5	Total/NA	Water	9066	436105
310-292493-5	MW-6	Total/NA	Water	9066	436090
310-292493-6	MW-7R2	Total/NA	Water	9066	436090
310-292493-7	MW-D	Total/NA	Water	9066	436090
MB 310-436090/1-A	Method Blank	Total/NA	Water	9066	436090
MB 310-436105/1-A	Method Blank	Total/NA	Water	9066	436105
LCS 310-436090/2-A	Lab Control Sample	Total/NA	Water	9066	436090
LCS 310-436105/2-A	Lab Control Sample	Total/NA	Water	9066	436105
310-292493-4 MS	MW-5	Total/NA	Water	9066	436105
310-292493-4 MSD	MW-5	Total/NA	Water	9066	436105

Analysis Batch: 436415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	5220D LL	
310-292493-2	MW-3	Total/NA	Water	5220D LL	
310-292493-3	MW-4	Total/NA	Water	5220D LL	
310-292493-4	MW-5	Total/NA	Water	5220D LL	
310-292493-5	MW-6	Total/NA	Water	5220D LL	
310-292493-6	MW-7R2	Total/NA	Water	5220D LL	
310-292493-7	MW-D	Total/NA	Water	5220D LL	
MB 310-436415/32	Method Blank	Total/NA	Water	5220D LL	
LCS 310-436415/33	Lab Control Sample	Total/NA	Water	5220D LL	

Prep Batch: 861025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	Carbon Trap	
310-292493-2	MW-3	Total/NA	Water	Carbon Trap	
310-292493-4	MW-5	Total/NA	Water	Carbon Trap	
310-292493-5	MW-6	Total/NA	Water	Carbon Trap	
MB 680-861025/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-861025/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

Analysis Batch: 861035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-1	MW-1R	Total/NA	Water	9020B	861025
310-292493-2	MW-3	Total/NA	Water	9020B	861025
310-292493-4	MW-5	Total/NA	Water	9020B	861025
310-292493-5	MW-6	Total/NA	Water	9020B	861025
MB 680-861025/1-A	Method Blank	Total/NA	Water	9020B	861025
LCS 680-861025/2-A	Lab Control Sample	Total/NA	Water	9020B	861025

Prep Batch: 861236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-3	MW-4	Total/NA	Water	Carbon Trap	
310-292493-6	MW-7R2	Total/NA	Water	Carbon Trap	
310-292493-7	MW-D	Total/NA	Water	Carbon Trap	
MB 680-861236/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 680-861236/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	

General Chemistry (Continued)

Prep Batch: 861236 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-3 MS	MW-4	Total/NA	Water	Carbon Trap	
310-292493-3 MSD	MW-4	Total/NA	Water	Carbon Trap	

Analysis Batch: 861251

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292493-3	MW-4	Total/NA	Water	9020B	861236
310-292493-6	MW-7R2	Total/NA	Water	9020B	861236
310-292493-7	MW-D	Total/NA	Water	9020B	861236
MB 680-861236/1-A	Method Blank	Total/NA	Water	9020B	861236
LCS 680-861236/2-A	Lab Control Sample	Total/NA	Water	9020B	861236
310-292493-3 MS	MW-4	Total/NA	Water	9020B	861236
310-292493-3 MSD	MW-4	Total/NA	Water	9020B	861236

Client Sample ID: MW-1R

Lab Sample ID: 310-272973-1

Date Collectex: 10d04d29 1/ :32

Matri5: Water

Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	436852	HE7K	EET CF	10/18/24 18:55
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 16:14
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:22
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 13:49
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:25
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:28
Total/NA	Analysis	5220D LL		2	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861025	CLJ	EET SAV	10/23/24 10:23
Total/NA	Analysis	9020B		1	861035	CLJ	EET SAV	10/24/24 06:40
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:15
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Client Sample ID: MW-3

Lab Sample ID: 310-272973-2

Date Collectex: 10d04d29 1F:0F

Matri5: Water

Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 13:41
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 16:29
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:39
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 14:04
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:31
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:29
Total/NA	Analysis	5220D LL		1	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861025	CLJ	EET SAV	10/23/24 10:23
Total/NA	Analysis	9020B		1	861035	CLJ	EET SAV	10/24/24 07:01
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:16
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Client Sample ID: MW-9

Lab Sample ID: 310-272973-3

Date Collectex: 10d04d29 1F:94

Matri5: Water

Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 13:53
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		5	436888	NFT2	EET CF	10/18/24 14:55
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:41
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 14:08
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:34
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437173	A6US	EET CF	10/22/24 15:25
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:31
Total/NA	Analysis	5220D LL		2	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861236	CLJ	EET SAV	10/24/24 08:18
Total/NA	Analysis	9020B		1	861251	CLJ	EET SAV	10/24/24 14:39
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:16
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Client Sample ID: MW-6

Lab Sample ID: 310-272973-9

Date Collectex: 10d04d29 17:0F

Matri5: Water

Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 14:05
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 16:36
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:43
Total/NA	Prep	3005A			437139	F5MW	EET CF	10/23/24 09:30
Total/NA	Analysis	6020B		1	437519	A6US	EET CF	10/24/24 21:00
Total/NA	Prep	3005A			437139	F5MW	EET CF	10/23/24 09:30
Total/NA	Analysis	6020B		1	437720	A6US	EET CF	10/26/24 15:44
Total/NA	Prep	3005A			437139	F5MW	EET CF	10/23/24 09:30
Total/NA	Analysis	6020B		1	437975	A6US	EET CF	10/29/24 15:34
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:32
Total/NA	Analysis	5220D LL		1	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861025	CLJ	EET SAV	10/23/24 10:23
Total/NA	Analysis	9020B		1	861035	CLJ	EET SAV	10/24/24 09:05
Total/NA	Prep	Distill/Phenol			436105	HE7K	EET CF	10/14/24 09:53
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:19
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Client Sample ID: MW-/
Lab Sample ID: 310-272973-6
Date Collectex: 10d04d29 14:26
Matri5: Water
Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 14:17
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 16:55
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:46
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 14:12
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:36
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437173	A6US	EET CF	10/22/24 15:27
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:33
Total/NA	Analysis	5220D LL		2	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861025	CLJ	EET SAV	10/23/24 10:23
Total/NA	Analysis	9020B		1	861035	CLJ	EET SAV	10/24/24 09:53
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:17
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Client Sample ID: MW-FR2
Lab Sample ID: 310-272973-/
Date Collectex: 10d04d29 19:96
Matri5: Water
Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 14:29
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 16:59
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:48
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 14:15
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:38
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437173	A6US	EET CF	10/22/24 15:29
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:34
Total/NA	Analysis	5220D LL		1	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861236	CLJ	EET SAV	10/24/24 08:18
Total/NA	Analysis	9020B		1	861251	CLJ	EET SAV	10/24/24 16:23
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:17
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

Lab Chronicle

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Client Sample ID: MW-D
Lab Sample ID: 310-272973-F
Date Collectex: 10d04d29 1F:0F
Matri5: Water
Date Recei8ex: 10d10d29 10:63

Brep vTpe	y atch vTpe	y atch Methox	Rsn	Dilstion Nactor	y atch z smber	PnalTAt	Lab	Breparex or PnalTuex
Total/NA	Analysis	9056A		5	437195	ZRI4	EET CF	10/22/24 14:41
Dissolved	Prep	3005A			436352	F5MW	EET CF	10/16/24 09:30
Dissolved	Analysis	6020B		1	436698	NFT2	EET CF	10/17/24 17:03
Dissolved	Filtration	Filtration			436281	F5MW	EET CF	10/15/24 13:54
Dissolved	Prep	3005A			436578	F5MW	EET CF	10/17/24 09:30
Dissolved	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 19:50
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	436543	NFT2	EET CF	10/16/24 14:19
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 16:40
Total/NA	Prep	3005A			436191	QTZ5	EET CF	10/15/24 09:30
Total/NA	Analysis	6020B		1	437173	A6US	EET CF	10/22/24 15:31
Total/NA	Analysis	350.1		1	435888	ZJX4	EET CF	10/10/24 21:34
Total/NA	Analysis	5220D LL		2	436415	HE7K	EET CF	10/16/24 10:09
Total/NA	Prep	Carbon Trap			861236	CLJ	EET SAV	10/24/24 08:18
Total/NA	Analysis	9020B		1	861251	CLJ	EET SAV	10/25/24 08:54
Total/NA	Prep	Distill/Phenol			436090	HE7K	EET CF	10/14/24 08:29
Total/NA	Analysis	9066		1	436206	ZJX4	EET CF	10/14/24 23:17
Total/NA	Analysis	I-3765-85		1	436002	HE7K	EET CF	10/11/24 13:36

LaboratorT ReferenceA:

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

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Laboratory: Eurofins Cedar Falls

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

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

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
350.1		Water	Ammonia
I-3765-85		Water	Total Suspended Solids

Laboratory: Eurofins Savannah

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

Authority	Program	Identification Number	Expiration Date
	AFCEE	SAVLAB	
Alabama	State	41450	06-30-25
ANAB	Dept. of Defense ELAP	L2463	09-22-26
Arkansas (DW)	State	GA00006	06-30-25
Arkansas DEQ	State	88-00692	02-01-25
Florida	NELAP	E87052	06-30-25
Georgia	State	E87052	06-30-25
Georgia (DW)	State	803	06-30-25
Guam	State	24-05R	04-17-25
Hawaii	State	<cert No.>	06-30-25
Illinois	NELAP	200022	11-30-24
Iowa	State	353	07-01-25
Kentucky (UST)	State	108138	06-30-24 *
Louisiana (All)	NELAP	30690	06-30-25
Louisiana (DW)	State	LA009	12-31-24
Maryland	State	250	12-31-24
Michigan	State	9925	03-05-25
Mississippi	State	<cert No.>	06-30-25
Nebraska	State	NE-OS-7-04	06-30-25
New Mexico	State	GA00006	06-30-25
North Carolina (DW)	State	13701	07-31-25
North Carolina (WW/SW)	State	269	12-31-24
Puerto Rico	State	GA00006	01-01-25
South Carolina	State	98001	06-30-24 *
Tennessee	State	TN02961	06-30-25
Texas	NELAP	T1047004185	11-30-24
Texas	TCEQ Water Supply	T104704185	06-30-24 *
USDA	US Federal Programs	P330-18-00313	04-04-27
Virginia	NELAP	460161	06-14-25
Wyoming	State	8TMS-L	06-30-25

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

Method Summary

Client: SCS Engineers
Job ID: 310-292493-1
Project/Site: 2nd 2024 Semi-Annual Groundwater Event

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
350.1	Nitrogen, Ammonia	EPA	EET CF
5220D LL	COD	SM	EET CF
9020B	Organic Halides, Total (TOX)	SW846	EET SAV
9066	Phenolics, Total Recoverable	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
Carbon Trap	Carbon Trap Preparation	EPA-17	EET SAV
Distill/Phenol	Distillation, Phenolics	None	EET CF
Filtration	Sample Filtration	None	EET CF

Protocol References:

EPA = US Environmental Protection Agency

EPA-17 = "Method 1650, Revision A, Adsorbable Organic Halides By Adsorption And Colormetric Titration," EPA, February 1992

None = None

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

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

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 SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

eurofins | Environment Testing America

310-292493 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/10/24 | TIME 1053 | Received By: XB

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 # 1 of 2

Cooler Custody Seals Present? ☐ Yes ☒ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other. ☐ NONE

Thermometer ID: R | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 3.3 | Corrected Temp (°C): 3.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: GCS

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/10/24 | TIME 1055 | Received By: KB

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 # 2 of 2
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: R | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 2.1 | Corrected Temp (°C): 2.1

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone (319) 277-2401 Phone (319) 277-2425

Chain of Custody Record

TestAmerica Des Moines SC
214

eurofins

Client Information	Sampler: Cole Tesar	Lab PM: Miller, Samuel	Carrier Tracking No(s):	COC No: 310-98213-26740 1
Client Contact: Ben Madson	Phone: 641-844-4459	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:	Analysis Requested		Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			Preservation Codes: S - H2SO4, N - None, D - HNO3
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone: 515-776-9255(Tel)	PO #: 27224173 02			
Email: bmadson@scsengineers.com	WO #:			Other:
Project Name: 2nd 2024 Semi-Annual Groundwater Event	Project #: 31004207			
Site: Anderson Excavating - Carter Lake	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	"e" list	"f" list	6020 - (Sb, As, Ba, Be, Cd, Co, Cu, Pb, Ni, Ag, Tl, V, Zn)	TSS	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
MW-1R	10/8/24	1632		Water			X	X	X	X		
MW-3	10/8/24	1707	G	Water			X	X	X	X		
MW-4	10/8/24	1748	G	Water			X	X	X	X		
MW-5	10/8/24	1907	G	Water			X	X	X	X		
MW-6	10/8/24	1825	G	Water			X	X	X	X		
MW-7R2	10/8/24	1945	G	Water			X	X	X	X		
MW-D		1707	G	Water			X	X	X	X		

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

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

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

Special Instructions/QC Requirements.

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	~~Cole Tesar~~	~~10/9/24 13:36~~	~~SCS~~		10/10/24 1053	
2	Cole Tesar	10/10/24 ~~10:39~~	SCS			
3	Cole Tesar	10/10/24 0954	SCS			

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

Ver 05/06/2024

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Miller, Samuel	Carrier Tracking No(s):	COC No: 310-77239.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Samuel.Miller@et.eurofinsus.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing Southeast L		Accreditations Required (See note): State Program - Iowa		Job #: 310-292493-1
Address: 5102 LaRoche Avenue, ,	Due Date Requested: 10/23/2024			Preservation Codes: -
City: Savannah	TAT Requested (days):			
State, Zip: GA, 31404				
Phone: 912-354-7858(Tel) 912-352-0165(Fax)	PO #:			
Email:	WO #:			
Project Name: 2nd 2024 Semi-Annual Groundwater Event	Project #: 31004207			
Site:	SSOW#:			Other:

Analysis Requested

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)	9020B/Carbon_Trap	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-1R (310-292493-1)	10/8/24	16:32 Central	G	Water			X	1	
MW-3 (310-292493-2)	10/8/24	17:07 Central	G	Water			X	1	
MW-4 (310-292493-3)	10/8/24	17:48 Central	G	Water			X	1	
MW-5 (310-292493-4)	10/8/24	19:07 Central	G	Water			X	1	
MW-6 (310-292493-5)	10/8/24	18:25 Central	G	Water			X	1	
MW-7R2 (310-292493-6)	10/8/24	14:45 Central	G	Water			X	1	
MW-D (310-292493-7)	10/8/24	17:07 Central	G	Water			X	1	

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) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	10/10/24 1620			10/11/24 1005	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9 / 0.9

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-292493-1

Login Number: 292493

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Bunker, Xavier M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	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 <6mm (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: 310-292493-1

Login Number: 292493
List Number: 2
Creator: Lincoln, Alyssa

List Source: Eurofins Savannah
List Creation: 10/11/24 04:37 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Appendix B-2

Data Validation

Completed by: Semir Omerovic
Date of Sampling: 4/16/2024
Lab Report Date: 5/1/2024
Site Name: Anderson Excavating Carter Lake C&D Landfill
Project Type: 1st 2024 Semi-Annual Groundwater Event
Lab Report Number: 310-279517

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD		X		MS/MSD results were outside recovery limits for iron associated with analysis batch 420191.
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-4 and duplicate sample MW-D had < 50% RPD for analyzed parameters.

Completed by: Semir Omerovic
Date of Sampling: 10/8/2024
Lab Report Date: 10/29/2024
Site Name: Anderson Excavating Carter Lake C&D Landfill
Project Type: 2nd 2024 Semi-Annual Groundwater Event
Lab Report Number: 310-292493

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation		X		Samples MW-1R, MW-5, MW-6, MW-7R2, and MW-D were received with insufficient preservation; the samples were preserved to the appropriate pH in the laboratory.
Condition	X			
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections			X	
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Precision				
QA/QC Sample RPDs		X		Breakthrough exceeded 10% for samples MW-1R, MW-3, MW-4, MW-5, MW-7R2, and MW-D.
Field Duplicates		X		Sample MW-3 and duplicate sample MW-D had <50% RPD for analyzed parameters with the exception of lead (121%).

Appendix C

Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	10/13/2009	N/A	N/A	< 0.006	0.0066	< 0.006	< 0.006
	2/17/2015	0.000176*	< 0.001	N/A	N/A	N/A	0.00185
	6/16/2015	< 0.001	< 0.001	N/A	N/A	0.000402*	0.00138
	10/27/2015	< 0.001	< 0.001	N/A	N/A	0.000293*	0.00161
	5/4/2016	< 0.001	< 0.001	0.000343*	< 0.001	0.000248*	0.00388
	10/4/2016	< 0.001	< 0.001	0.000545*	< 0.001	< 0.001	0.000842*
	4/10/2017	< 0.001	< 0.001	0.000411*	< 0.001	0.000452*	0.000391*
	10/26/2017	< 0.001	< 0.001	0.00037*	< 0.001	0.000285*	0.000556*
	10/2/2018	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	4/9/2019	< 0.001	< 0.001	< 0.001	< 0.001	0.000919*	0.0092
	10/7/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00197
	5/28/2020	< 0.001	< 0.001	0.000801*	< 0.001	< 0.001	0.00318
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.00294
	10/14/2020	< 0.001	< 0.001	0.00157	< 0.001	0.000573*	0.00192
	10/14/2020	N/A	< 0.001	N/A	N/A	N/A	N/A
	5/5/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00246
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.00242
	10/26/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00129*
	10/26/2021	N/A	< 0.002	N/A	N/A	N/A	N/A
	4/7/2022	< 0.002	< 0.008	< 0.008	< 0.008	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.008	N/A	N/A
	10/20/2022	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002
	10/20/2022	N/A	N/A	N/A	< 0.002	N/A	N/A
	4/19/2023	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.002	N/A	N/A
	10/26/2023	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A
	10/26/2023	< 0.002	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A
	4/18/2024	< 0.002	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00241
	10/8/2024	N/A	N/A	N/A	N/A	< 0.002	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	2/17/2015	0.0369	0.0675	N/A	N/A	N/A	0.0275
	6/16/2015	0.0389	0.0659	N/A	N/A	0.00753	0.017
	10/27/2015	0.0504	0.0519	N/A	N/A	0.00739	0.0116
	5/4/2016	0.00846	0.068	0.00296	0.0486	0.00516	0.0457
	10/4/2016	0.0296	0.0675	0.00443	0.0734	0.00429	0.078
	4/10/2017	0.0294	0.0629	0.00452	0.0573	0.00425	0.0877
	10/26/2017	0.00147*	0.0617	0.00412	0.074	0.00649	0.041
	10/2/2018	0.0192	0.0597	0.0787	0.0661	0.00639	0.074
	4/9/2019	0.0436	0.00341	0.00168*	0.0668	0.0016*	0.00297
	10/7/2019	0.0388	0.0712	0.0248	0.0668	0.00208	0.0155
	5/28/2020	0.00391	0.00132*	0.00284	0.0573	0.00322	0.00325
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.0085
	10/14/2020	0.0022	0.0491	0.013	0.0839	0.00739	0.0172
	10/14/2020	N/A	0.0165	N/A	N/A	N/A	N/A
	5/5/2021	0.00988	0.0437	0.0175	0.0667	0.00414	0.00852
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.0173
	10/26/2021	0.0266	0.0446	0.0443	0.0743	0.00486	0.0749
	10/26/2021	N/A	0.0524	N/A	N/A	N/A	N/A
	4/7/2022	0.00444	0.0395	0.0951	0.0563	N/A	N/A
	4/7/2022	N/A	N/A	N/A	0.0521	N/A	N/A
	10/20/2022	0.0217	0.0572	N/A	0.0616	0.00242	0.0748
	10/20/2022	N/A	N/A	N/A	0.0617	N/A	N/A
	4/19/2023	0.0464	0.069	0.11	0.0711	N/A	N/A
	4/19/2023	N/A	N/A	N/A	0.0744	N/A	N/A
	10/26/2023	0.0459	0.0483	0.194	0.0671	N/A	N/A
	10/26/2023	0.0491	N/A	N/A	N/A	N/A	N/A
	4/18/2024	0.0296	0.0699	0.0436	0.0617	N/A	N/A
	4/18/2024	0.0374	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.0365	0.0753	0.0582	0.0861	0.00487	0.0472
	10/8/2024	N/A	N/A	N/A	N/A	0.00479	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Barium, mg/L (CAS NO - 7440-39-3)	10/13/2009	N/A	N/A	0.541	0.0719	0.105	0.218
	2/17/2015	0.212	2	N/A	N/A	N/A	0.0849
	6/16/2015	0.195	2.27	N/A	N/A	0.0736	0.122
	10/27/2015	0.233	1.94	N/A	N/A	0.112	0.144
	5/4/2016	0.161	1.83	0.92	0.119	0.0679	0.116
	10/4/2016	0.165	2.04	1.04	0.0654	0.0926	0.162
	4/10/2017	0.195	2.13	1	0.0698	0.108	0.139
	10/26/2017	0.0978	2.1	1.04	0.102	0.0992	0.121
	10/2/2018	0.161	1.43	0.81	0.0832	0.13	0.118
	4/9/2019	0.157	0.867	0.729	0.0941	0.0876	0.0461
	10/7/2019	0.164	1.07	1	0.127	0.234	0.0693
	5/28/2020	0.0877	0.716	1.05	0.153	0.137	0.0573
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.0594
	10/14/2020	0.0888	1.27	1.06	0.0835	0.183	0.0601
	10/14/2020	N/A	0.824	N/A	N/A	N/A	N/A
	5/5/2021	0.11	1.39	0.943	0.093	0.219	0.0592
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.066
	10/26/2021	0.13	1.3	0.718	0.0943	0.238	0.066
	10/26/2021	N/A	1.38	N/A	N/A	N/A	N/A
	4/7/2022	0.117	1.16	0.622	0.082	N/A	N/A
	4/7/2022	N/A	N/A	N/A	0.0765	N/A	N/A
	10/20/2022	0.161	1.65	N/A	0.076	0.173	0.0604
	10/20/2022	N/A	N/A	N/A	0.083	N/A	N/A
	4/19/2023	0.211	2.15	0.721	0.081	N/A	N/A
	4/19/2023	N/A	N/A	N/A	0.0859	N/A	N/A
	10/26/2023	0.247	1.35	0.786	0.0885	N/A	N/A
	10/26/2023	0.248	N/A	N/A	N/A	N/A	N/A
	4/18/2024	0.213	2.21	0.204	0.098	N/A	N/A
	4/18/2024	0.205	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.234	1.82	0.723	0.0912	0.17	0.0602
	10/8/2024	N/A	N/A	N/A	N/A	0.168	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	10/13/2009	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	2/17/2015	0.000059*	< 0.001	N/A	N/A	N/A	0.000052*
	6/16/2015	< 0.001	< 0.001	N/A	N/A	0.000127*	< 0.001
	10/27/2015	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001
	5/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/10/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/26/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/2/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/9/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/7/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/14/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/14/2020	N/A	< 0.001	N/A	N/A	N/A	N/A
	5/5/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2021	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/26/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/26/2021	N/A	< 0.001	N/A	N/A	N/A	N/A
	4/7/2022	< 0.001	< 0.004	< 0.004	< 0.004	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	10/20/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	10/20/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/19/2023	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/26/2023	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	10/26/2023	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	4/18/2024	< 0.001	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/8/2024	N/A	N/A	N/A	N/A	0.000695*	N/A

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	10/13/2009	N/A	N/A	< 0.0005	< 0.0005	0.00166	0.00702
	2/17/2015	0.000578	< 0.0005	N/A	N/A	N/A	0.0019
	6/16/2015	0.00127	0.000677	N/A	N/A	0.000597	0.000959
	10/27/2015	0.000322*	0.00052	N/A	N/A	0.000496*	0.00106
	5/4/2016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000117*	0.000894
	10/4/2016	0.000078*	< 0.0005	0.000078*	< 0.0005	< 0.0005	0.000444*
	4/10/2017	0.000057*	< 0.0005	< 0.0005	0.000047*	< 0.0005	0.000094*
	10/26/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000102*	0.000137*
	10/2/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000251*
	4/9/2019	< 0.0005	0.000162*	< 0.0005	< 0.0005	0.000691	0.00238
	10/7/2019	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.000305	0.000915
	5/28/2020	< 0.0001	0.000088*	< 0.0001	< 0.0001	0.000161	0.000832
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.000805
	10/14/2020	< 0.0001	0.000123	0.000061*	< 0.0001	< 0.0001	0.00167
	10/14/2020	N/A	0.000282	N/A	N/A	N/A	N/A
	5/5/2021	< 0.0001	0.000078*	< 0.0001	< 0.0001	0.000352	0.000791
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.00119
	10/26/2021	< 0.0001	0.000058*	0.000052*	< 0.0001	0.000087*	0.00048
	10/26/2021	N/A	< 0.0001	N/A	N/A	N/A	N/A
	4/7/2022	< 0.0001	< 0.0004	< 0.0004	< 0.0004	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.0004	N/A	N/A
	10/20/2022	< 0.0001	< 0.0001	N/A	< 0.0001	0.000174	0.000613
	10/20/2022	N/A	N/A	N/A	< 0.0001	N/A	N/A
	4/19/2023	< 0.0002	< 0.0002	< 0.0002	0.000179*	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.0002	N/A	N/A
	10/26/2023	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A
	10/26/2023	< 0.0002	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.0002	< 0.0002	0.000151*	< 0.0002	N/A	N/A
	4/18/2024	< 0.0002	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.0002	< 0.0002	< 0.0002	0.00031	< 0.0002	0.0003
	10/8/2024	N/A	N/A	N/A	N/A	0.000461	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	10/13/2009	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	2/17/2015	< 0.005	< 0.005	N/A	N/A	N/A	< 0.005
	6/16/2015	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005
	10/27/2015	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005
	5/4/2016	< 0.005	0.000755*	0.00147*	0.000357*	< 0.005	0.000582*
Cobalt, mg/L (CAS NO - 7440-48-4)	10/13/2009	N/A	N/A	< 0.02	< 0.02	0.0256	< 0.02
	2/17/2015	0.00048*	0.00197	N/A	N/A	N/A	0.00594
	6/16/2015	0.000289*	0.00244	N/A	N/A	0.0111	0.00578
	10/27/2015	0.000374*	0.00289	N/A	N/A	0.0186	0.0045
	5/4/2016	0.000214*	0.00277	0.00144	0.0062	0.0097	0.00314
	10/4/2016	0.000229*	0.00284	0.00169	0.00735	0.00937	0.00936
	4/10/2017	0.000274*	0.00236	0.00175	0.00704	0.0135	0.00244
	10/26/2017	0.000124*	0.00213	0.00156	0.00347	0.0103	0.00318
	10/2/2018	< 0.001	0.0018	0.0039	0.00773	0.0172	0.00215
	4/9/2019	0.000202*	0.00124	0.00109	0.00646	0.00571	0.000615
	10/7/2019	0.000501	0.000598	0.00186	0.00665	0.0158	0.00973
	5/28/2020	0.000283*	0.000583	0.00171	0.00598	0.0137	0.000762
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.00195
	10/14/2020	0.000227*	0.000558	0.00221	0.00576	0.0137	0.00619
	10/14/2020	N/A	0.000627	N/A	N/A	N/A	N/A
	5/5/2021	0.000271*	0.000634	0.00199	0.00468	0.0161	0.00287
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.00799
	10/26/2021	0.000474*	0.00109	0.00212	0.0076	0.0142	0.00222
	10/26/2021	N/A	0.00109	N/A	N/A	N/A	N/A
	4/7/2022	0.000479*	0.0011*	0.00299	0.0112	N/A	N/A
	4/7/2022	N/A	N/A	N/A	0.0107	N/A	N/A
	10/20/2022	0.000303*	0.000965	N/A	0.00817	0.0112	0.00112
	10/20/2022	N/A	N/A	N/A	0.00887	N/A	N/A
	4/19/2023	0.000396*	0.00223	0.00166	0.00101	N/A	N/A
	4/19/2023	N/A	N/A	N/A	0.00317	N/A	N/A
	10/26/2023	0.000253*	0.00238	0.00446	0.00434	N/A	N/A
	10/26/2023	0.000235*	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	4/18/2024	0.000305*	**0.00248**	**0.00486**	**0.000711**	N/A	N/A
	4/18/2024	0.000302*	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.00045*	**0.0024**	**0.00307**	**0.00364**	**0.0115**	**0.00175**
	10/8/2024	N/A	N/A	N/A	N/A	**0.0118**	N/A
Copper, mg/L (CAS NO - 7440-50-8)	10/13/2009	N/A	N/A	< 0.02	< 0.02	< 0.02	**0.162**
	2/17/2015	0.00155*	0.000588*	N/A	N/A	N/A	**0.0713**
	6/16/2015	**0.00214**	**0.00415**	N/A	N/A	**0.0292**	**0.0205**
	10/27/2015	0.00163*	0.00149*	N/A	N/A	**0.0078**	**0.023**
	5/4/2016	< 0.005	< 0.005	< 0.005	< 0.005	0.00166*	**0.0159**
	10/4/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.00734**
	4/10/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	10/26/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00449*
	10/2/2018	0.000588*	**0.00218**	0.00106*	< 0.002	0.00079*	**0.00622**
	4/9/2019	< 0.005	< 0.005	< 0.005	< 0.005	0.00215*	0.0171*
	10/7/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/28/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	**0.00832**
	5/28/2020	N/A	N/A	N/A	N/A	N/A	**0.0071**
	10/14/2020	< 0.005	< 0.005	0.00312*	< 0.005	< 0.005	**0.00978**
	10/14/2020	N/A	0.00311*	N/A	N/A	N/A	N/A
	5/5/2021	< 0.005	< 0.005	< 0.005	< 0.005	0.00141*	**0.0121**
	5/5/2021	N/A	N/A	N/A	N/A	N/A	**0.0134**
	10/26/2021	< 0.005	< 0.005	0.0018*	< 0.005	< 0.005	0.00389*
	10/26/2021	N/A	< 0.005	N/A	N/A	N/A	N/A
	4/7/2022	< 0.005	< 0.02	< 0.02	< 0.02	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	10/20/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	10/20/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/19/2023	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	10/26/2023	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A
	10/26/2023	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.005	< 0.005	**0.0063**	< 0.005	N/A	N/A
	4/18/2024	< 0.005	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.005	< 0.005	0.002*	< 0.005	< 0.005	**0.00539**
	10/8/2024	N/A	N/A	N/A	N/A	0.00356*	N/A
Lead, mg/L (CAS NO - 7439-92-1)	10/13/2009	N/A	N/A	< 0.004	**0.00641**	**0.0266**	**0.0356**
	2/17/2015	**0.00198**	**0.000852**	N/A	N/A	N/A	**0.0166**
	6/16/2015	0.000404*	**0.0029**	N/A	N/A	**0.0107**	**0.00639**
	10/27/2015	**0.00174**	**0.00171**	N/A	N/A	**0.00717**	**0.00491**
	5/4/2016	< 0.0005	< 0.0005	**0.00163**	0.000289*	**0.000518**	**0.00169**
	10/4/2016	0.000266*	0.000349*	**0.0158**	**0.00114**	< 0.0005	**0.00186**
	4/10/2017	< 0.0005	< 0.0005	**0.00617**	**0.000889**	< 0.0005	**0.000538**
	10/26/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00063**	0.000491*
	10/2/2018	< 0.0005	**0.000628**	0.000369*	< 0.0005	**0.000652**	**0.00351**
	4/9/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000373*	**0.00151**
	10/7/2019	< 0.0005	< 0.0005	0.000441*	< 0.0005	**0.00146**	0.000413*
	5/28/2020	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.000453*
	10/14/2020	< 0.0005	0.00036*	**0.00594**	< 0.0005	**0.000802**	**0.000559**
	10/14/2020	N/A	0.00042*	N/A	N/A	N/A	N/A
	5/5/2021	< 0.0005	0.00048*	0.000476*	0.000334*	**0.00112**	**0.000566**
	5/5/2021	N/A	N/A	N/A	N/A	N/A	**0.0011**
	10/26/2021	**0.00157**	**0.00188**	**0.00465**	**0.00132**	**0.00158**	**0.00289**
	10/26/2021	N/A	**0.00159**	N/A	N/A	N/A	N/A
	4/7/2022	< 0.0005	< 0.002	**0.00352**	< 0.002	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.002	N/A	N/A
	10/20/2022	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	**0.000577**
	10/20/2022	N/A	N/A	N/A	< 0.0005	N/A	N/A
	4/19/2023	< 0.0005	< 0.0005	**0.0017**	0.00049*	N/A	N/A
	4/19/2023	N/A	N/A	N/A	0.000338*	N/A	N/A
	10/26/2023	< 0.0005	< 0.0005	0.000468*	0.000349*	N/A	N/A
	10/26/2023	< 0.0005	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.0005	< 0.0005	**0.0185**	< 0.0005	N/A	N/A
	4/18/2024	< 0.0005	N/A	N/A	N/A	N/A	N/A

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Lead, mg/L (CAS NO - 7439-92-1)	10/8/2024	< 0.0005	< 0.0005	**0.00376**	**0.000699**	0.000417*	**0.00126**
	10/8/2024	N/A	N/A	N/A	N/A	**0.00171**	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	10/13/2009	N/A	N/A	< 0.05	< 0.05	**0.0646**	< 0.05
	2/17/2015	0.00124*	0.00216*	N/A	N/A	N/A	**0.00989**
	6/16/2015	< 0.005	0.000772*	N/A	N/A	**0.023**	**0.00981**
	10/27/2015	0.00093*	0.00354*	N/A	N/A	**0.0313**	**0.0205**
	5/4/2016	< 0.005	0.00254*	< 0.005	0.00493*	**0.0201**	**0.0147**
	10/4/2016	< 0.005	0.00259*	0.00442*	**0.00596**	**0.0244**	**0.00953**
	4/10/2017	< 0.005	0.0025*	0.00398*	**0.00614**	**0.0341**	0.00335*
	10/26/2017	< 0.005	0.00207*	0.00159*	0.00344*	**0.0255**	**0.00624**
	10/2/2018	< 0.002	0.00149*	**0.00377**	**0.00823**	**0.0299**	**0.00579**
	4/9/2019	< 0.005	< 0.005	0.00175*	**0.00674**	**0.0167**	**0.024**
	10/7/2019	< 0.005	< 0.005	0.00214*	**0.00765**	**0.029**	**0.0204**
	5/28/2020	< 0.005	< 0.005	0.00218*	**0.00729**	**0.0197**	**0.0166**
	5/28/2020	N/A	N/A	N/A	N/A	N/A	**0.0154**
	10/14/2020	< 0.005	< 0.005	0.00351*	**0.00749**	**0.0244**	**0.0164**
	10/14/2020	N/A	< 0.005	N/A	N/A	N/A	N/A
	5/5/2021	< 0.005	< 0.005	0.00216*	**0.00681**	**0.0391**	**0.0104**
	5/5/2021	N/A	N/A	N/A	N/A	N/A	**0.0135**
	10/26/2021	0.0021*	< 0.005	0.00372*	**0.0108**	**0.0312**	**0.00817**
	10/26/2021	N/A	< 0.005	N/A	N/A	N/A	N/A
	4/7/2022	**0.00757**	0.0174*	0.0179*	**0.0248**	N/A	N/A
	4/7/2022	N/A	N/A	N/A	**0.0201**	N/A	N/A
	10/20/2022	< 0.005	< 0.005	N/A	**0.00763**	**0.023**	< 0.005
	10/20/2022	N/A	N/A	N/A	**0.00872**	N/A	N/A
	4/19/2023	< 0.005	< 0.005	**0.00519**	0.00436*	N/A	N/A
	4/19/2023	N/A	N/A	N/A	**0.00813**	N/A	N/A
	10/26/2023	< 0.005	0.00217*	**0.0067**	**0.00533**	N/A	N/A
	10/26/2023	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.005	0.00215*	**0.00811**	0.00309*	N/A	N/A
	4/18/2024	< 0.005	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.005	< 0.005	0.00217*	< 0.005	**0.0274**	**0.00694**
	10/8/2024	N/A	N/A	N/A	N/A	**0.0291**	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	10/13/2009	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	2/17/2015	< 0.005	< 0.005	N/A	N/A	N/A	< 0.005
	6/16/2015	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005
	10/27/2015	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005
	5/4/2016	< 0.005	< 0.005	< 0.005	< 0.005	0.000957*	0.000961*
Silver, mg/L (CAS NO - 7440-22-4)	10/13/2009	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	2/17/2015	< 0.001	< 0.001	N/A	N/A	N/A	0.000066*
	6/16/2015	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001
	10/27/2015	< 0.001	< 0.001	N/A	N/A	0.00013*	< 0.001
	5/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/10/2017	0.000151*	< 0.001	< 0.001	< 0.001	0.000175*	< 0.001
	10/26/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/2/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/9/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/7/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/14/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/14/2020	N/A	< 0.001	N/A	N/A	N/A	N/A
	5/5/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2021	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/26/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/26/2021	N/A	< 0.001	N/A	N/A	N/A	N/A
	4/7/2022	0.000523*	< 0.004	< 0.004	0.00351*	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	10/20/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	10/20/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/19/2023	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.001	N/A	N/A

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Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Silver, mg/L (CAS NO - 7440-22-4)	10/26/2023	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	10/26/2023	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	4/18/2024	< 0.001	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/8/2024	N/A	N/A	N/A	N/A	< 0.001	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	10/13/2009	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	2/17/2015	< 0.001	< 0.001	N/A	N/A	N/A	0.00004*
	6/16/2015	< 0.001	< 0.001	N/A	N/A	0.000061*	0.000033*
	10/27/2015	< 0.001	< 0.001	N/A	N/A	0.000078*	0.000065*
	5/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	0.000036*	0.000071*
	10/4/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.000047*
	4/10/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/26/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/2/2018	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/9/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/7/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/28/2020	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/14/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/14/2020	N/A	< 0.001	N/A	N/A	N/A	N/A
	5/5/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2021	N/A	N/A	N/A	N/A	N/A	< 0.001
	10/26/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/26/2021	N/A	< 0.001	N/A	N/A	N/A	N/A
	4/7/2022	< 0.001	< 0.004	< 0.004	< 0.004	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.004	N/A	N/A
	10/20/2022	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	10/20/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/19/2023	0.00112	< 0.001	< 0.001	0.000878*	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/26/2023	< 0.001	< 0.001	< 0.001	0.00567	N/A	N/A
	10/26/2023	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A
	4/18/2024	< 0.001	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.00149	0.000655*	0.000733*	< 0.001	0.000829*	0.000821*
	10/8/2024	N/A	N/A	N/A	N/A	< 0.001	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	10/13/2009	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	2/17/2015	0.00136*	0.00122*	N/A	N/A	N/A	0.00201*
	6/16/2015	< 0.005	0.00126*	N/A	N/A	0.00359*	0.000968*
	10/27/2015	0.000832*	0.00153*	N/A	N/A	0.00361*	0.00106*
	5/4/2016	< 0.005	0.00107*	0.00124*	0.000731*	0.000572*	0.000651*
	10/4/2016	0.000333*	0.00115*	0.00179*	0.000523*	0.00041*	0.000822*
	4/10/2017	< 0.005	< 0.01	0.0018*	< 0.005	< 0.005	< 0.005
	10/26/2017	< 0.005	0.00103*	0.00134*	< 0.005	< 0.005	< 0.005
	10/2/2018	< 0.005	< 0.005	0.00233*	< 0.005	< 0.005	< 0.005
	4/9/2019	< 0.005	< 0.005	0.00151*	< 0.005	0.00256*	< 0.02
	10/7/2019	< 0.005	< 0.005	0.00136*	< 0.005	0.00133*	0.00115*
	5/28/2020	< 0.005	< 0.005	0.000974*	< 0.005	< 0.005	< 0.005
	5/28/2020	N/A	N/A	N/A	N/A	N/A	< 0.005
	10/14/2020	< 0.005	< 0.005	0.00218*	< 0.005	0.00134*	< 0.005
	10/14/2020	N/A	< 0.005	N/A	N/A	N/A	N/A
	5/5/2021	< 0.005	< 0.005	0.00176*	< 0.005	0.00124*	< 0.005
	5/5/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	10/26/2021	< 0.005	< 0.005	0.00194*	< 0.005	0.0011*	< 0.005
	10/26/2021	N/A	< 0.005	N/A	N/A	N/A	N/A
	4/7/2022	< 0.005	< 0.02	< 0.02	< 0.02	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	10/20/2022	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	10/20/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/19/2023	< 0.005	< 0.005	0.00165*	< 0.005	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	10/26/2023	< 0.005	< 0.005	0.002*	< 0.005	N/A	N/A
	10/26/2023	< 0.005	N/A	N/A	N/A	N/A	N/A

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Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Vanadium, mg/L (CAS NO - 7440-62-2)	4/18/2024	< 0.005	< 0.005	0.00269*	< 0.005	N/A	N/A
	4/18/2024	< 0.005	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.005	< 0.005	0.00245*	< 0.005	< 0.005	0.00136*
	10/8/2024	N/A	N/A	N/A	N/A	0.00167*	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	10/13/2009	N/A	N/A	0.157	0.277	0.147	1.33
	2/17/2015	0.0131	< 0.01	N/A	N/A	N/A	0.18
	6/16/2015	< 0.01	0.00917*	N/A	N/A	0.0506	0.141
	10/27/2015	< 0.01	< 0.01	N/A	N/A	0.0239	0.177
	5/4/2016	< 0.01	< 0.01	0.0276	0.0118	0.0156	0.252
	10/4/2016	< 0.01	< 0.01	0.161	< 0.01	< 0.01	0.0872
	4/10/2017	< 0.02	< 0.02	0.0828	< 0.02	< 0.02	0.0205
	10/26/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0363
	10/2/2018	< 0.02	< 0.02	0.00994*	< 0.02	0.00876*	0.053
	4/9/2019	< 0.02	< 0.02	0.0222	< 0.02	0.048	2.86
	10/7/2019	< 0.02	< 0.02	0.0397	< 0.02	0.0173*	0.495
	5/28/2020	< 0.02	< 0.02	< 0.02	< 0.02	0.0361	0.36
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.325
	10/14/2020	< 0.02	< 0.02	0.187	< 0.02	0.0217	0.418
	10/14/2020	N/A	0.0136*	N/A	N/A	N/A	N/A
	5/5/2021	< 0.02	< 0.02	0.0309	< 0.02	0.026	0.437
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.993
	10/26/2021	< 0.02	< 0.02	0.119	< 0.02	0.0159*	0.2
	10/26/2021	N/A	< 0.02	N/A	N/A	N/A	N/A
	4/7/2022	< 0.02	< 0.08	0.0451*	< 0.08	N/A	N/A
	4/7/2022	N/A	N/A	N/A	< 0.08	N/A	N/A
	10/20/2022	< 0.02	< 0.02	N/A	< 0.02	0.0112*	0.0358
	10/20/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	4/19/2023	< 0.02	< 0.02	0.0257	< 0.02	N/A	N/A
	4/19/2023	N/A	N/A	N/A	< 0.02	N/A	N/A
	10/26/2023	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A
	10/26/2023	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/18/2024	< 0.02	< 0.02	0.0962	< 0.02	N/A	N/A
	4/18/2024	< 0.02	N/A	N/A	N/A	N/A	N/A
	10/8/2024	< 0.02	< 0.02	0.0381	< 0.02	< 0.02	0.119
	10/8/2024	N/A	N/A	N/A	N/A	0.0114*	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	6/16/2015	76.5	92.7	N/A	N/A	110	84.7
	10/27/2015	87	80.7	N/A	N/A	383	123
	5/4/2016	46.4	74.5	66	70.5	10.4	73.8
	10/4/2016	33.9	76.6	263	95.3	15.5	305
	4/10/2017	41.4	74	130	81.7	9	389
	10/26/2017	1*	80.3	56.8	84	26.4	88.7
	10/2/2018	50.5	71	89	86	13.7	74
	4/9/2019	64.6	1.88	81.2	88.9	2	2.25
	10/7/2019	57	56	136	68	3	18
	5/28/2020	2	< 1.88	87.3	84.8	10.6	27
	5/28/2020	N/A	N/A	N/A	N/A	N/A	1.88
	10/14/2020	< 1.88	48	96	80	26	75
	10/14/2020	N/A	45	N/A	N/A	N/A	N/A
	5/5/2021	16.9	52	85.3	85.5	3.63	25.3
	5/5/2021	N/A	N/A	N/A	N/A	N/A	33
	10/26/2021	68	56	124	90	7.25	86
	10/26/2021	N/A	46	N/A	N/A	N/A	N/A
	4/7/2022	51	48	188	126	N/A	N/A
	4/7/2022	N/A	N/A	N/A	98	N/A	N/A
	10/20/2022	76	62	N/A	108	1.75*	123
	10/20/2022	N/A	N/A	N/A	98	N/A	N/A
	4/19/2023	77	80.7	117	86.7	N/A	N/A
	4/19/2023	N/A	N/A	N/A	79	N/A	N/A
	10/26/2023	126	91	150	145	N/A	N/A
	10/26/2023	94	N/A	N/A	N/A	N/A	N/A

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Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Total Metals Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	10/8/2024	46.5	82	88	76	7.13	40
	10/8/2024	N/A	N/A	N/A	N/A	9.75	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.

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Appendix I VOC Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	10/13/2009	N/A	N/A	< 2	< 2	< 2	< 2
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/1997	< 1	< 1	< 1	< 1	< 1	< 1
	7/23/1997	< 1	< 1	< 2	< 1	< 1	< 1
	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 2	< 2	< 2	< 2	< 2	< 2
	4/15/1997	< 2	< 2	< 2	< 2	< 2	< 2
	7/23/1997	< 2	< 2	< 4	< 2	< 2	< 2
	10/13/2009	N/A	N/A	< 2	< 2	< 2	< 2
	2/17/2015	< 2	< 2	N/A	N/A	N/A	< 2
	10/27/2015	< 2	< 2	N/A	N/A	< 2	< 2
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	10/13/2009	N/A	N/A	< 0.498	< 0.498	< 0.498	< 0.498
	2/17/2015	< 0.12	< 0.12	N/A	N/A	N/A	< 0.12
	10/27/2015	< 0.5	< 0.5	N/A	N/A	< 0.5	< 0.5
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	10/13/2009	N/A	N/A	< 0.255	< 0.255	< 0.255	< 0.255
	2/17/2015	< 0.13	< 0.13	N/A	N/A	N/A	< 0.13
	10/27/2015	< 0.13	< 0.13	N/A	N/A	< 0.13	< 0.13
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/15/1997	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	7/23/1997	< 0.4	< 0.4	< 0.8	< 0.4	< 0.4	< 0.4
	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/1997	< 1	< 1	< 1	< 1	< 1	< 1
	7/23/1997	< 1	< 1	< 2	< 1	< 1	< 1
	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
2-Butanone, ug/L (CAS NO - 78-93-3)	10/13/2009	N/A	N/A	< 10	< 10	< 10	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10
2-Hexanone, ug/L (CAS NO - 591-78-6)	10/13/2009	N/A	N/A	< 10	< 10	55.4	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	10/13/2009	N/A	N/A	< 10	< 10	< 10	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Appendix I VOC Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Acetone, ug/L (CAS NO - 67-64-1)	10/13/2009	N/A	N/A	53.2	260	16.3	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	2.28*
	10/27/2015	< 10	3.19*	N/A	N/A	9.14*	3.57*
Acrylonitrile, ug/L (CAS NO - 107-13-1)	10/13/2009	N/A	N/A	< 10	< 10	< 10	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10
Benzene, ug/L (CAS NO - 71-43-2)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/15/1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	7/23/1997	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	10/13/2009	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	2/17/2015	< 0.5	< 0.5	N/A	N/A	N/A	< 0.5
	10/27/2015	< 0.5	< 0.5	N/A	N/A	< 0.5	< 0.5
Bromochloromethane, ug/L (CAS NO - 74-97-5)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	< 5	< 5	N/A	N/A	< 5	< 5
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Bromoform, ug/L (CAS NO - 75-25-2)	10/13/2009	N/A	N/A	< 20	< 20	< 20	< 20
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	< 5	< 5	N/A	N/A	< 5	< 5
Bromomethane, ug/L (CAS NO - 74-83-9)	10/13/2009	N/A	N/A	< 4	< 4	< 4	< 4
	2/17/2015	< 4	< 4	N/A	N/A	N/A	< 4
	10/27/2015	< 4	< 4	N/A	N/A	< 4	< 4
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	4/15/1997	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	7/23/1997	< 0.3	< 0.3	< 0.6	< 0.3	< 0.3	< 0.3
	10/13/2009	N/A	N/A	< 2	< 2	< 2	< 2
	2/17/2015	< 2	< 2	N/A	N/A	N/A	< 2
	10/27/2015	< 2	< 2	N/A	N/A	< 2	< 2
Chlorobenzene, ug/L (CAS NO - 108-90-7)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	< 5	< 5	N/A	N/A	< 5	< 5
Chloroethane, ug/L (CAS NO - 75-00-3)	10/13/2009	N/A	N/A	< 4	< 4	< 4	< 4
	2/17/2015	< 4	< 4	N/A	N/A	N/A	< 4
	10/27/2015	< 4	< 4	N/A	N/A	< 4	< 4
Chloroform, ug/L (CAS NO - 67-66-3)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Chloromethane, ug/L (CAS NO - 74-87-3)	10/13/2009	N/A	N/A	< 3	< 3	< 3	< 3
	2/17/2015	< 3	< 3	N/A	N/A	N/A	< 3
	10/27/2015	< 3	< 3	N/A	N/A	< 3	< 3
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	< 5	< 5	N/A	N/A	< 5	< 5
Ethylbenzene, ug/L (CAS NO - 100-41-4)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Iodomethane, ug/L (CAS NO - 74-88-4)	10/13/2009	N/A	N/A	< 10	< 10	< 10	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10

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Appendix I VOC Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Methylene Bromide, ug/L (CAS NO - 74-95-3)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Methylene Chloride, ug/L (CAS NO - 75-09-2)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	0.392*	0.29*	N/A	N/A	< 5	0.192*
Styrene, ug/L (CAS NO - 100-42-5)	10/13/2009	N/A	N/A	< 2	< 2	< 2	< 2
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Toluene, ug/L (CAS NO - 108-88-3)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	10/13/2009	N/A	N/A	< 5	< 5	< 5	< 5
	2/17/2015	< 5	< 5	N/A	N/A	N/A	< 5
	10/27/2015	< 5	< 5	N/A	N/A	< 5	< 5
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	10/13/2009	N/A	N/A	< 10	< 10	< 10	< 10
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10
Trichloroethene, ug/L (CAS NO - 79-01-6)	10/2/1996	< 1	< 1	< 1	< 1	< 1	< 1
	1/27/1997	< 1	< 1	< 1	< 1	< 1	< 1
	4/15/1997	< 1	< 1	< 1	< 1	< 1	< 1
	7/23/1997	< 1	< 1	< 2	< 1	< 1	< 1
	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	10/13/2009	N/A	N/A	< 4	< 4	< 4	< 4
	2/17/2015	< 4	< 4	N/A	N/A	N/A	< 4
	10/27/2015	< 4	< 4	N/A	N/A	< 4	< 4
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	10/13/2009	N/A	N/A	< 2	< 2	< 2	< 2
	2/17/2015	< 10	< 10	N/A	N/A	N/A	< 10
	10/27/2015	< 10	< 10	N/A	N/A	< 10	< 10
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	10/13/2009	N/A	N/A	< 1	< 1	< 1	< 1
	2/17/2015	< 1	< 1	N/A	N/A	N/A	< 1
	10/27/2015	< 1	< 1	N/A	N/A	< 1	< 1
Xylenes, total, ug/L (CAS NO - 1330-20-7)	10/13/2009	N/A	N/A	< 6	< 6	< 6	< 6
	2/17/2015	< 3	< 3	N/A	N/A	N/A	< 3
	10/27/2015	< 3	< 3	N/A	N/A	< 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.

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Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Ammonia as N, mg/L (CAS NO - 7664-41-7)	10/2/1996	2.7	3	2	0.58	0.35	1.2
	1/27/1997	2.3	3.4	1.2	0.54	< 0.2	0.66
	4/15/1997	2.4	3.6	1.9	1.7	0.58	0.83
	7/23/1997	2.5	3.2	2	1.1	2	0.54
	10/15/1997	2.4	2.6	1.6	1.3	0.67	0.64
	4/6/1998	3	3.4	2	3	0.98	0.4
	10/13/1998	2.9	3.3	3.2	1.6	1.1	0.63
	4/15/1999	3.1	3.4	N/A	1.5	0.22	< 0.2
	10/7/1999	3.2	3	N/A	3.6	0.79	0.73
	10/12/2000	2.4	3	N/A	< 1	< 1	< 1
	10/4/2001	2.5	3.8	5.3	2.4	N/A	< 1
	10/3/2002	< 1	3.8	6.1	1.9	< 1	< 1
	10/15/2003	2.05	4.23	1.98	1.23	< 0.2	0.5
	10/4/2004	2.6	6.51	2.64	3.19	< 0.2	0.49
	10/10/2005	2.57	5.62	5.13	3.44	< 0.2	< 0.2
	10/11/2006	2.61	5.02	5.53	8.38	< 0.2	< 0.2
	10/17/2007	2.38	5.16	4.85	6.79	0.302	0.469
	10/23/2008	2.06	4.01	4.84	3.01	1.09	< 0.2
	10/13/2009	2.9	4.95	5.02	4.16	1.3	0.451
	10/25/2010	2.87	5.11	5.92	N/A	1.08	0.789
	10/6/2011	< 0.2	< 0.2	< 0.2	< 0.2	0.669	0.215
	9/12/2012	N/A	N/A	< 0.2	0.268	< 0.2	< 0.2
	11/6/2012	< 0.2	< 0.2	N/A	N/A	N/A	N/A
	10/15/2013	< 0.2	1.23	N/A	N/A	N/A	0.534
	6/16/2015	2.48	5.57	N/A	N/A	0.104*	0.33
	10/27/2015	2.55	5.34	N/A	N/A	0.624	0.117*
	5/4/2016	1.49	6.05	4.46	2.16	0.197*	0.144*
	10/4/2016	< 0.2	6.32	5.04	1.26	0.486	0.579
	4/10/2017	1.8	6.7	5.08	1.34	0.472	0.778
	10/26/2017	< 0.2	6.86	1.98	1.63	0.919	0.437
	10/2/2018	2.2	7.13	5.5	1.6	0.771	1.22
	4/9/2019	2.31	6.24	5.43	1.66	< 0.2	0.381
	10/7/2019	2.13	5.94	5.08	1.5	0.936	0.582
	5/28/2020	< 0.2	1.39	6.39	2.01	0.466	< 0.2
	5/28/2020	N/A	N/A	N/A	N/A	N/A	0.0729*
	10/14/2020	< 0.2	2.38	4.77	1.64	0.96	0.576
	10/14/2020	N/A	4.19	N/A	N/A	N/A	N/A
	5/5/2021	< 0.2	4.44	5.08	1.61	0.7	< 0.2
	5/5/2021	N/A	N/A	N/A	N/A	N/A	0.291
	10/26/2021	0.281	5.03	6.92	1.87	1.14	0.778
	10/26/2021	N/A	5.08	N/A	N/A	N/A	N/A
	4/7/2022	1.58	5.04	4.34	1.78	N/A	N/A
	4/7/2022	N/A	N/A	N/A	1.82	N/A	N/A
	10/20/2022	1.69	4.25	N/A	1.28	0.648	0.957
	10/20/2022	N/A	N/A	N/A	1.29	N/A	N/A
	4/19/2023	2.49	6.57	3.93	1.63	N/A	N/A
	4/19/2023	N/A	N/A	N/A	1.7	N/A	N/A
	10/26/2023	2.38	5.81	4.29	1.92	N/A	N/A
	10/26/2023	2.38	N/A	N/A	N/A	N/A	N/A
	4/18/2024	2.57	6.61	1.31	1.88	N/A	N/A
	4/18/2024	2.62	N/A	N/A	N/A	N/A	N/A
	10/8/2024	2.47	6.06	5.81	1.74	0.512	0.897
	10/8/2024	N/A	N/A	N/A	N/A	0.501	N/A
Arsenic, Dissolved, mg/L (CAS NO - D7440-38-2)	10/2/1996	0.0384	0.1194	0.0033	0.0215	0.0294	0.0509
	1/27/1997	0.0314	0.0662	< 0.001	0.022	0.0223	0.0887
	4/15/1997	0.0425	0.0752	0.0042	0.0195	0.027	0.0596
	7/23/1997	0.0339	0.0745	0.0011	0.0281	0.0387	0.0413
	10/15/1997	0.0269	0.0682	0.0035	0.0332	0.0354	0.041
	4/6/1998	N/A	0.0352	N/A	N/A	0.0025	0.008
	10/13/1998	N/A	0.0607	N/A	N/A	0.0307	0.0484
	4/15/1999	N/A	0.0492	N/A	N/A	0.0118	0.001
	10/7/1999	N/A	0.0673	N/A	N/A	0.0086	0.0264
	10/12/2000	N/A	0.067	N/A	N/A	< 0.001	0.02
	10/4/2001	0.026	0.058	0.025	0.013	N/A	0.038

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Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Arsenic, Dissolved, mg/L (CAS NO - D7440-38-2)	10/3/2002	0.025	0.06	0.022	0.011	0.005	0.015
	10/15/2003	0.0229	0.0159	0.0114	< 0.001	0.0019	0.0018
	10/4/2004	0.0216	0.0678	0.0204	0.0124	0.0027	0.0234
	10/10/2005	0.04	0.0609	0.0275	0.0318	0.0096	0.0085
	10/11/2006	0.0446	0.0643	0.0545	0.00844	0.00277	0.0219
	10/17/2007	0.033	0.05	0.031	0.0088	< 0.0034	0.0088
	10/23/2008	0.0261	0.061	0.00849	0.013	0.0132	0.257
	10/13/2009	0.0239	0.0554	0.013	0.00542	0.00755	0.0995
	10/25/2010	0.026	0.0675	0.00496	N/A	0.0118	0.0811
	10/6/2011	0.00181	0.00174	N/A	N/A	N/A	N/A
	9/12/2012	N/A	N/A	0.00489	0.00525	0.00196	0.00165
	11/6/2012	< 0.001	0.0129	N/A	N/A	N/A	N/A
	10/15/2013	0.00318	0.00341	N/A	N/A	N/A	0.0357
	10/27/2015	0.0386	0.0537	N/A	N/A	0.00615	0.00689
Chemical Oxygen Demand, mg/L (CAS NO - COD)	10/2/1996	29	130	120	70	45	48
	1/27/1997	33	150	120	62	54	76
	4/15/1997	40	110	100	94	60	55
	7/23/1997	18	100	110	58	85	47
	10/15/1997	15	110	120	64	45	31
	4/6/1998	17	52	77	110	48	62
	10/13/1998	27	66	100	91	150	92
	4/15/1999	21	51	N/A	89	66	42
	10/7/1999	22	89	N/A	80	49	69
	10/12/2000	19	50	N/A	56	30	76
	10/4/2001	39	67	85	41	N/A	109
	10/3/2002	31	144	100	51	28	86
	10/15/2003	24	180	100	120	36	96
	10/4/2004	8.1	140	69	53	31	150
	10/10/2005	24	120	95	140	36	140
	10/11/2006	24.3	101	111	308	29.6	82
	10/17/2007	26.1	103	114	315	46.5	80.9
	10/23/2008	31.8	98.3	193	338	45.4	17.3
	10/13/2009	27.9	65.5	101	109	122	138
	10/25/2010	22.3	82.7	66.9	N/A	35	94.7
	10/6/2011	15.8	9.4	13.9	15.8	13.6	24.9
	9/12/2012	N/A	N/A	7.8	15.6	12	5.5
	11/6/2012	8.5	47.1	N/A	N/A	N/A	N/A
	10/15/2013	22.2	46.4	N/A	N/A	N/A	137
	6/16/2015	42	185	N/A	N/A	37.3	88.4
	10/27/2015	34.5	75.6	N/A	N/A	47.9	82.3
	5/4/2016	29.7	195	114	40.8	41.2	89
	10/4/2016	31.1	170	143	33.7	48.4	88.2
	4/10/2017	31.4	140	118	22.4	41.5	73.1
	10/26/2017	19.7	136	127	28.8	42	62.4
	10/2/2018	30.6	103	123	30	41.4	87.3
	4/9/2019	31.5	69.6	135	44.1	30.4	133
	10/7/2019	23	47.1	123	43.9	38.3	92.4
	5/28/2020	20.2	40.2	148	45.4	40.5	63.8
	5/28/2020	N/A	N/A	N/A	N/A	N/A	67.8
	10/14/2020	24.6	40.4	143	32.8	47.9	71.8
	10/14/2020	N/A	44.6	N/A	N/A	N/A	N/A
	5/5/2021	26.3	52.3	170	47.7	44.1	67.3
	5/5/2021	N/A	N/A	N/A	N/A	N/A	69.4
	10/26/2021	30.5	74.9	134	34.3	63.8	82.9
	10/26/2021	N/A	74.2	N/A	N/A	N/A	N/A
	4/7/2022	25.3	54.7	124	24.4	N/A	N/A
	4/7/2022	N/A	N/A	N/A	31.3	N/A	N/A
	10/20/2022	26.9	66.6	N/A	31	37.2	69.4
	10/20/2022	N/A	N/A	N/A	29.7	N/A	N/A
	4/19/2023	28.6	126	12.4	44.1	N/A	N/A
	4/19/2023	N/A	N/A	N/A	39.4	N/A	N/A
	10/26/2023	30	141	114	53.8	N/A	N/A
	10/26/2023	31.8	N/A	N/A	N/A	N/A	N/A

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Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Chemical Oxygen Demand, mg/L (CAS NO - COD)	4/18/2024	28.4	120	59.9	45.5	N/A	N/A
	4/18/2024	29.4	N/A	N/A	N/A	N/A	N/A
	10/8/2024	25.2	105	123	38.1	40.8	96.4
	10/8/2024	N/A	N/A	N/A	N/A	38.7	N/A
Chloride, mg/L (CAS NO - 16887-00-6)	10/2/1996	69	180	94	160	160	64
	1/27/1997	65	140	63	150	140	85
	4/15/1997	70	150	64	120	150	62
	7/23/1997	61	150	110	140	120	60
	10/15/1997	57	120	86	130	880	54
	4/6/1998	62	75	89	110	78	50
	10/13/1998	70	96	160	110	100	92
	4/15/1999	70	81	N/A	48	64	16
	10/7/1999	70	140	N/A	160	130	99
	10/12/2000	62	100	N/A	244	120	100
	10/4/2001	98	118	57	221	N/A	72
	10/3/2002	61	166	50	215	97	75
	10/15/2003	46.9	219	56.3	243	141	75.3
	10/4/2004	47	196	48.9	97.2	169	52.4
	10/10/2005	67.1	186	51.4	143	132	61.4
	10/11/2006	67.1	172	66.2	84.7	144	56.3
	10/17/2007	64.3	192	10.1	46.4	193	51.6
	10/23/2008	60.3	16.4	76.4	37.7	110	71.7
	10/13/2009	65.9	134	45.5	105	130	58.5
	10/25/2010	58.6	167	58	N/A	150	80.6
	10/6/2011	45.3	33.2	50.8	57	65.9	27.2
	9/12/2012	N/A	N/A	118	61.3	63	27.5
	11/6/2012	73.8	59.4	N/A	N/A	N/A	N/A
	10/15/2013	72.7	121	N/A	N/A	N/A	30.5
	6/16/2015	71.1	141	N/A	N/A	10.8	30.4
	10/27/2015	66.8	145	N/A	N/A	64.7	27.7
	5/4/2016	78.1	121	50.6	145	21.8	51.4
	10/4/2016	77.6	115	81.5	120	64.1	58.9
	4/10/2017	81.8	119	67.4	203	56.7	42.6
	10/26/2017	92.2	117	64.6	209	57.1	40.1
	10/2/2018	84	89	58.6	226	62	68.6
	4/9/2019	86.3	77.5	73.9	298	31.6	19.6
	10/7/2019	71.6	68.7	61.4	203	44.4	57.3
	5/28/2020	68.4	103	153	207	32.2	121
	5/28/2020	N/A	N/A	N/A	N/A	N/A	107
	10/14/2020	66.6	64.6	87.5	187	43.7	57.5
	10/14/2020	N/A	59.3	N/A	N/A	N/A	N/A
	5/5/2021	60.9	53.8	87.8	227	44.1	43
	5/5/2021	N/A	N/A	N/A	N/A	N/A	39.5
	10/26/2021	62.6	58.1	71.7	348	44.9	35.5
	10/26/2021	N/A	58.3	N/A	N/A	N/A	N/A
	4/7/2022	68.1	64.4	74.8	477	N/A	N/A
	4/7/2022	N/A	N/A	N/A	488	N/A	N/A
	10/20/2022	65.6	78.2	N/A	354	42	32.7
	10/20/2022	N/A	N/A	N/A	352	N/A	N/A
	4/19/2023	156	122	64	345	N/A	N/A
	4/19/2023	N/A	N/A	N/A	340	N/A	N/A
	10/26/2023	152	127	62.6	252	N/A	N/A
	10/26/2023	152	N/A	N/A	N/A	N/A	N/A
	4/18/2024	161	128	21.1	330	N/A	N/A
	4/18/2024	167	N/A	N/A	N/A	N/A	N/A
	10/8/2024	211	113	42.6	169	48.9	39
	10/8/2024	N/A	N/A	N/A	N/A	48.3	N/A
Iron, Dissolved, mg/L (CAS NO - D7439-89-6)	10/2/1996	30	36	5.5	21	18	46
	1/27/1997	32	34	6.9	22	21	75
	4/15/1997	36	32	8.2	34	24	52
	7/23/1997	27	30	11	21	62	53
	10/15/1997	29	36	17	27	36	42
	4/6/1998	29	27	28	44	25	24
	10/13/1998	28	25	22	19	29	50

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Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Iron, Dissolved, mg/L (CAS NO - D7439-89-6)	4/15/1999	28	22	N/A	11	8	< 0.1
	10/7/1999	33	29	N/A	30	28	20
	10/12/2000	27.6	20.9	N/A	24.5	2.69	20.5
	10/4/2001	25.1	23.4	15.3	21.4	N/A	33.8
	10/3/2002	25.7	34.3	10.3	15.8	1.02	20.7
	10/15/2003	21.6	0.13	11.3	1.76	< 0.1	3.12
	10/4/2004	24	31	32	17	0.41	38
	10/10/2005	28	32	34	11	1.1	15
	10/11/2006	29	29.4	38.4	2.44	0.423	9.08
	10/17/2007	24.9	28.4	34.5	3.48	4.78	10.3
	10/23/2008	27.7	30.7	160	40.1	17.1	152
	10/13/2009	28.6	24.4	33.6	19	16.7	20.6
	10/25/2010	25.4	27.8	25.1	N/A	17.2	25.4
	10/6/2011	< 0.1	3.58	0.435	4.57	1.41	0.69
	9/12/2012	N/A	N/A	3.37	3.22	3.26	0.633
	11/6/2012	1.67	10.5	N/A	N/A	N/A	N/A
	10/15/2013	3.92	1.19	N/A	N/A	N/A	20.3
	6/16/2015	29.4	30.2	N/A	N/A	2.61	7.93
	10/27/2015	0.963	30.9	N/A	N/A	8.72	12.5
	5/4/2016	23.7	26	15.8	34.8	3.42	8.86
	10/4/2016	1.49	28.5	20	32.7	5.29	33.6
	4/10/2017	22.4	26	28.3	39.2	2.36	47.6
	10/26/2017	0.379*	28.6	17.6	44.9	10.1	31.6
	10/2/2018	27.3	13.1	45.3	47.4	4.71	19.7
	4/9/2019	29	< 0.5	25	55	< 0.5	< 0.5
	10/7/2019	24.6	19	30.3	38.5	1.16	7.45
	5/28/2020	< 0.5	< 0.5	28	40.6	3.85	0.918
	5/28/2020	N/A	N/A	N/A	N/A	N/A	1.98
	10/14/2020	< 0.5	< 0.5	20.9	38.3	7.47	8.11
	10/14/2020	N/A	< 0.5	N/A	N/A	N/A	N/A
	5/5/2021	< 0.5	17	4.86	45.6	0.88	1.67
	5/5/2021	N/A	N/A	N/A	N/A	N/A	1.27
	10/26/2021	16.4	14.6	35.3	49.4	2.96	20.1
	10/26/2021	N/A	18.2	N/A	N/A	N/A	N/A
	4/7/2022	6.97	14.5	45.8	59.9	N/A	N/A
	4/7/2022	N/A	N/A	N/A	58.3	N/A	N/A
	10/20/2022	35.3	25.3	N/A	52.5	0.66	53.4
	10/20/2022	N/A	N/A	N/A	53.5	N/A	N/A
	4/19/2023	35.9	36.3	55.2	55.9	N/A	N/A
	4/19/2023	N/A	N/A	N/A	58.3	N/A	N/A
	10/26/2023	36	30.7	54.4	49	N/A	N/A
	10/26/2023	36.4	N/A	N/A	N/A	N/A	N/A
	4/18/2024	35.6	28.2	< 0.1	1.7	N/A	N/A
	4/18/2024	36.6	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.536	0.139	29.6	3.68	2.42	0.0962*
	10/8/2024	35.8	28.9	0.175	45.5	0.0435*	14.2
	10/8/2024	N/A	N/A	N/A	N/A	2.58	N/A
	10/8/2024	N/A	N/A	N/A	N/A	0.0456*	N/A
pH, S.U. (CAS NO - PH)	10/2/1996	7.24	7.8	8.1	7.1	7.03	7.75
	1/27/1997	6.98	6.86	7.48	6.87	7.1	6.84
	4/15/1997	7.17	7.2	7.32	7.46	7.75	7.34
	7/23/1997	6.95	6.98	7.12	6.55	7.62	7.07
	10/15/1997	6.83	7.05	6.99	7.07	6.94	7.27
	4/6/1998	6.97	6.92	7.08	7.27	7.05	7.44
	10/13/1998	6.8	6.89	7.12	7.11	7.04	7.33
	4/15/1999	6.56	6.23	N/A	6.23	6.84	6.71
	10/7/1999	5.73	5.74	N/A	5.51	5.72	6.26
	10/12/2000	5.37	5.67	N/A	5.45	5.79	5.82
	10/4/2001	7.02	6.73	5.21	5.67	N/A	5.65
	10/3/2002	6.93	6.94	6.99	6.71	6.89	6.68
	10/15/2003	6.39	6.69	6.3	6.18	6.78	6.48
	10/4/2004	7.25	7.2	6.74	7.27	7.27	6.74
	10/10/2005	7.13	7.1	6.8	7	7.09	6.64
	10/11/2006	7.07	7.48	6.93	6.89	6.58	6.66

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Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
pH, S.U. (CAS NO - PH)	10/17/2007	7.14	7.13	6.87	6.88	6.85	6.87
	10/23/2008	7.11	7.06	6.71	6.75	6.6	6.85
	10/13/2009	7.56	7.21	7.36	7.43	7.24	6.84
	10/25/2010	7.02	7.06	6.71	N/A	6.68	6.75
	10/6/2011	6.5	6.75	7.01	6.9	6.86	6.7
	9/12/2012	N/A	N/A	6.9	7.24	7.2	7
	11/6/2012	7.5	7.2	N/A	N/A	N/A	N/A
	10/15/2013	7.8	7	N/A	N/A	N/A	7.6
	6/16/2015	7.01	6.94	N/A	N/A	6.59	6.67
	10/27/2015	7.35	7.39	N/A	N/A	7.1	7.03
	5/4/2016	7.05	6.97	6.66	6.75	6.63	6.71
	10/4/2016	7.1	7.01	6.69	6.62	6.64	6.63
	4/10/2017	7.28	7.18	6.91	6.78	6.86	6.84
	10/26/2017	7.46	7.2	6.85	6.74	6.85	6.93
	10/2/2018	6.8	6.89	6.57	6.43	6.54	6.58
	4/9/2019	6.93	7.1	6.65	6.57	6.7	6.71
	10/7/2019	6.92	7.03	6.69	6.61	6.83	6.6
	5/28/2020	7.2	7.19	6.56	6.57	6.59	6.72
	10/14/2020	6.96	7.15	6.68	6.43	6.43	6.56
	5/5/2021	7.21	7.03	6.75	6.51	6.63	6.8
	10/26/2021	6.98	7.11	6.64	5.71	6.22	6.56
	4/7/2022	6.9	7.1	6.64	6.4	N/A	N/A
	10/20/2022	6.96	7.07	N/A	6.46	6.68	6.65
	4/19/2023	6.84	6.91	6.59	6.45	N/A	N/A
	10/26/2023	6.82	6.89	6.59	6.41	N/A	N/A
	4/18/2024	6.88	6.96	6.59	6.55	N/A	N/A
	10/8/2024	6.85	6.97	6.64	6.51	6.61	6.57
Specific Conductance, umhos/cm (CAS NO - SPECCON)	1/27/1997	1930	2130	2480	1670	1380	2950
	4/15/1997	3230	2350	3100	3600	3340	3170
	7/23/1997	3180	2730	2640	1990	3090	2820
	10/15/1997	2320	2200	3110	2760	3220	2020
	4/6/1998	2420	1950	3240	2630	3090	1880
	10/13/1998	2480	2020	3240	1710	3360	1960
	4/15/1999	2500	1940	N/A	2360	2940	1540
	10/7/1999	1240	960	N/A	1350	1900	1460
	10/12/2000	2190	1520	N/A	2090	2680	2480
	10/4/2001	1290	1080	1280	1520	N/A	1480
	10/3/2002	1458	1787	1760	1625	1578	1941
	10/15/2003	981	776	785	1259	740	814
	10/4/2004	880	968	1102	1163	1056	1123
	10/10/2005	1108	1188	1210	1313	1212	1456
	10/11/2006	2051	2289	2418	2537	2118	2617
	10/17/2007	2280	2670	2620	2760	3000	2670
	10/23/2008	857	759	482	598	579	631
	10/13/2009	2580	2610	2480	2850	2180	2950
	10/25/2010	2170	2400	2570	N/A	2530	2990
	10/6/2011	1415	1214	1420	1391	1275	2600
	9/12/2012	N/A	N/A	340	1605	2410	1020
	11/6/2012	1310	1020	N/A	N/A	N/A	N/A
	10/15/2013	1720	2110	N/A	N/A	N/A	2390
	2/17/2015	2583	2725	N/A	N/A	N/A	2548
	6/16/2015	2023	2191	N/A	N/A	1640	2137
	10/27/2015	1923	2125	N/A	N/A	1641	2091
	5/4/2016	1915	2201	2418	1882	1678	2497
	10/4/2016	2441	2760	3056	1981	1994	3493
	4/10/2017	1765	1894	2241	1727	1583	2323
	10/26/2017	1938	2047	2462	1890	2102	2340
	10/2/2018	2359	2174	2682	2656	2097	2162
	4/9/2019	1994.6	1749.2	2189.8	2410.6	1471.3	1942.9
	10/7/2019	2052.9	1826.9	2912.2	2426.9	1721.1	2513.1
	5/28/2020	1645.4	1613.6	3005	2190.9	1822.6	3176.7
	10/14/2020	1633.8	1605.3	2749	2061.1	2064.1	2710.5
	5/5/2021	1625.4	1654.2	2836.6	2291.3	1959.8	2549.4
	10/26/2021	1519.2	1524.3	2385.9	2404	2023.9	2336.4

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Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Specific Conductance, umhos/cm (CAS NO - SPECCON)	4/7/2022	1533	1509	2075	2733	N/A	N/A
	10/20/2022	2125	2070	N/A	2865	1767	2235
	4/19/2023	2468.5	2422.6	2133.6	2751.6	N/A	N/A
	10/26/2023	2158	2011.6	1944.3	2310.3	N/A	N/A
	4/18/2024	2804.5	2536.9	835.2	3018.8	N/A	N/A
	10/8/2024	2657.9	2274.1	2567.6	2483.8	1938.4	1913.2
Total Organic Halogens, mg/L (CAS NO - TOH)	10/2/1996	0.043	0.037	0.039	0.032	0.046	0.062
	10/15/1997	0.011	< 0.01	0.021	0.03	0.024	0.02
	10/13/1998	0.014	< 0.01	0.075	0.06	0.046	0.044
	10/7/1999	0.0123	0.0226	N/A	0.0339	0.0542	0.0403
	10/12/2000	0.03	0.01	N/A	0.04	0.1	0.22
	10/4/2001	0.045	< 0.01	< 0.01	0.113	N/A	0.092
	10/3/2002	0.026	< 0.01	0.066	0.026	0.097	0.111
	10/15/2003	< 0.01	0.035	0.014	0.024	0.022	0.059
	10/4/2004	0.01	0.012	0.021	0.077	0.032	0.094
	10/10/2005	0.015	< 0.01	0.015	0.077	0.024	0.079
	10/11/2006	0.0375	0.0187	0.0197	0.758	0.0176	0.213
	10/17/2007	0.0248	0.0395	0.0255	0.563	0.0298	0.206
	10/23/2008	0.0279	0.0143	0.0147	1.23	0.0201	0.0622
	10/13/2009	0.0256	0.0117	0.0177	0.232	0.0333	0.0781
	10/25/2010	0.0248	0.0283	0.028	N/A	0.0262	< 5
	10/6/2011	0.0211	0.013	0.232	0.0612	0.166	0.022
	9/12/2012	N/A	N/A	0.0225	3.16	0.0463	0.0203
	11/6/2012	0.0333	0.041	N/A	N/A	N/A	N/A
	10/15/2013	0.457*	0.115	N/A	N/A	N/A	0.042
	10/27/2015	0.0754	0.0888	N/A	N/A	0.0624	0.0753
	10/4/2016	0.0586	0.0188*	0.0204*	0.0184*	0.0228*	0.0465
	10/26/2017	0.0694	0.0237*	0.0223*	0.0746	0.0603	0.0433
	10/2/2018	0.0237*	0.0195*	0.0226*	0.019*	0.0478	0.0403
	10/7/2019	0.024	0.013	0.034	0.033	0.037	0.037
	10/14/2020	0.093	0.0758	0.131	0.0321*	0.0656	0.0652
	10/14/2020	N/A	0.208	N/A	N/A	N/A	N/A
	10/26/2021	0.0978	0.0358*	0.117	0.24	< 0.04	0.0755
	10/26/2021	N/A	0.0373*	N/A	N/A	N/A	N/A
	10/20/2022	0.019*	0.135	N/A	0.135	0.0584	0.0812
	10/20/2022	N/A	N/A	N/A	0.125	N/A	N/A
	10/26/2023	0.149	0.15	0.201	0.139	N/A	N/A
	10/26/2023	0.199	N/A	N/A	N/A	N/A	N/A
	10/8/2024	0.102	0.222	0.159	0.314	0.135	0.185
	10/8/2024	N/A	N/A	N/A	N/A	0.144	N/A
Total Phenols, mg/L (CAS NO - TP)	10/2/1996	< 0.02	0.021	< 0.02	0.023	0.022	< 0.02
	10/15/1997	< 0.02	0.37	0.048	0.545	< 0.02	0.586
	10/13/1998	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/7/1999	< 0.02	< 0.02	N/A	0.02	< 0.02	< 0.02
	10/12/2000	< 0.1	< 0.1	N/A	< 0.1	< 0.1	< 0.1
	10/4/2001	< 0.1	< 0.1	< 0.1	< 0.1	N/A	< 0.1
	10/3/2002	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	10/15/2003	< 0.02	< 0.02	< 0.02	0.022	< 0.02	< 0.02
	10/4/2004	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/10/2005	< 0.02	< 0.02	< 0.02	0.021	< 0.02	< 0.02
	10/11/2006	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/17/2007	< 0.018	< 0.02	< 0.02	0.0255	< 0.018	0.1
	10/23/2008	< 0.02	< 0.018	0.122	0.195	< 0.02	< 0.018
	10/13/2009	< 0.018	0.22	0.199	0.175	< 0.018	0.085
	10/25/2010	< 0.018	< 0.018	< 0.092	N/A	< 0.018	< 0.018
	10/6/2011	< 0.018	< 0.018	< 0.02	< 0.018	< 0.018	< 0.02
	9/12/2012	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	11/6/2012	< 0.02	< 0.02	N/A	N/A	N/A	N/A
	10/15/2013	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02
	10/27/2015	< 0.0212	< 0.0204	N/A	N/A	< 0.0192	< 0.0204
	10/4/2016	< 0.0184	0.00564*	< 0.0188	< 0.018	< 0.0184	0.00599*
	10/26/2017	< 0.0184	< 0.0196	0.0151*	0.0154*	< 0.0184	< 0.018
	10/2/2018	< 0.0192	< 0.0188	< 0.0188	< 0.0192	< 0.0192	< 0.0192
	10/7/2019	< 0.018	< 0.0188	< 0.0188	0.0791	0.0619	< 0.0196

SCS ENGINEERS

Summary of Groundwater Chemistry

Carter Lake Construction and Demolition Landfill (Closed) - 78-SDP-02-80C

Other Constituents	Sample Date	MW-4 UPG	MW-6 UPG	MW-7R2 UPG	MW-1R DNG	MW-3 DNG	MW-5 DNG
Total Phenols, mg/L (CAS NO - TP)	10/14/2020	< 0.0192	< 0.0188	< 0.0192	< 0.0184	< 0.0192	< 0.02
	10/14/2020	N/A	< 0.0188	N/A	N/A	N/A	N/A
	10/26/2021	< 0.0192	**0.0185**	< 0.0192	< 0.0192	< 0.018	< 0.0188
	10/26/2021	N/A	< 0.0184	N/A	N/A	N/A	N/A
	10/20/2022	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02
	10/20/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	10/8/2024	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/8/2024	N/A	N/A	N/A	N/A	< 0.02	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.

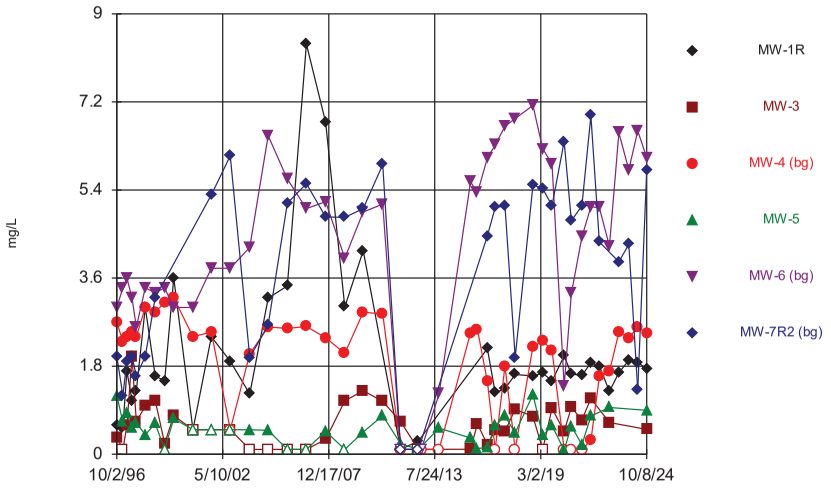
Sampling performed over multiple dates is recorded on the first date sampled. Refer to field forms for exact sample date.

Appendix D

2024 Statistical Output

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

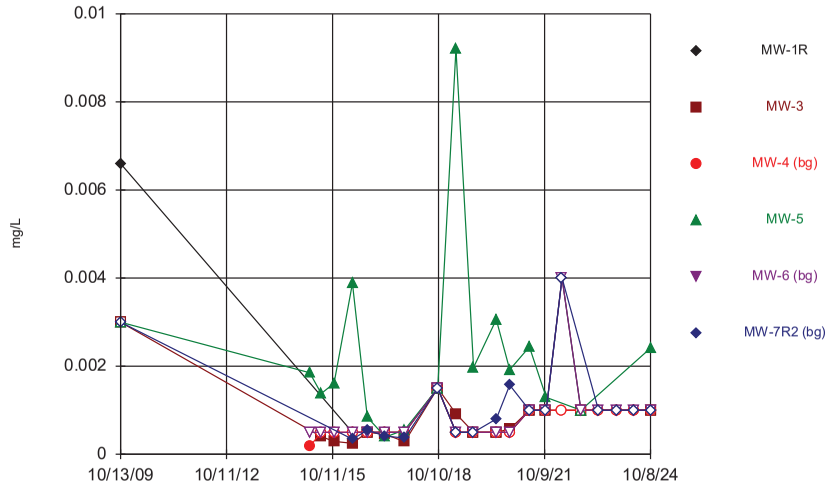
Time Series



Constituent: Ammonia as N Analysis Run 11/15/2024 4:21 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

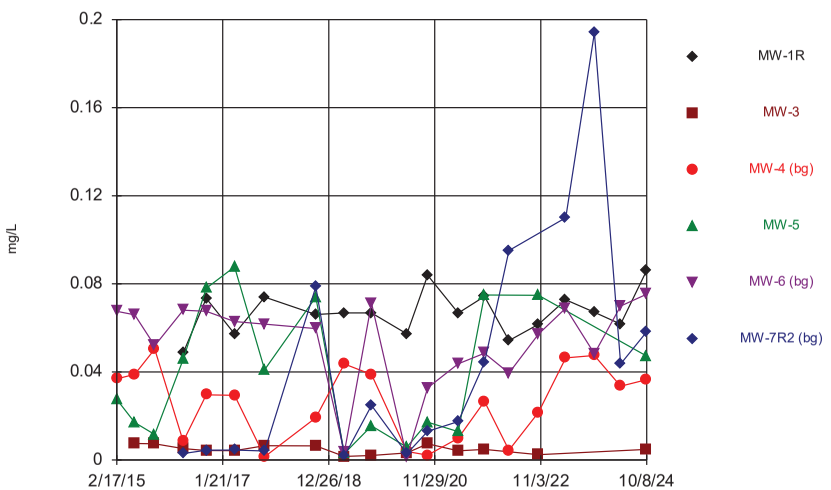
Time Series



Constituent: Antimony Analysis Run 11/15/2024 4:21 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

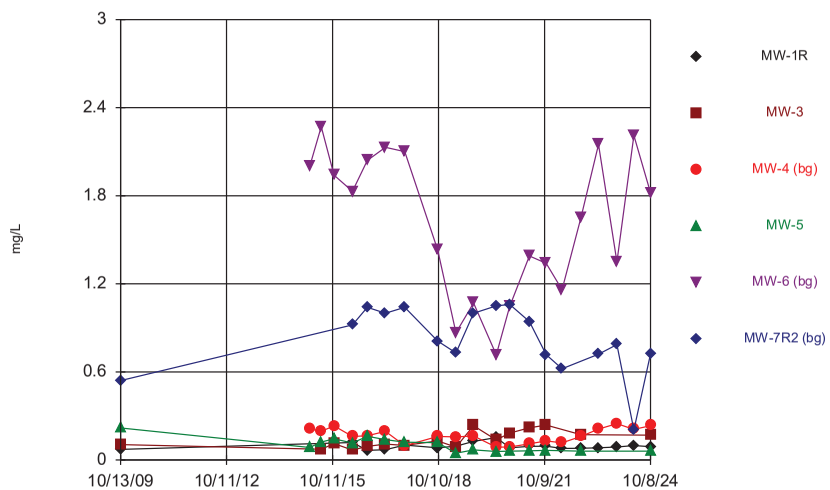
Time Series



Constituent: Arsenic Analysis Run 11/15/2024 4:21 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

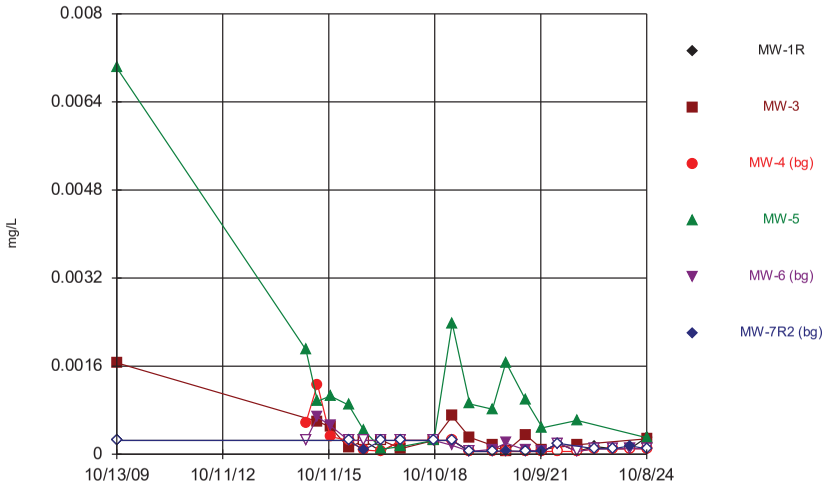
Time Series



Constituent: Barium Analysis Run 11/15/2024 4:21 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

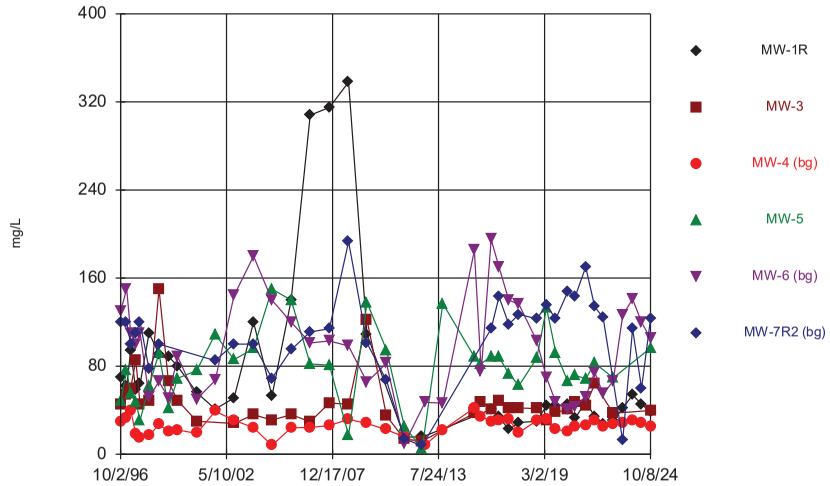
Time Series



Constituent: Cadmium Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

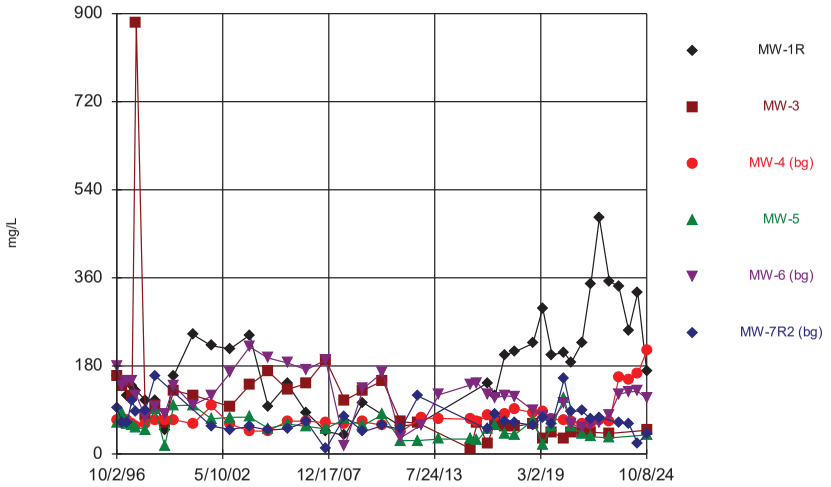
Time Series



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Serie
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

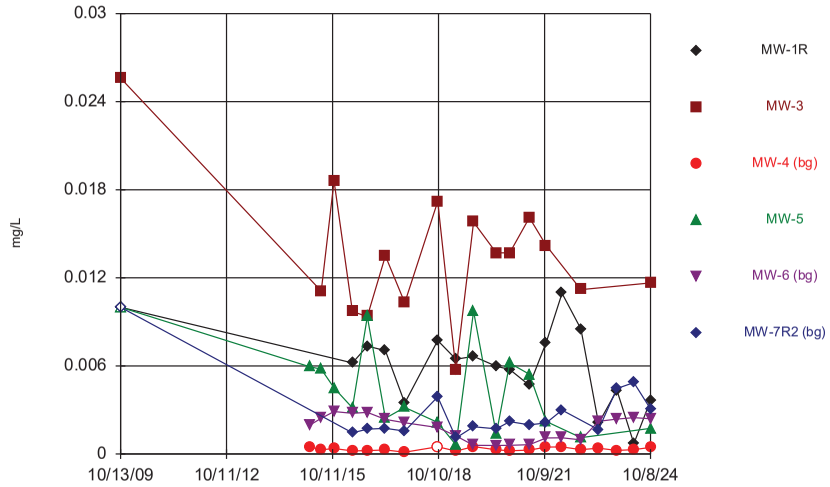
Time Series



Constituent: Chloride Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

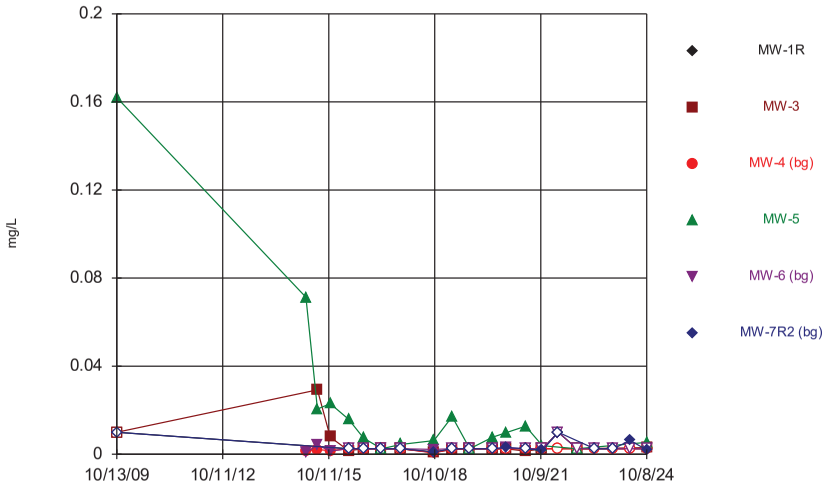
Time Series



Constituent: Cobalt Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

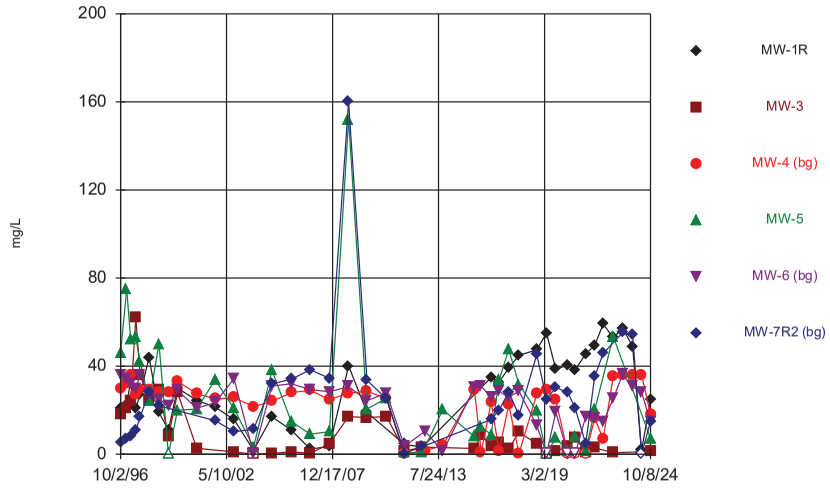
Time Series



Constituent: Copper Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

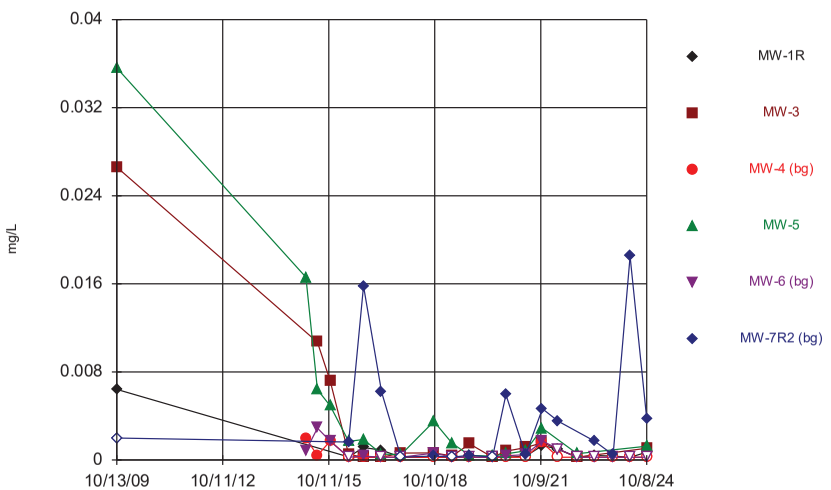
Time Series



Constituent: Iron, Dissolved Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

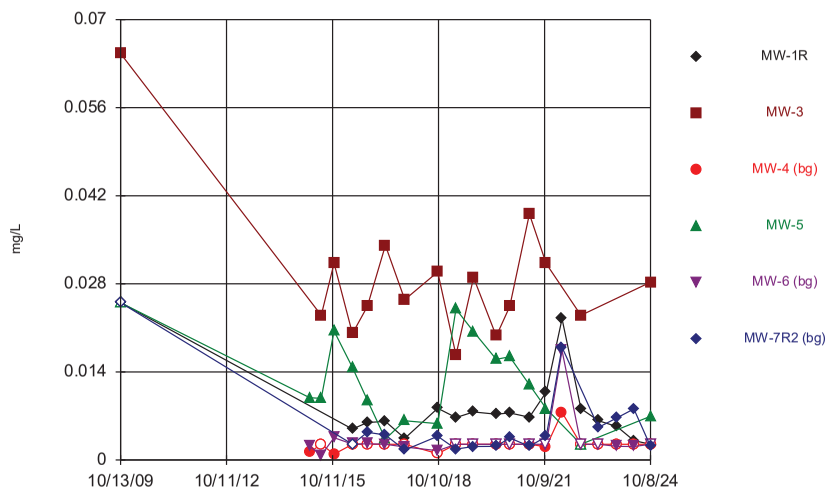
Time Series



Constituent: Lead Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

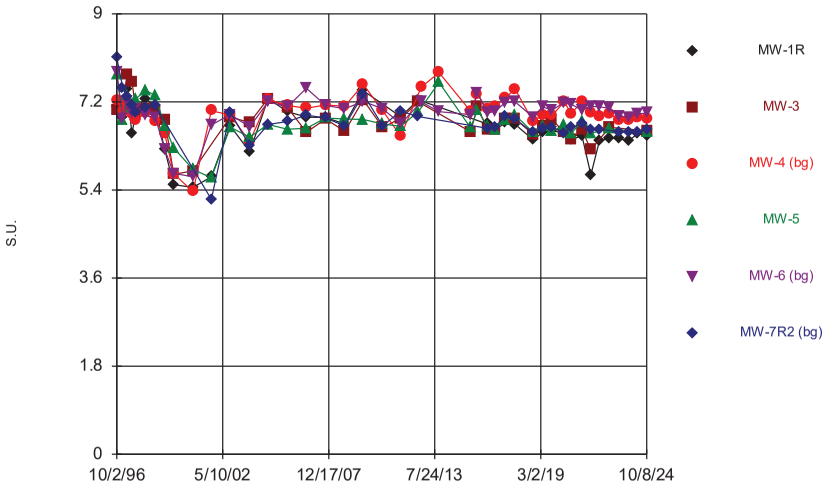
Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



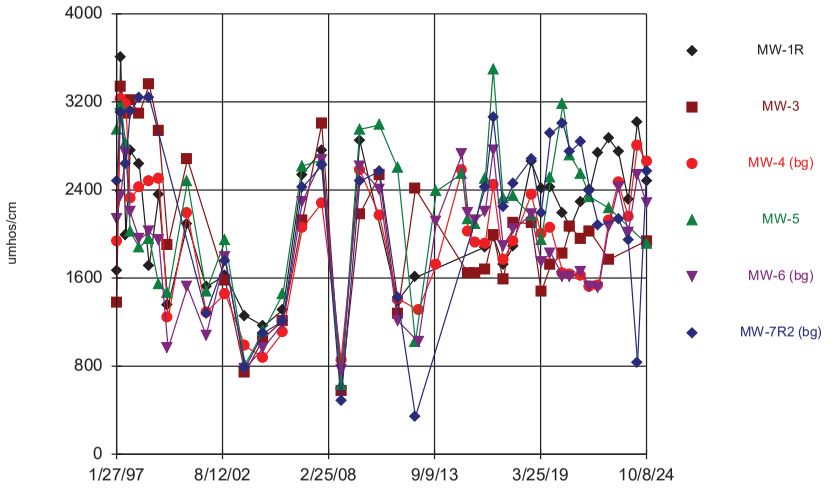
Constituent: Nickel Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Time Series



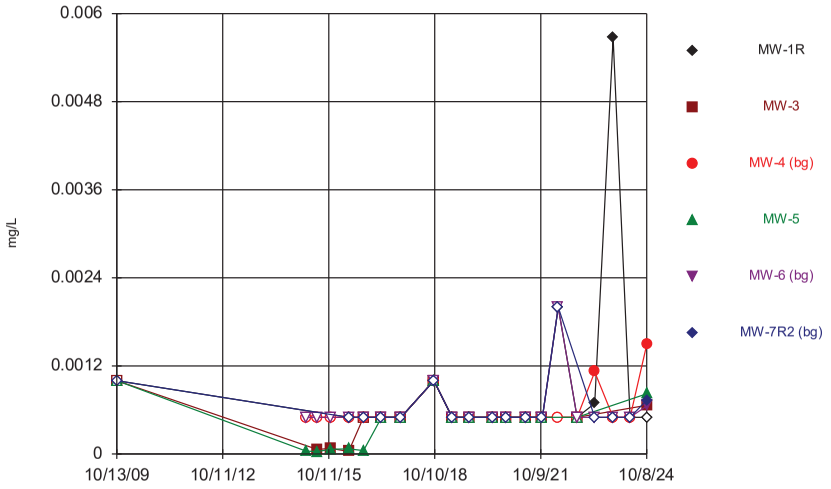
Constituent: pH Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Time Series



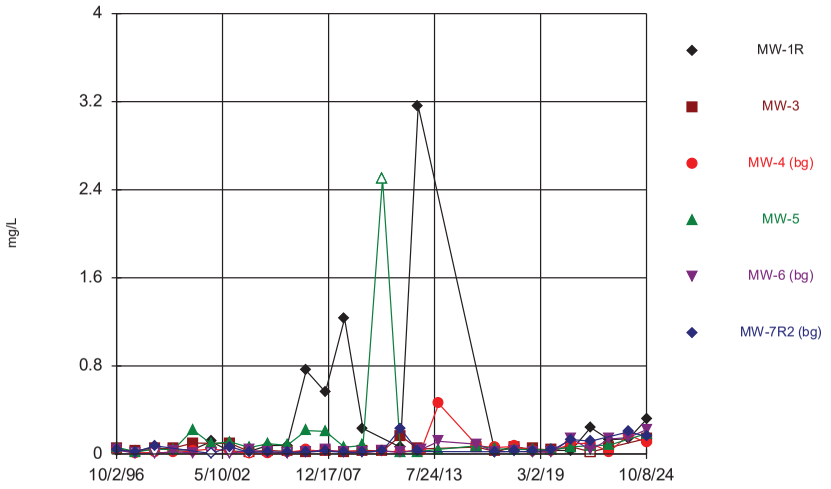
Constituent: Specific Conductance Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Time Series



Constituent: Thallium Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Time Series



Constituent: Total Organic Halogens Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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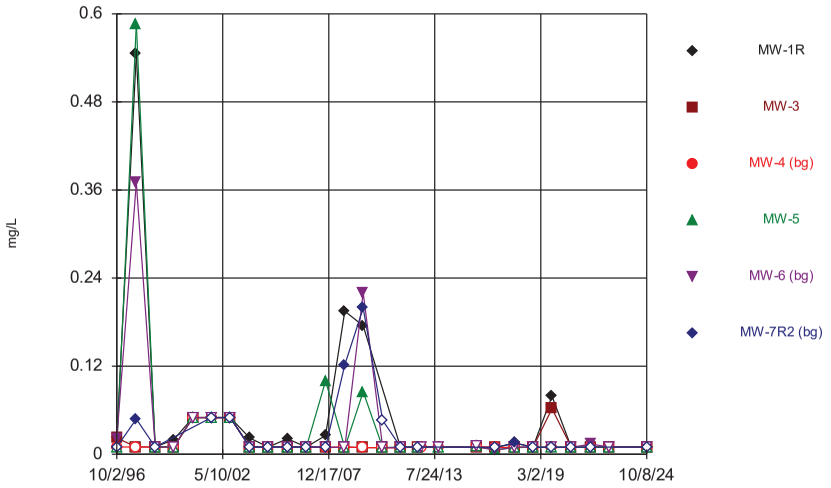
Hollow symbols indicate censored values.

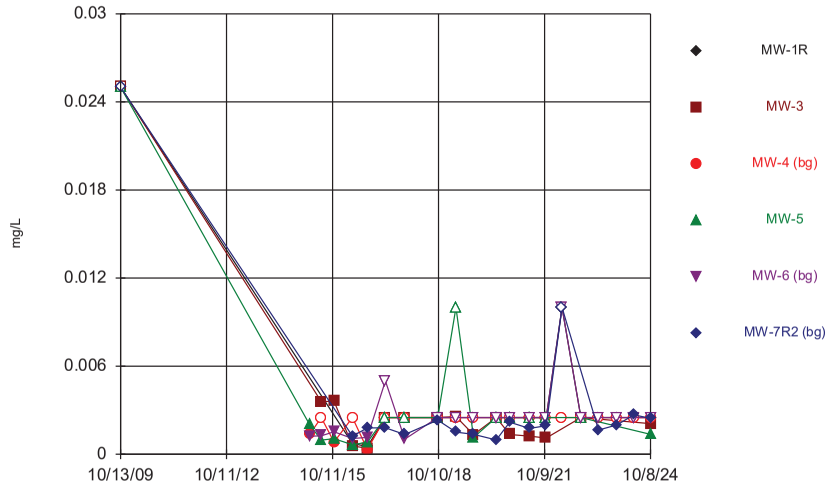
Time Series



Constituent: Total Phenols Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

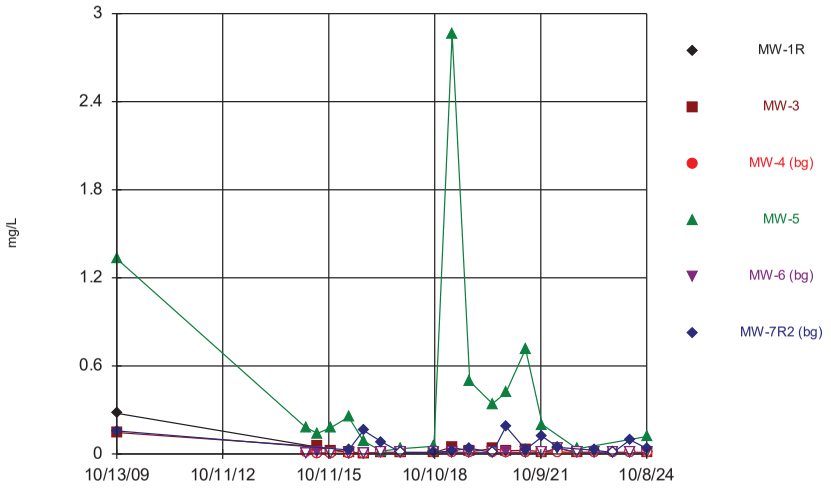
Time Series



Constituent: Vanadium Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 11/15/2024 4:22 PM View: 2024AWQR-Time_Series
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Spring Control Limit

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas Printed 11/14/2024, 5:26 PM

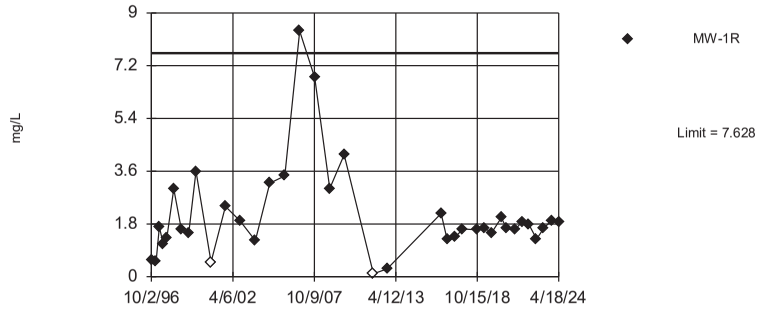
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Ammonia as N (mg/L)	MW-1R	7.628	n/a	4/18/2024	1.88	No	34	5.882	No	0.0003117	Param Inter 1 of 2
Arsenic (mg/L)	MW-1R	0.153	n/a	4/18/2024	0.0617	No	15	0	No	0.0003117	Param Inter 1 of 2
Barium (mg/L)	MW-1R	1.293	n/a	4/18/2024	0.098	No	16	0	No	0.0003117	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-1R	186.2	n/a	4/18/2024	45.5	No	34	0	No	0.0003117	Param Inter 1 of 2
Chloride (mg/L)	**MW-1R**	**132.2**	**n/a**	**4/18/2024**	**330**	**Yes**	**34**	**0**	**No**	**0.0003117**	**Param Inter 1 of 2**
Cobalt (mg/L)	MW-1R	0.007259	n/a	4/18/2024	0.000711	No	16	6.25	No	0.0003117	Param Inter 1 of 2
Iron, Dissolved (mg/L)	MW-1R	82.61	n/a	4/18/2024	1.7	No	34	2.941	No	0.0003117	Param Inter 1 of 2
pH (S.U.)	MW-1R	7.695	5.941	4/18/2024	6.55	No	34	0	No	0.0001558	Param Inter 1 of 2
Specific Conductance (umhos/cm)	MW-1R	3834	n/a	4/18/2024	3019	No	33	0	No	0.0003117	Param Inter 1 of 2

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=3.853, Std. Dev.=1.888, n=34, 5.882% NDs. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

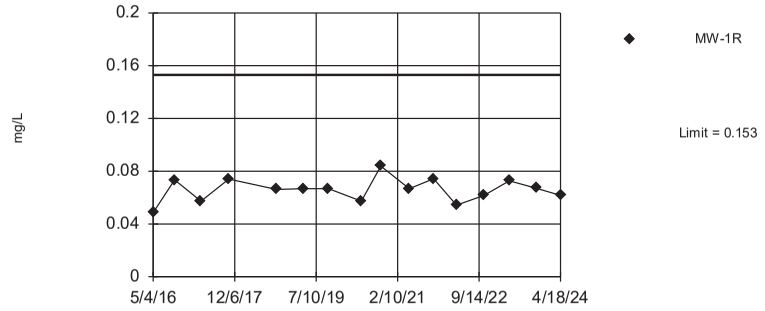
Constituent: Ammonia as N Analysis Run 11/14/2024 5:24 PM View: 2024AWQR-Control_Limits-Spring

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.04277, Std. Dev.=0.05514, n=15. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

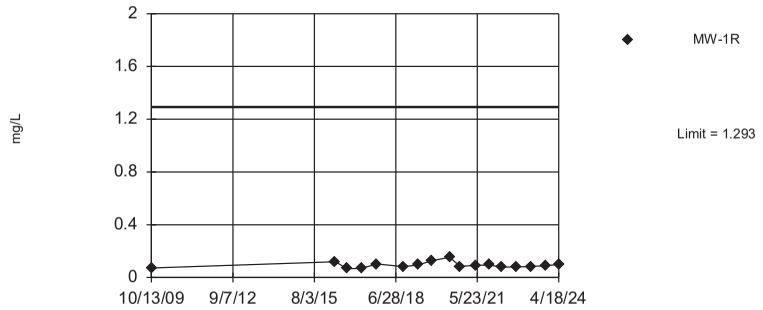
Constituent: Arsenic Analysis Run 11/14/2024 5:24 PM View: 2024AWQR-Control_Limits-Spring

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.824, Std. Dev.=0.2343, n=16. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

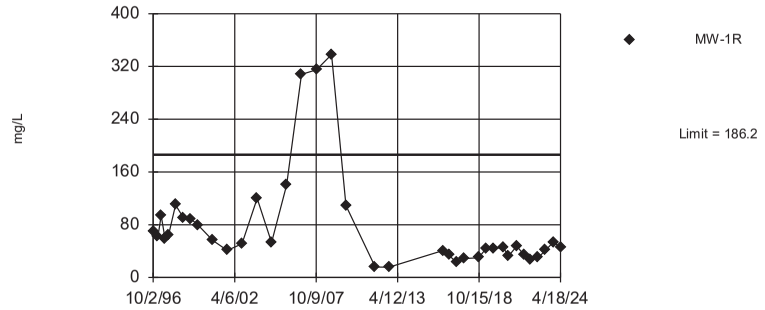
Constituent: Barium Analysis Run 11/14/2024 5:24 PM View: 2024AWQR-Control_Limits-Spring

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=105.6, Std. Dev.=40.29, n=34. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

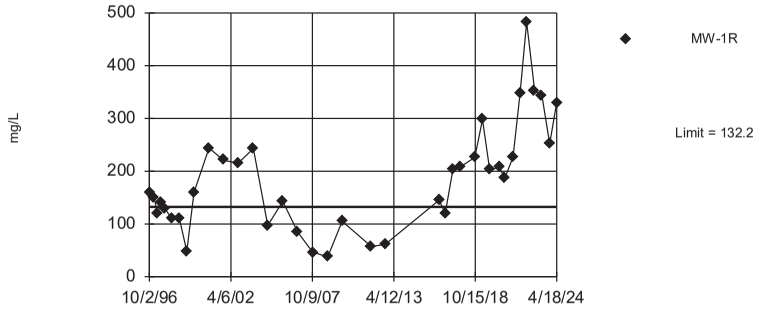
Constituent: Chemical Oxygen Demand Analysis Run 11/14/2024 5:24 PM View: 2024AWQR-Control_Lim

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Exceeds Limit: MW-1R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=71.62, Std. Dev.=30.29, n=34. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

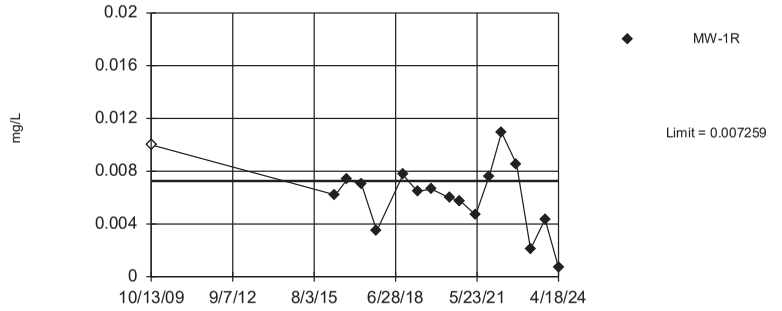
Constituent: Chloride Analysis Run 11/14/2024 5:24 PM View: 2024AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



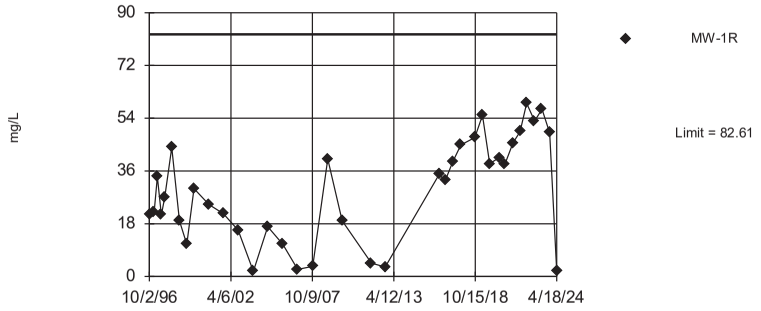
Background Data Summary: Mean=0.002831, Std. Dev.=0.002214, n=16, 6.25% NDs. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Cobalt Analysis Run 11/14/2024 5:25 PM View: 2024AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



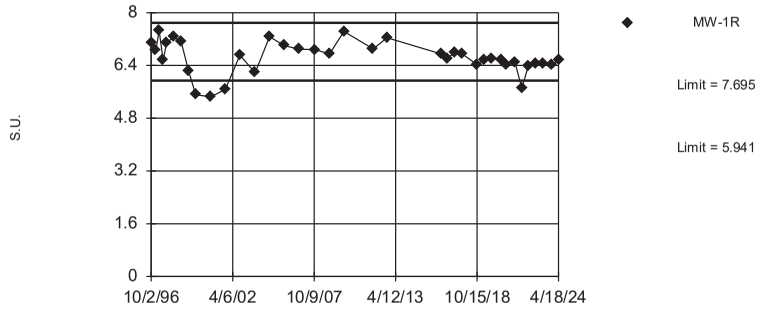
Background Data Summary: Mean=27.17, Std. Dev.=27.72, n=34, 2.941% NDs. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Iron, Dissolved Analysis Run 11/14/2024 5:25 PM View: 2024AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limits

Prediction Limit

Interwell Parametric



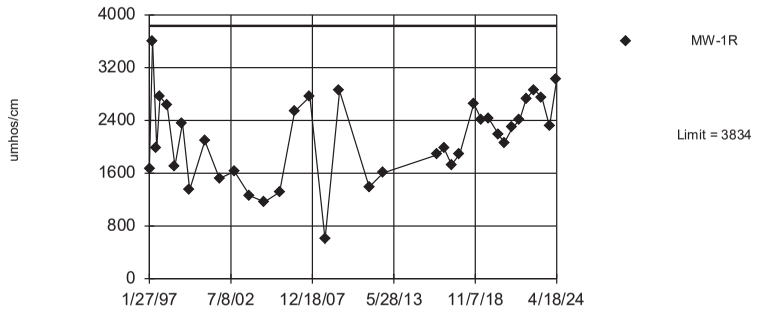
Background Data Summary: Mean=6.818, Std. Dev.=0.4386, n=34. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: pH Analysis Run 11/14/2024 5:25 PM View: 2024AWQR-Control_Limits-Spring
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=2188, Std. Dev.=823.2, n=33. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Specific Conductance Analysis Run 11/14/2024 5:25 PM View: 2024AWQR-Control_Limits-S

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Fall Control Limit

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas Printed 11/15/2024, 4:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Ammonia as N (mg/L)	MW-1R	7.687	n/a	10/8/2024	1.74	No	35	5.714	No	0.0003117	Param Inter 1 of 2
Ammonia as N (mg/L)	MW-3	7.687	n/a	10/8/2024	0.5065	No	35	5.714	No	0.0003117	Param Inter 1 of 2
Ammonia as N (mg/L)	MW-5	7.687	n/a	10/8/2024	0.897	No	35	5.714	No	0.0003117	Param Inter 1 of 2
Antimony (mg/L)	MW-5	0.003093	n/a	10/8/2024	0.00241	No	17	64.71	No	0.0003117	Param Inter 1 of 2
Arsenic (mg/L)	MW-1R	0.1506	n/a	10/8/2024	0.0861	No	16	0	No	0.0003117	Param Inter 1 of 2
Arsenic (mg/L)	MW-3	0.1506	n/a	10/8/2024	0.00483	No	16	0	No	0.0003117	Param Inter 1 of 2
Arsenic (mg/L)	MW-5	0.1506	n/a	10/8/2024	0.0472	No	16	0	No	0.0003117	Param Inter 1 of 2
Barium (mg/L)	MW-1R	1.274	n/a	10/8/2024	0.0912	No	17	0	No	0.0003117	Param Inter 1 of 2
Barium (mg/L)	MW-3	1.274	n/a	10/8/2024	0.169	No	17	0	No	0.0003117	Param Inter 1 of 2
Barium (mg/L)	MW-5	1.274	n/a	10/8/2024	0.0602	No	17	0	No	0.0003117	Param Inter 1 of 2
Cadmium (mg/L)	MW-1R	0.0003216	n/a	10/8/2024	0.00031	No	17	76.47	No	0.0003117	Param Inter 1 of 2
Cadmium (mg/L)	MW-3	0.0003216	n/a	10/8/2024	0.0002805	No	17	76.47	No	0.0003117	Param Inter 1 of 2
Cadmium (mg/L)	MW-5	0.0003216	n/a	10/8/2024	0.0003	No	17	76.47	No	0.0003117	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-1R	185.7	n/a	10/8/2024	38.1	No	35	0	No	0.0003117	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-3	185.7	n/a	10/8/2024	39.75	No	35	0	No	0.0003117	Param Inter 1 of 2
Chemical Oxygen Demand (mg/L)	MW-5	185.7	n/a	10/8/2024	96.4	No	35	0	No	0.0003117	Param Inter 1 of 2
Chloride (mg/L)	**MW-1R**	**131.3**	**n/a**	**10/8/2024**	**169**	**Yes**	**35**	**0**	**No**	**0.0003117**	**Param Inter 1 of 2**
Chloride (mg/L)	MW-3	131.3	n/a	10/8/2024	48.6	No	35	0	No	0.0003117	Param Inter 1 of 2
Chloride (mg/L)	MW-5	131.3	n/a	10/8/2024	39	No	35	0	No	0.0003117	Param Inter 1 of 2
Cobalt (mg/L)	MW-1R	0.007134	n/a	10/8/2024	0.00364	No	17	5.882	No	0.0003117	Param Inter 1 of 2
Cobalt (mg/L)	**MW-3**	**0.007134**	**n/a**	**10/8/2024**	**0.01165**	**Yes**	**17**	**5.882**	**No**	**0.0003117**	**Param Inter 1 of 2**
Cobalt (mg/L)	MW-5	0.007134	n/a	10/8/2024	0.00175	No	17	5.882	No	0.0003117	Param Inter 1 of 2
Copper (mg/L)	MW-5	0.008816	n/a	10/8/2024	0.00539	No	17	70.59	No	0.0003117	Param Inter 1 of 2
Iron, Dissolved (mg/L)	MW-1R	81.6	n/a	10/8/2024	24.59	No	35	2.857	No	0.0003117	Param Inter 1 of 2
Iron, Dissolved (mg/L)	MW-3	81.6	n/a	10/8/2024	1.272J	No	35	2.857	No	0.0003117	Param Inter 1 of 2
Iron, Dissolved (mg/L)	MW-5	81.6	n/a	10/8/2024	7.148J	No	35	2.857	No	0.0003117	Param Inter 1 of 2
Lead (mg/L)	MW-1R	0.01469	n/a	10/8/2024	0.000699	No	17	23.53	No	0.0003117	Param Inter 1 of 2
Lead (mg/L)	MW-3	0.01469	n/a	10/8/2024	0.001064J	No	17	23.53	No	0.0003117	Param Inter 1 of 2
Lead (mg/L)	MW-5	0.01469	n/a	10/8/2024	0.00126	No	17	23.53	No	0.0003117	Param Inter 1 of 2
Nickel (mg/L)	**MW-3**	**0.01833**	**n/a**	**10/8/2024**	**0.02825**	**Yes**	**17**	**11.76**	**No**	**0.0003117**	**Param Inter 1 of 2**
Nickel (mg/L)	MW-5	0.01833	n/a	10/8/2024	0.00694	No	17	11.76	No	0.0003117	Param Inter 1 of 2
pH (S.U.)	MW-1R	7.679	5.946	10/8/2024	6.51	No	35	0	No	0.0001558	Param Inter 1 of 2
pH (S.U.)	MW-3	7.679	5.946	10/8/2024	6.61	No	35	0	No	0.0001558	Param Inter 1 of 2
pH (S.U.)	MW-5	7.679	5.946	10/8/2024	6.57	No	35	0	No	0.0001558	Param Inter 1 of 2
Specific Conductance (umhos/cm)	MW-1R	3826	n/a	10/8/2024	2484	No	34	0	No	0.0003117	Param Inter 1 of 2
Specific Conductance (umhos/cm)	MW-3	3826	n/a	10/8/2024	1938	No	34	0	No	0.0003117	Param Inter 1 of 2
Specific Conductance (umhos/cm)	MW-5	3826	n/a	10/8/2024	1913	No	34	0	No	0.0003117	Param Inter 1 of 2
Total Organic Halogens (mg/L)	**MW-1R**	**0.1872**	**n/a**	**10/8/2024**	**0.314**	**Yes**	**23**	**4.348**	**No**	**0.0003117**	**Param Inter 1 of 2**
Total Organic Halogens (mg/L)	MW-3	0.1872	n/a	10/8/2024	0.1395	No	23	4.348	No	0.0003117	Param Inter 1 of 2
Total Organic Halogens (mg/L)	MW-5	0.1872	n/a	10/8/2024	0.185	No	23	4.348	No	0.0003117	Param Inter 1 of 2
Zinc (mg/L)	MW-5	0.1819	n/a	10/8/2024	0.119	No	17	17.65	No	0.0003117	Param Inter 1 of 2

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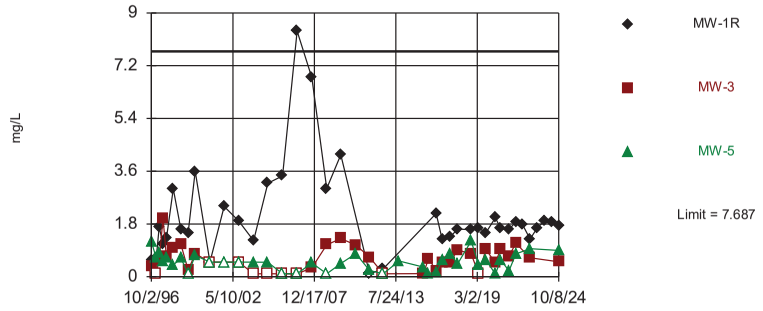
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=3.909, Std. Dev.=1.889, n=35, 5.714% NDs. Normality test was disabled.
Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Ammonia as N Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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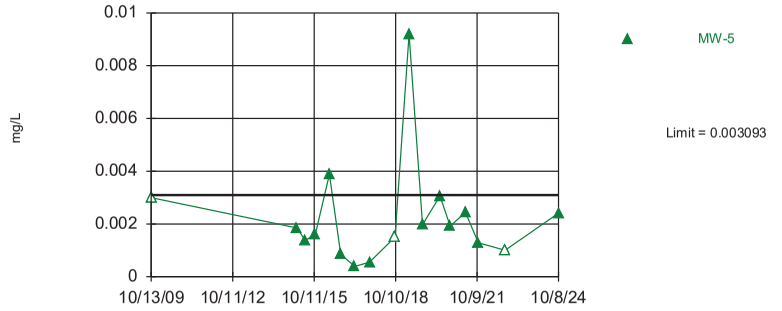
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.001149, Std. Dev.=0.000972, n=17, 64.71% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Antimony Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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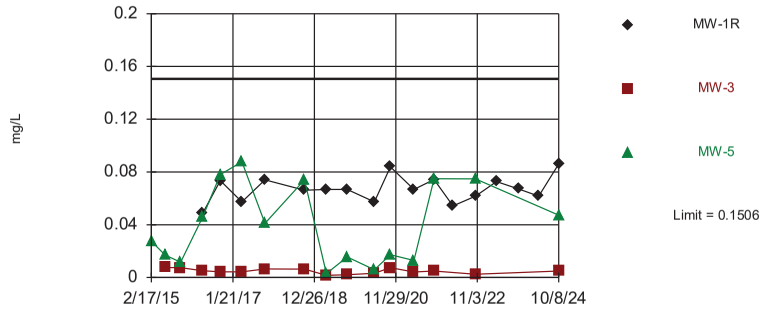
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.04373, Std. Dev.=0.05341, n=16. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Arsenic Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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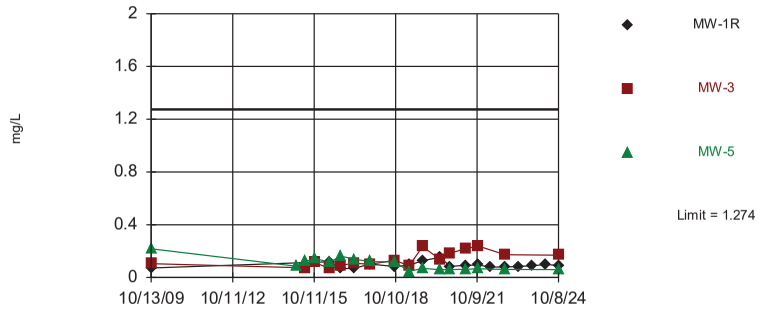
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.8181, Std. Dev.=0.2281, n=17. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Barium Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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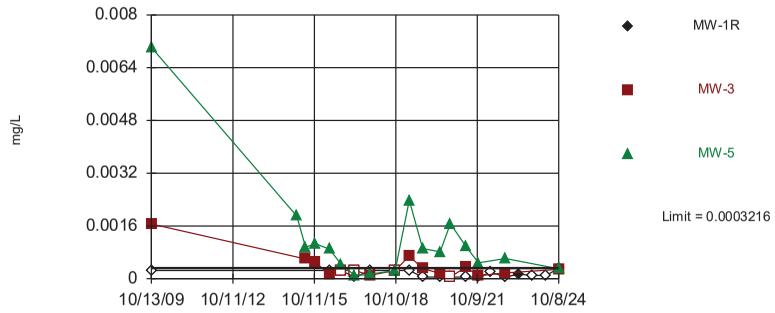
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.0001466, Std. Dev.=0.0000875, n=17, 76.47% NDs (user selected parametric test despite non-detects). Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Cadmium Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
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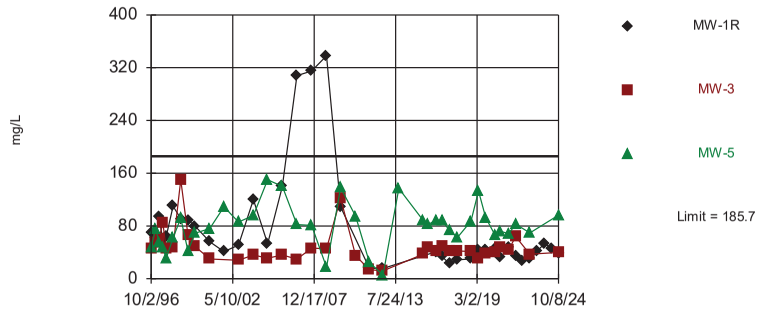
Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=106.1, Std. Dev.=39.8, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Lim
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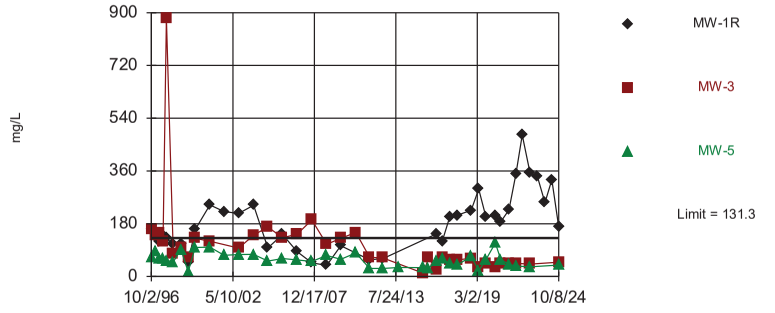
Exceeds Limit: MW-1R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=70.79, Std. Dev.=30.24, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Chloride Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
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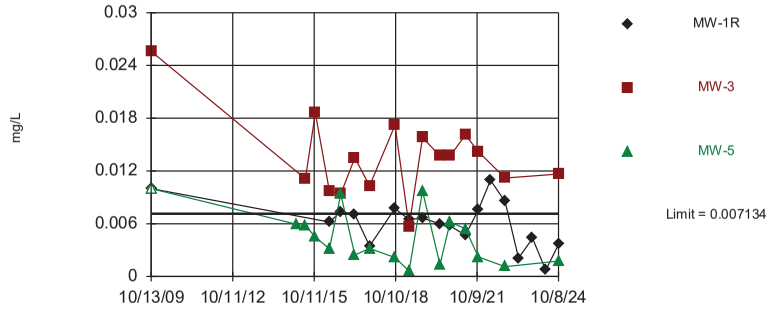
Exceeds Limit: MW-3

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.002845, Std. Dev.=0.002145, n=17, 5.882% NDs. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Cobalt Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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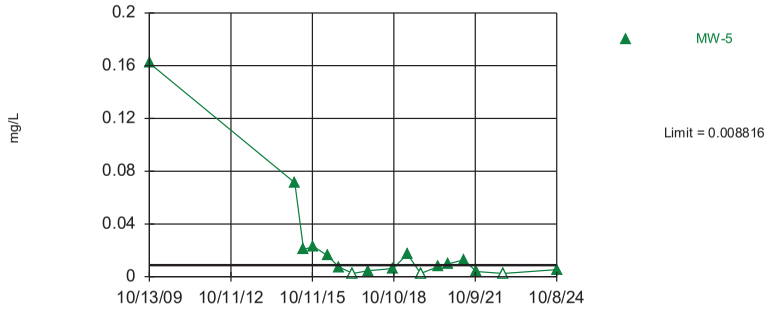
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.003487, Std. Dev.=0.002664, n=17, 70.59% NDs (user selected parametric test despite non-detects). Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Copper Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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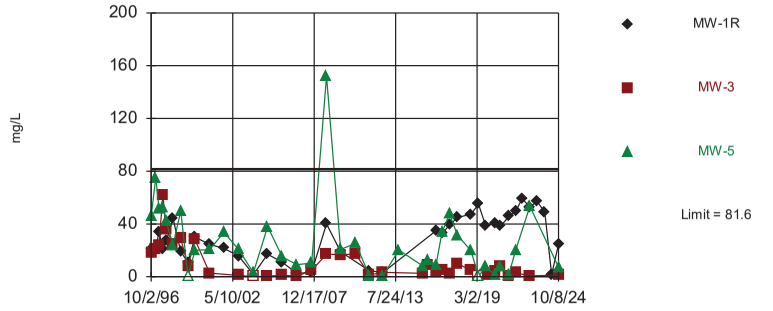
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=26.82, Std. Dev.=27.39, n=35, 2.857% NDs. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Iron, Dissolved Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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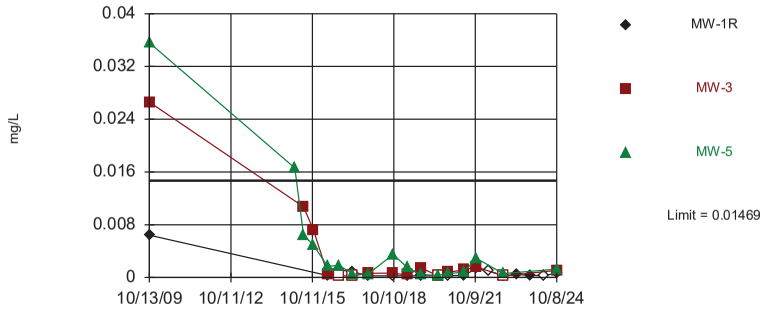
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.003893, Std. Dev.=0.005399, n=17, 23.53% NDs. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Lead Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

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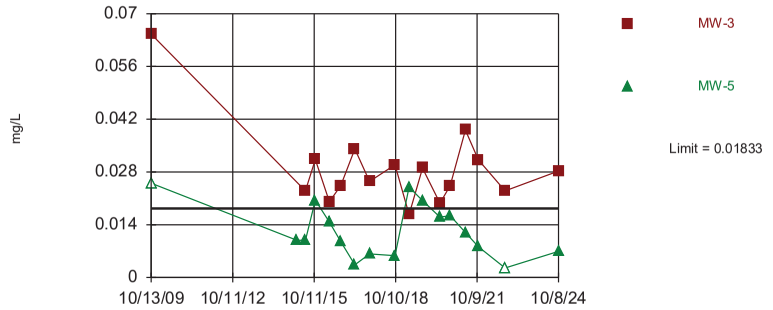
Hollow symbols indicate censored values.

Exceeds Limit: MW-3

Prediction Limit

Interwell Parametric



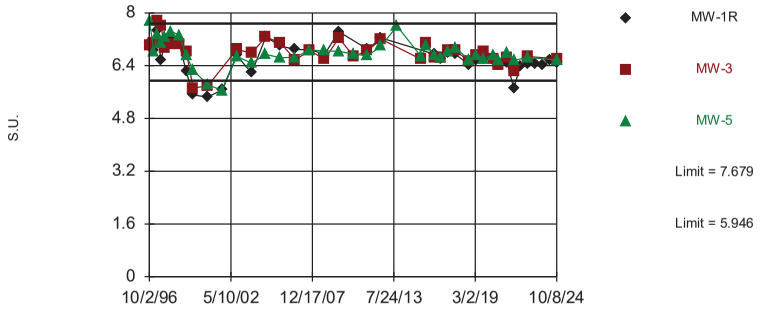
Background Data Summary: Mean=0.005694, Std. Dev.=0.006316, n=17, 11.76% NDs. Normality test was disabled. Comparing 2 points to limit. Assumes 11 future values. Kappa overridden to 2.

Constituent: Nickel Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limits

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=6.813, Std. Dev.=0.4331, n=35. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

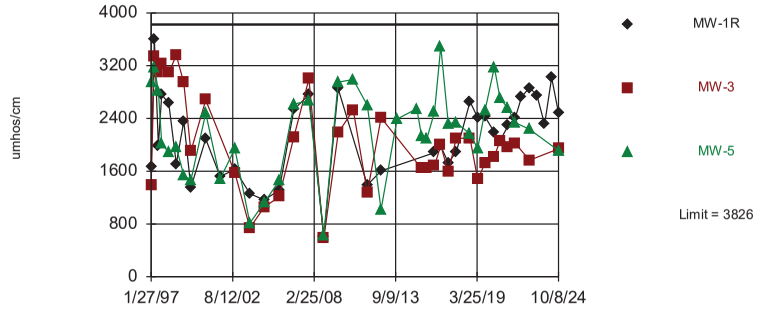
Constituent: pH Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=2199, Std. Dev.=813.2, n=34. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

Constituent: Specific Conductance Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-F

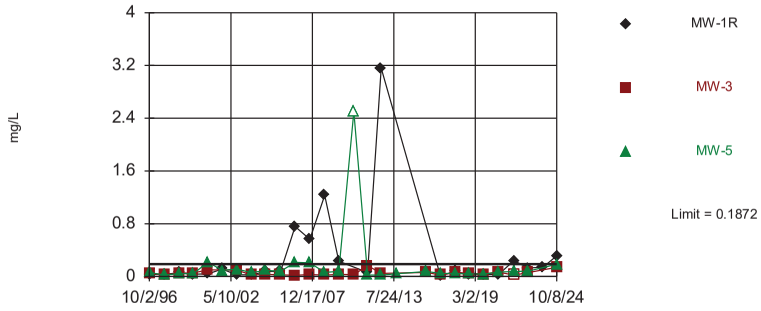
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Hollow symbols indicate censored values.

Exceeds Limit: MW-1R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.05754, Std. Dev.=0.06483, n=23, 4.348% NDs. Normality test was disabled. Comparing 3 points to limit. Assumes 10 future values. Kappa overridden to 2.

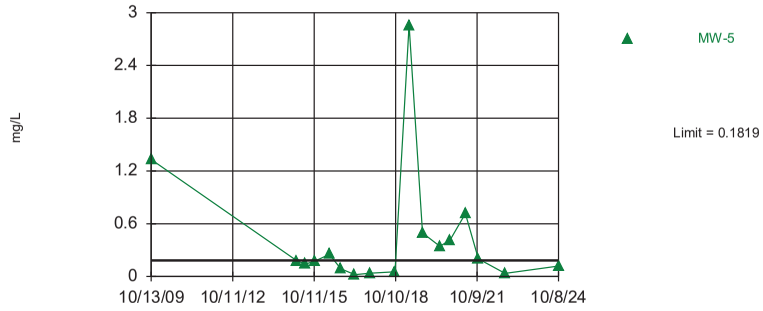
Constituent: Total Organic Halogens Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.06307, Std. Dev.=0.05943, n=17, 17.65% NDs. Normality test was disabled. Assumes 12 future values. Kappa overridden to 2.

Constituent: Zinc Analysis Run 11/15/2024 4:23 PM View: 2024AWQR-Control_Limits-Fall

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL Sanitas

Trend Test

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM Printed 11/15/2024, 5:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Ammonia as N (mg/L)	MW-1R	0.03301	6	21	No	8	0	0.01	NP
Ammonia as N (mg/L)	MW-3	0.04867	4	21	No	8	12.5	0.01	NP
Ammonia as N (mg/L)	**MW-4 (bg)**	**0.6849**	**22**	**21**	**Yes**	**8**	**12.5**	**0.01**	**NP**
Ammonia as N (mg/L)	MW-5	0.1259	14	21	No	8	0	0.01	NP
Ammonia as N (mg/L)	MW-6 (bg)	0.5244	14	21	No	8	0	0.01	NP
Ammonia as N (mg/L)	MW-7R2 (bg)	-0.3267	-8	-21	No	8	0	0.01	NP
Antimony (mg/L)	MW-5	-0.0005331	-14	-21	No	8	12.5	0.01	NP
Antimony (mg/L)	MW-7R2 (bg)	0	-7	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-1R	0.003391	6	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-3	0.0007774	12	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-4 (bg)	0.007939	14	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-5	0.009419	16	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-6 (bg)	0.009131	18	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-7R2 (bg)	0.02236	14	21	No	8	0	0.01	NP
Barium (mg/L)	MW-1R	0.002209	6	21	No	8	0	0.01	NP
Barium (mg/L)	MW-3	0.01106	4	21	No	8	0	0.01	NP
Barium (mg/L)	MW-4 (bg)	0.03951	20	21	No	8	0	0.01	NP
Barium (mg/L)	MW-5	0.0006394	6	21	No	8	0	0.01	NP
Barium (mg/L)	MW-6 (bg)	0.1703	12	21	No	8	0	0.01	NP
Barium (mg/L)	MW-7R2 (bg)	-0.1019	-10	-21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-1R	0.00002921	12	21	No	8	75	0.01	NP
Cadmium (mg/L)	MW-3	-0.00004773	-6	-21	No	8	12.5	0.01	NP
Cadmium (mg/L)	MW-5	-0.0002256	-18	-21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-1R	3.106	4	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-3	2.678	8	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-4 (bg)	0.25	2	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-5	-2.907	-2	-21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-6 (bg)	21.11	14	21	No	8	0	0.01	NP
Chemical Oxygen Demand (mg/L)	MW-7R2 (bg)	-13.27	-16	-21	No	8	0	0.01	NP
Chloride (mg/L)	MW-1R	-19.04	-10	-21	No	8	0	0.01	NP
Chloride (mg/L)	MW-3	1.282	14	21	No	8	0	0.01	NP
Chloride (mg/L)	**MW-4 (bg)**	**44.23**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Chloride (mg/L)	MW-5	-4.147	-6	-21	No	8	0	0.01	NP
Chloride (mg/L)	**MW-6 (bg)**	**19.86**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Chloride (mg/L)	**MW-7R2 (bg)**	**-11.72**	**-22**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cobalt (mg/L)	MW-1R	-0.001361	-12	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-3	-0.0002347	-1	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-5	-0.000616	-4	-21	No	8	0	0.01	NP
Cobalt (mg/L)	**MW-6 (bg)**	**0.0005396**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cobalt (mg/L)	MW-7R2 (bg)	0.0006345	12	21	No	8	0	0.01	NP
Copper (mg/L)	MW-5	-0.001755	-7	-21	No	8	25	0.01	NP
Copper (mg/L)	MW-7R2 (bg)	-0.00007288	-3	-21	No	8	50	0.01	NP
Iron, Dissolved (mg/L)	MW-1R	-6.313	-8	-21	No	8	0	0.01	NP
Iron, Dissolved (mg/L)	MW-3	0.06839	2	21	No	8	12.5	0.01	NP
Iron, Dissolved (mg/L)	MW-4 (bg)	6.251	16	21	No	8	12.5	0.01	NP
Iron, Dissolved (mg/L)	MW-5	3.417	14	21	No	8	12.5	0.01	NP
Iron, Dissolved (mg/L)	MW-6 (bg)	2.864	4	21	No	8	0	0.01	NP
Iron, Dissolved (mg/L)	MW-7R2 (bg)	4.23	2	21	No	8	12.5	0.01	NP
Lead (mg/L)	MW-1R	-0.0000888	-5	-21	No	8	37.5	0.01	NP
Lead (mg/L)	MW-3	0.000062	3	21	No	8	25	0.01	NP

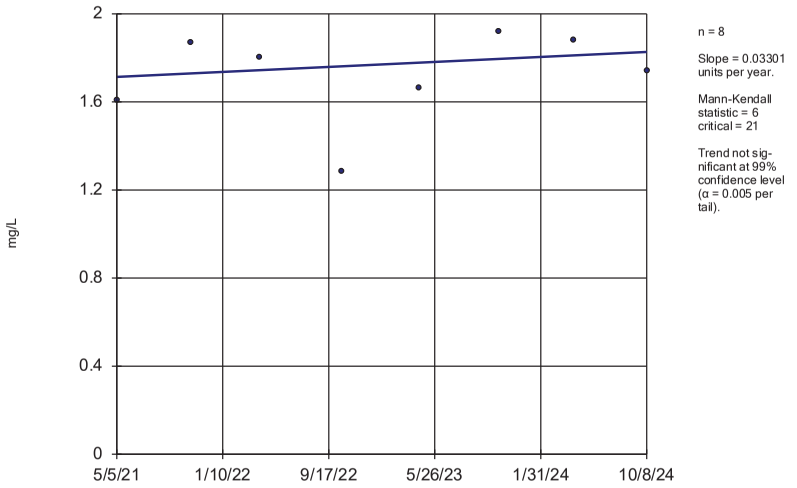
Trend Test

Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM Printed 11/15/2024, 5:32 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Lead (mg/L)	MW-4 (bg)	0	-5	-21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-5	0.0001337	8	21	No	8	0	0.01	NP
Lead (mg/L)	MW-6 (bg)	-0.00008533	-14	-21	No	8	75	0.01	NP
Lead (mg/L)	MW-7R2 (bg)	-0.0001523	-2	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-1R	-0.002805	-20	-21	No	8	12.5	0.01	NP
Nickel (mg/L)	MW-3	0.00187	8	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-4 (bg)	0	1	21	No	8	75	0.01	NP
Nickel (mg/L)	**MW-5**	**-0.005698**	**-24**	**-21**	**Yes**	**8**	**12.5**	**0.01**	**NP**
Nickel (mg/L)	MW-7R2 (bg)	0.001023	8	21	No	8	0	0.01	NP
pH (S.U.)	MW-1R	0.04229	9	21	No	8	0	0.01	NP
pH (S.U.)	MW-3	-0.03464	-8	-21	No	8	0	0.01	NP
pH (S.U.)	MW-4 (bg)	-0.05697	-18	-21	No	8	0	0.01	NP
pH (S.U.)	MW-5	-0.01822	-5	-21	No	8	0	0.01	NP
pH (S.U.)	MW-6 (bg)	-0.04908	-12	-21	No	8	0	0.01	NP
pH (S.U.)	MW-7R2 (bg)	-0.02531	-14	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-1R	121.7	10	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-3	85.94	10	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-4 (bg)	392.2	20	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-5	-132.1	-10	-21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-6 (bg)	280	14	21	No	8	0	0.01	NP
Specific Conductance (umhos/cm)	MW-7R2 (bg)	-308.4	-14	-21	No	8	0	0.01	NP
Thallium (mg/L)	MW-1R	0	2	21	No	8	75	0.01	NP
Thallium (mg/L)	MW-4 (bg)	0	9	21	No	8	75	0.01	NP
Total Organic Halogens (mg/L)	MW-1R	0.02677	16	21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	MW-3	0.006465	8	21	No	8	12.5	0.01	NP
Total Organic Halogens (mg/L)	MW-4 (bg)	0.007521	12	21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	MW-5	0.009008	16	21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	MW-6 (bg)	0.02713	18	21	No	8	0	0.01	NP
Total Organic Halogens (mg/L)	**MW-7R2 (bg)**	**0.02287**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
Total Phenols (mg/L)	MW-1R	0.00008257	6	21	No	8	75	0.01	NP
Total Phenols (mg/L)	MW-3	0.00009952	9	21	No	8	87.5	0.01	NP
Total Phenols (mg/L)	MW-6 (bg)	0.0001493	14	21	No	8	75	0.01	NP
Zinc (mg/L)	MW-3	-0.005716	-20	-21	No	8	0	0.01	NP
Zinc (mg/L)	MW-5	-0.159	-18	-21	No	8	0	0.01	NP
Zinc (mg/L)	MW-7R2 (bg)	-0.02069	-10	-21	No	8	12.5	0.01	NP

Sen's Slope Estimator

MW-1R

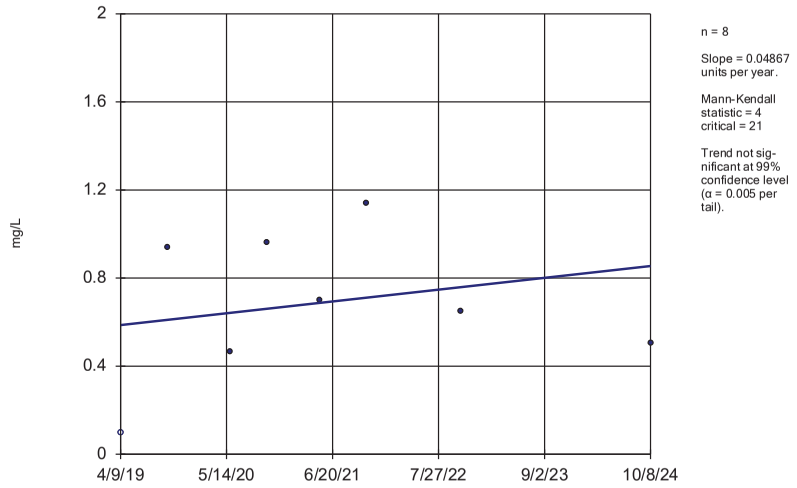


Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

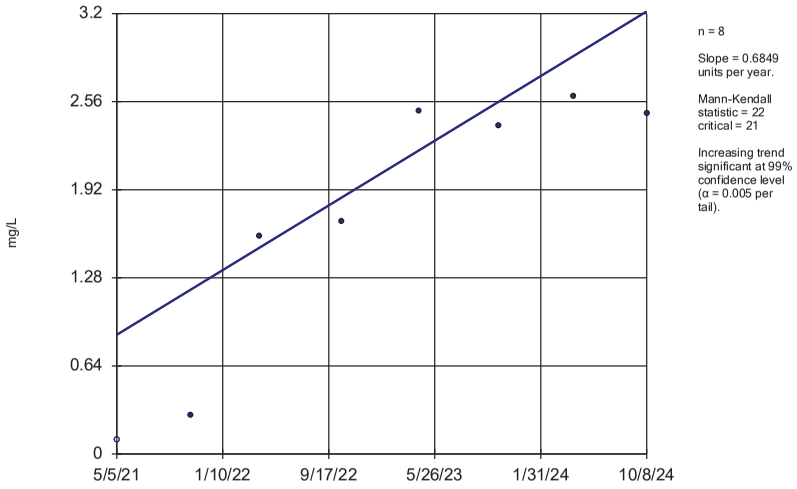


Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

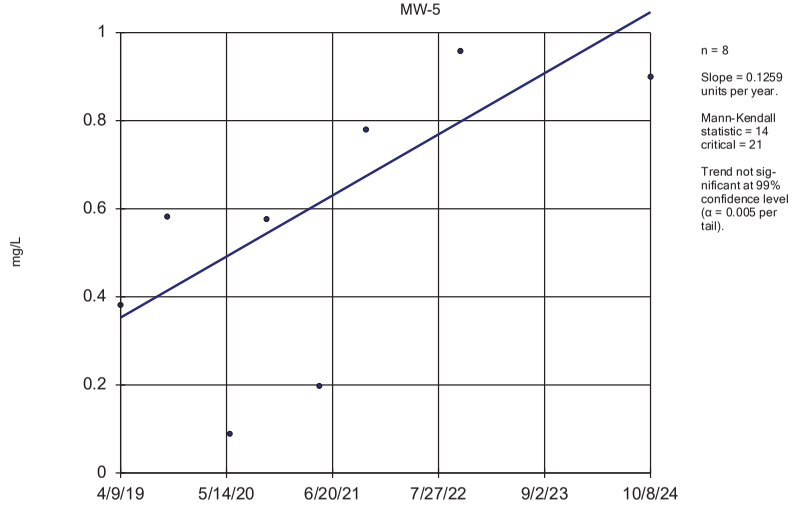
MW-4 (bg)



Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

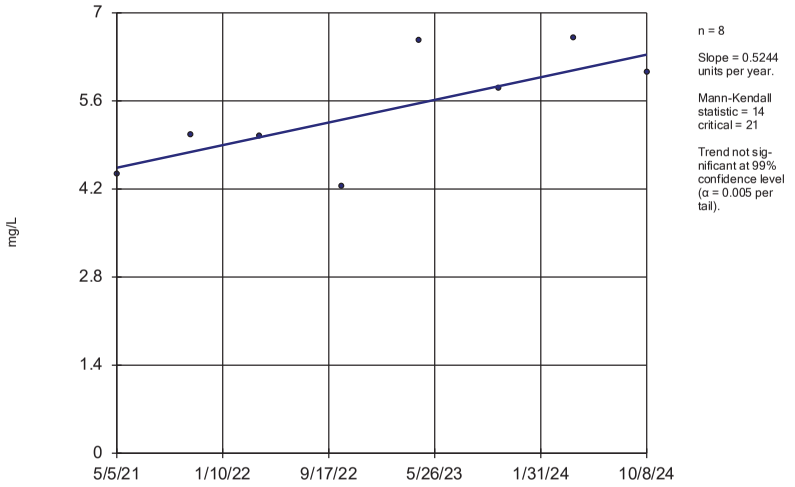
MW-5



Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-6 (bg)



n = 8

Slope = 0.5244 units per year.

Mann-Kendall statistic = 14
critical = 21

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

Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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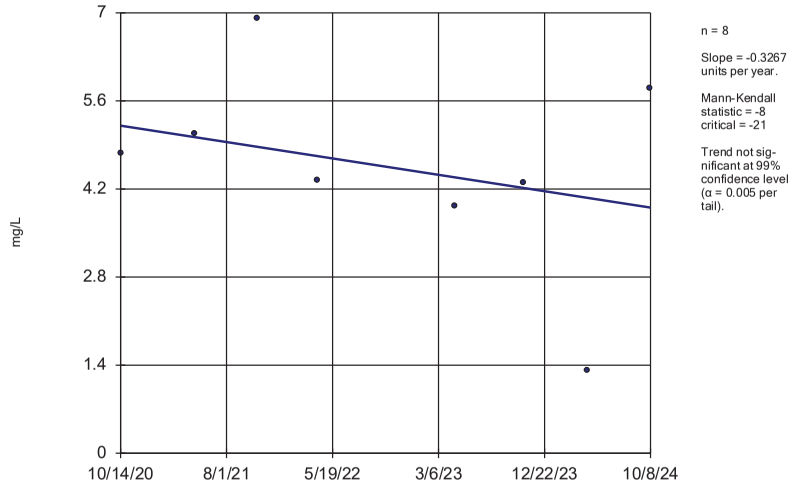
Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = -0.3267 units per year.

Mann-Kendall statistic = -8
critical = -21

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

Constituent: Ammonia as N Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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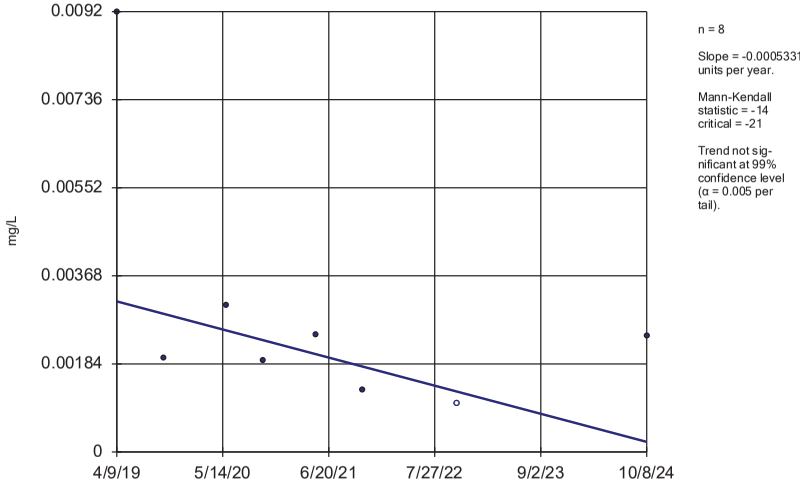
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 8

Slope = -0.0005331 units per year.

Mann-Kendall statistic = -14
critical = -21

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

Constituent: Antimony Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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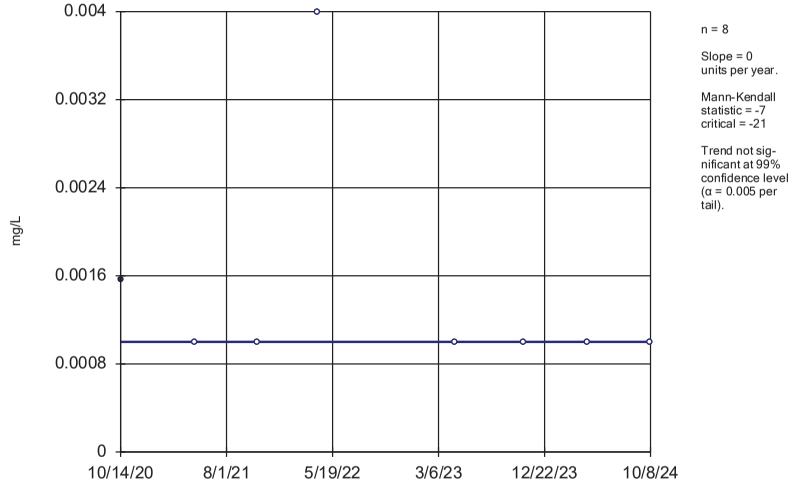
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = 0 units per year.

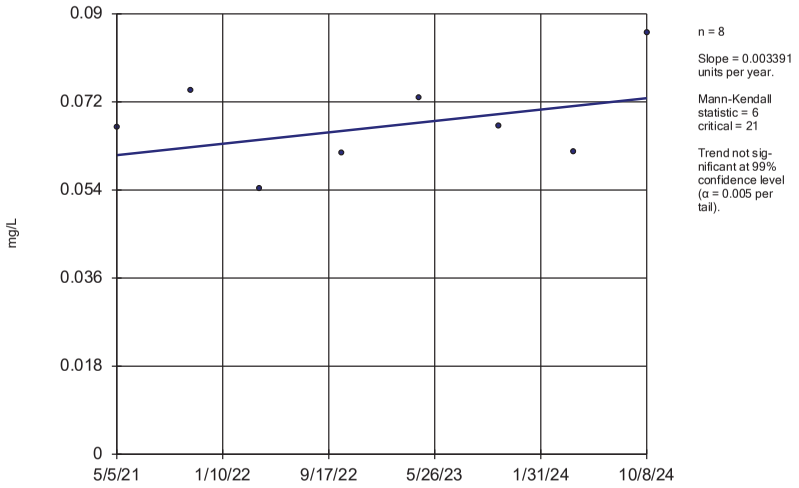
Mann-Kendall statistic = -7
critical = -21

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

Constituent: Antimony Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-1R



Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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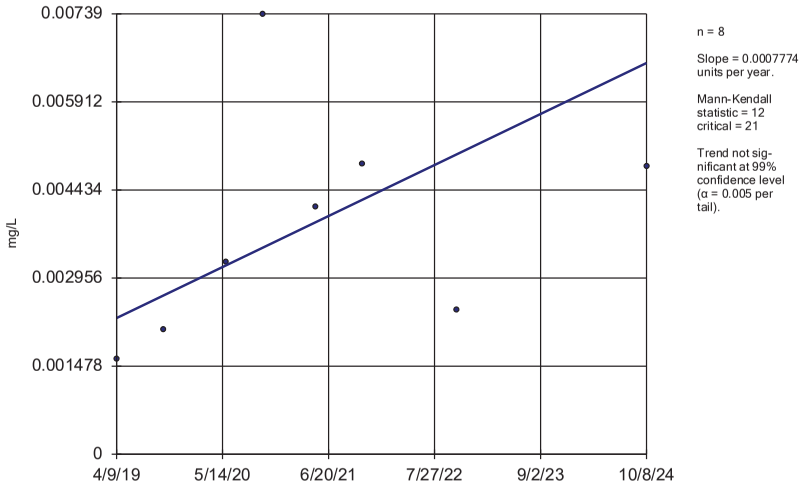
Sen's Slope Estimator

MW-3



Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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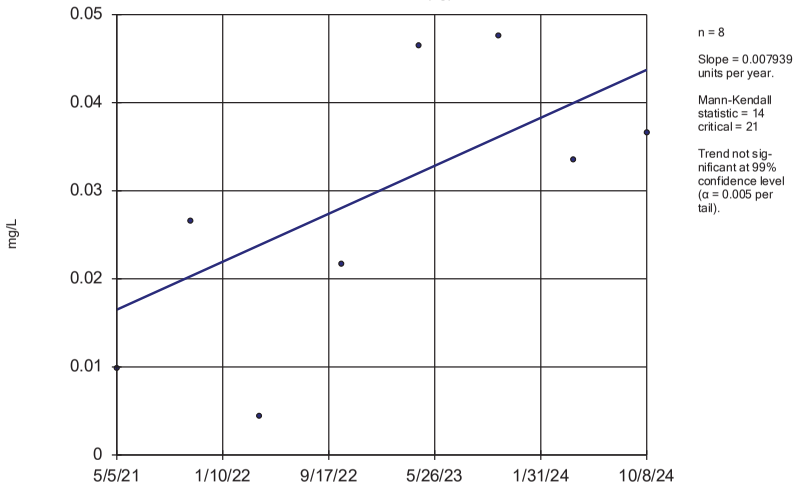
Sen's Slope Estimator

MW-4 (bg)



Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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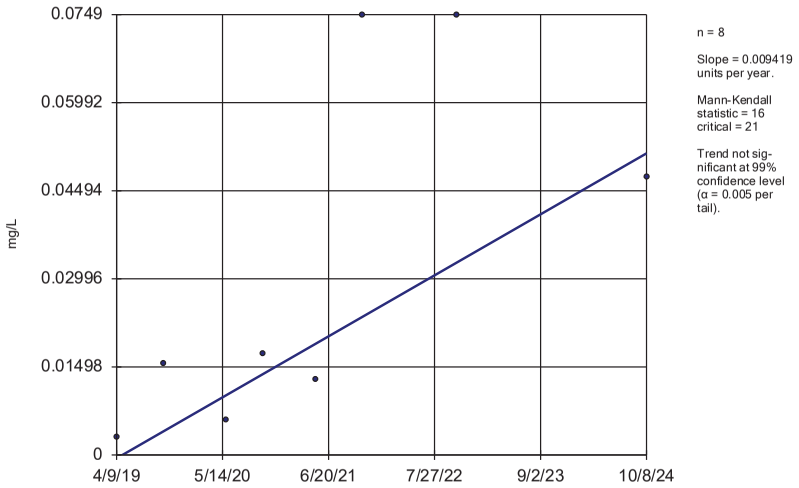
Sen's Slope Estimator

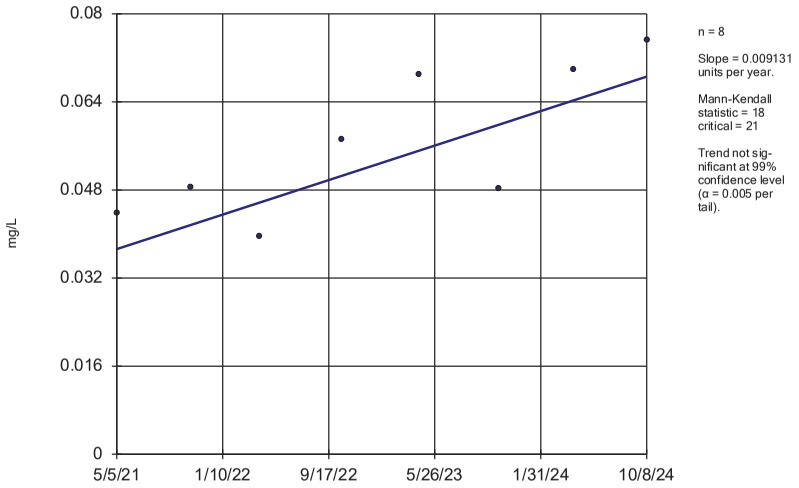
MW-5



Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-6 (bg)



n = 8

Slope = 0.009131 units per year.

Mann-Kendall statistic = 18
critical = 21

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

Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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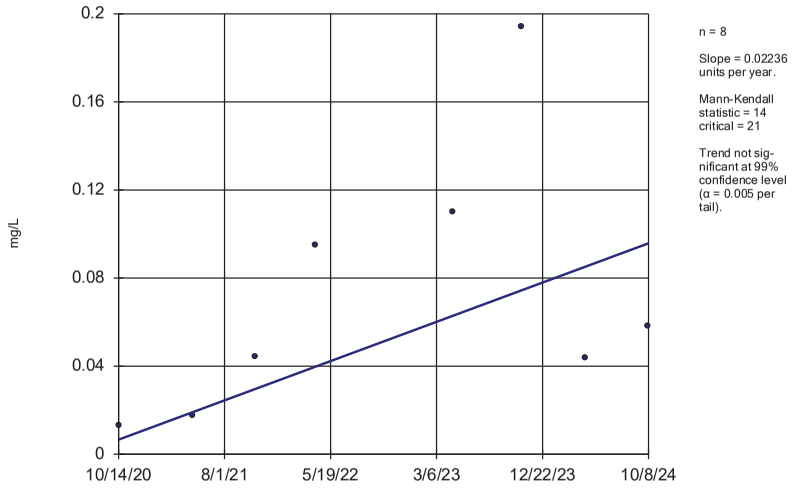
Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = 0.02236 units per year.

Mann-Kendall statistic = 14
critical = 21

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

Constituent: Arsenic Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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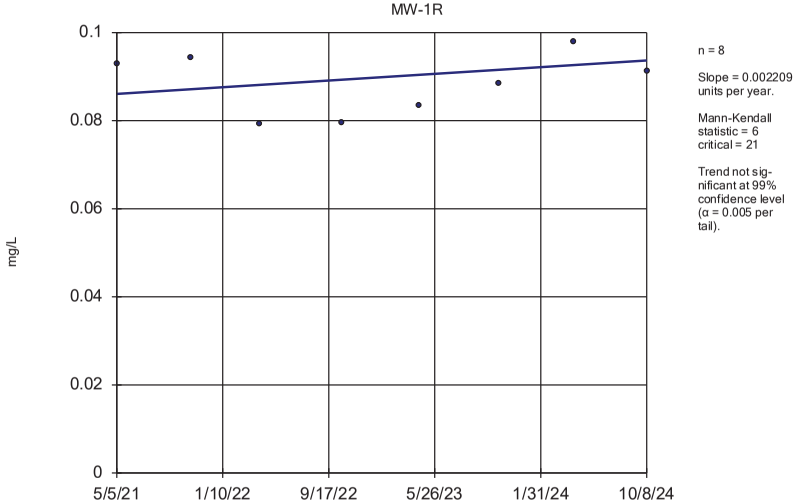
Sen's Slope Estimator

MW-1R



n = 8

Slope = 0.002209 units per year.

Mann-Kendall statistic = 6
critical = 21

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

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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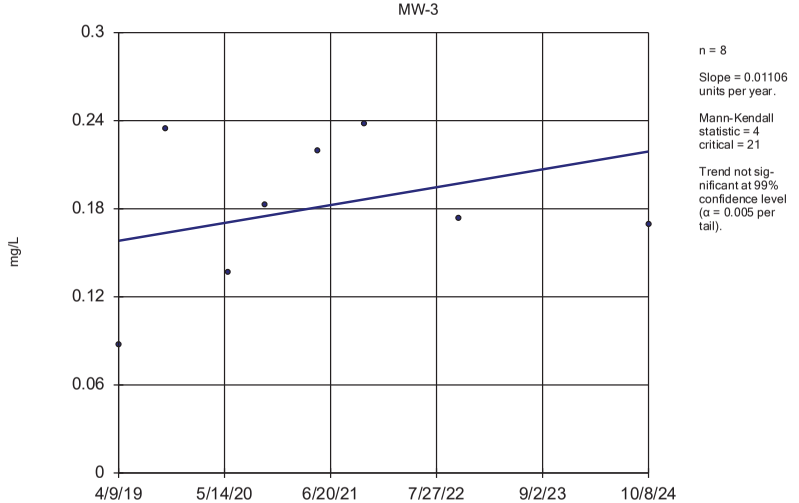
Sen's Slope Estimator

MW-3



n = 8

Slope = 0.01106 units per year.

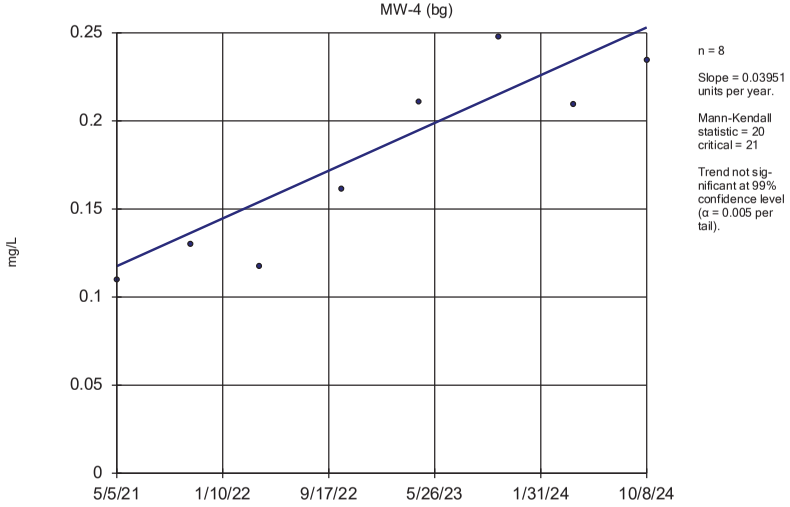
Mann-Kendall statistic = 4
critical = 21

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

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-4 (bg)



n = 8

Slope = 0.03951 units per year.

Mann-Kendall statistic = 20
critical = 21

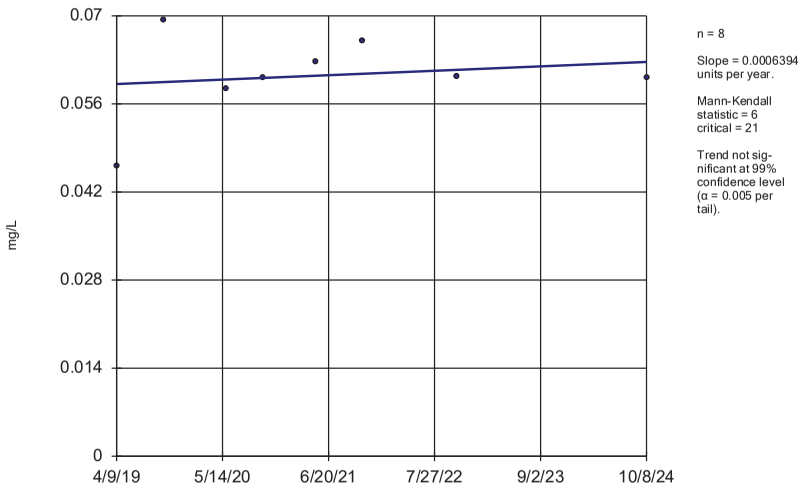
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5



n = 8

Slope = 0.0006394 units per year.

Mann-Kendall statistic = 6
critical = 21

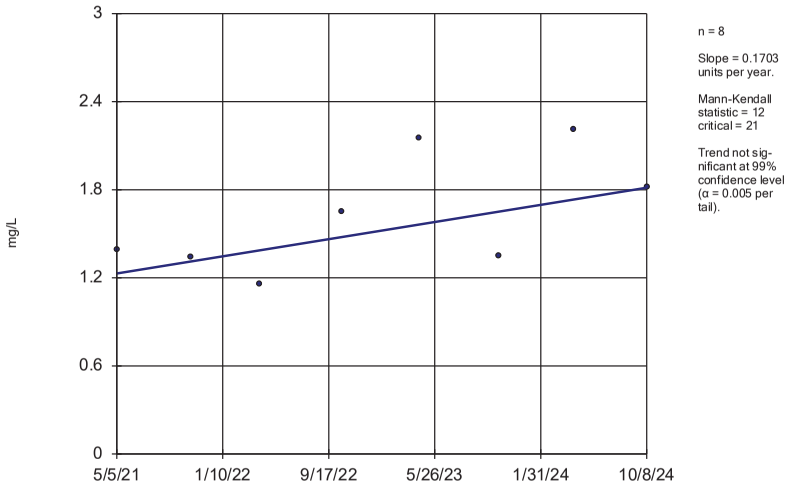
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-6 (bg)



n = 8

Slope = 0.1703 units per year.

Mann-Kendall statistic = 12
critical = 21

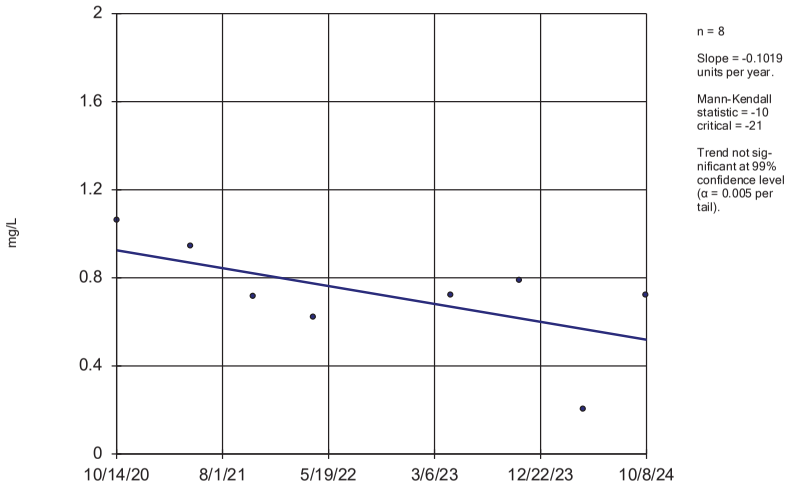
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = -0.1019 units per year.

Mann-Kendall statistic = -10
critical = -21

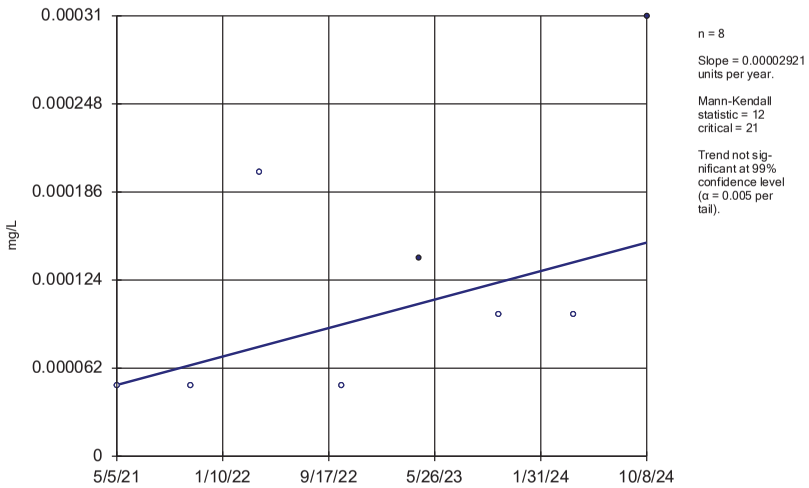
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1R

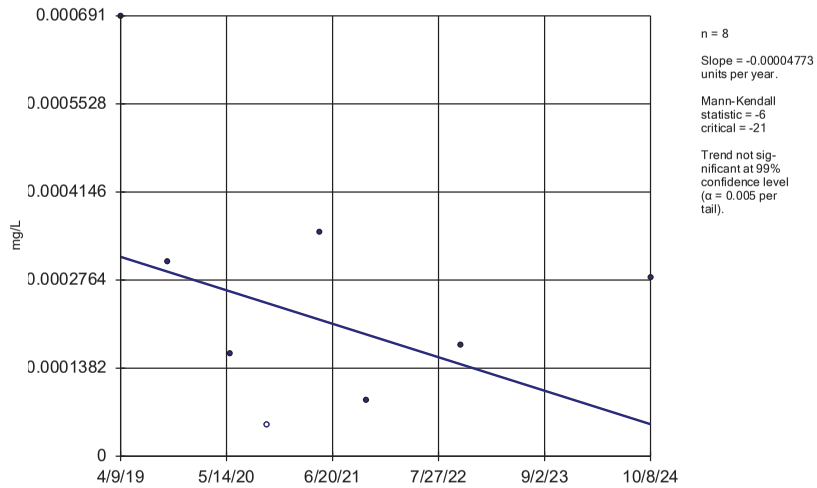


Constituent: Cadmium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

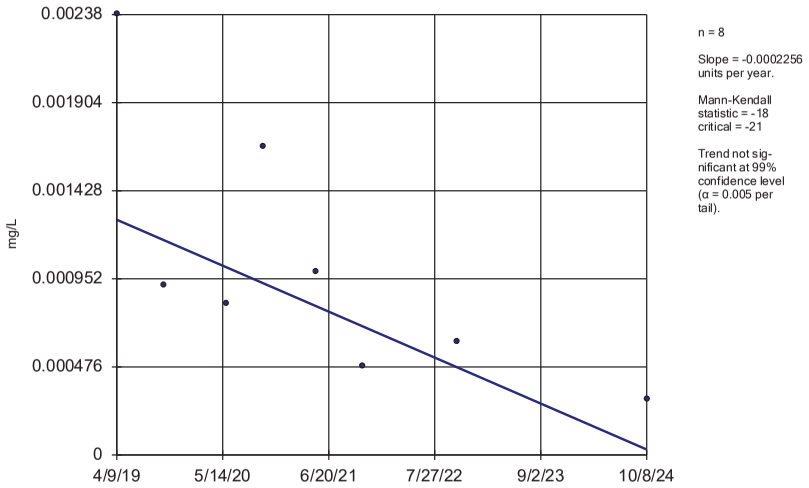


Constituent: Cadmium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5

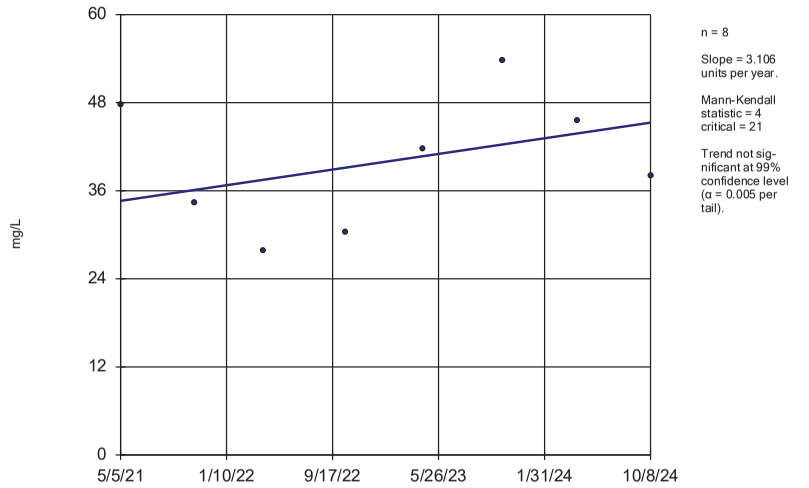


Constituent: Cadmium Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

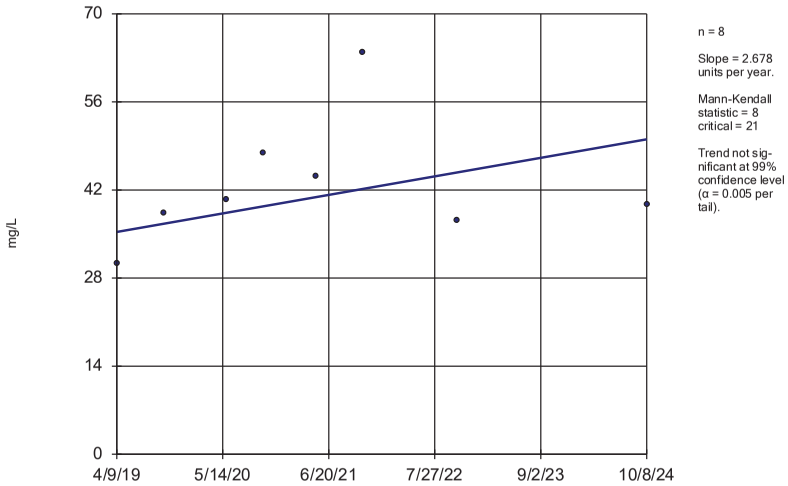
MW-1R



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

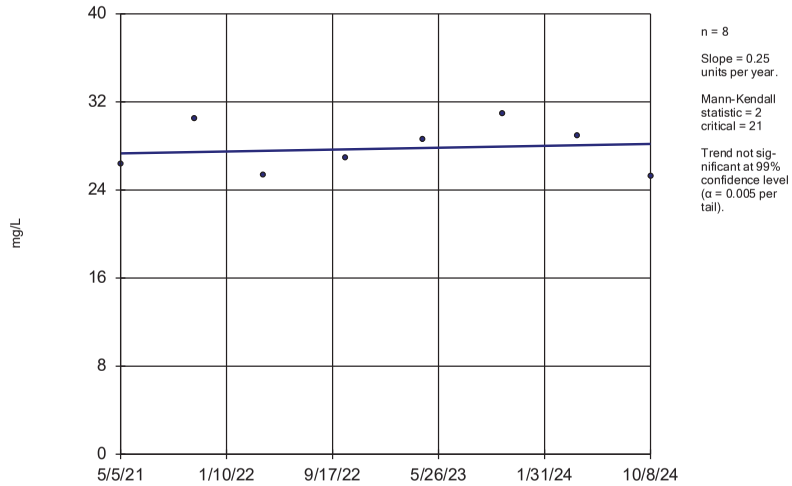
MW-3



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

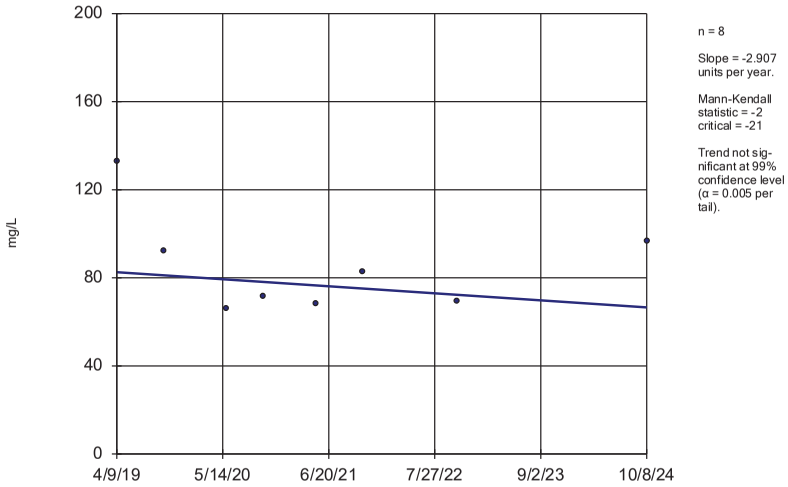
MW-4 (bg)



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

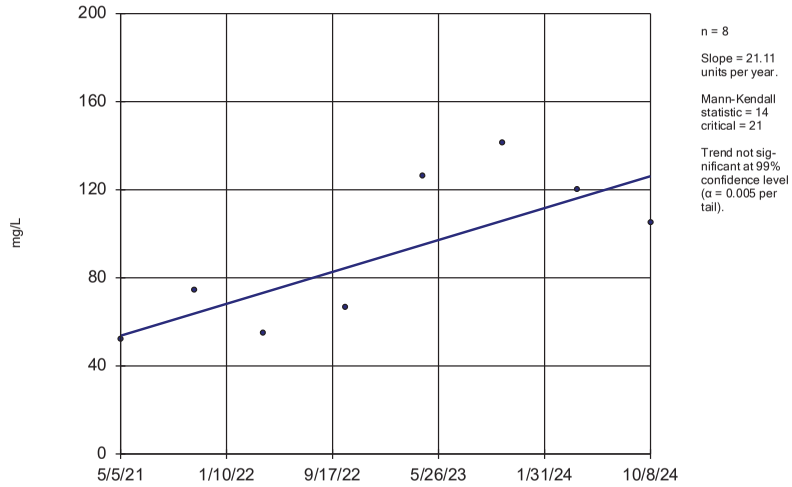
MW-5



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

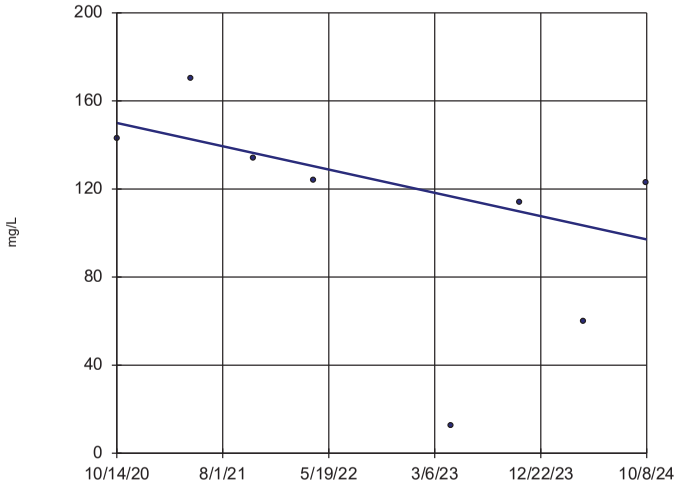
MW-6 (bg)



Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:28 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = -13.27 units per year.

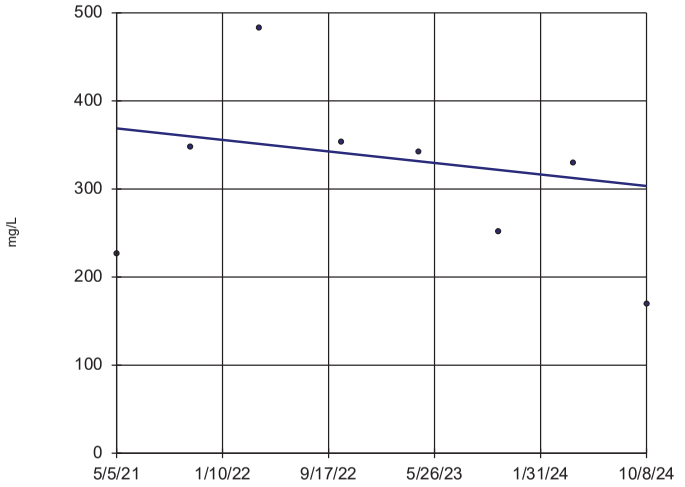
Mann-Kendall statistic = -16
critical = -21

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

Constituent: Chemical Oxygen Demand Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kend
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-1R



n = 8

Slope = -19.04 units per year.

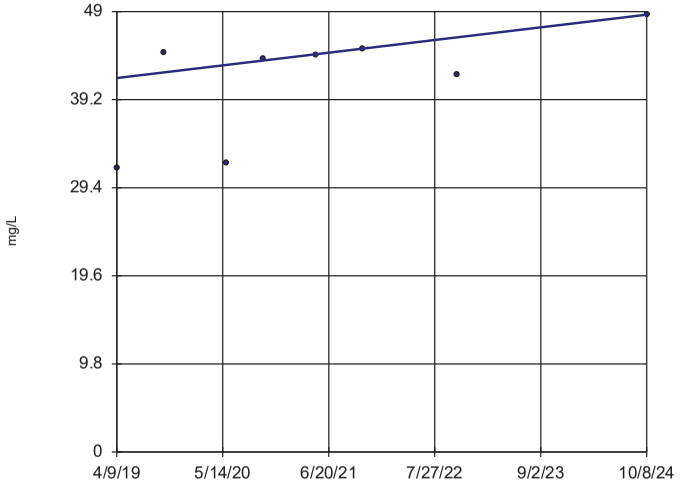
Mann-Kendall statistic = -10
critical = -21

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

Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-3



n = 8

Slope = 1.282 units per year.

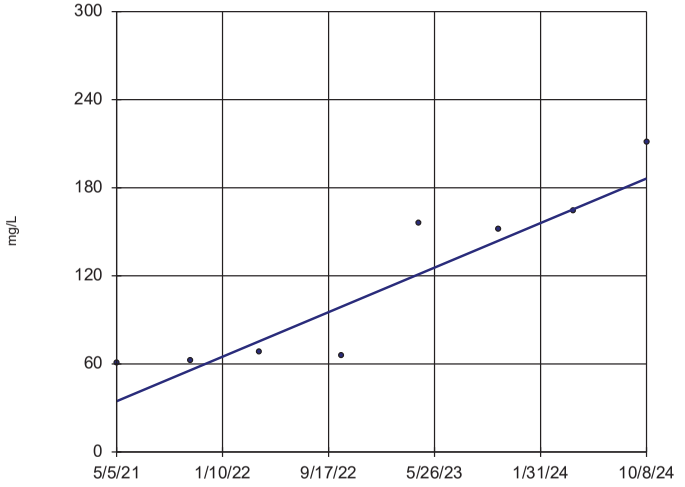
Mann-Kendall statistic = 14
critical = 21

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

Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-4 (bg)



n = 8

Slope = 44.23 units per year.

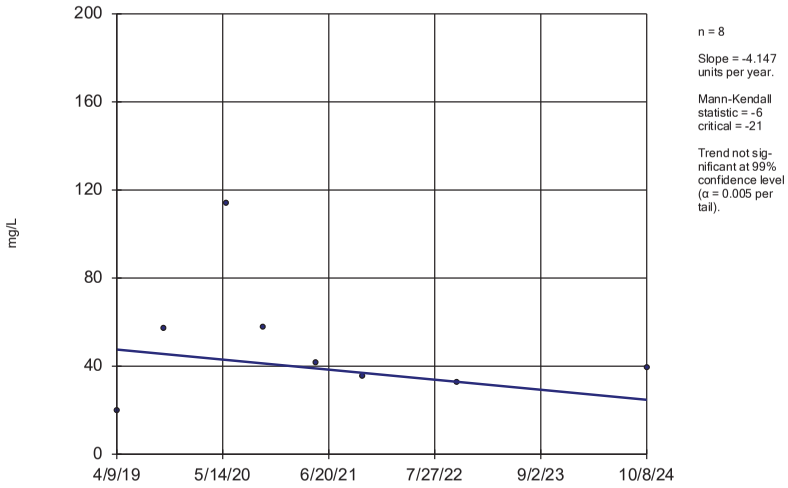
Mann-Kendall statistic = 24
critical = 21

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

Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-5



Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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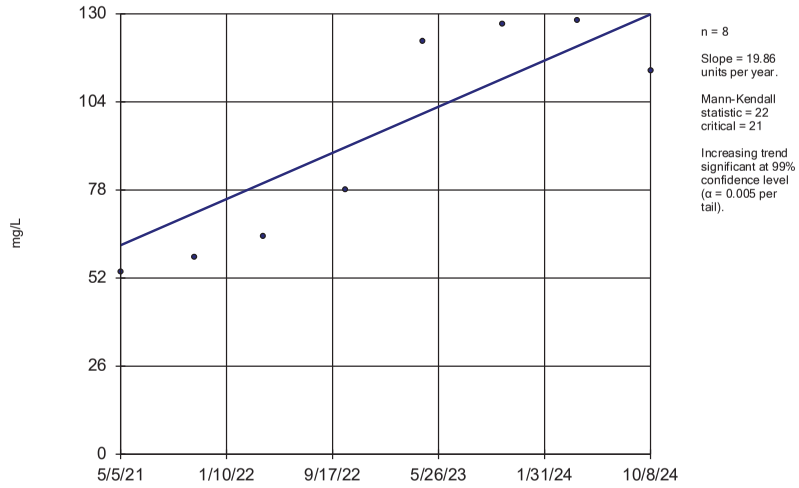
Sen's Slope Estimator

MW-6 (bg)

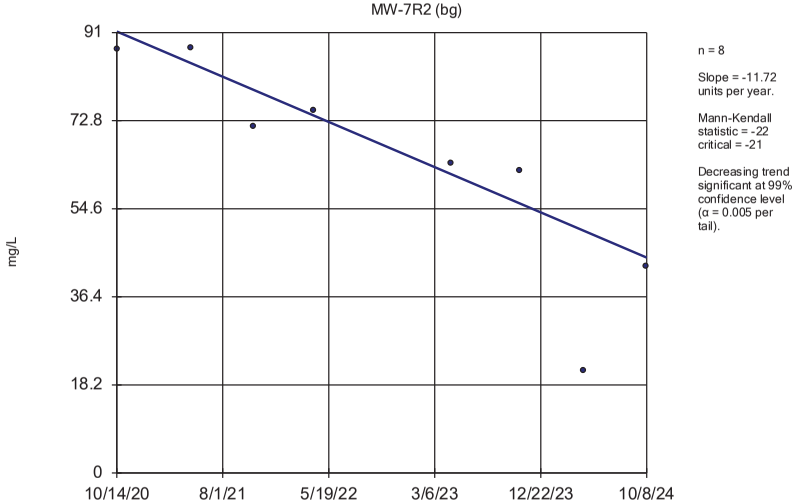


Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)

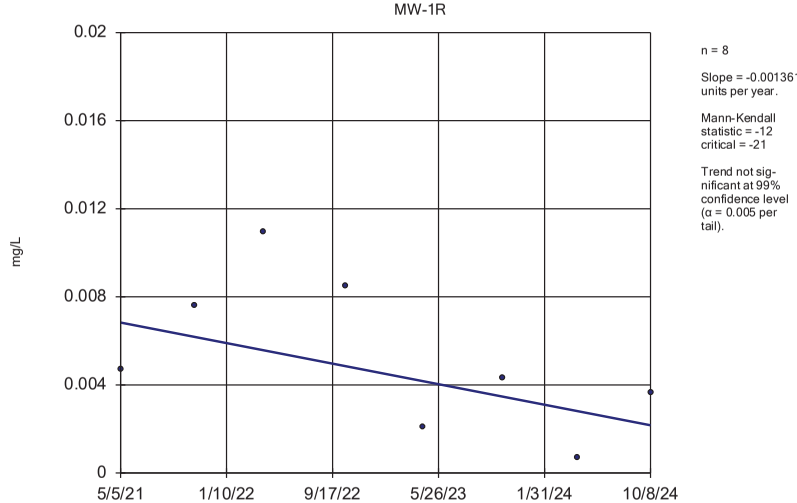


Constituent: Chloride Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

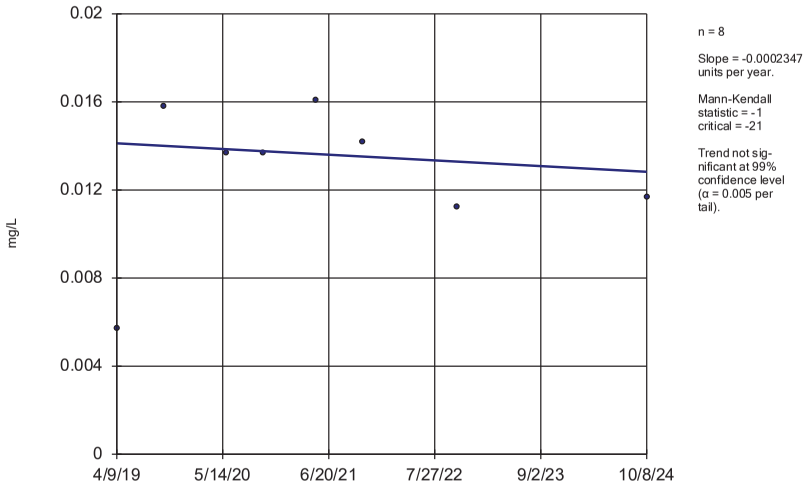
MW-1R



Constituent: Cobalt Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-3

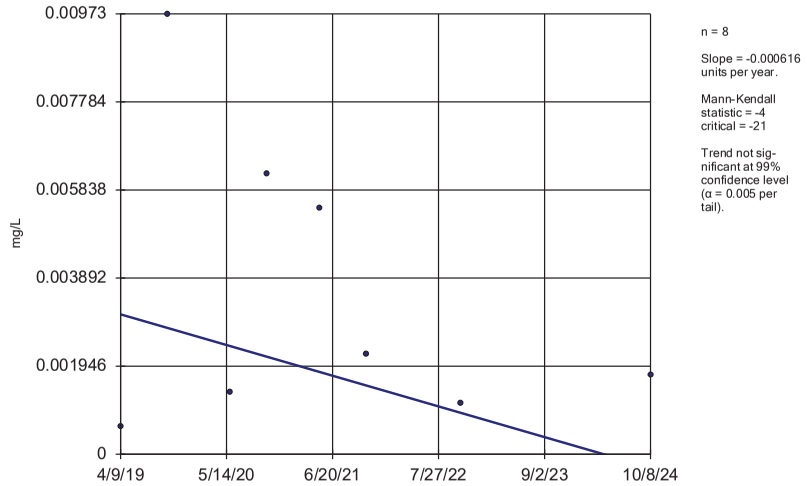


Constituent: Cobalt Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5

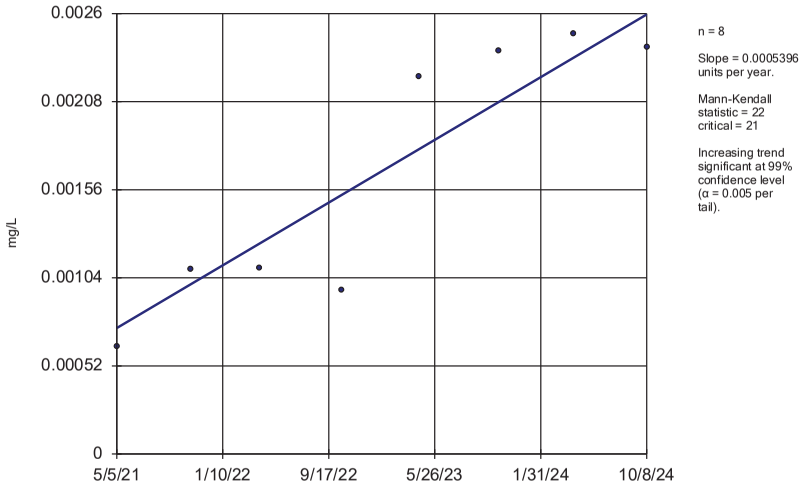


Constituent: Cobalt Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-6 (bg)

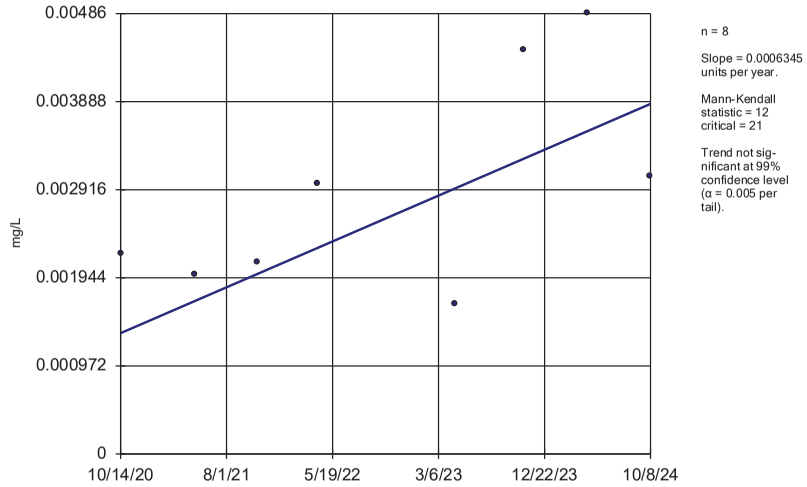


Constituent: Cobalt Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)

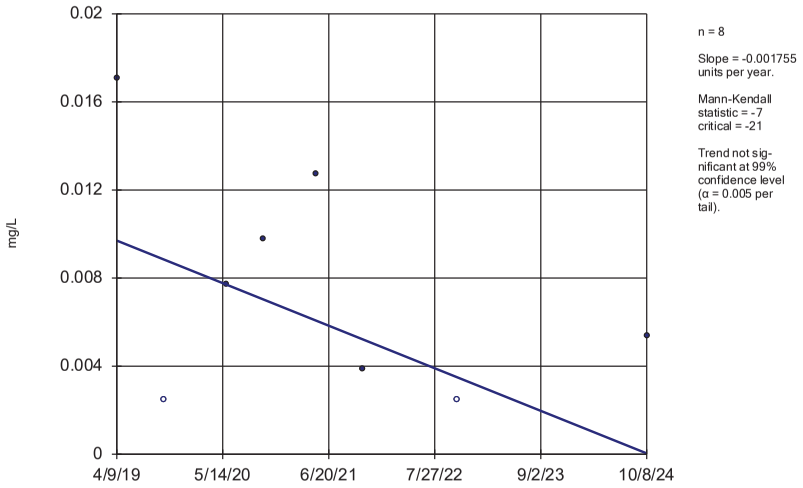


Constituent: Cobalt Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

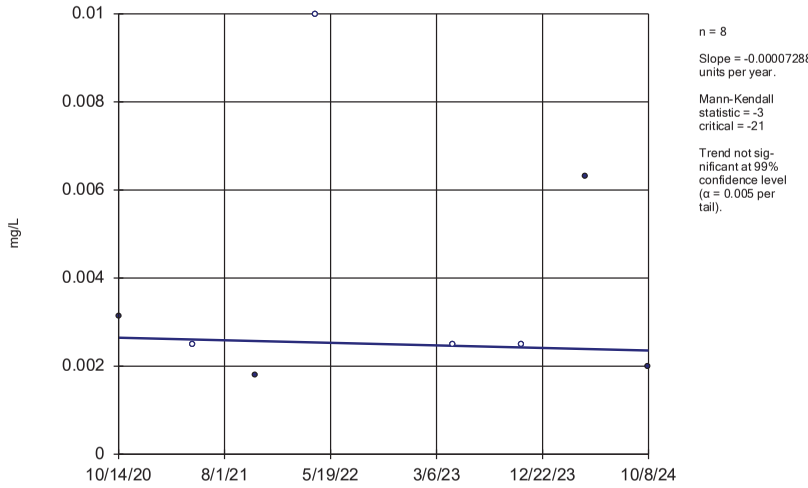


Constituent: Copper Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7R2 (bg)

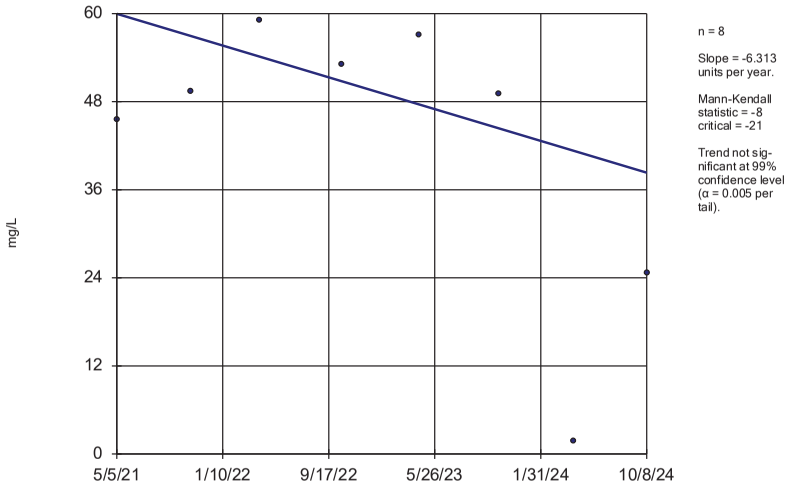


Constituent: Copper Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-1R

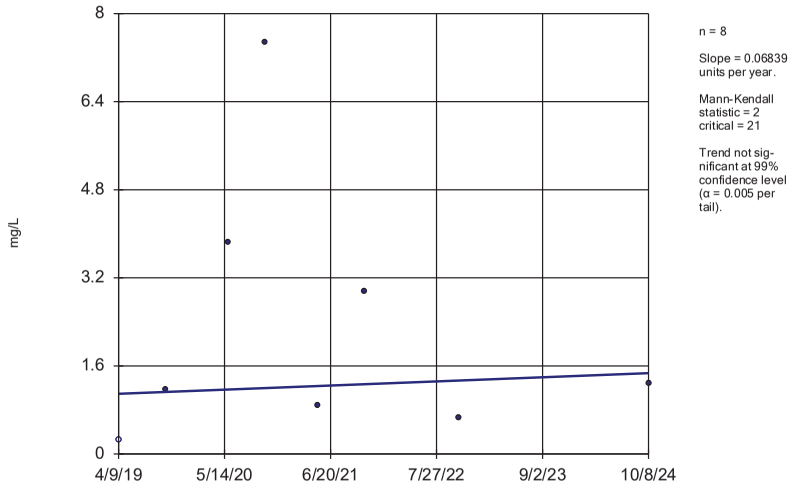


Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

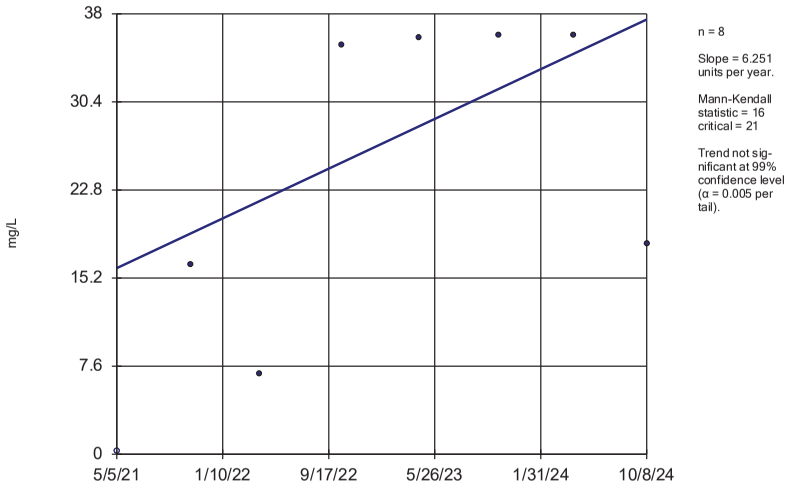


Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 8

Slope = 6.251 units per year.

Mann-Kendall statistic = 16
critical = 21

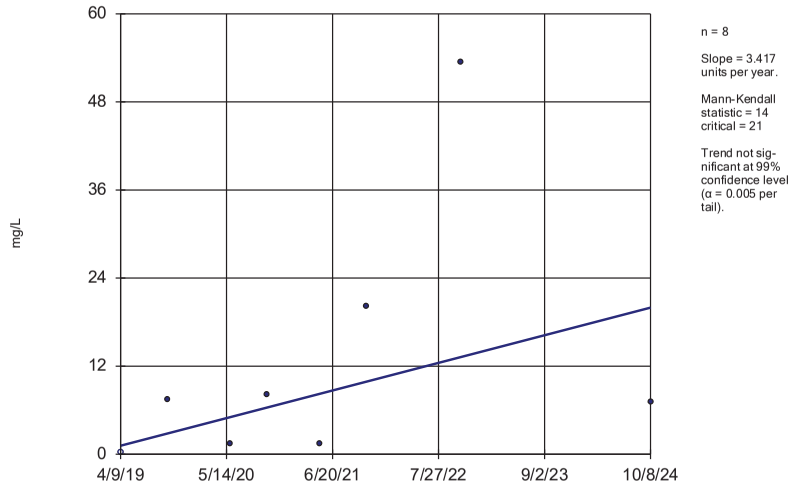
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 8

Slope = 3.417 units per year.

Mann-Kendall statistic = 14
critical = 21

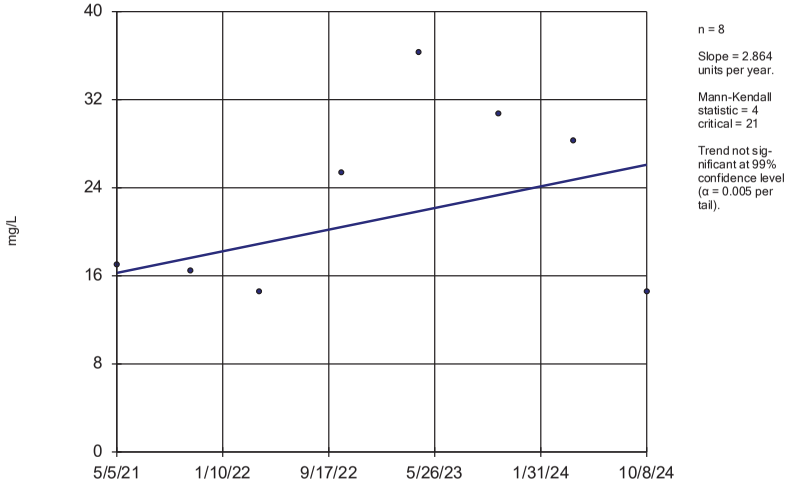
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-6 (bg)



n = 8

Slope = 2.864 units per year.

Mann-Kendall statistic = 4
critical = 21

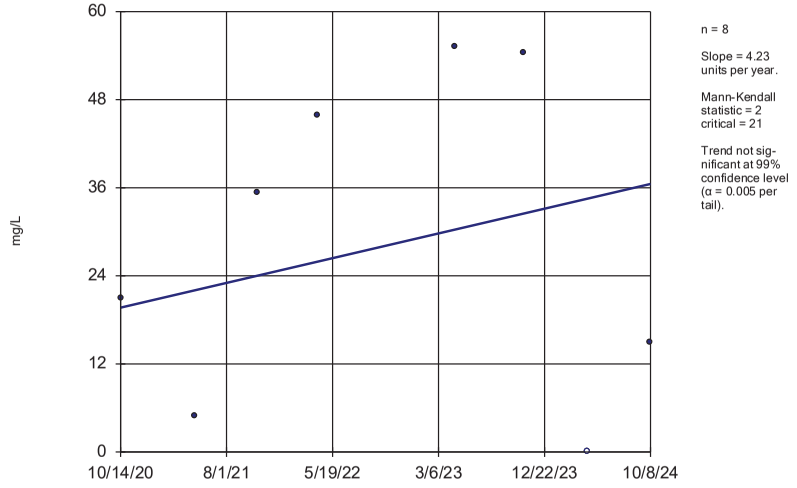
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = 4.23 units per year.

Mann-Kendall statistic = 2
critical = 21

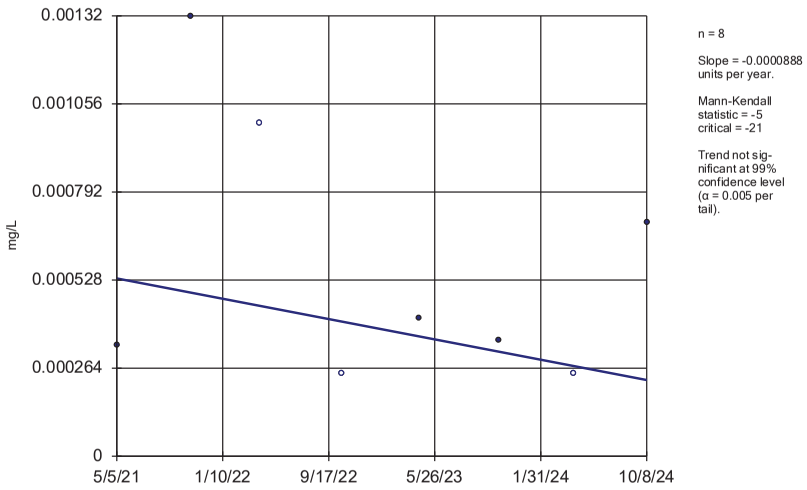
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Iron, Dissolved Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1R



n = 8

Slope = -0.0000888 units per year.

Mann-Kendall statistic = -5
critical = -21

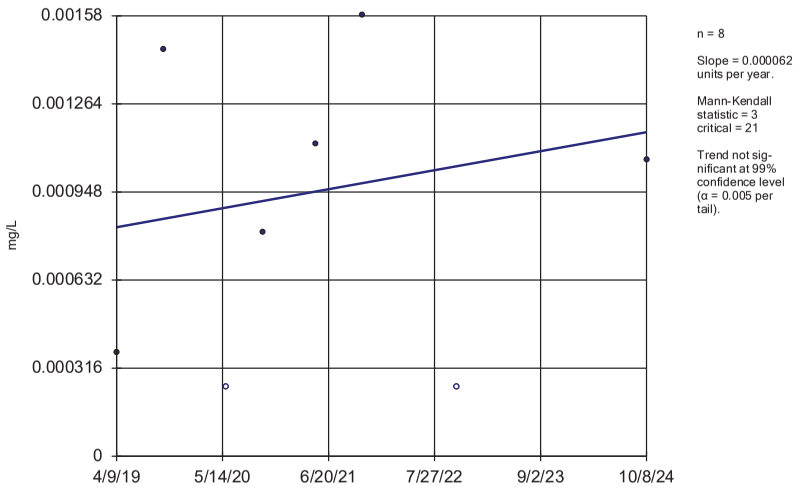
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.000062 units per year.

Mann-Kendall statistic = 3
critical = 21

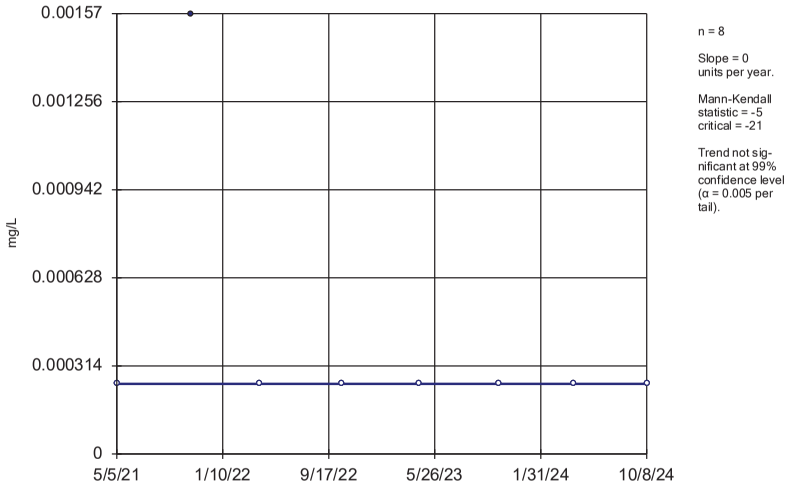
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -21

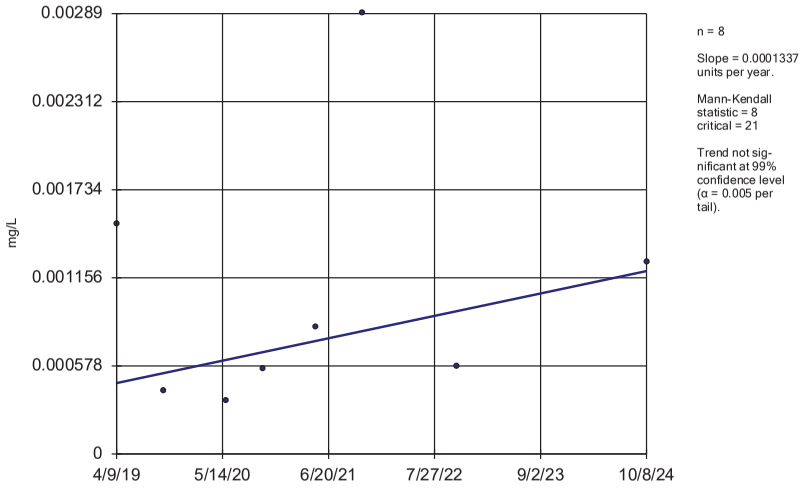
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5



n = 8

Slope = 0.0001337 units per year.

Mann-Kendall statistic = 8
critical = 21

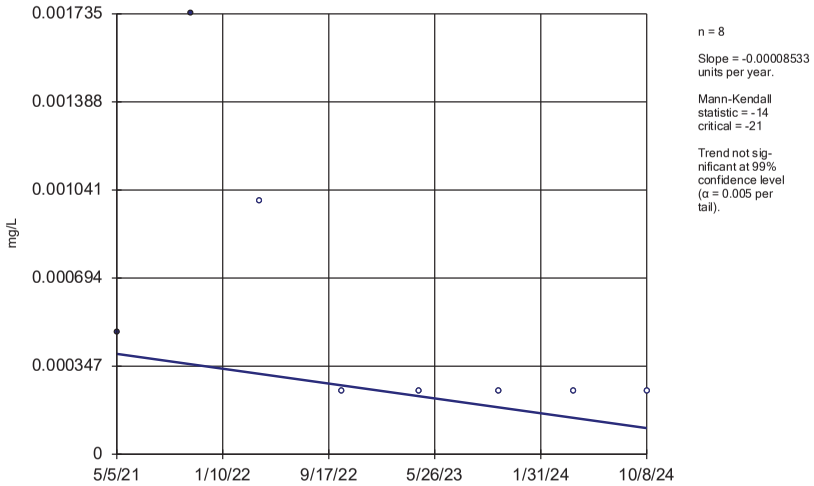
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-6 (bg)

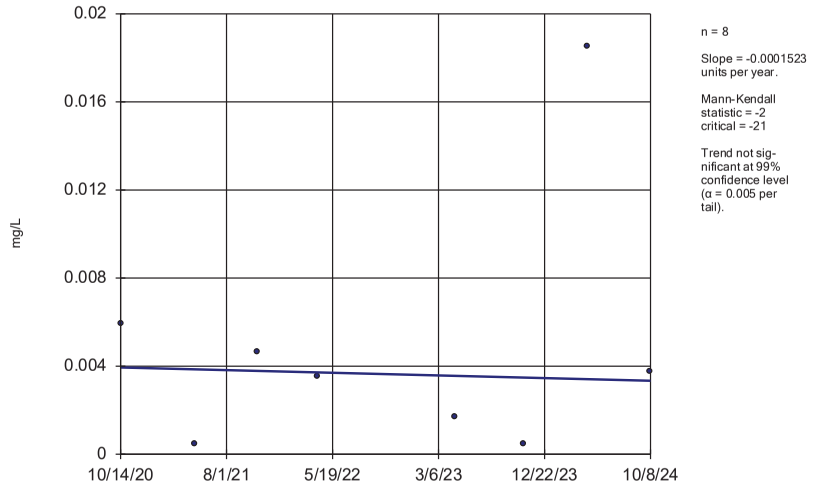


Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)

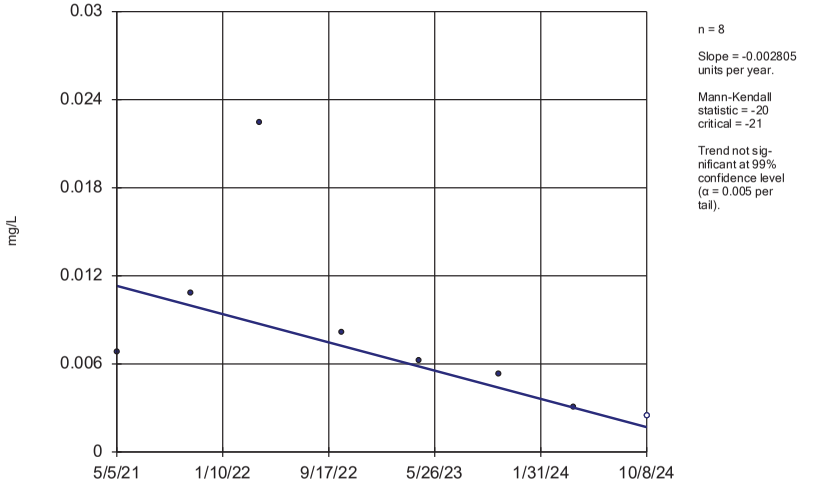


Constituent: Lead Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1R

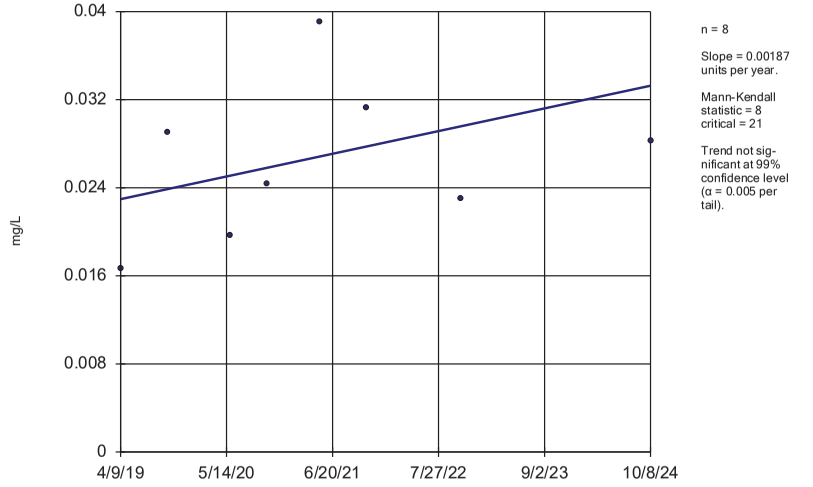


Constituent: Nickel Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

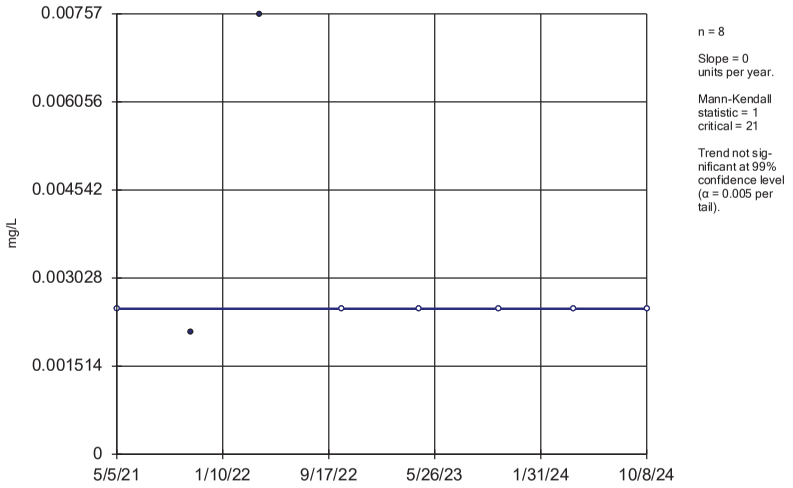


Constituent: Nickel Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-4 (bg)

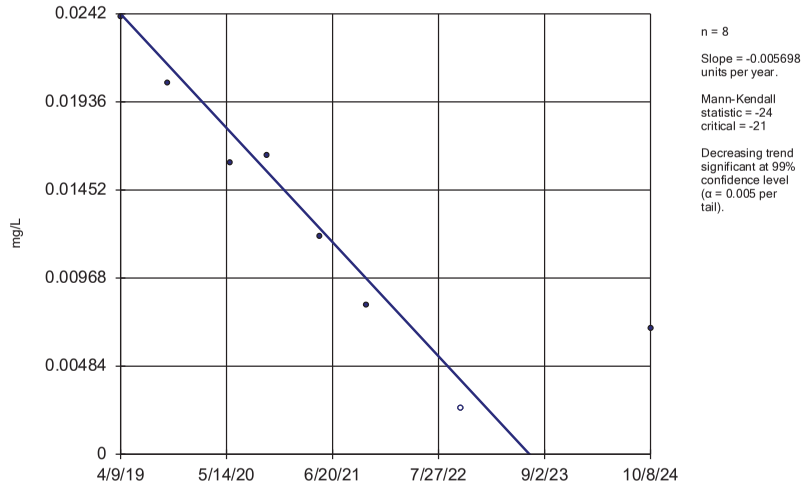


Constituent: Nickel Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5

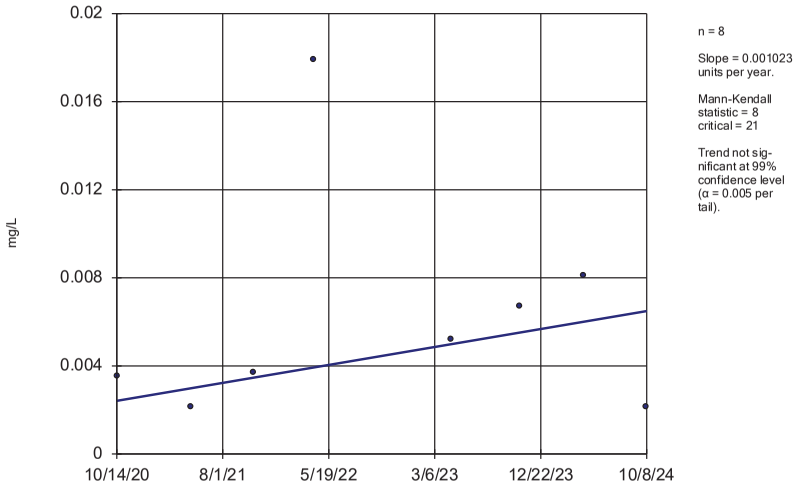


Constituent: Nickel Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)

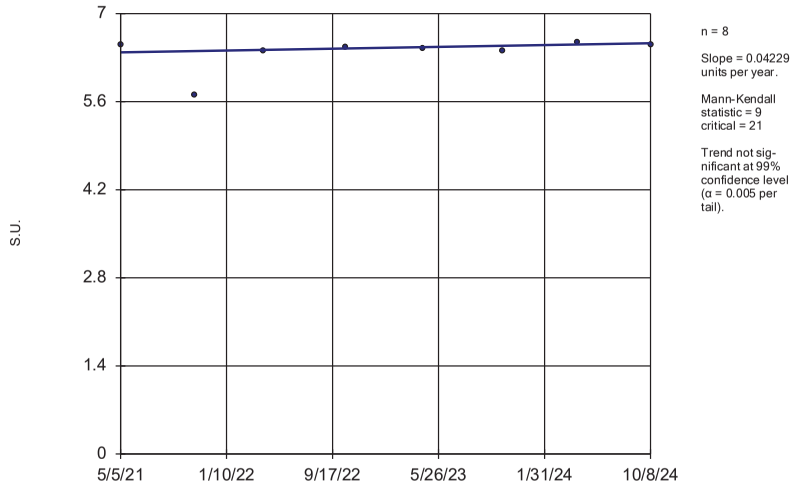


Constituent: Nickel Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

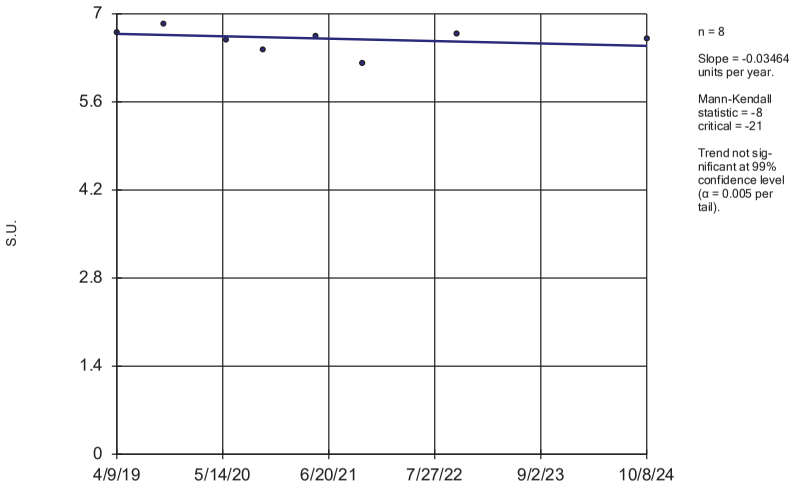
MW-1R



Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-3



Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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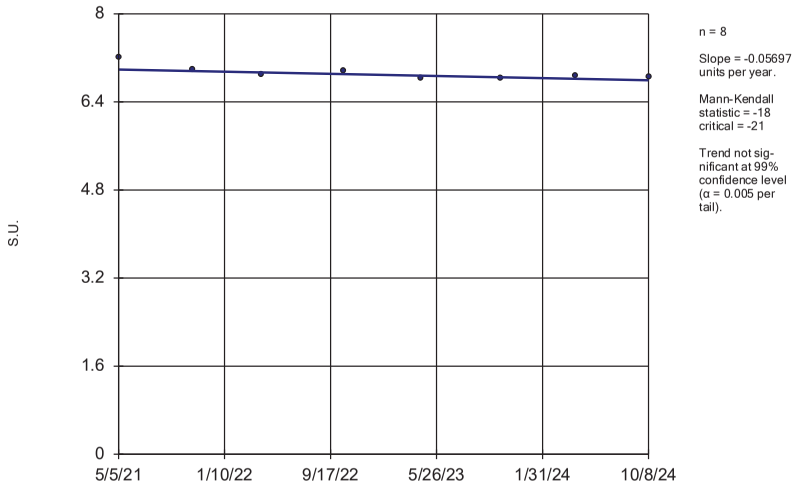
Sen's Slope Estimator

MW-4 (bg)

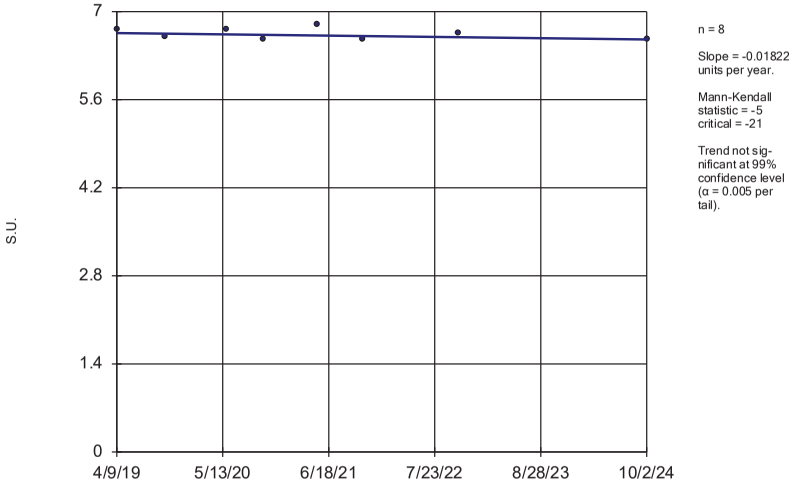


Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5

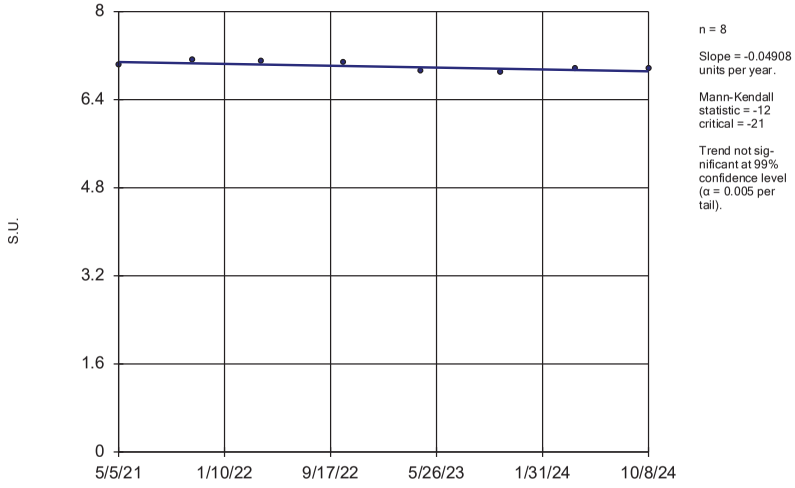


Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

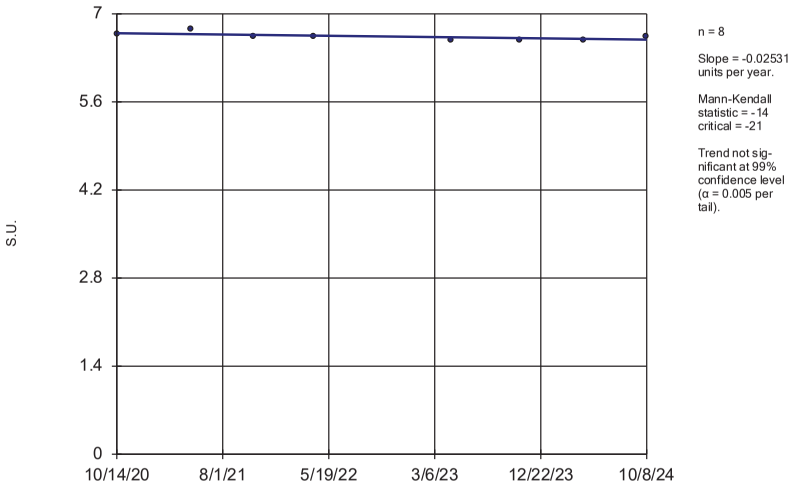
MW-6 (bg)



Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-7R2 (bg)

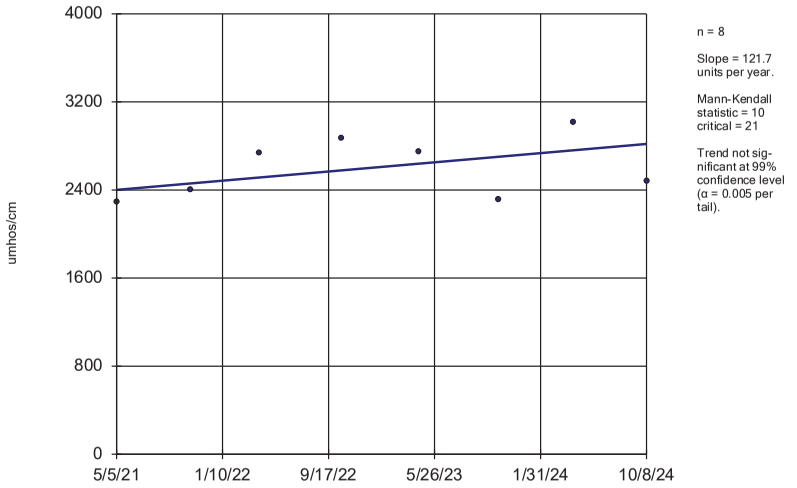


Constituent: pH Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-1R

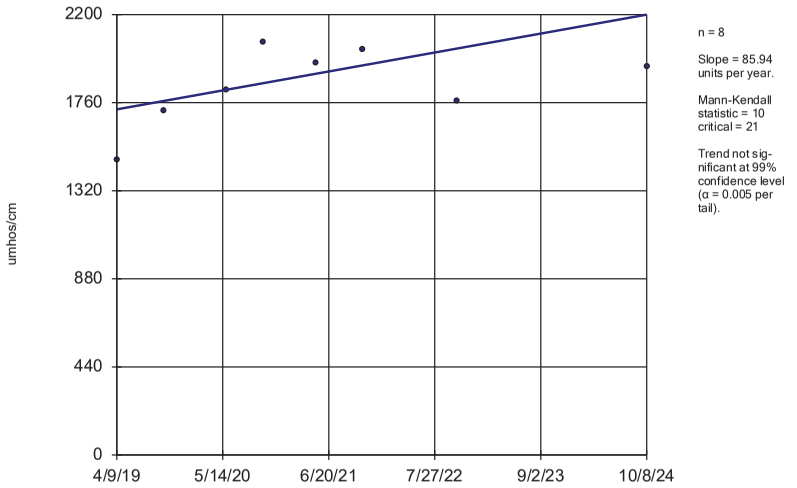


Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

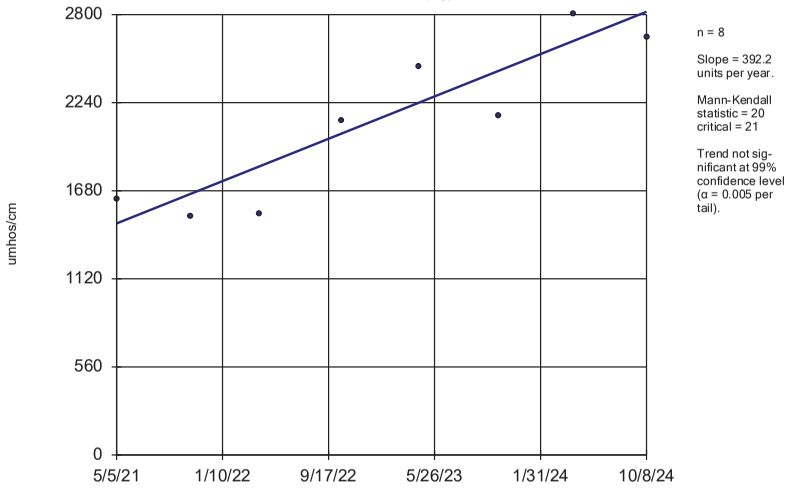


Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

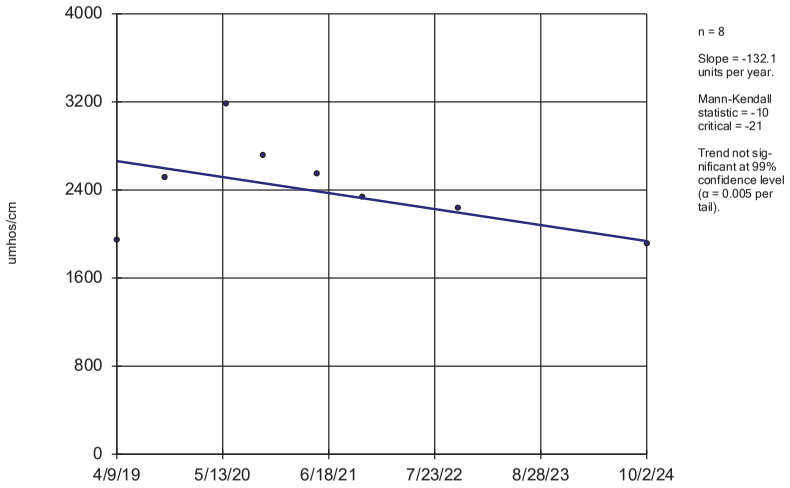
MW-4 (bg)



Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-5

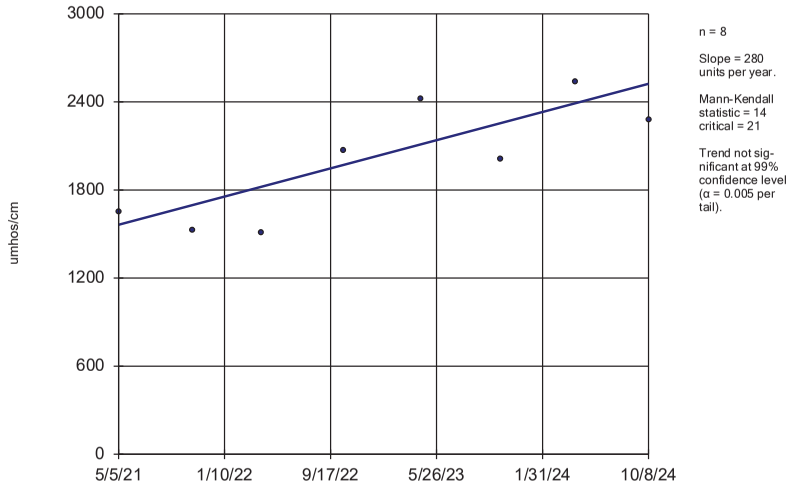


Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-6 (bg)

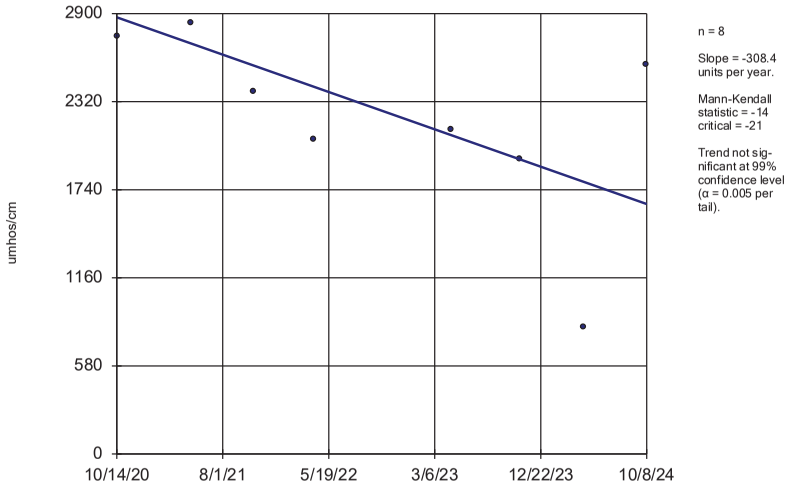


Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-7R2 (bg)

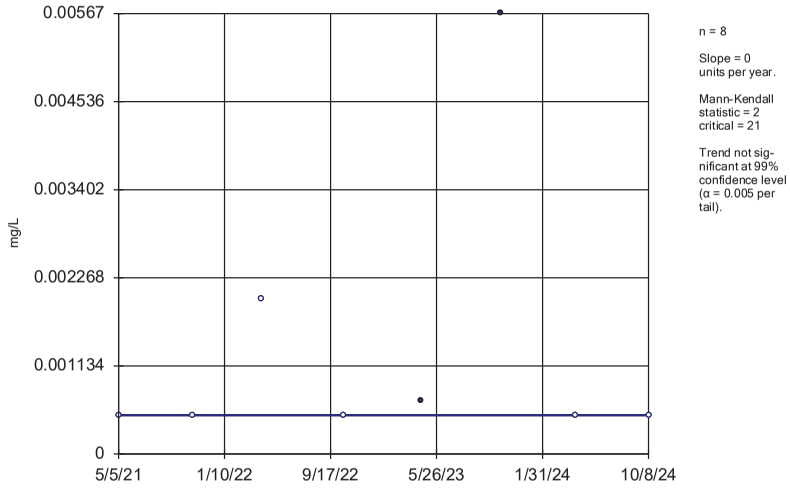


Constituent: Specific Conductance Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

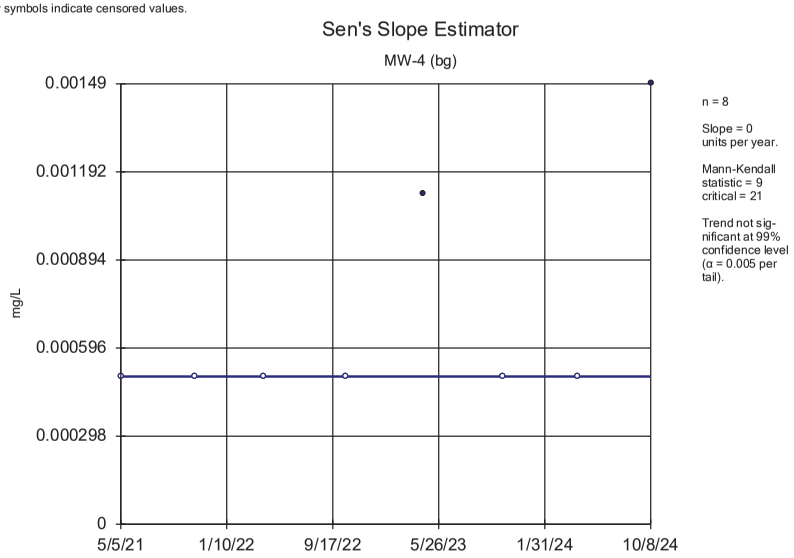
Sen's Slope Estimator

MW-1R



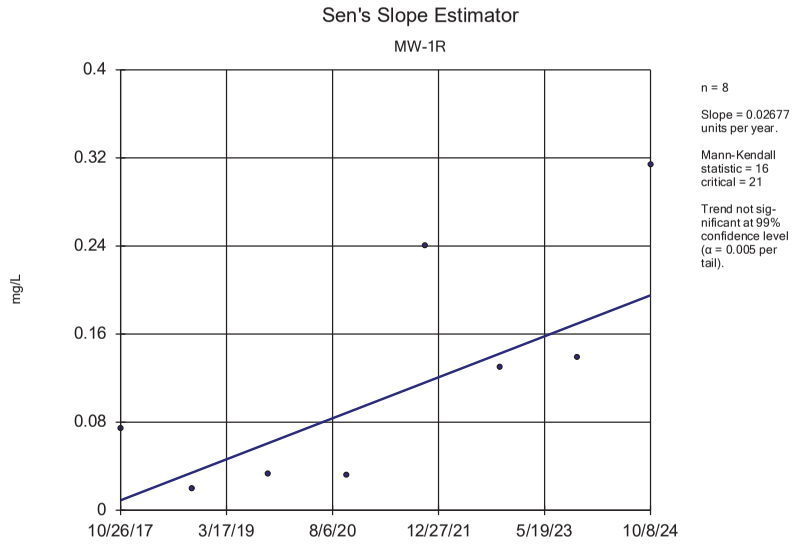
Constituent: Thallium Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



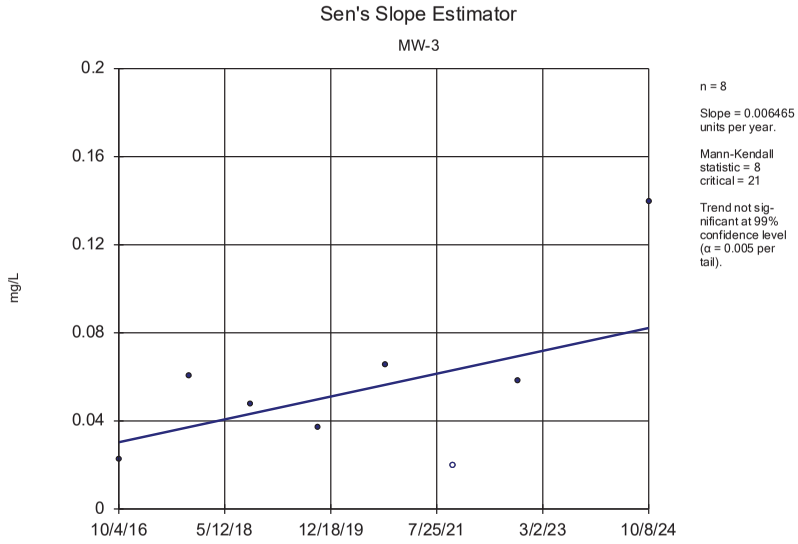
Constituent: Thallium Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG



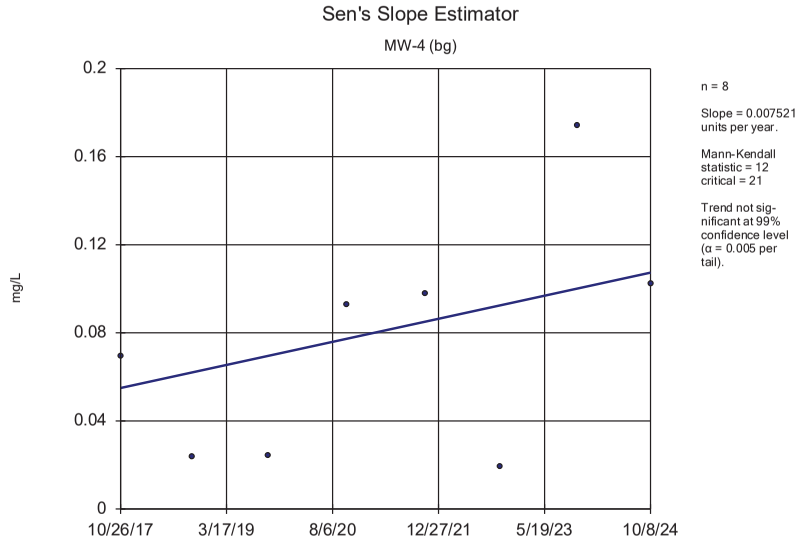
Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

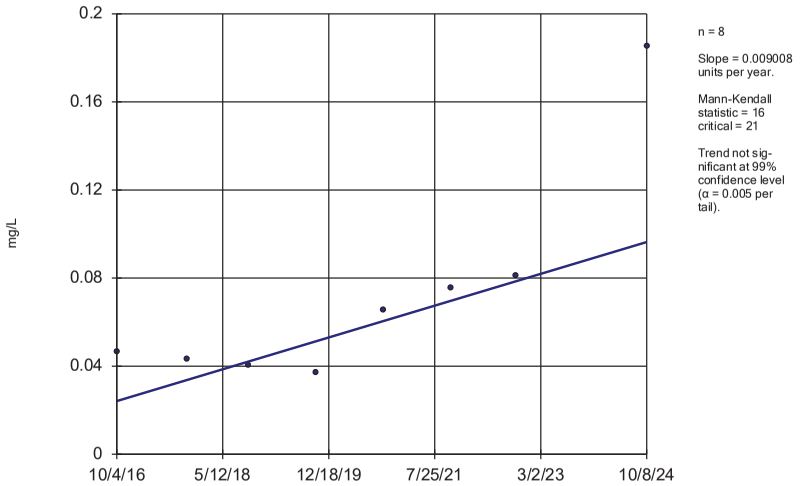
Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG



Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

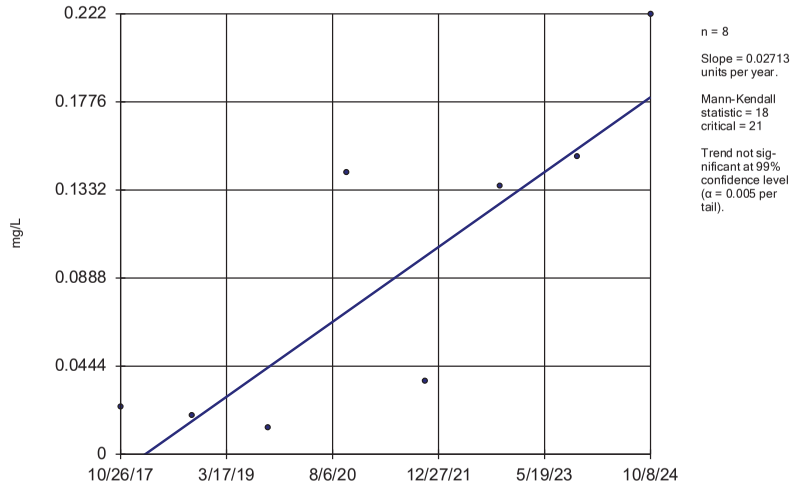
MW-5



Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

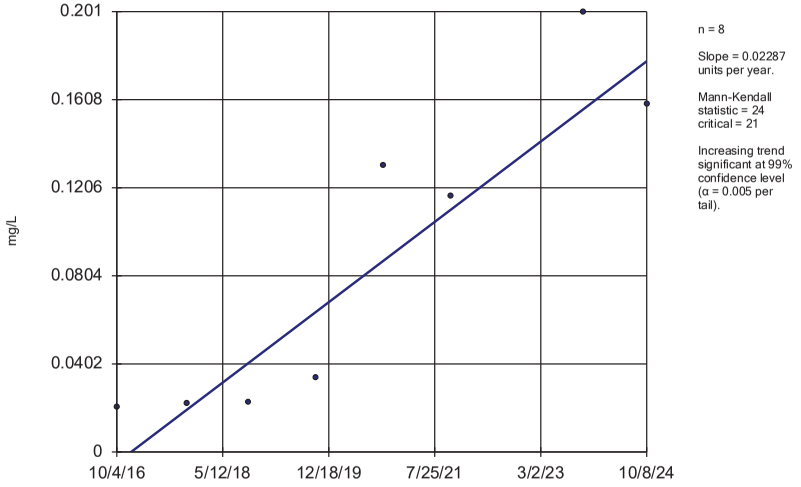
MW-6 (bg)



Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sen's Slope Estimator

MW-7R2 (bg)

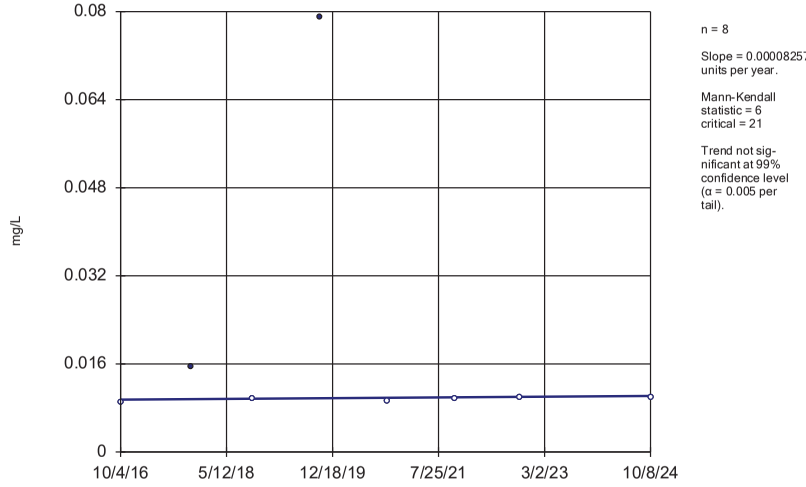


Constituent: Total Organic Halogens Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-1R

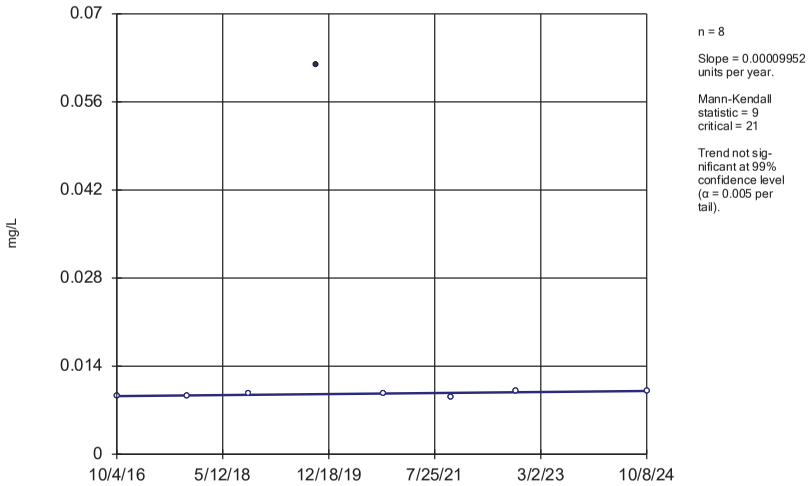


Constituent: Total Phenols Analysis Run 11/15/2024 5:29 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



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Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

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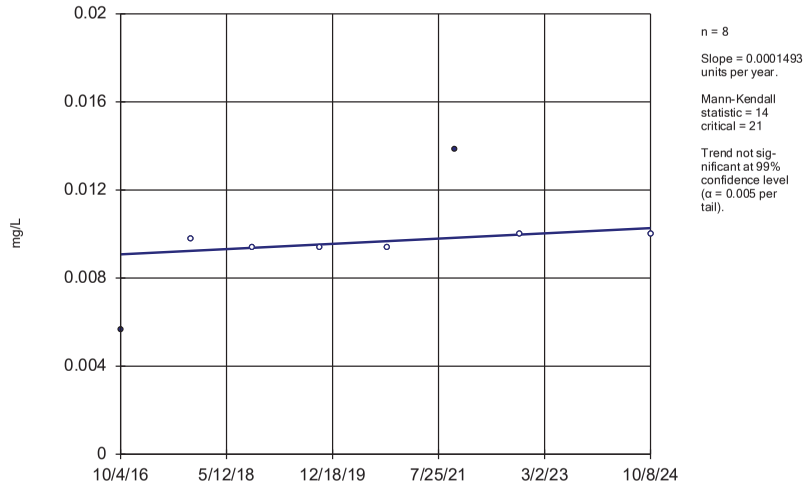
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-6 (bg)

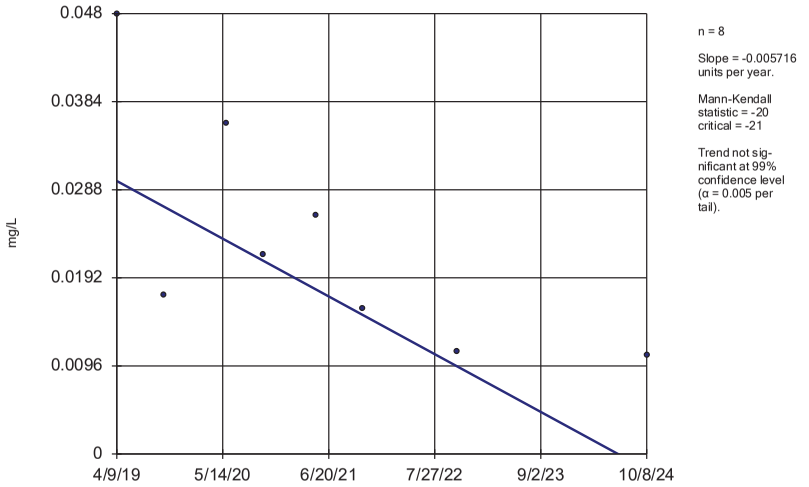


Constituent: Total Phenols Analysis Run 11/15/2024 5:30 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

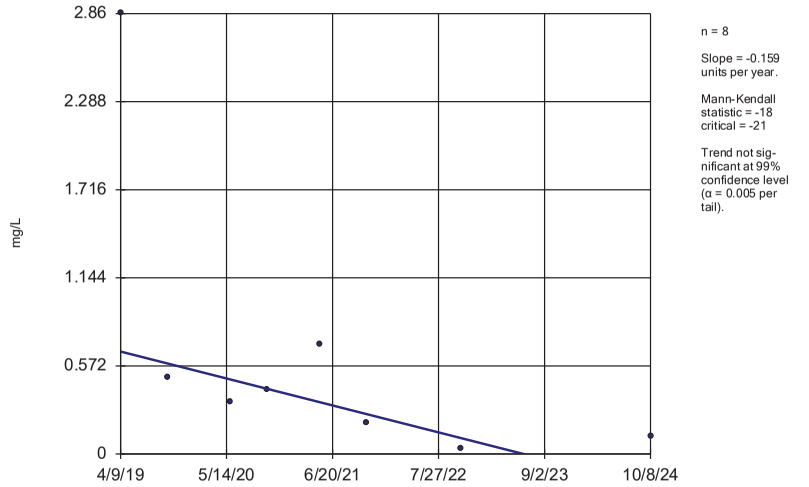


Constituent: Zinc Analysis Run 11/15/2024 5:30 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Sanitas™ v.10.0.23 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5

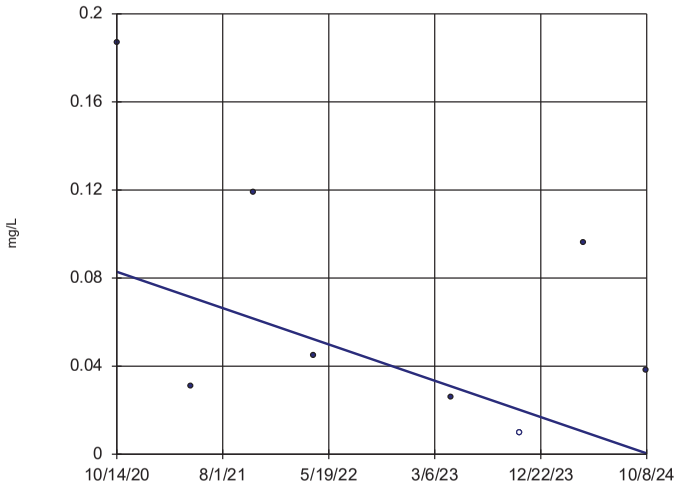


Constituent: Zinc Analysis Run 11/15/2024 5:30 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-7R2 (bg)



n = 8

Slope = -0.02069 units per year.

Mann-Kendall statistic = -10
critical = -21

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

Constituent: Zinc Analysis Run 11/15/2024 5:30 PM View: 2024AWQR-Mann_Kendall
Anderson Excavating Landfill Client: SCS Engineers Data: ANDEX CL-2024AWQR-AM

Appendix E

Mann-Kendall Output

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-1R	Ammonia as N		6	
	Arsenic		6	
	Barium		6	
	Cadmium		12	
	Chemical Oxygen Demand		4	
	Chloride		-10	
	Cobalt		-12	
	Iron, Dissolved		-8	
	Lead		-5	
	Nickel	-20		
	pH		9	
	Specific Conductance		10	
	Thallium		2	
	Total Organic Halogens			16
	Total Phenols		6	
MW-3	Ammonia as N		4	
	Arsenic		12	
	Barium		4	
	Cadmium		-6	
	Chemical Oxygen Demand		8	
	Chloride			14
	Cobalt		-1	
	Iron, Dissolved		2	
	Lead		3	
	Nickel		8	
	pH		-8	
	Specific Conductance		10	
	Total Organic Halogens		8	
	Total Phenols		9	
	Zinc	-20		
MW-4	Ammonia as N			22
	Arsenic			14
	Barium			20
	Chemical Oxygen Demand		2	
	Chloride			24
	Iron, Dissolved			16
	Lead		-5	
	Nickel		1	
	pH	-18		
	Specific Conductance			20
	Thallium		9	
	Total Organic Halogens		12	
MW-5	Ammonia as N			14
	Antimony	-14		
	Arsenic			16
	Barium		6	
	Cadmium	-18		
	Chemical Oxygen Demand		-2	
	Chloride		-6	
	Cobalt		-4	
	Copper		-7	
	Iron, Dissolved			14
	Lead		8	
	Nickel	-24		
	pH		-5	
	Specific Conductance		-10	
	Total Organic Halogens			16
	Zinc	-18		

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-6	Ammonia as N			14
	Arsenic			18
	Barium		12	
	Chemical Oxygen Demand			14
	Chloride			22
	Cobalt			22
	Iron, Dissolved		4	
	Lead	-14		
	pH		-12	
	Specific Conductance			14
	Total Organic Halogens			18
	Total Phenols			14
MW-7R2	Ammonia as N		-8	
	Antimony		-7	
	Arsenic			14
	Barium		-10	
	Chemical Oxygen Demand	-16		
	Chloride	-22		
	Cobalt		12	
	Copper		-3	
	Iron, Dissolved		2	
	Lead		-2	
	Nickel		8	
	pH	-14		
	Specific Conductance	-14		
	Total Organic Halogens			24
	Zinc		-10	

Appendix F

2024 Landfill Gas Annual Report

Gas Monitoring Summary
2024 Gas Monitoring Report
Carter Lake C&D Landfill
Permit No. 78-SDP-02-80C

Monitoring Points				Methane Results (% LEL)							
Name		Type	Description	3/13/2024	S (Y/N)	4/18/2024	S (Y/N)	7/16/2024	S (Y/N)	10/8/2024	S (Y/N)
#1	Northeast Corner	Outdoor	Northeast corner of site.	0%		0%		0%		0%	
#2	Southeast Corner	Outdoor	Southeast corner of site.	0%		0%		0%		0%	
#3	Southwest Corner	Outdoor	Southwest corner of site.	0%		0%		0%		0%	
#4	Northwest Corner	Outdoor	Northwest corner of site.	0%		1%		0%		0%	
#5	Center	Outdoor	Center of property.	0%		0%		0%		0%	

S(Y/N) - Was screen submerged, yes or no.

Point Number	Location
#1	NE Corner
#2	SE Corner
#3	SW Corner
#4	NW Corner
#5	Center of Site

Methane Monitoring Network

Figure 1

SCS ENGINEERS
environmental consultants and contractors

Legend

- Methane Monitoring Points
- Monitoring Well
- Approximate Property Boundary

Anderson Excavating Carter Lake Landfill
Carter Lake, Iowa
Project No: 27224173.02
Drawing Date: November 2024

N
W E
S

0 65 130 260
Feet