SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	Woodbury Co,FY25 Env Comp,IA 27223172.25	DATE:	2/25/2025
SUBJECT:	Woodbury County Sanitary Landfill - 97-SDP-02-75C - 2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report	TRANSMITTAL ID:	00004
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
Sean Marczewski West Des Moines, IA	SCS Engineers	SMarczewski@scsengineers.com	+1-515-631-6152

TO

NAME	COMPANY	EMAIL	PHONE
Mike Smith 502 East 9th Street Des Moines IA 50319-0034 United States	Iowa, State of	mike.smith@dnr.iowa.gov	515-725-8200

REMARKS:

Mike -

Please find for your download the Woodbury County Sanitary Landfill 2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report. Let us know if you have any questions or comments.

Thanks,

Sean A. Marczewski
Project Professional
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DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	2/25/2025	Woodbury County Sanitary Landfill - 97-SDP-02-75C - 2024 AWQR, LCSPER, MMR 02.25.2025.pdf	

Transmittal

DATE: 2/25/2025
TRANSMITTAL ID: 00004

COPIES:

Becky Jolly	
Jeanette Beekman	(Woodbury County Area Solid Waste Agency)
Tim Buelow	(SCS Engineers)
Ben Madson	(SCS Engineers)
Semir Omerovic	(SCS Engineers)
Sean Marczewski	(SCS Engineers)

February 25, 2025
File No. 27223172.25

Mr. Mike Smith, P.E.
Iowa Department of Natural Resources
Land Quality Bureau
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319-0034

Subject: 2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Dear Mike:

SCS Engineers, on behalf of the Woodbury County Area Solid Waste Agency, has completed the required groundwater monitoring and statistical evaluation for the Woodbury County Sanitary Landfill (Landfill) for the year 2024. Services were performed in general accordance with applicable sections of Iowa Administrative Code (IAC) 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan for the Landfill. Please find enclosed a copy of the 2024 Annual Water Quality Report.

Additionally, an evaluation of the leachate control system and gas monitoring results for the Landfill are included in accordance with the 2002 IAC 567-113.26(2)"l" and 113.26(15)"b," respectively. The 2024 Leachate Control System Performance Evaluation Report and the 2024 Landfill Gas Annual Report for the Landfill are included as appendices to the Annual Water Quality Report.

Please contact us if you have any questions or need additional information regarding the attached reports.

Sincerely,

Semir Omerovic
Technical Associate
SCS Engineers

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

SO/TCB

Copies: Ms. Jeanette Beekman, Secretary for Woodbury County Area Solid Waste Agency

2024 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report

Woodbury County Sanitary Landfill
Solid Waste Permit No. 97-SDP-02-75C

Prepared for:

Woodbury County Solid Waste Agency

SCS ENGINEERS

27223172.25 | February 25, 2025

1690 All-State Court, Suite 100
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Table of Contents

Section Page

Tables

Figures

Appendices

CERTIFICATION

Prepared by: _____ Date: 2/25/2025

Typed: Semir Omerovic

Reviewed by: _____ Date: 2/25/2025

Typed: Timothy C. Buelow, P.E.

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

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

EXECUTIVE SUMMARY

ES.1 PERIOD OF REPORT COVERAGE

The period of report coverage is from January through December 2024 and includes the June and August 2024 semi-annual sampling events.

ES.2 REPORT PRIORITY

The following summarizes report priorities associated with groundwater compliance at the Woodbury County Sanitary Landfill (Landfill):

- Department review urgency: Decreasing the sampling frequency from biannual to annual for monitoring wells MW-3 and MW-8 is recommended. See Section 6.2 for justification. Replacement of monitoring wells MW-3 and MW-8 is also recommended. See Section 6.3 for justification.
- Department review impact on rules schedule: None.
- Actions or activities on hold pending Department review or comment: None.
- Actions and/or permit amendments needed: None.

ES.3 SITE STATUS AND APPLICABLE RULES

- Landfill Status: Closed.
- Types of waste accepted: Previously MSW and C&D.
- Applicable IAC rules: 2009 567-113.10 (6, 7, 8, and 9).

ES.4 COMMENTS

The following summarizes points of special emphasis:

There were four new and twenty ongoing well/detected constituent pairs with statistically significant increases (SSIs) above background during this reporting period as summarized in **Table 7**. The monitoring wells are in the assessment or corrective action monitoring programs and do not require a resample. Therefore, the SSIs were not confirmed. Corrective action monitoring will continue for monitoring wells MW-3, MW-8, and PZ-2B, assessment monitoring for monitoring wells MW-2 and MW-5, and background for monitoring well MW-6.

Planned groundwater sampling for 2024 was shown in **Table 2** of the 2023 Annual Water Quality Report (Doc #109366). Samples were not collected from two monitoring points in 2024 for the following reasons. Monitoring well MW-3 was dry during both 2024 sampling events, monitoring wells MW-6 and MW-5 were dry during the 1st 2024 sampling event and monitoring well MW-8 and monitoring point PZ-2A were dry during the 2nd 2024 sampling event. During the 2nd 2024 sampling event, monitoring well MW-9 was unable to be located; therefore, no sample was collected during the sampling event.

Bracketing wells were sampled for SSL parameters during this reporting period. The cobalt concentration in bracketing well MW-14 was detected below the background concentration during the 1st 2024 sampling event. Tetrachloroethene and trichloroethene concentrations were measured

as non-detect in bracketing wells MW-11, MW-12, and MW-14 during both 2024 semi-annual sampling events. Trichloroethene concentration was measured as a detection in bracketing well MW-9 during the 1st 2024 sampling event and was inaccessible during the 2nd 2024 sampling event. A sample was not collected from bracketing well PZ-2A during the 2nd 2024 semi-annual sampling event as it was dry.

The next full Appendix II sampling events are scheduled for 2025 for monitoring wells MW-2, MW-3, MW-8, and PZ-2B and 2026 for monitoring well MW-5.

ACRONYMS/ABBREVIATIONS

ACM = Assessment of Corrective Measures

CAMP = Corrective Action Monitoring Program

CCV = Continuing Calibration Verification

CL = Control Limit - Mean plus Two Standard Deviations

COC = Chain of Custody

DNR = Iowa Department of Natural Resources

DO = Dissolved Oxygen

DQR = Double Quantification Rule

GWPS = Groundwater Protection Standard

LEL = Lower Explosive Limit

LCL = Lower Confidence Limit

LCS = Laboratory Control Sample

LN = Lognormal

MCL = EPA Maximum Contaminant Level

MS/MSD = Matrix Spike/Matrix Spike Duplicate

MSW = Municipal Solid Waste

N = Normal

NC = No Change

NM = Not Measured

NP = Non-Parametric

ORP = Oxidation-Reduction Potential

P = Parametric

PL = Prediction Limit

RL = Reporting Limit

RPD = Relative Percent Difference

SWS = DNR Statewide Standard for a protected groundwater source

SSI = Statistically Significant Increase above background

SSL = Statistically Significant Level above groundwater protection standard

SSS = Site-Specific Standard (Site-Specific GWPS)

TSS = Total Suspended Solids

UCL = Upper Confidence Limit

VOC = Volatile Organic Compound

1.0 SITE BACKGROUND

1.1 SITE LOCATION

The Landfill property is depicted on **Figure 1**, Approved Monitoring Network. The Landfill is located approximately 7.25 miles south of Moville, Iowa in the NW ¼ of the NW ¼ of Section 6, T87N, R44W, Woodbury County, Iowa. The Woodbury County Assessor's office describes the Landfill property as Grant Township NW NW & W 9.8 net acres NE NW 6-87-44.

1.2 FACILITY

The Landfill was built in 1975 as a cut and cover operation. The Landfill ceased accepting waste prior October 1, 2007. The Landfill closure permit was issued on May 7, 2008.

1.3 GEOLOGY AND HYDROGEOLOGY OF THE SITE

The Hydrogeologic Assessment Report dated May 19, 1992, prepared by Terracon Environmental, Inc. provided the following geological description:

> *The landfill is situated in the loess hills region of western Iowa which is characterized by a mantle of wind derived silts and clays (loess) overlying glacial drift deposits. The landscape is well-drained. Accumulative thicknesses of loess and glacial drift in the landfill area are reported to be on the order of less than 50 to greater than 300 feet.*
>
> *Based on IGS test borings near the landfill, the Nishnabotna Member of the Cretaceous-aged Dakota Formation is the uppermost bedrock unit underlying glacial drift in the landfill vicinity. The Nishnabotna is characterized as a massive sandstone containing minor thicknesses of shale interbeds. The Nishnabotna is a regional aquifer which supplies a substantial amount of water to northwest Iowa. The Nishnabotna is on the order of about 200 feet thick and unconformably overlies Mississippian limestone.*
>
> *Loess was typically encountered as the uppermost lithologic unit. Loess was generally described in the field as brown and gray lean clay. Trace amounts of sand grains were observed in some of the loess samples. It is suspected that some loess horizons have been reworked or redeposited (colluvium).*
>
> *Glacial drift, composed of glacial till and glacio-fluvial deposits, was observed to underlie the loess deposits. Glacial till was generally described as brown to dark gray, lean clay containing various amounts of sand and gravel. Thin sand and gravel seams on the order of one to five centimeters thick were also observed within glacial till. Thicker sand units or lenses on the order of two to five feet thick were also observed within glacial till and are indicated on the boring logs and geologic profiles as individual lithologic units separate from glacial till.*
>
> *Bedrock underlying unconsolidated Quaternary deposits was observed to be sandstone. The sandstone was observed in* [the southeast area of the landfill] *where the ground surface elevation was lowest at the site. The sandstone consisted of semi-consolidated, friable sandstone directly below glacial till.*

The Hydrogeologic Assessment Report dated May 19, 1992, prepared by Terracon Environmental Inc. provided the following hydrogeological description:

[It is assumed] *that the uppermost aquifer is greater than 50 feet below the water table. The uppermost aquifer is considered to be sandstone of the Dakota Formation which underlies unconsolidated glacial till and loess deposits. The two-inch wells were installed to monitor the water table.*

Groundwater was interpreted as flowing from regions of higher potentiometric head to regions of lower potentiometric head. The groundwater gradient flow along the depicted profile lines appears to have directional components of primarily downward and southward.

2.0 FIGURES DISCUSSION

The following figures are attached.

2.1 FIGURE 1 – APPROVED MONITORING NETWORK

The Landfill property and hydrological monitoring system plan (HMSP) monitoring network are depicted on Figure 1. Figure 1 indicates the respective monitoring programs of the HMSP monitoring points as of the beginning of this reporting period.

2.2 FIGURE 2 – GROUNDWATER CONTOURS

A groundwater contour map based on water levels measured during the June 2024 groundwater sampling event is included as Figure 2. Groundwater flow indicates a generally south/southeast groundwater flow direction. The flow direction is generally consistent with previous groundwater contour maps.

2.3 FIGURE 3 – REPORTING PERIOD DETECTION SUMMARY

Figure 3 shows the range of measured concentrations by monitoring point for the HMSP monitoring wells. Further discussion of the detected constituents is included in Section 6.0 – Data Evaluation and Summary of this report.

2.4 FIGURE 4 – COBALT CONCENTRATION MAP

The slightly elevated cobalt concentrations appear to be localized around corrective action monitoring well MW-3. Cobalt concentrations are bracketed both vertically and horizontally. Off-site monitoring wells MW-9, MW-11, and MW-12 have historically measured concentrations below background and/or the GWPS. Based on review of cobalt and TSS concentrations in the HMSP monitoring well samples, there appears to be a positive correlation between the two parameters.

2.5 FIGURE 5 – TRICHLOROETHENE CONCENTRATION MAP

Trichloroethene impact is present to the south of the Landfill in corrective action monitoring wells MW-3, MW-8, PZ-2B, and MW-2. Landfill gas vents were installed in December 2018 and in June 2021 to aid in venting the subsurface around and upgradient of these monitoring wells as the groundwater impact appears to be caused by landfill gas. Since the installation of the passive gas vents, the trichloroethene concentrations have been generally stable. Trichloroethene concentrations appear to be bracketed at this time as concentrations measured non-detect in horizontal bracketing monitoring wells MW-11, MW-12 and MW-14 and HMSP monitoring well MW-5, as well as vertical bracketing wells MW-13 and PZ-2A.

2.6 FIGURE 6 – TETRACHLOROETHENE CONCENTRATION MAP

Tetrachloroethene impact is present to the south and southeast of the Landfill in corrective action monitoring wells MW-8, PZ-2B, and assessment monitoring well MW-2. Landfill gas vents installed in December 2018 and June 2021 should additionally aid in venting the subsurface upgradient of monitoring wells PZ-2B and MW-2. Tetrachloroethene concentrations appear to be bracketed to the south and west at this time as concentrations measured non-detect in horizontal bracketing monitoring wells MW-12, MW-14, and HMSP monitoring well MW-3, as well as vertical bracketing well PZ-2A.

3.0 STANDARDS HISTORY GRAPHS

Standards history graphs are included in **Appendix G**. Standards history graphs for the following parameters are included:

- Antimony
- Arsenic
- Barium
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Nickel
- Selenium
- Vanadium
- Zinc

In all instances the prediction limit was below the GWPS.

4.0 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 feasible with the laboratory method utilized. SCS Engineers 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.

5.0 DATA EVALUATION

Assessment monitoring statistical analyses in accordance with the requirements of IAC 567-113.10(6) were conducted for the groundwater analytical data collected during the 2024 reporting period semi-annual sampling events. The statistical evaluation for samples collected during this reporting period are located in **Appendix D** of this report.

Groundwater monitoring for the Landfill consists of six monitoring points, with background well MW-6 located northwest of the Landfill. Compliance monitoring points are located along the south boundary. The range of measured concentrations for the detected constituents is shown on **Figure 3**, Reporting Period Detection Summary.

5.1 DATA EVALUATION

Multiple volatile organic compounds (VOCs) and metals were detected during the 2024 semi-annual sampling events in the downgradient monitoring wells at the Landfill. The majority of site-wide maximum concentrations occurred in corrective action monitoring well MW-8, with eight maximum concentrations. Monitoring wells MW-2, MW-8, and PZ-2B, located south and southeast of the Landfill, had numerous VOC detections. Monitoring well MW-3, which normally has VOC detections, was dry during both 2024 sampling events, and therefore was not sampled during this reporting period. Monitoring well MW-5, located southwest of the Landfill, had no VOC detections. However, it should be noted that a majority of the VOC detections were less than 50% of their respective GWPS values. Additionally, in December 2018 seven passive gas vents were installed and in June 2021 ten additional passive gas vents were installed to aid in venting the subsurface gases along the southern and southeastern edges of the Landfill as many of the VOC detections appear to be a result of landfill gas impact. To further aid the gas vents, solar powered blowers were installed on four of the existing gas vents (GV-4, GV-5, GV-7, and GV-9) in an attempt to better vent the subsurface and increase the potential for improving groundwater quality in this area prior to the 1st 2020 semi-annual sampling event. As noted in Section 3.0 Figures Discussion of this report, impact south of the Landfill is bracketed at this time.

5.2 TRENDING IN ASSESSMENT/CORRECTIVE ACTION MONITORING WELLS

Statistically significant trends were identified for monitoring well – constituent pairs by Mann-Kendall analysis during this reporting period. The trend analyses are included in the 1st and 2nd 2024 Semi-Annual Statistical Outputs included as attachments in **Appendix D**. The statistically significant trends were as follows:

Monitoring Point	Constituent	Trend
1st 2024 Semi-Annual		
MW-8	Benzene	Decreasing
MW-8	cis-1,2-Dichloroethene	Increasing
PZ-2B	cis-1,2-Dichloroethene	Decreasing
2nd 2024 Semi-Annual		
MW-8	Benzene	Decreasing
MW-8	cis-1,2-Dichloroethene	Increasing
PZ-2B	1,1-Dichloroethane	Decreasing
PZ-2B	cis-1,2-Dichloroethene	Decreasing
PZ-2B	Vinyl Chloride	Decreasing

5.3 CORRECTIVE ACTION GROUNDWATER MONITORING PROGRAM REMEDY DISCUSSION

An Assessment of Corrective Measures (ACM) Report was submitted on June 30, 2020 (Doc #98017) and approved in permit correspondence dated July 22, 2020 (Doc #98119). The Selection of Remedy and Corrective Action Monitoring Program (CAMP) was submitted on November 9, 2020 and approved in permit correspondence dated November 20, 2020 (Doc #98974). The selected remedy was passive subsurface landfill gas venting and monitored natural attenuation. Passive gas venting is on-going at the Landfill; 27 passive landfill gas vents are currently in place. The Monitoring Well PZ-2B Trending Summary submitted on June 14, 2023 (Doc #106988) indicated that another assessment of corrective measures was not necessary due to decreasing trends of tetrachloroethene and trichloroethene, the improvement indicated by the 1st 2023 semi-annual confidence interval statistical evaluation, and the lower measured concentrations in recent reporting periods.

Natural attenuation processes are addressing at least a portion of the groundwater impact at the Landfill. Biennial natural attenuation sampling was approved in the CAMP. Monitoring well MW-3 was dry during both 2023 and 2024 reporting periods and a natural attenuation sample was not collected. Natural attenuation parameters will be sampled during the next sampling event when monitoring well MW-3 is not dry and then continued biennially. The Summary of Groundwater Chemistry – Natural Attenuation, located in **Appendix C-3**, shows the current and historical Natural Attenuation constituent concentrations for bracketing monitoring wells MW-9, MW-11, MW-12, MW-13, and MW-14 and corrective action monitoring wells MW-3, MW-8, and PZ-2B.

Trending

Trending of the SSL constituents, as shown in **Appendix H**, are either decreasing or stable. Cobalt in monitoring well MW-3 and tetrachloroethene and trichloroethene in monitoring well PZ-2B were decreasing while trichloroethene in monitoring wells MW-3 and MW-8 were stable. Trends were established at 80% confidence during the 2nd 2024 semi-annual statistical evaluation. The decreasing to stable trends in the SSL parameters may be an indication that the installed passive gas venting is likely successful in contributing to a decrease in SSL concentrations in the vicinity of corrective action monitoring wells MW-3 and MW-8.

6.0 SUMMARY AND RECOMMENDATIONS

6.1 SITE IMPACT ON GROUNDWATER

- Slightly elevated concentrations of cobalt have been measured to the south of the Landfill in the vicinity of corrective action monitoring well MW-3. Cobalt concentrations in bracketing wells have measured concentrations below the background prediction limit, therefore, cobalt is considered bracketed at the site.

- Trichloroethene impact is present to the south of the Landfill in corrective action monitoring wells MW-3, MW-8 and PZ-2B and assessment monitoring well MW-2. Landfill gas vents were installed in December 2018 and June 2021 to aid in venting the subsurface in the area of these monitoring wells as the groundwater impact appears to be caused by landfill gas. Additionally, solar powered blowers were installed on gas vents GV-4, GV-5, GV-7, and GV-9 to aid in landfill gas removal. Trichloroethene is considered

bracketed at this time for monitoring wells MW-3, MW-8, and PZ-2B, considering monitoring well MW-11 as a downgradient monitoring well for monitoring well PZ-2B.

- Tetrachloroethene impact is present southeast of the Landfill in monitoring wells MW-2 and PZ-2B. As noted above, landfill gas vents were installed in December 2018 and June 2021 to aid in venting the subsurface in the area of monitoring well PZ-2B. Tetrachloroethene was measured at an SSL initially during the 2021 reporting period; and is considered bracketed. It should be noted that bracketing wells to the south, east, and west measured non-detect concentrations during the most recent semi-annual sampling event.

6.2 PROPOSED MONITORING

Due to decreasing or stable trends or parent constituents in corrective action monitoring wells MW-3 and MW-8, as shown in **Appendix H**, it is recommended that the sampling frequency is reduced from biannual to annual.

Anticipated groundwater sampling for the 2024 reporting period is shown in **Table 2**. Natural Attenuation parameters are sampled biennially; they will next be sampled in monitoring well MW-3 during the next sampling event when the monitoring well is not dry and in monitoring well MW-8 during the 2025 spring semi-annual sampling event and discussed in the 2025 AWQR. If monitoring wells MW-3 and MW-8 are replaced, sampling activities will continue in the replacement monitoring wells.

6.3 PROPOSED MONITORING WELL CHANGES

Monitoring well MW-3 has not had sufficient water for sampling collection since November 2022, and monitoring well MW-8 has only had sufficient water for sampling during 50% of the sampling events in the past two years. Therefore, it is recommended that these monitoring wells be abandoned and replaced with deeper monitoring wells to provide samples more consistently. No other changes to the monitoring wells are recommended at this time.

Tables

Table 1
Monitoring Program Summary
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Monitoring Well	Formation[1]	Current Monitoring Program	Change for Next Sampling Event	Constituents with SSIs	Constituents with SSLs	Total Number of Samples in Each Monitoring Program Inorganic/Organic		
						Detection	Assessment	Corrective Action
HMSP Monitoring Points								
MW-6	Glacial Till	Background	No Change	Not Applicable	Not Applicable	16/30		
MW-2	Loess	Assessment	No Change	Barium, Nickel, 1,1-Dichloroethane, cis-1,2-Dichloroethene, Dichlorodifluoromethane, Tetrachloroethene, Trichloroethene	None		17/32	
MW-3	Loess	Corrective Action	No Change	Not Sampled - Dry	Cobalt, Trichloroethene			12/27
MW-5	Glacial Till	Assessment	No Change	None	None		17/32	
MW-8	Glacial Till	Corrective Action	No Change	Barium, Cobalt, Nickel, 1,1-Dichloroethane, 2,4-D [2C], Benzene, cis-1,2-Dichloroethene, Dichlorodifluoromethane, Tetrachloroethene, Trichloroethene, Vinyl Chloride	Trichloroethene			14/29
PZ-2B	Glacio-Fluvial Sand	Corrective Action	No Change	Arsenic, 1,1-Dichloroethane, cis-1,2-Dichloroethene, Dichlorodifluoromethane, Tetrachloroethene, Trichloroethene	Trichloroethene, Tetrachloroethene			17/32
Other Monitoring Points								
MW-9	Loess	Bracketing well for SSL parameters						
MW-11	Loess	Bracketing well for SSL parameters						
MW-12	Loess	Bracketing well for SSL parameters						
MW-13	Clay	Bracketing well for SSL parameters						
MW-14	Glacial Till	Bracketing well for SSL parameters						
PZ-2A	Glacial Till	Bracketing well for SSL parameters						

Notes:

[1] Obtained from screened interval on boring logs.

SSL - Statistically Significant Level above groundwater protection standard.

SSI - Statistically Significant Increase above background.

Table 2
Monitoring Program Implementation Schedule
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Monitoring Well	Recent Sampling Dates and Constituents		Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	June 2024	August 2024	1st 2025 Semi-Annual	2nd 2025 Semi-Annual	Previously Collected	Next Event
MW-6	Not Sampled - Dry	Appendix I, Sulfide, TSS	Appendix I, Sulfide, TSS	Appendix I, Sulfide, TSS	Not applicable	Not applicable
MW-2	Appendix I, Dichlorodifluoromethane, TSS	Appendix I, Dichlorodifluoromethane, TSS	Appendix II, TSS	Appendix I+, Dichlorodifluoromethane, TSS	3/21/2009, 4/7/2014, 10/28/2014, 4/6/2015, 10/21/2015, 8/25/2020	2025
PZ-2B	Appendix I, Dichlorodifluoromethane, TSS	Appendix I, Dichlorodifluoromethane, TSS	Appendix II, TSS	Appendix I+, Dichlorodifluoromethane, TSS	3/21/2009, 4/7/2014, 10/28/2014, 4/6/2015, 10/21/2015, 8/25/2020	2025
MW-3	Not Sampled - Dry	Not Sampled - Dry	Appendix II, Natural Attenuation Parameters, TSS	None*	3/21/2009, 4/7/2014, 10/28/2014, 4/6/2015, 10/21/2015, 2/12/2020	2025
MW-5	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	3/21/2009, 8/5/2016, 3/17/2021	2026
MW-8	Appendix I, Dichlorodifluoromethane, 2,4-D, Sulfide, TSS	Not Sampled - Dry	Appendix II, Natural Attenuation Parameters, TSS	None*	3/21/2009, 4/7/2014, 10/28/2014, 4/6/2015, 10/21/2015, 2/12/2020	2025
MW-9	Tetrachloroethene, Trichloroethene	Not Sampled - Inaccessible	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Not applicable	Not applicable
MW-11	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Not applicable	Not applicable
MW-12	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Not applicable	Not applicable
MW-14	Cobalt, Tetrachloroethene, Trichloroethene, TSS	Tetrachloroethene, Trichloroethene	Cobalt, Tetrachloroethene, Trichloroethene, TSS	None	Not applicable	Not applicable
PZ-2A	Tetrachloroethene, Trichloroethene, TSS	Not Sampled - Dry	Tetrachloroethene, Trichloroethene	Tetrachloroethene, Trichloroethene	Not applicable	Not applicable

Notes:
TSS - Total Suspended Solids
Natural Attenuation Parameters Include: Dissolved Methane, Iron, Nitrate, Manganese, and Sulfate.
Appendix I+ includes the entire Appendix I list, plus any detected Appendix II parameters.
*- Pending DNR review of modifications described in Section 6.2 of this report.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Compliance with:	2022	2023	2024	2025
567 IAC 113.10(2)"f"(1) high and low water levels	Completed		Included[1]	
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed	Completed	Included[2]	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included[1]	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry	Completed		Included[1]	

Notes:

[1] See Table 4.

[2] See Section 2.2 of this report.

Comments:

None.

Table 4
Monitoring Well Performance and Maintenance Summary
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth Discrepancy (ft)	Initial Flow Rate (L/min)	Recent Flow Rate (L/min)	% Change
					6/12/2024	8/29/2024		10/5/2016	Date	
MW-6	228.26	174.3	69.0	Groundwater Level (ft)	59.31	59.00	NM	0.250	0.183 8/29/2024	-27%
				Groundwater Elevation (Ft MSL)	168.95	169.26				
				Measured Well Depth (ft)	NM	NM				
				Submerged screen	N	N				
MW-2	138.66	104.7	44.0	Groundwater Level (ft)	20.30	22.70	-0.30	0.105	0.175 8/29/2024	67%
				Groundwater Elevation (Ft MSL)	118.36	115.96				
				Measured Well Depth (ft)	44.3	44.2				
				Submerged screen	Y	Y				
PZ-2B	139.24	91.3	50.5	Groundwater Level (ft)	18.64	21.65	-1.72	0.150	0.167 8/29/2024	11%
				Groundwater Elevation (Ft MSL)	120.60	117.59				
				Measured Well Depth (ft)	52.2	52.2				
				Submerged screen	Y	Y				
MW-3	172.82	122.8	60.0	Groundwater Level (ft)	59.78	63.10	NM	0.425	0.175 11/2/2022	-59%
				Groundwater Elevation (Ft MSL)	113.04	109.72				
				Measured Well Depth (ft)	NM	NM				
				Submerged screen	N	N				
MW-5	186.00	118.4	82.6	Groundwater Level (ft)	59.66	60.45	NM	0.500	0.153 8/29/2024	-69%
				Groundwater Elevation (Ft MSL)	126.34	125.55				
				Measured Well Depth (ft)	NM	NM				
				Submerged screen	Y	Y				
MW-8	169.79	116.2	63.6	Groundwater Level (ft)	53.77	Dry	NM	0.500	0.250 6/12/2024	-50%
				Groundwater Elevation (Ft MSL)	116.02	NA				
				Measured Well Depth (ft)	NM	NM				
				Submerged screen	N	N				

Notes:

NM - Not Measured

Date shown reflects the first date of the sampling event. Refer to Field Data Sheets, **Appendix A**, for actual sampling date.

Comments:

1) Monitoring wells with submersible pumps are only measured once every 5 years. Monitoring wells MW-3, MW-5, MW-6, and MW-8 were measured during the 2020 reporting period and will be measured next during the 2025 reporting period.
2) The measured groundwater level in MW-3 during the August measurement event was greater than the installed total depth and appears to be anomalous.
3) The following are comments regarding the measured well depths:

PZ-2B: The measured well depth has been consistent over the past six reporting periods.

Table 5
Background and GWPS Summary
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Interwell Background/GWPS (MW-6)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Antimony (Sb)	mg/L	16	4	0.00042*	0.00179*	0.00094750	0.00179	PL (NP)	0.006	MCL
Arsenic (As)	mg/L	16	3	0.00056*	0.00115*	0.00097788	0.00115	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	16	16	0.387	0.599	0.49471875	0.6611	PL (P)	2.0	MCL
Beryllium (Be)	mg/L	16	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050000	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	16	5	0.00005 (1/2 RL)	0.000542	0.00018456	0.000542	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	16	2	0.00208*	0.0025 (1/2 RL)	0.00247188	0.0025	PL (NP)	0.1	MCL
Cobalt (Co)	mg/L	16	12	0.00005*	0.00165	0.00041388	0.001683	PL (P)	0.0021	SWS
Copper (Cu)	mg/L	16	7	0.0012*	0.0146	0.00339813	0.0146	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	16	6	0.00025 (1/2 RL)	0.00316	0.00062381	0.00316	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	16	4	0.000695*	0.00455*	0.00251969	0.00455	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	16	15	0.00194*	0.00752	0.00520906	0.009887	PL (P)	0.05	MCL
Silver (Ag)	mg/L	16	0	0.00025 (1/2 RL)	0.0005 (1/2 RL)	0.00048438	< 0.001	DQR	0.1	SWS
Thallium (Tl)	mg/L	16	1	0.000329*	0.001 (1/2 RL)	0.00052056	0.001	PL (NP)	0.002	MCL
Vanadium (V)	mg/L	16	10	0.000856*	0.00473*	0.00206053	0.004572	PL (P)	0.035	SWS
Zinc (Zn)	mg/L	16	2	0.005 (1/2 RL)	0.0159*	0.01037500	0.0159	PL (NP)	2.0	SWS

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

Notes:

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

Acronyms/Abbreviations:

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

Comments:

1) **Water quality results and effectiveness of the statistical data evaluation criteria:** Statistical evaluations consist of prediction limits, double quantification rule, and confidence intervals/confidence bands, as appropriate, and do not use data from the background wells for development of the confidence intervals or confidence
2) **Changes to the previous statistical method during reporting period:** There were no changes to the statistical method during the 2024 reporting period.
3) **Re-sampling strategy:** The Woodbury County Sanitary Landfill detection monitoring statistical method includes a 1-of-2 retesting scheme; however, retesting is not performed for the assessment monitoring or corrective action monitoring programs. The monitoring wells in the Woodbury County Sanitary Landfill monitoring network are in the assessment or corrective action monitoring program; therefore, indicated SSIs are considered as SSIs despite not performing retesting to complete the statistical test.
4) **Justification for data exclusion:** Due to the effect of elevated TSS on inorganic concentrations, data obtained prior to the implementation of low-flow sampling during the 2016 reporting period was removed from statistical consideration beginning with the 2019 reporting period.

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Well	Constituent	Units	Most Recent Result	Background Standard
MW-2	Barium	mg/L	0.751	0.6611
	Nickel	mg/L	0.0167	0.00455
MW-8	Cobalt	mg/L	0.00416	0.001683
	Nickel	mg/L	0.00611	0.00455

Notes:

None.

Comments:

1) **Problems with the current detection network:** None.
2) **Schedule to implement remedies:** Not applicable.
3) **Alternative constituent or sample frequency changes:** None.
4) **Significant changes to calculated prediction limits:** Not applicable.
5) **Resampling strategy:** If any monitoring well returns to the detection monitoring program, retesting will be performed on a 1-of-2 retesting scheme. The Woodbury County Sanitary Landfill detection monitoring statistical method includes a 1-of-2 retesting scheme; however, retesting is not performed for the assessment monitoring or corrective action monitoring programs. The monitoring wells in the Woodbury County Sanitary Landfill monitoring network are in the assessment or corrective action monitoring programs; therefore, indicated SSIs are considered as SSIs despite not performing retesting to complete the statistical test.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-2	Barium	mg/L	0.751	0.6611	0.3022	2	8/29/2024	NM	10/10/2018
	Nickel	mg/L	0.0167	0.00455	0.001864	0.1	6/12/2024	NM	10/10/2018
	1,1-Dichloroethane	µg/L	7.5	< 1	4.568	140	3/21/2009	NM	3/16/2011
	cis-1,2-Dichloroethene	µg/L	8.13	< 1	2.063	70	7/18/2017	NM	3/16/2011
	Tetrachloroethene	µg/L	5.82	< 1	2.202	5	9/9/2009	NM	3/16/2011
	Trichloroethene	µg/L	9.58	< 1	4.225	5	3/21/2009	NM	3/16/2011
	Dichlorodifluoromethane	µg/L	3.81	< 3	2.427	1000	3/21/2009	NM	3/16/2011
MW-3	No Sample								
MW-5	None								
MW-8	Barium	mg/L	1.14	0.6611	0.8757	2	4/12/2023	NM	10/10/2018
	Cobalt	mg/L	0.00416	0.001683	0.0001185	0.0021	6/12/2024	NM	10/10/2018
	Nickel	mg/L	0.00611	0.00455	0.002371	0.1	6/12/2024	NM	10/10/2018
	1,1-Dichloroethane	µg/L	28.1	< 1	26.64	140	3/21/2009	NM	3/16/2011
	Benzene	µg/L	1.12	< 0.5	TS	5	10/27/2011	NM	3/16/2011
	cis-1,2-Dichloroethene	µg/L	3.68	< 1	TS	70	10/5/2016	NM	3/16/2011
	Tetrachloroethene	µg/L	1.19	< 1	0.6487	5	4/12/2023	NM	3/16/2011
	Trichloroethene	µg/L	18.5	< 1	16.28	5	4/9/2008	NM	3/30/2010
	Vinyl Chloride	µg/L	2.11	< 1	1.687	2	3/21/2009	NM	3/16/2011
	2,4-D [2C]	µg/L	1.22	<0.586	0.535	70	4/7/2014	NM	10/21/2015
	Dichlorodifluoromethane	µg/L	18.9	< 3	22.3	1000	3/21/2009	NM	3/16/2011
PZ-2B	Arsenic	mg/L	0.00593†	0.00115	0.005264	0.01	4/12/2023	NM	10/10/2018
	1,1-Dichloroethane	µg/L	2.85†	< 1	TS	140	3/21/2009	NM	3/16/2011
	cis-1,2-Dichloroethene	µg/L	1.61†	< 1	TS	70	4/2/2018	NM	3/16/2011
	Tetrachloroethene	µg/L	3.90†	< 1	3.476	5	3/21/2009	NM	3/16/2011
	Trichloroethene	µg/L	5.325†	< 1	4.829	5	3/21/2009	NM	3/16/2011
	Dichlorodifluoromethane	µg/L	3.545†	< 3	2.726	1000	3/21/2009	NM	3/16/2011

Notes:

1) Shaded rows denote constituent/well pairs with SSIs indicated in 2024 but not 2023. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2023 and 2024 reporting periods.

NM - Not Measured; Resampling of constituents with indicated statistically significant increases (SSIs) above background was not part of the statistical methodology performed by the previous consultant. For this reason, all wells were moved to the assessment monitoring program following the collection of the 5th background sample with the exception of monitoring well MW-5. MW-5 was moved into the assessment monitoring program following the 2nd 2017 semi-annual statistical evaluation.

TS - Theil Sen; Due to a statistically significant trend, Theil Sen analysis was performed in lieu of Confidence Interval analysis. Therefore, a lower confidence limit is unavailable.

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

† - Monitoring well included a duplicate sample during the most recent sampling event; therefore, the most recent result concentration is an average of the samples.

Comments:

1) **Problems with the current assessment network:** None.
2) **Proposed remedies:** None.
3) **Alternative constituent or sample frequency changes:** None.
4) **Plume delineation strategies:** See discussion of Figures 4-6.
5) **Property owner notifications:** Previously completed.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS					
							1st Year		2nd Year		3rd Year	
MW-3	Cobalt	mg/L	0.00482	0.007289	0.0021	2019*	NA	NA	NA	NA	NA	NA
	Trichloroethene	µg/L	16.4	19.97	5	2008	NA	NA	NA	NA	NA	NA
MW-8	Trichloroethene	µg/L	18.5	18.47	5	2008	NA	NA	NA	NA	NA	NA
PZ-2B	Tetrachloroethene	µg/L	3.90†	6.873	5	2021	NA	NA	NA	NA	NA	NA
	Trichloroethene	µg/L	5.325†	9.627	5	2021	NA	NA	NA	NA	NA	NA

Notes:

NA - Indicates that the constituent-monitoring point dataset has not satisfied the statistical requirements of IAC 567-113.10(9)"e"(2), which is identified by the entire confidence interval or part of the confidence band, as appropriate, being below the GWPS.

* - Inorganic data obtained prior to the implementation of low-flow sampling during the 2016 reporting period was removed from statistical consideration beginning with the 1st 2019 semi-annual statistical evaluation. Therefore, the initial exceedance of cobalt is considered to be the 1st 2019 semi-annual sampling event although the SSL measurement precedes 2019.

† - Monitoring well included a duplicate sample during the most recent sampling event; therefore, the most recent result concentration is an average of the samples.

Table 9
Summary of Groundwater Chemistry
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

The Summary of Groundwater Chemistry is located in Appendix C-1.
The Summary of Groundwater Chemistry - Bracketing is located in Appendix C-2.

Table 10
Historical SSI and SSL
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Key

SSI

SSL

Well	Constituent	Spring 2018	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021	Fall 2021	Spring 2022	Fall 2022	Spring 2023	Fall 2023	Spring 2024	Fall 2024
MW-2	Barium														
	Nickel														
	1,1-Dichloroethane														
	Acetone														
	cis-1,2-Dichloroethene														
	Tetrachloroethene														
	Trichloroethene														
	Dichlorodifluoromethane														
MW-3	Cobalt									NS		NS	NS	NS	NS
	1,1-Dichloroethane									NS		NS	NS	NS	NS
	Benzene									NS		NS	NS	NS	NS
	Chloroethane									NS		NS	NS	NS	NS
	cis-1,2-Dichloroethene									NS		NS	NS	NS	NS
	Tetrachloroethene									NS		NS	NS	NS	NS
	Trichloroethene									NS		NS	NS	NS	NS
MW-5	Carbon Disulfide														
	Chloroethane														
MW-8	Barium									NS			NS		NS
	Cobalt														NS
	Nickel														NS
	1,1-Dichloroethane									NS			NS		NS
	Benzene									NS			NS		NS
	Chloroethane									NS			NS		NS
	cis-1,2-Dichloroethene									NS			NS		NS
	Tetrachloroethene									NS			NS		NS
	Trichloroethene									NS			NS		NS
	Vinyl Chloride									NS			NS		NS
	2,4-D [2C]									NS	NS		NS		NS
	Dichlorodifluoromethane									NS	NS		NS		NS
	Sulfide									NS			NS		NS
PZ-2B	Arsenic														
	Nickel														
	1,1-Dichloroethane														
	cis-1,2-Dichloroethene														
	Tetrachloroethene														
	Trichloroethene														
	Vinyl Chloride														
	Dichlorodifluoromethane														

Comments:

1) Inorganic data obtained prior to the implementation of low-flow sampling was removed from statistical consideration beginning with the 1st 2019 semi-annual statistical evaluation. Therefore, the initial exceedance of cobalt is considered the 1st 2019 semi-annual sampling event although the SSL measurement precedes 2019.

2) SSIs shown were not verified with retesting as the monitoring wells are in either assessment or corrective action monitoring.

NS - Sample was not collected due to insufficient water in well or equipment failure.

Table 11
Corrective Action Trend Analysis
2024 Annual Water Quality Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Well	Current SSL	Trend	Calculated S	Critical S	N	Projected Year to Completion*
MW-3	Cobalt	Decreasing	-14	-21	8	2030
	Trichloroethene	Increasing	2	21	8	NA
MW-8	Trichloroethene	Increasing	3	21	8	NA
PZ-2B	Tetrachloroethene	Decreasing	-20	-21	8	2030
	Trichloroethene	Decreasing	-21	-21	8	2031

Notes:

N - Number of Samples.

S - Mann-Kendall Statistic.

NA - Projected date to completion unable to be calculated due to increasing trend.

* - To satisfy IAC 113.10(9)"e"; Projected Date to Completion was based on utilizing the Sen's slope calculation to determine when the concentration would be below the GWPS for eight sampling events and remain there for three consecutive years.

Comments:

1) An Assessment of Corrective Measures Report was submitted on June 30, 2020 (Doc #98017) and approved in permit correspondence dated July 22, 2020 (Doc #98119). The Selection of Remedy and Corrective Action Monitoring Program was submitted on November 9, 2020 and approved in permit correspondence dated November 20, 2020 (Doc #98974).

Figures

HMSP Monitoring Points	Monitoring Program
MW-6	Background
MW-2	Assessment
PZ-2B	Corrective Action
MW-3	Corrective Action
MW-5	Assessment
MW-8	Corrective Action

Approved Monitoring Network

Figure 1

Legend

- HMSP Monitoring Point
- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

N E S W

0 130 260 520 Feet

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environmental consultants and contractors

Groundwater Contours

Legend

- Approximate Groundwater Contour Based On Field Measurments Taken June 11, 2024
- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

Figure 2

N E S W

0 130 260 520 Feet

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Maximum Concentration Summary

Constituent	Monitoring Point	Maximum Concentration
Arsenic (mg/L)	PZ-2B	0.00601
Barium (mg/L)	MW-8	1.14
Cadmium (mg/L)	MW-2	0.000442
Cobalt (mg/L)	MW-8	0.00416
Lead (mg/L)	MW-6	0.00144
Nickel (mg/L)	MW-2	0.0167
Selenium (mg/L)	MW-6	0.00578
Zinc (mg/L)	MW-2	0.224
1,1-Dichloroethane (ug/L)	MW-8	28.1
Benzene (ug/L)	MW-8	1.12
cis-1,2-Dichloroethene (ug/L)	MW-2	8.13
Tetrachloroethene (ug/L)	MW-2	5.82
Trichloroethene (ug/L)	MW-8	18.5
Vinyl Chloride (ug/L)	MW-8	2.11
2,4-D [2C] (ug/L)	MW-8	1.22
Dichlorodifluoromethane (ug/L)	MW-8	18.9

Reporting Period Detection Summary

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Legend

- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

Figure 3

N E S W

0 130 260 520 Feet

MW-14	Cobalt (mg/L)	TSS (mg/L)
3/17/2021	0.00161	34.3
5/4/2022	<0.0005	1.38*
4/12/2023	0.00109	10.6
6/12/2024	0.000995	8.63

MW-2	Cobalt (mg/L)	TSS (mg/L)
4/12/2023	<0.0005	<1.88
8/29/2023	0.000204*	2.25
6/12/2024	<0.0005	<1.88
8/29/2024	0.00154	<1.88

PZ-2B	Cobalt (mg/L)	TSS (mg/L)
4/12/2023	0.000611	2.88
8/29/2023	0.000939	13.5
6/12/2024	0.000593	3.75
8/29/2024	0.00058	3.63

MW-11	Cobalt (mg/L)	TSS (mg/L)
4/2/2018	<0.0005	1*
10/10/2018	<0.0005	<1.88
3/26/2019	<0.0005	<1.88
7/31/2019	<0.0005	1.25*

MW-8	Cobalt (mg/L)	TSS (mg/L)
8/5/2021	0.000122*	1.38*
11/2/2022	0.000664	5
4/12/2023	0.00182	117
6/12/2024	0.00416	2.13

MW-3	Cobalt (mg/L)	TSS (mg/L)
8/25/2020	0.00167	6.38
3/17/2021	0.0022	11
8/5/2021	0.00188	6
11/2/2022	0.00482	16.5

MW-13	Cobalt (mg/L)	TSS (mg/L)
3/26/2019	0.000811	47
7/31/2019	0.000606	27.8
2/12/2020	0.000385*	31.8
8/25/2020	0.000189*	6.75

MW-6	Cobalt (mg/L)	TSS (mg/L)
11/2/2022	0.00124	29.3
4/12/2023	<0.0005	1.25*
8/29/2023	0.000225*	5.88
8/29/2024	0.00165	137

MW-5	Cobalt (mg/L)	TSS (mg/L)
4/12/2023	0.000344*	1*
8/29/2023	0.000185*	1.5*
6/12/2024	0.000264*	<1.88
8/29/2024	0.000461*	13.4

Cobalt Concentration Map

Legend

- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- SSL Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Cobalt Prediction Limit = 0.001683 mg/L

* Indicates a J Flag - the concentration is below the reporting limit but above the method detection limit.

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

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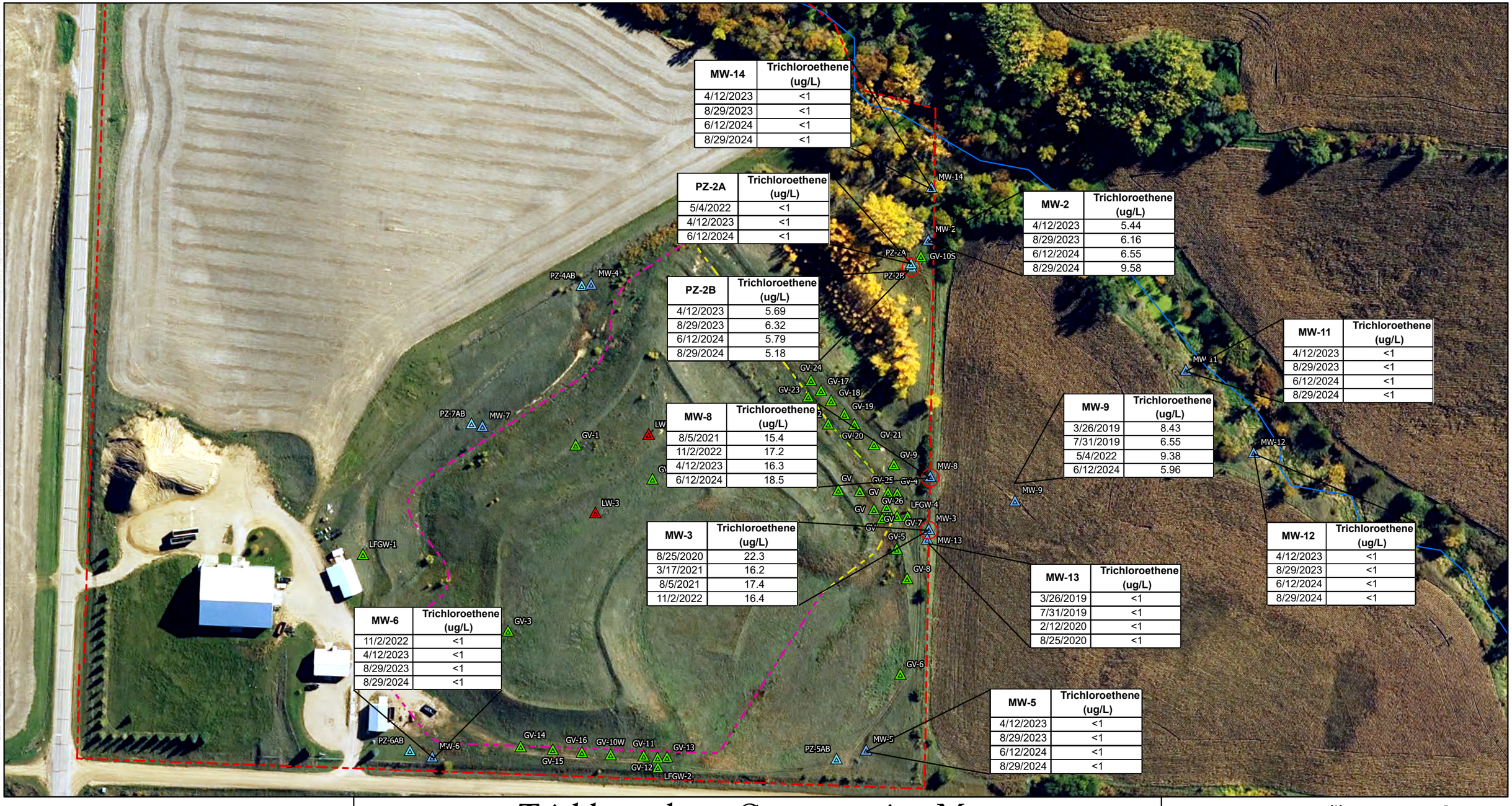
Figure 4

N E S W

0 130 260 520 Feet



MW-14	Trichloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

PZ-2A	Trichloroethene (ug/L)
5/4/2022	<1
4/12/2023	<1
6/12/2024	<1

MW-2	Trichloroethene (ug/L)
4/12/2023	5.44
8/29/2023	6.16
6/12/2024	6.55
8/29/2024	9.58

PZ-2B	Trichloroethene (ug/L)
4/12/2023	5.69
8/29/2023	6.32
6/12/2024	5.79
8/29/2024	5.18

MW-11	Trichloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

MW-8	Trichloroethene (ug/L)
8/5/2021	15.4
11/2/2022	17.2
4/12/2023	16.3
6/12/2024	18.5

MW-9	Trichloroethene (ug/L)
3/26/2019	8.43
7/31/2019	6.55
5/4/2022	9.38
6/12/2024	5.96

MW-3	Trichloroethene (ug/L)
8/25/2020	22.3
3/17/2021	16.2
8/5/2021	17.4
11/2/2022	16.4

MW-12	Trichloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

MW-13	Trichloroethene (ug/L)
3/26/2019	<1
7/31/2019	<1
2/12/2020	<1
8/25/2020	<1

MW-6	Trichloroethene (ug/L)
11/2/2022	<1
4/12/2023	<1
8/29/2023	<1
8/29/2024	<1

MW-5	Trichloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

Trichloroethene Concentration Map

Legend

- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- SSL Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Trichloroethene Prediction Limit = <1 ug/L

* Indicates a J Flag - the concentration is below the reporting limit but above the method detection limit.

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

Figure 5

N E S W

0 130 260 520 Feet

SCS ENGINEERS
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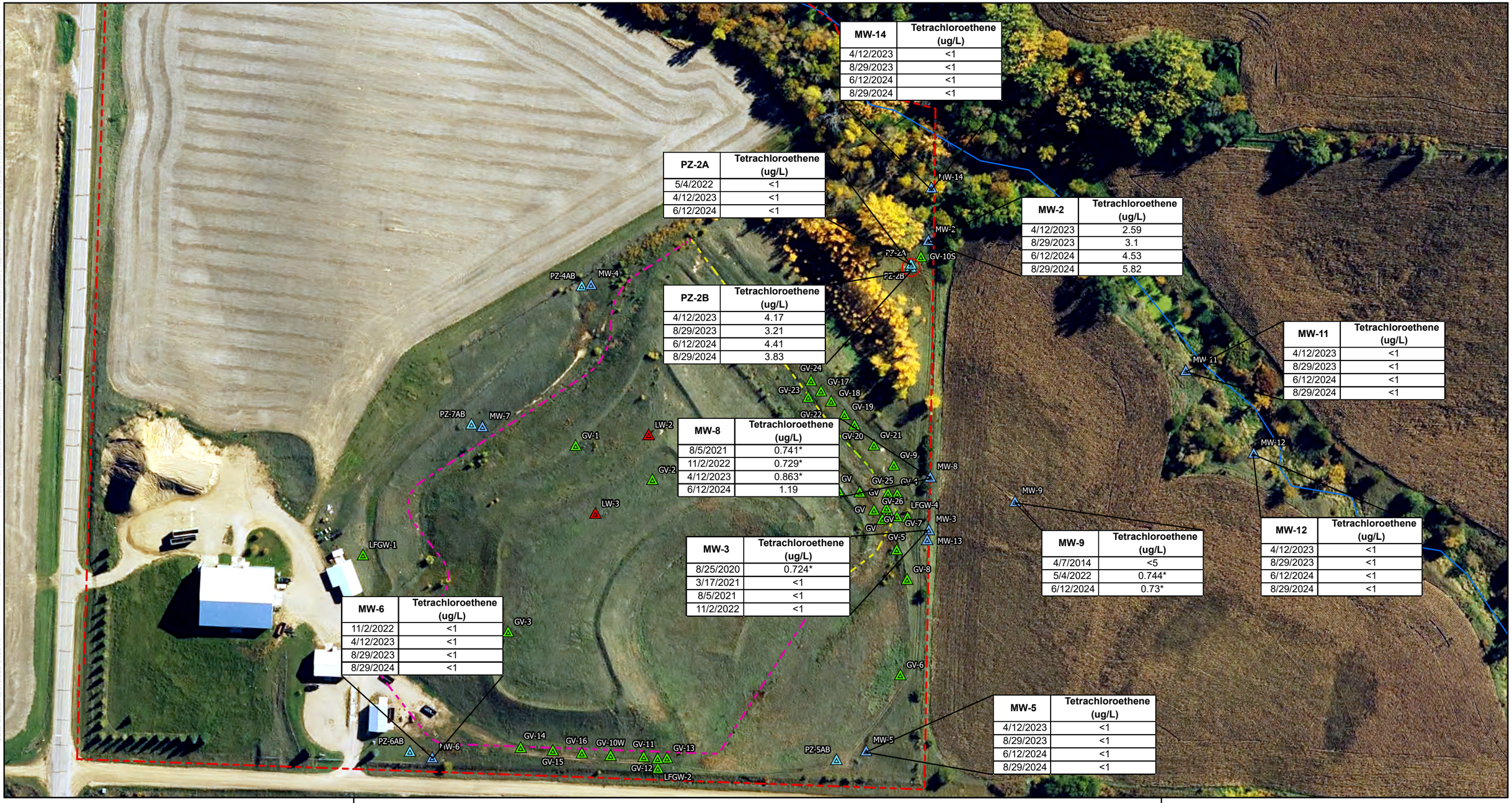

MW-14	Tetrachloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

PZ-2A	Tetrachloroethene (ug/L)
5/4/2022	<1
4/12/2023	<1
6/12/2024	<1

MW-2	Tetrachloroethene (ug/L)
4/12/2023	2.59
8/29/2023	3.1
6/12/2024	4.53
8/29/2024	5.82

PZ-2B	Tetrachloroethene (ug/L)
4/12/2023	4.17
8/29/2023	3.21
6/12/2024	4.41
8/29/2024	3.83

MW-11	Tetrachloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

MW-8	Tetrachloroethene (ug/L)
8/5/2021	0.741*
11/2/2022	0.729*
4/12/2023	0.863*
6/12/2024	1.19

MW-3	Tetrachloroethene (ug/L)
8/25/2020	0.724*
3/17/2021	<1
8/5/2021	<1
11/2/2022	<1

MW-9	Tetrachloroethene (ug/L)
4/7/2014	<5
5/4/2022	0.744*
6/12/2024	0.73*

MW-12	Tetrachloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

MW-6	Tetrachloroethene (ug/L)
11/2/2022	<1
4/12/2023	<1
8/29/2023	<1
8/29/2024	<1

MW-5	Tetrachloroethene (ug/L)
4/12/2023	<1
8/29/2023	<1
6/12/2024	<1
8/29/2024	<1

Tetrachloroethene Concentration Map

Legend

- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- SSL Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Tetrachloroethene Prediction Limit = <1 ug/L

* Indicates a J Flag - the concentration is below the reporting limit but above the method detection limit.

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

Figure 6

N E S W

0 130 260 520 Feet

SCS ENGINEERS
environmental consultants and contractors

Appendix A

Field Sampling Forms

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-2**	Date:	**6/12/2024**
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):	44.3
Initial Static Water Level (feet):	20.30
Initial Groundwater Elevation (ft-amsl):	119.03
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:19 PM	Purging start time.						
12:22 PM	12.9	0.5	1068.4	6.99	35.2	3.6	
12:25 PM	12.9	0.1	1066.9	6.94	31.2	4.0	
12:28 PM	12.9	<0.1	1065.9	6.93	27.4	7.9	
12:31 PM	13.1	<0.1	1062.5	6.91	24.4	3.6	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color:Clear Odor:None Duplicate MW-D collected.

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**6/12/2024**
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):	60.0
Initial Static Water Level (feet):	59.78
Initial Groundwater Elevation (ft-amsl):	113.04
Equipment Used:	Dedicated Submersible 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):	0
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:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**6/12/2024**
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):	78.1
Initial Static Water Level (feet):	59.66
Initial Groundwater Elevation (ft-amsl):	126.55
Equipment Used:	Dedicated Submersible 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)	
10:15 AM	Purging start time.						
10:18 AM	12.7	0.5	1021.7	7.25	-89.3	19.8	
10:21 AM	13.8	0.1	1027.2	7.19	-109.5	20.1	
10:24 AM	13.0	<0.1	1023.2	7.17	-122.5	15.5	
10:27 AM	14.2	<0.1	1013.8	7.14	-129.8	11.4	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	4.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	333.33

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:Swampy smell Could not pump slower or flow of water would decrease.

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-6**	Date:	**6/12/2024**
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):	63.6
Initial Static Water Level (feet):	59.31
Initial Groundwater Elevation (ft-amsl):	168.95
Equipment Used:	Dedicated Submersible 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):	0
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:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-8**	Date:	**6/12/2024**
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):	NM
Initial Static Water Level (feet):	53.77
Initial Groundwater Elevation (ft-amsl):	116.61
Equipment Used:	Dedicated Submersible 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)	
11:40 AM	Purging start time.						
11:43 AM	13.1	0.1	1643.0	6.55	-38.2	10.0	
11:46 AM	13.3	<0.1	1657.1	6.58	-44.6	6.6	
11:49 AM	13.5	<0.1	1666.8	6.60	-42.8	5.8	
11:52 AM	13.7	<0.1	1667.8	6.60	-39.3	5.7	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	3.0
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	250.00

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-9**	Date:	**6/12/2024**
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):	43.5
Initial Static Water Level (feet):	39.45
Initial Groundwater Elevation (ft-amsl):	115.78
Equipment Used:	Dedicated Submersible 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	14.5	2.5	1178.0	6.99	-46.9	NM	
4:38 PM	14.7	2.4	1182.6	6.96	-38.1	NM	
4:41 PM	14.9	2.1	1190.2	6.94	-29.2	NM	
4:44 PM	15.6	1.8	1194.2	6.92	-20.5	NM	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.5
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	208.33

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes	
If yes, explain:	Well tag needed.	

Additional Comments:	Color:Brown/Cloudy Odor:None Equipment Malfunction - Turbidity not measured

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-11**	Date:	**6/12/2024**
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):	17.0
Initial Static Water Level (feet):	13.38
Initial Groundwater Elevation (ft-amsl):	113.76
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)	
3:57 PM	Purging start time.						
4:00 PM	13.0	4.6	817.3	7.28	29.1	10.0	
4:03 PM	12.6	4.4	816.5	7.21	37.7	6.9	
4:06 PM	12.8	4.3	815.1	7.18	41.4	10.0	
4:09 PM	12.3	4.3	814.8	7.17	43.8	12.6	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**6/12/2024**
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):	20.2
Initial Static Water Level (feet):	15.08
Initial Groundwater Elevation (ft-amsl):	111.29
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)	
3:27 PM	Purging start time.						
3:30 PM	13.9	2.8	959.9	7.10	32.4	16.4	
3:33 PM	14.4	2.8	958.9	7.08	33.2	14.1	
3:36 PM	14.3	2.8	965.0	7.07	32.7	13.0	
3:39 PM	14.3	2.8	963.1	7.06	32.3	12.6	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**6/12/2024**
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):	31.3
Initial Static Water Level (feet):	20.29
Initial Groundwater Elevation (ft-amsl):	134.94
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)	
2:38 PM	Purging start time.						
2:41 PM	15.3	0.3	1172.9	6.97	-75.5	19.0	
2:44 PM	15.4	<0.1	1167.5	6.93	-68.0	38.6	
2:47 PM	14.6	<0.1	1171.5	6.94	-65.1	68.2	
2:50 PM	14.8	<0.1	1167.2	6.93	-62.2	64.5	
	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:Yellow tint Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**PZ-2A**	Date:	**6/12/2024**
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):	71.5
Initial Static Water Level (feet):	23.08
Initial Groundwater Elevation (ft-amsl):	132.15
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)	
1:45 PM	Purging start time.						
1:48 PM	18.5	1.1	940.4	7.26	-129.5	28.5	
1:51 PM	19.1	0.4	893.3	7.30	-152.5	26.0	
1:54 PM	19.6	0.2	881.5	7.31	-164.6	29.2	
1:57 PM	18.9	0.1	884.3	7.34	-174.2	28.2	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	1.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	12:00
Average Purge Rate (mL/min):	108.33

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear with black particles Odor:Swampy

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**PZ-2B**	Date:	**6/12/2024**
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):	52.2
Initial Static Water Level (feet):	18.64
Initial Groundwater Elevation (ft-amsl):	119.74
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)	
1:13 PM	Purging start time.						
1:16 PM	14.1	0.5	1055.4	6.96	-94.4	4.5	
1:19 PM	14.0	0.1	1049.4	6.93	-98.2	5.4	
1:22 PM	13.7	<0.1	1058.7	6.92	-98.7	7.3	
1:25 PM	13.7	<0.1	1070.6	6.91	-98.2	6.5	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-2**	Date:	**8/29/2024**
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):	44.2
Initial Static Water Level (feet):	22.70
Initial Groundwater Elevation (ft-amsl):	116.63
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)	
11:27 AM	Purging start time.						
11:30 AM	16.4	0.5	1065.1	18.42	-87.2	2.3	
11:33 AM	16.1	0.2	1064.5	18.44	-87.9	3.8	
11:36 AM	16.4	0.1	1059.5	18.42	-87.2	4.6	
11:39 AM	16.1	<0.1	1061.3	18.44	-86.0	3.8	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-3**	Date:	**8/29/2024**
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):	64.0
Initial Static Water Level (feet):	63.10
Initial Groundwater Elevation (ft-amsl):	109.72
Equipment Used:	Non-Dedicated Stainless Steel 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):	0
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:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-5**	Date:	**8/29/2024**
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):	NM
Initial Static Water Level (feet):	60.45
Initial Groundwater Elevation (ft-amsl):	125.76
Equipment Used:	Non-Dedicated Stainless Steel 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)	
9:26 AM	Purging start time.						
9:29 AM	15.5	0.7	967.0	18.46	-116.2	70.8	
9:32 AM	17.9	0.4	992.3	18.36	-141.7	78.4	
9:35 AM	15.1	0.3	987.9	18.47	-156.4	62.3	
9:38 AM	15.3	0.2	984.3	18.47	-165.2	41.4	
9:41 AM	15.5	0.2	983.0	18.46	-165.4	30.6	
	Parameters stabilized, sample collected.						

Quantity of Water Removed from Well (liters):	2.3
Was well pumped/bailed dry?	No
Total Amount of Time Purged (minutes:seconds):	15:00
Average Purge Rate (mL/min):	153.33

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

Additional Comments:	Color:Clear Odor:Sulfur

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-6**	Date:	**8/29/2024**
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):	63.6
Initial Static Water Level (feet):	59.00
Initial Groundwater Elevation (ft-amsl):	169.26
Equipment Used:	Non-Dedicated Stainless Steel 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)	
1:06 PM	Purging start time.						
1:09 PM	19.0	1.3	987.0	18.32	7.5	51.4	
1:12 PM	18.2	0.9	975.2	18.35	-0.5	71.0	
1:15 PM	18.2	0.9	994.0	18.35	-4.3	83.1	
1:18 PM	18.1	0.8	1000.0	18.36	-4.7	91.0	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Cloudy/light yellow tint Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-8**	Date:	**8/29/2024**
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):	NM
Initial Static Water Level (feet):	Dry
Initial Groundwater Elevation (ft-amsl):	NA
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):	0
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:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-11**	Date:	**8/29/2024**
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):	17.0
Initial Static Water Level (feet):	13.24
Initial Groundwater Elevation (ft-amsl):	113.90
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)	
2:35 PM	Purging start time.						
2:38 PM	17.4	3.4	853.9	18.38	53.7	4.3	
2:41 PM	17.4	3.2	858.7	18.38	65.8	2.7	
2:44 PM	17.4	3.2	859.0	18.38	70.5	2.9	
2:47 PM	17.5	3.1	857.2	18.38	72.9	2.8	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None. May need a path to the well in the future, hard to find when the corn is tall and vegetation is thick.

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-12**	Date:	**8/29/2024**
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):	20.2
Initial Static Water Level (feet):	14.97
Initial Groundwater Elevation (ft-amsl):	111.40
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
3:05 PM	Purging start time.						
3:08 PM	16.5	4.1	938.0	7.06	55.2	5.0	
3:11 PM	16.5	4.1	939.0	7.01	59.7	4.4	
3:14 PM	16.4	4.0	941.0	7.05	64.5	4.2	
3:17 PM	16.7	4.0	945.0	7.07	70.1	3.9	
	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:None Start raining while sample was being collected.

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-14**	Date:	**8/29/2024**
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):	31.3
Initial Static Water Level (feet):	21.26
Initial Groundwater Elevation (ft-amsl):	133.97
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)	
11:59 AM	Purging start time.						
12:02 PM	16.6	1.2	1207.6	18.42	-133.1	7.9	
12:05 PM	17.0	0.8	1203.9	18.40	-134.1	7.3	
12:08 PM	17.2	0.7	1206.1	18.39	-133.6	9.1	
12:11 PM	17.2	0.7	1205.3	18.39	-132.4	10.9	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color:Clear Odor:None

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**PZ-2A**	Date:	**8/29/2024**
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):	71.5
Initial Static Water Level (feet):	69.01
Initial Groundwater Elevation (ft-amsl):	70.92
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):	0
Average Purge Rate (mL/min):	0.00

D. WELL MAINTENANCE

Does the well require any future maintenance?	Yes	
If yes, explain:	Hinges on well lid are broken and need to be replaced.	

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

FORM FOR GROUNDWATER SAMPLING

Project:	**Woodbury County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**PZ-2B**	Date:	**8/29/2024**
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):	52.2
Initial Static Water Level (feet):	21.65
Initial Groundwater Elevation (ft-amsl):	116.73
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)	
10:35 AM	Purging start time.						
10:38 AM	15.2	0.7	1031.3	18.47	-133.9	2.0	
10:41 AM	14.5	0.2	1029.8	18.50	-138.7	1.9	
10:44 AM	14.8	0.1	1028.4	18.49	-138.0	1.9	
10:47 AM	15.4	<0.1	1036.5	18.46	-137.1	1.9	
	Parameters stabilized, sample collected.						

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

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

Additional Comments:	Color:Clear Odor:Sulfur

Appendix B-1

Laboratory Analytical Data Sheets

eurofins | Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/12/2024 12:39:49 PM

JOB DESCRIPTION

Woodbury County SL 1st Semi-Annual 2024 HMSP
1st 2024 Semi-Annual HMSP

JOB NUMBER

310-283502-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

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

Authorization

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Authorized for release by
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Table of Contents

Job ID: 310-283502-1 Eurofins Cedar Falls

Job Narrative
310-283502-1

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 6/13/2024 4:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

GC/MS VOA
Method 8260D: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container: MW-5 (310-283502-2) and Trip Blank (310-283502-7).

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

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

Metals
Method 6020B: The laboratory control sample (LCS) for 310-424661 recovered outside control limits for the following analytes: Nickel. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. MW-5 (310-283502-2) and PZ-2B (310-283502-5)

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: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-283502-1	MW-2	Groundwater	06/12/24 12:19	06/13/24 16:25
310-283502-2	MW-5	Groundwater	06/12/24 10:15	06/13/24 16:25
310-283502-4	MW-8	Groundwater	06/12/24 11:40	06/13/24 16:25
310-283502-5	PZ-2B	Groundwater	06/12/24 13:13	06/13/24 16:25
310-283502-6	MW-D	Groundwater	06/12/24 12:19	06/13/24 16:25
310-283502-7	Trip Blank	Trip Blank	06/12/24 00:00	06/13/24 16:25

Detection Summary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-2 — Lab Sample ID: 310-283502-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	4.71		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.434	J	1.00	0.270	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.74		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	4.61		1.00	0.480	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.359	J	1.00	0.270	ug/L	1		8260D	Total/NA
Trichloroethene	6.76		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.483	J	1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	4.28		3.00	0.250	ug/L	1		8260D	Total/NA
Arsenic	0.000545	J F1 F2	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.485	F2	0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000442	F1 F2	0.000200	0.000100	mg/L	1		6020B	Total/NA
Nickel	0.00687		0.00500	0.00210	mg/L	1		6020B	Total/NA
Vanadium	0.00119	J F2 F1	0.00500	0.00110	mg/L	1		6020B	Total/NA
Zinc	0.0130	J F1 F2	0.0200	0.00970	mg/L	1		6020B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-283502-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000696	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0249		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000264	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Thallium	0.000581	J	0.00100	0.000570	mg/L	1		6020B	Total/NA

Client Sample ID: MW-8 — Lab Sample ID: 310-283502-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.273	J	1.00	0.190	ug/L	1		8260D	Total/NA
1,1-Dichloroethane	28.1		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.930	J	1.00	0.270	ug/L	1		8260D	Total/NA
Benzene	1.12		0.500	0.220	ug/L	1		8260D	Total/NA
Chloroethane	2.28	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.68		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	1.19		1.00	0.480	ug/L	1		8260D	Total/NA
Trichloroethene	18.5		1.00	0.430	ug/L	1		8260D	Total/NA
Trichlorofluoromethane	0.823	J	4.00	0.380	ug/L	1		8260D	Total/NA
Vinyl chloride	2.11		1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	18.9		3.00	0.250	ug/L	1		8260D	Total/NA
2,4-D	1.22		0.586	0.244	ug/L	1		8151A	Total/NA
Arsenic	0.000979	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	1.14		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00416		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00611		0.00500	0.00210	mg/L	1		6020B	Total/NA
Total Suspended Solids	2.13		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: PZ-2B — Lab Sample ID: 310-283502-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	3.20		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.279	J	1.00	0.270	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.71		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	4.41		1.00	0.480	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample ID: PZ-2B (Continued)
Lab Sample ID: 310-283502-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.79		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.354	J	1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	4.29		3.00	0.250	ug/L	1		8260D	Total/NA
Arsenic	0.00552		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.590		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000593		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	3.75		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D
Lab Sample ID: 310-283502-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	4.52		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.425	J	1.00	0.270	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	3.75		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	4.53		1.00	0.480	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.309	J	1.00	0.270	ug/L	1		8260D	Total/NA
Trichloroethene	6.55		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.658	J	1.00	0.180	ug/L	1		8260D	Total/NA
Barium	0.506		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000424		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.000179	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.00632		0.00500	0.00210	mg/L	1		6020B	Total/NA
Vanadium	0.00121	J *+	0.00500	0.00110	mg/L	1		6020B	Total/NA
Zinc	0.224		0.0200	0.00970	mg/L	1		6020B	Total/NA

Client Sample ID: Trip Blank
Lab Sample ID: 310-283502-7

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-2
Lab Sample ID: 310-283502-1
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 14:01	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 14:01	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 14:01	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 14:01	1
1,1-Dichloroethane	**4.71**		1.00	0.220	ug/L			06/15/24 14:01	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 14:01	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 14:01	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 14:01	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 14:01	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 14:01	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 14:01	1
1,2-Dichloropropane	**0.434**	**J**	1.00	0.270	ug/L			06/15/24 14:01	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 14:01	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 14:01	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 14:01	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 14:01	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 14:01	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 14:01	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 14:01	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 14:01	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 14:01	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 14:01	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 14:01	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 14:01	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 14:01	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 14:01	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 14:01	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 14:01	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 14:01	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 14:01	1
cis-1,2-Dichloroethene	**3.74**		1.00	0.210	ug/L			06/15/24 14:01	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 14:01	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 14:01	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 14:01	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 14:01	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 14:01	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 14:01	1
Tetrachloroethene	**4.61**		1.00	0.480	ug/L			06/15/24 14:01	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 14:01	1
trans-1,2-Dichloroethene	**0.359**	**J**	1.00	0.270	ug/L			06/15/24 14:01	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 14:01	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 14:01	1
Trichloroethene	**6.76**		1.00	0.430	ug/L			06/15/24 14:01	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 14:01	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 14:01	1
Vinyl chloride	**0.483**	**J**	1.00	0.180	ug/L			06/15/24 14:01	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 14:01	1
Dichlorodifluoromethane	**4.28**		3.00	0.250	ug/L			06/15/24 14:01	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-2
Lab Sample ID: 310-283502-1
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*73 - 130*		*06/15/24 14:01*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/15/24 14:01*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/15/24 14:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	F2 F1	0.00200	0.00100	mg/L		06/17/24 09:00	06/20/24 17:44	1
Arsenic	**0.000545**	**J F1 F2**	0.00200	0.000530	mg/L		06/17/24 09:00	06/18/24 18:25	1
Barium	**0.485**	**F2**	0.00200	0.000660	mg/L		06/17/24 09:00	06/20/24 17:44	1
Beryllium	<0.00100	F2 F1	0.00100	0.000330	mg/L		06/17/24 09:00	06/20/24 17:44	1
Cadmium	**0.000442**	**F1 F2**	0.000200	0.000100	mg/L		06/17/24 09:00	06/18/24 18:25	1
Chromium	<0.00500	F1 F2	0.00500	0.00120	mg/L		06/17/24 09:00	06/18/24 18:25	1
Cobalt	<0.000500	F1 F2	0.000500	0.000170	mg/L		06/17/24 09:00	06/18/24 18:25	1
Copper	<0.00500	F2 F1	0.00500	0.00180	mg/L		06/17/24 09:00	06/18/24 18:25	1
Lead	<0.000500	F1 F2	0.000500	0.000260	mg/L		06/17/24 09:00	06/18/24 18:25	1
Nickel	**0.00687**		0.00500	0.00210	mg/L		07/10/24 09:00	07/11/24 20:57	1
Selenium	<0.00500	F1 F2	0.00500	0.00140	mg/L		06/17/24 09:00	06/18/24 18:25	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:25	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/17/24 09:00	06/20/24 17:44	1
Vanadium	**0.00119**	**J F2 F1**	0.00500	0.00110	mg/L		06/17/24 09:00	06/20/24 17:44	1
Zinc	**0.0130**	**J F1 F2**	0.0200	0.00970	mg/L		06/17/24 09:00	06/20/24 17:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-5
Lab Sample ID: 310-283502-2
Date Collected: 06/12/24 10:15
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 14:23	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 14:23	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 14:23	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 14:23	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/15/24 14:23	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 14:23	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 14:23	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 14:23	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 14:23	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 14:23	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 14:23	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/15/24 14:23	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 14:23	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 14:23	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 14:23	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 14:23	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 14:23	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 14:23	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 14:23	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 14:23	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 14:23	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 14:23	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 14:23	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 14:23	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 14:23	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 14:23	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 14:23	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 14:23	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 14:23	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 14:23	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/15/24 14:23	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 14:23	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 14:23	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 14:23	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 14:23	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 14:23	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 14:23	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/15/24 14:23	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 14:23	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/15/24 14:23	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 14:23	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 14:23	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/15/24 14:23	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 14:23	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 14:23	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/15/24 14:23	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 14:23	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-5
Lab Sample ID: 310-283502-2

Date Collected: 06/12/24 10:15
Matrix: Groundwater

Date Received: 06/13/24 16:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*101*		*73 - 130*		*06/15/24 14:23*	*1*
Toluene-d8 (Surr)	*95*		*80 - 120*		*06/15/24 14:23*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/15/24 14:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/17/24 09:00	06/20/24 17:54	1
Arsenic	**0.000696**	**J**	0.00200	0.000530	mg/L		06/17/24 09:00	06/18/24 18:36	1
Barium	**0.0249**		0.00200	0.000660	mg/L		06/17/24 09:00	06/20/24 17:54	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/17/24 09:00	06/20/24 17:54	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/17/24 09:00	06/18/24 18:36	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/17/24 09:00	06/18/24 18:36	1
Cobalt	**0.000264**	**J**	0.000500	0.000170	mg/L		06/17/24 09:00	06/18/24 18:36	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/17/24 09:00	06/18/24 18:36	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/17/24 09:00	06/18/24 18:36	1
Nickel	<0.00500	*+	0.00500	0.00210	mg/L		06/17/24 09:00	06/20/24 17:54	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/17/24 09:00	06/18/24 18:36	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:36	1
Thallium	**0.000581**	**J**	0.00100	0.000570	mg/L		06/17/24 09:00	06/20/24 17:54	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/17/24 09:00	06/20/24 17:54	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/17/24 09:00	06/20/24 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			06/17/24 11:46	1

Client Sample ID: MW-8
Lab Sample ID: 310-283502-4
Date Collected: 06/12/24 11:40
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 14:46	1
1,1,1-Trichloroethane	**0.273**	**J**	1.00	0.190	ug/L			06/15/24 14:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 14:46	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 14:46	1
1,1-Dichloroethane	**28.1**		1.00	0.220	ug/L			06/15/24 14:46	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 14:46	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 14:46	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 14:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 14:46	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 14:46	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 14:46	1
1,2-Dichloropropane	**0.930**	**J**	1.00	0.270	ug/L			06/15/24 14:46	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 14:46	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 14:46	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 14:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 14:46	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 14:46	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 14:46	1
Benzene	**1.12**		0.500	0.220	ug/L			06/15/24 14:46	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 14:46	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 14:46	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 14:46	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 14:46	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 14:46	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 14:46	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 14:46	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 14:46	1
Chloroethane	**2.28**	**J**	4.00	0.790	ug/L			06/15/24 14:46	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 14:46	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 14:46	1
cis-1,2-Dichloroethene	**3.68**		1.00	0.210	ug/L			06/15/24 14:46	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 14:46	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 14:46	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 14:46	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 14:46	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 14:46	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 14:46	1
Tetrachloroethene	**1.19**		1.00	0.480	ug/L			06/15/24 14:46	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 14:46	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/15/24 14:46	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 14:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 14:46	1
Trichloroethene	**18.5**		1.00	0.430	ug/L			06/15/24 14:46	1
Trichlorofluoromethane	**0.823**	**J**	4.00	0.380	ug/L			06/15/24 14:46	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 14:46	1
Vinyl chloride	**2.11**		1.00	0.180	ug/L			06/15/24 14:46	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 14:46	1
Dichlorodifluoromethane	**18.9**		3.00	0.250	ug/L			06/15/24 14:46	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-8
Lab Sample ID: 310-283502-4
Date Collected: 06/12/24 11:40
Matrix: Groundwater
Date Received: 06/13/24 16:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*73 - 130*		*06/15/24 14:46*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/15/24 14:46*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/15/24 14:46*	*1*

Method: SW846 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	**1.22**		0.586	0.244	ug/L		06/18/24 15:50	06/20/24 15:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	*+	0.00200	0.00100	mg/L		06/17/24 09:00	06/20/24 17:57	1
Arsenic	**0.000979**	**J**	0.00200	0.000530	mg/L		06/17/24 09:00	06/18/24 18:47	1
Barium	**1.14**		0.00200	0.000660	mg/L		06/17/24 09:00	06/18/24 18:47	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/17/24 09:00	06/20/24 17:57	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/17/24 09:00	06/18/24 18:47	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/17/24 09:00	06/18/24 18:47	1
Cobalt	**0.00416**		0.000500	0.000170	mg/L		06/17/24 09:00	06/18/24 18:47	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/17/24 09:00	06/18/24 18:47	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/17/24 09:00	06/18/24 18:47	1
Nickel	**0.00611**		0.00500	0.00210	mg/L		07/10/24 09:00	07/11/24 21:01	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/17/24 09:00	06/20/24 17:57	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:47	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/17/24 09:00	06/20/24 17:57	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/17/24 09:00	06/20/24 17:57	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/17/24 09:00	06/20/24 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<1.00		1.00	0.231	mg/L		06/17/24 18:20	06/17/24 21:18	1
Total Suspended Solids (USGS I-3765-85)	**2.13**		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: PZ-2B
Lab Sample ID: 310-283502-5
Date Collected: 06/12/24 13:13
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 15:09	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 15:09	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 15:09	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 15:09	1
1,1-Dichloroethane	**3.20**		1.00	0.220	ug/L			06/15/24 15:09	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 15:09	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 15:09	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 15:09	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 15:09	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 15:09	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 15:09	1
1,2-Dichloropropane	**0.279**	**J**	1.00	0.270	ug/L			06/15/24 15:09	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 15:09	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 15:09	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 15:09	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 15:09	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 15:09	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 15:09	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 15:09	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 15:09	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 15:09	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 15:09	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 15:09	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 15:09	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 15:09	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 15:09	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 15:09	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 15:09	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 15:09	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 15:09	1
cis-1,2-Dichloroethene	**1.71**		1.00	0.210	ug/L			06/15/24 15:09	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 15:09	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 15:09	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 15:09	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 15:09	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 15:09	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 15:09	1
Tetrachloroethene	**4.41**		1.00	0.480	ug/L			06/15/24 15:09	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 15:09	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/15/24 15:09	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 15:09	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 15:09	1
Trichloroethene	**5.79**		1.00	0.430	ug/L			06/15/24 15:09	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 15:09	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 15:09	1
Vinyl chloride	**0.354**	**J**	1.00	0.180	ug/L			06/15/24 15:09	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 15:09	1
Dichlorodifluoromethane	**4.29**		3.00	0.250	ug/L			06/15/24 15:09	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: PZ-2B
Lab Sample ID: 310-283502-5

Date Collected: 06/12/24 13:13
Matrix: Groundwater

Date Received: 06/13/24 16:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*73 - 130*		*06/15/24 15:09*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/15/24 15:09*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/15/24 15:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200	*+	0.00200	0.00100	mg/L		06/17/24 09:00	06/20/24 18:15	1
Arsenic	**0.00552**		0.00200	0.000530	mg/L		06/17/24 09:00	06/18/24 18:49	1
Barium	**0.590**		0.00200	0.000660	mg/L		06/17/24 09:00	06/18/24 18:49	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/17/24 09:00	06/20/24 18:15	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/17/24 09:00	06/18/24 18:49	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/17/24 09:00	06/18/24 18:49	1
Cobalt	**0.000593**		0.000500	0.000170	mg/L		06/17/24 09:00	06/18/24 18:49	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/17/24 09:00	06/18/24 18:49	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/17/24 09:00	06/18/24 18:49	1
Nickel	<0.00500	*+	0.00500	0.00210	mg/L		06/17/24 09:00	06/20/24 18:15	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/17/24 09:00	06/20/24 18:15	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:49	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/17/24 09:00	06/20/24 18:15	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/17/24 09:00	06/20/24 18:15	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/17/24 09:00	06/20/24 18:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**3.75**		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-D
Lab Sample ID: 310-283502-6
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 15:31	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 15:31	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 15:31	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 15:31	1
1,1-Dichloroethane	**4.52**		1.00	0.220	ug/L			06/15/24 15:31	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 15:31	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 15:31	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 15:31	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 15:31	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 15:31	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 15:31	1
1,2-Dichloropropane	**0.425**	**J**	1.00	0.270	ug/L			06/15/24 15:31	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 15:31	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 15:31	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 15:31	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 15:31	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 15:31	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 15:31	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 15:31	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 15:31	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 15:31	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 15:31	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 15:31	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 15:31	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 15:31	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 15:31	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 15:31	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 15:31	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 15:31	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 15:31	1
cis-1,2-Dichloroethene	**3.75**		1.00	0.210	ug/L			06/15/24 15:31	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 15:31	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 15:31	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 15:31	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 15:31	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 15:31	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 15:31	1
Tetrachloroethene	**4.53**		1.00	0.480	ug/L			06/15/24 15:31	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 15:31	1
trans-1,2-Dichloroethene	**0.309**	**J**	1.00	0.270	ug/L			06/15/24 15:31	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 15:31	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 15:31	1
Trichloroethene	**6.55**		1.00	0.430	ug/L			06/15/24 15:31	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 15:31	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 15:31	1
Vinyl chloride	**0.658**	**J**	1.00	0.180	ug/L			06/15/24 15:31	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 15:31	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-D
Lab Sample ID: 310-283502-6
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*73 - 130*		*06/15/24 15:31*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/15/24 15:31*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/15/24 15:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/17/24 09:00	06/20/24 18:18	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/17/24 09:00	06/18/24 18:51	1
Barium	**0.506**		0.00200	0.000660	mg/L		06/17/24 09:00	06/18/24 18:51	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/17/24 09:00	06/20/24 18:18	1
Cadmium	**0.000424**		0.000200	0.000100	mg/L		06/17/24 09:00	06/18/24 18:51	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/17/24 09:00	06/18/24 18:51	1
Cobalt	**0.000179**	**J**	0.000500	0.000170	mg/L		06/17/24 09:00	06/18/24 18:51	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/17/24 09:00	06/18/24 18:51	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/17/24 09:00	06/18/24 18:51	1
Nickel	**0.00632**		0.00500	0.00210	mg/L		07/10/24 09:00	07/11/24 21:04	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/17/24 09:00	06/20/24 18:18	1
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:51	1
Thallium	<0.00100		0.00100	0.000570	mg/L		06/17/24 09:00	06/20/24 18:18	1
Vanadium	**0.00121**	**J *+**	0.00500	0.00110	mg/L		06/17/24 09:00	06/20/24 18:18	1
Zinc	**0.224**		0.0200	0.00970	mg/L		06/17/24 09:00	06/20/24 18:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: Trip Blank
Lab Sample ID: 310-283502-7
Date Collected: 06/12/24 00:00
Matrix: Trip Blank
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 10:37	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 10:37	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 10:37	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 10:37	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/15/24 10:37	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 10:37	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 10:37	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 10:37	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 10:37	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 10:37	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 10:37	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/15/24 10:37	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 10:37	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 10:37	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 10:37	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 10:37	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 10:37	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 10:37	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 10:37	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 10:37	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 10:37	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 10:37	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 10:37	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 10:37	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 10:37	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 10:37	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 10:37	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 10:37	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 10:37	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 10:37	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/15/24 10:37	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 10:37	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 10:37	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 10:37	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 10:37	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 10:37	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 10:37	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/15/24 10:37	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 10:37	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/15/24 10:37	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 10:37	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 10:37	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/15/24 10:37	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 10:37	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 10:37	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/15/24 10:37	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 10:37	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			06/15/24 10:37	1

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: Trip Blank
Lab Sample ID: 310-283502-7
Date Collected: 06/12/24 00:00
Matrix: Trip Blank
Date Received: 06/13/24 16:25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		73 - 130		06/15/24 10:37	1
Toluene-d8 (Surr)	95		80 - 120		06/15/24 10:37	1
4-Bromofluorobenzene (Surr)	102		80 - 120		06/15/24 10:37	1

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Qualifiers

GC/MS VOA

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

Metals

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
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.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

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

Matrix: Groundwater

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
310-283502-1	MW-2	100	95	101
310-283502-2	MW-5	101	95	102
310-283502-4	MW-8	100	96	104
310-283502-5	PZ-2B	99	96	104
310-283502-6	MW-D	99	94	102

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Trip Blank

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
310-283502-7	Trip Blank	98	95	102

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
LCS 310-424642/6	Lab Control Sample	97	98	99
LCS 310-424642/7	Lab Control Sample	101	95	101
MB 310-424642/5	Method Blank	98	97	103

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

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

Lab Sample ID: MB 310-424642/5
Matrix: Water
Analysis Batch: 424642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			06/15/24 08:21	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			06/15/24 08:21	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			06/15/24 08:21	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			06/15/24 08:21	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			06/15/24 08:21	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			06/15/24 08:21	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			06/15/24 08:21	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			06/15/24 08:21	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			06/15/24 08:21	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			06/15/24 08:21	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			06/15/24 08:21	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			06/15/24 08:21	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			06/15/24 08:21	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			06/15/24 08:21	1
2-Hexanone	<10.0		10.0	2.00	ug/L			06/15/24 08:21	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			06/15/24 08:21	1
Acetone	<10.0		10.0	3.10	ug/L			06/15/24 08:21	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			06/15/24 08:21	1
Benzene	<0.500		0.500	0.220	ug/L			06/15/24 08:21	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			06/15/24 08:21	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			06/15/24 08:21	1
Bromoform	<5.00		5.00	0.780	ug/L			06/15/24 08:21	1
Bromomethane	<4.00		4.00	1.10	ug/L			06/15/24 08:21	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			06/15/24 08:21	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			06/15/24 08:21	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			06/15/24 08:21	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			06/15/24 08:21	1
Chloroethane	<4.00		4.00	0.790	ug/L			06/15/24 08:21	1
Chloroform	<3.00		3.00	1.30	ug/L			06/15/24 08:21	1
Chloromethane	<3.00		3.00	0.610	ug/L			06/15/24 08:21	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			06/15/24 08:21	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			06/15/24 08:21	1
Dibromomethane	<1.00		1.00	0.330	ug/L			06/15/24 08:21	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			06/15/24 08:21	1
Iodomethane	<10.0		10.0	7.00	ug/L			06/15/24 08:21	1
Methylene chloride	<5.00		5.00	1.70	ug/L			06/15/24 08:21	1
Styrene	<1.00		1.00	0.370	ug/L			06/15/24 08:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/15/24 08:21	1
Toluene	<1.00		1.00	0.430	ug/L			06/15/24 08:21	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			06/15/24 08:21	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			06/15/24 08:21	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			06/15/24 08:21	1
Trichloroethene	<1.00		1.00	0.430	ug/L			06/15/24 08:21	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			06/15/24 08:21	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			06/15/24 08:21	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			06/15/24 08:21	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			06/15/24 08:21	1

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

Lab Sample ID: MB 310-424642/5
Matrix: Water
Analysis Batch: 424642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			06/15/24 08:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*73 - 130*		*06/15/24 08:21*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/15/24 08:21*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/15/24 08:21*	*1*

Lab Sample ID: LCS 310-424642/6
Matrix: Water
Analysis Batch: 424642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	19.34		ug/L		97	71 - 120
1,1,1-Trichloroethane	20.0	19.09		ug/L		95	73 - 129
1,1,2,2-Tetrachloroethane	20.0	20.72		ug/L		104	68 - 124
1,1,2-Trichloroethane	20.0	20.88		ug/L		104	73 - 123
1,1-Dichloroethane	20.0	19.39		ug/L		97	70 - 127
1,1-Dichloroethene	20.0	18.76		ug/L		94	63 - 132
1,2,3-Trichloropropane	20.0	20.28		ug/L		101	65 - 127
1,2-Dibromo-3-chloropropane	20.0	18.72		ug/L		94	50 - 150
1,2-Dibromoethane (EDB)	20.0	20.06		ug/L		100	75 - 125
1,2-Dichlorobenzene	20.0	20.95		ug/L		105	74 - 120
1,2-Dichloroethane	20.0	17.84		ug/L		89	71 - 125
1,2-Dichloropropane	20.0	20.57		ug/L		103	73 - 124
1,4-Dichlorobenzene	20.0	18.25		ug/L		91	72 - 120
2-Butanone (MEK)	40.0	38.97		ug/L		97	50 - 150
2-Hexanone	40.0	47.70		ug/L		119	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	44.13		ug/L		110	60 - 139
Acetone	40.0	35.80		ug/L		89	50 - 150
Acrylonitrile	200	200.9		ug/L		100	50 - 150
Benzene	20.0	19.48		ug/L		97	72 - 124
Bromochloromethane	20.0	19.70		ug/L		99	73 - 130
Bromodichloromethane	20.0	18.99		ug/L		95	74 - 122
Bromoform	20.0	19.11		ug/L		96	61 - 122
Carbon disulfide	20.0	19.76		ug/L		99	59 - 135
Carbon tetrachloride	20.0	18.78		ug/L		94	67 - 132
Chlorobenzene	20.0	20.45		ug/L		102	76 - 120
Chlorodibromomethane	20.0	19.54		ug/L		98	71 - 121
Chloroform	20.0	18.69		ug/L		93	72 - 125
cis-1,2-Dichloroethene	20.0	18.80		ug/L		94	74 - 123
cis-1,3-Dichloropropene	20.0	19.39		ug/L		97	71 - 125
Dibromomethane	20.0	19.62		ug/L		98	74 - 125
Ethylbenzene	20.0	19.44		ug/L		97	74 - 122
Iodomethane	20.0	15.41		ug/L		77	10 - 150
Methylene chloride	20.0	20.64		ug/L		103	50 - 150
Styrene	20.0	20.37		ug/L		102	74 - 121
Tetrachloroethene	20.0	19.22		ug/L		96	71 - 130

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

Lab Sample ID: LCS 310-424642/6
Matrix: Water
Analysis Batch: 424642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	20.0	21.04		ug/L		105	74 - 123
trans-1,2-Dichloroethene	20.0	18.36		ug/L		92	70 - 126
trans-1,3-Dichloropropene	20.0	18.03		ug/L		90	69 - 123
trans-1,4-Dichloro-2-butene	20.0	15.36		ug/L		77	50 - 150
Trichloroethene	20.0	20.70		ug/L		103	72 - 126
Vinyl acetate	40.0	40.52		ug/L		101	50 - 150
Xylenes, Total	40.0	40.40		ug/L		101	73 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*73 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: LCS 310-424642/7
Matrix: Water
Analysis Batch: 424642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	13.03		ug/L		65	23 - 150
Chloroethane	20.0	21.43		ug/L		107	54 - 136
Chloromethane	20.0	20.41		ug/L		102	38 - 150
Trichlorofluoromethane	20.0	21.24		ug/L		106	54 - 149
Vinyl chloride	20.0	18.66		ug/L		93	56 - 140
Dichlorodifluoromethane	20.0	23.65		ug/L		118	39 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*101*		*73 - 130*
Toluene-d8 (Surr)	*95*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 410-518676/1-A
Matrix: Water
Analysis Batch: 519353

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 518676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.600		0.600	0.250	ug/L		06/18/24 15:50	06/20/24 13:15	1

Lab Sample ID: LCS 410-518676/2-A
Matrix: Water
Analysis Batch: 519353

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 518676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-D	2.51	2.194		ug/L		87	53 - 159

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCSD 410-518676/3-A
Matrix: Water
Analysis Batch: 519353

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 518676

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-D			2.51	2.243		ug/L		89	53 - 159	2	30

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-424661/1-A
Matrix: Water
Analysis Batch: 424981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424661

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	<0.00100		0.00100	0.000500	mg/L		06/17/24 09:00	06/18/24 18:21	1

Lab Sample ID: MB 310-424661/1-A
Matrix: Water
Analysis Batch: 426079

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424661

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		06/17/24 09:00	06/28/24 22:49	1

Lab Sample ID: MB 310-424661/1-A
Matrix: Water
Analysis Batch: 426465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424661

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		06/17/24 09:00	07/03/24 20:42	1
Barium	<0.00200		0.00200	0.000660	mg/L		06/17/24 09:00	07/03/24 20:42	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		06/17/24 09:00	07/03/24 20:42	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		06/17/24 09:00	07/03/24 20:42	1
Chromium	<0.00500		0.00500	0.00120	mg/L		06/17/24 09:00	07/03/24 20:42	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/17/24 09:00	07/03/24 20:42	1
Copper	<0.00500		0.00500	0.00180	mg/L		06/17/24 09:00	07/03/24 20:42	1
Lead	<0.000500		0.000500	0.000260	mg/L		06/17/24 09:00	07/03/24 20:42	1
Nickel	<0.00500		0.00500	0.00210	mg/L		06/17/24 09:00	07/03/24 20:42	1
Selenium	<0.00500		0.00500	0.00140	mg/L		06/17/24 09:00	07/03/24 20:42	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		06/17/24 09:00	07/03/24 20:42	1
Zinc	<0.0200		0.0200	0.00970	mg/L		06/17/24 09:00	07/03/24 20:42	1

Lab Sample ID: MB 310-424661/1-A
Matrix: Water
Analysis Batch: 426555

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424661

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.00100		0.00100	0.000570	mg/L		06/17/24 09:00	07/07/24 22:07	1

Lab Sample ID: LCS 310-424661/2-A
Matrix: Water
Analysis Batch: 424981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424661

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic			0.200	0.2171		mg/L		109	80 - 120

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

Lab Sample ID: LCS 310-424661/2-A
Matrix: Water
Analysis Batch: 424981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium	0.100	0.1097		mg/L		110	80 - 120
Lead	0.200	0.2374		mg/L		119	80 - 120
Selenium	0.400	0.4190		mg/L		105	80 - 120
Silver	0.100	0.08834		mg/L		88	80 - 120

Lab Sample ID: LCS 310-424661/2-A
Matrix: Water
Analysis Batch: 426079

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2283		mg/L		114	80 - 120
Barium	0.100	0.1197		mg/L		120	80 - 120
Copper	0.200	0.2371		mg/L		119	80 - 120
Zinc	0.200	0.2269		mg/L		113	80 - 120

Lab Sample ID: LCS 310-424661/2-A
Matrix: Water
Analysis Batch: 426465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.100	0.1200		mg/L		120	80 - 120
Cadmium	0.100	0.1110		mg/L		111	80 - 120
Cobalt	0.100	0.1192		mg/L		119	80 - 120
Copper	0.200	0.2348		mg/L		117	80 - 120
Nickel	0.200	0.2532	*+	mg/L		127	80 - 120
Selenium	0.400	0.4294		mg/L		107	80 - 120
Vanadium	0.100	0.1144		mg/L		114	80 - 120

Lab Sample ID: LCS 310-424661/2-A
Matrix: Water
Analysis Batch: 426645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.08159		mg/L		82	80 - 120

Lab Sample ID: 310-283502-1 MS
Matrix: Groundwater
Analysis Batch: 424981

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.000545	J F1 F2	0.200	0.4178	F1	mg/L		209	75 - 125
Barium	0.475		0.100	0.7845	4	mg/L		310	75 - 125
Cadmium	0.000442	F1 F2	0.100	0.2225	F1	mg/L		222	75 - 125
Chromium	<0.00500	F1 F2	0.100	0.2150	F1	mg/L		215	75 - 125
Cobalt	<0.000500	F1 F2	0.100	0.2254	F1	mg/L		225	75 - 125
Copper	<0.00500	F2 F1	0.200	0.4608	F1	mg/L		230	75 - 125
Lead	<0.000500	F1 F2	0.200	0.4267	F1	mg/L		213	75 - 125
Nickel	0.00669	*+ F1 F2	0.200	0.4428	F1	mg/L		218	75 - 125
Selenium	<0.00500	F1 F2	0.400	0.8129	F1	mg/L		203	75 - 125

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

Lab Sample ID: 310-283502-1 MS — **Client Sample ID: MW-2**
Matrix: Groundwater — **Prep Type: Total/NA**
Analysis Batch: 424981 — **Prep Batch: 424661**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	<0.00100		0.100	0.08598		mg/L		86	75 - 125

Lab Sample ID: 310-283502-1 MS — **Client Sample ID: MW-2**
Matrix: Groundwater — **Prep Type: Total/NA**
Analysis Batch: 426079 — **Prep Batch: 424661**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.00200	F1 F2	0.200	0.4184	F1	mg/L		209	75 - 125
Beryllium	<0.00100	F2 F1	0.100	0.2387	F1	mg/L		239	75 - 125
Vanadium	0.00126	J F1 F2	0.100	0.2150	F1	mg/L		214	75 - 125

Lab Sample ID: 310-283502-1 MS — **Client Sample ID: MW-2**
Matrix: Groundwater — **Prep Type: Total/NA**
Analysis Batch: 426465 — **Prep Batch: 424661**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	<0.00200	F2 F1 *+	0.200	0.4716	F1	mg/L		236	75 - 125
Beryllium	<0.00100	F2 F1	0.100	0.2242	F1	mg/L		224	75 - 125
Cadmium	0.000352	F2 F1	0.100	0.2047	F1	mg/L		204	75 - 125
Chromium	<0.00500	F2 F1	0.100	0.2122	F1	mg/L		212	75 - 125
Cobalt	<0.000500	F2 F1	0.100	0.2057	F1	mg/L		206	75 - 125
Copper	<0.00500	F2 F1	0.200	0.4000	F1	mg/L		200	75 - 125
Nickel	0.00735	F2 F1 *+	0.200	0.4332	F1	mg/L		213	75 - 125
Selenium	<0.00500	F2 F1	0.400	0.8638	F1	mg/L		216	75 - 125
Vanadium	0.00114	J F2 F1	0.100	0.2095	F1	mg/L		208	75 - 125
Zinc	0.0130	J F2 F1	0.200	0.4151	F1	mg/L		201	75 - 125

Lab Sample ID: 310-283502-1 MS — **Client Sample ID: MW-2**
Matrix: Groundwater — **Prep Type: Total/NA**
Analysis Batch: 426555 — **Prep Batch: 424661**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	<0.00100		0.100	0.08175		mg/L		82	75 - 125

Lab Sample ID: 310-283502-1 MSD — **Client Sample ID: MW-2**
Matrix: Groundwater — **Prep Type: Total/NA**
Analysis Batch: 424981 — **Prep Batch: 424661**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	0.000545	J F1 F2	0.200	0.1799	F2	mg/L		90	75 - 125	80	20
Barium	0.475		0.100	0.6458	4	mg/L		171	75 - 125	19	20
Cadmium	0.000442	F1 F2	0.100	0.09566	F2	mg/L		95	75 - 125	80	20
Chromium	<0.00500	F1 F2	0.100	0.08363	F2	mg/L		84	75 - 125	88	20
Cobalt	<0.000500	F1 F2	0.100	0.08887	F2	mg/L		89	75 - 125	87	20
Copper	<0.00500	F2 F1	0.200	0.1872	F2	mg/L		94	75 - 125	84	20
Lead	<0.000500	F1 F2	0.200	0.1839	F2	mg/L		92	75 - 125	80	20
Nickel	0.00669	*+ F1 F2	0.200	0.1955	F2	mg/L		94	75 - 125	78	20
Selenium	<0.00500	F1 F2	0.400	0.3507	F2	mg/L		88	75 - 125	79	20
Silver	<0.00100		0.100	0.1011		mg/L		101	75 - 125	16	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: 310-283502-1 MSD
Matrix: Groundwater
Analysis Batch: 426079

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.00200	F1 F2	0.200	0.1724	F2	mg/L		86	75 - 125	83	20
Beryllium	<0.00100	F2 F1	0.100	0.09534	F2	mg/L		95	75 - 125	86	20
Vanadium	0.00126	J F1 F2	0.100	0.08910	F2	mg/L		88	75 - 125	83	20

Lab Sample ID: 310-283502-1 MSD
Matrix: Groundwater
Analysis Batch: 426465

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	<0.00200	F2 F1 *+	0.200	0.1998	F2	mg/L		100	75 - 125	81	20
Barium	0.452	*+	0.100	0.5653	4	mg/L		114	75 - 125	20	20
Beryllium	<0.00100	F2 F1	0.100	0.09509	F2	mg/L		95	75 - 125	81	20
Cadmium	0.000352	F2 F1	0.100	0.08849	F2	mg/L		88	75 - 125	79	20
Chromium	<0.00500	F2 F1	0.100	0.09053	F2	mg/L		91	75 - 125	80	20
Cobalt	<0.000500	F2 F1	0.100	0.08845	F2	mg/L		88	75 - 125	80	20
Copper	<0.00500	F2 F1	0.200	0.1770	F2	mg/L		89	75 - 125	77	20
Lead	<0.000500	F2 F1 *+	0.200	0.1810	F2	mg/L		90	75 - 125	79	20
Nickel	0.00735	F2 F1 *+	0.200	0.1851	F2	mg/L		89	75 - 125	80	20
Selenium	<0.00500	F2 F1	0.400	0.3657	F2	mg/L		91	75 - 125	81	20
Vanadium	0.00114	J F2 F1	0.100	0.08764	F2	mg/L		86	75 - 125	82	20
Zinc	0.0130	J F2 F1	0.200	0.1759	F2	mg/L		81	75 - 125	81	20

Lab Sample ID: 310-283502-1 MSD
Matrix: Groundwater
Analysis Batch: 426555

Client Sample ID: MW-2
Prep Type: Total/NA
Prep Batch: 424661

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	<0.00100		0.100	0.08127		mg/L		81	75 - 125	1	20

Lab Sample ID: MB 310-426775/1-A
Matrix: Water
Analysis Batch: 427084

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 426775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00500		0.00500	0.00210	mg/L		07/10/24 09:00	07/11/24 19:56	1

Lab Sample ID: LCS 310-426775/2-A
Matrix: Water
Analysis Batch: 427084

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 426775

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nickel			0.200	0.1945		mg/L		97	80 - 120		

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-772911/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 772912
Prep Batch: 772911

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.00		1.00	0.231	mg/L		06/17/24 18:00	06/17/24 20:18	1

Lab Sample ID: LCS 500-772911/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 772912
Prep Batch: 772911

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	3.64	3.587		mg/L		99	80 - 120

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

Lab Sample ID: MB 310-424756/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 424756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			06/17/24 11:46	1

Lab Sample ID: LCS 310-424756/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 424756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	94.00		mg/L		94	81 - 116

GC/MS VOA

Analysis Batch: 424642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	8260D	
310-283502-2	MW-5	Total/NA	Groundwater	8260D	
310-283502-4	MW-8	Total/NA	Groundwater	8260D	
310-283502-5	PZ-2B	Total/NA	Groundwater	8260D	
310-283502-6	MW-D	Total/NA	Groundwater	8260D	
310-283502-7	Trip Blank	Total/NA	Trip Blank	8260D	
MB 310-424642/5	Method Blank	Total/NA	Water	8260D	
LCS 310-424642/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-424642/7	Lab Control Sample	Total/NA	Water	8260D	

GC Semi VOA

Prep Batch: 518676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-4	MW-8	Total/NA	Groundwater	8151A	
MB 410-518676/1-A	Method Blank	Total/NA	Water	8151A	
LCS 410-518676/2-A	Lab Control Sample	Total/NA	Water	8151A	
LCSD 410-518676/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	

Analysis Batch: 519353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-4	MW-8	Total/NA	Groundwater	8151A	518676
MB 410-518676/1-A	Method Blank	Total/NA	Water	8151A	518676
LCS 410-518676/2-A	Lab Control Sample	Total/NA	Water	8151A	518676
LCSD 410-518676/3-A	Lab Control Sample Dup	Total/NA	Water	8151A	518676

Metals

Prep Batch: 424661

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	3005A	
310-283502-2	MW-5	Total/NA	Groundwater	3005A	
310-283502-4	MW-8	Total/NA	Groundwater	3005A	
310-283502-5	PZ-2B	Total/NA	Groundwater	3005A	
310-283502-6	MW-D	Total/NA	Groundwater	3005A	
MB 310-424661/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-283502-1 MS	MW-2	Total/NA	Groundwater	3005A	
310-283502-1 MSD	MW-2	Total/NA	Groundwater	3005A	

Analysis Batch: 424981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-2	MW-5	Total/NA	Groundwater	6020B	424661
310-283502-4	MW-8	Total/NA	Groundwater	6020B	424661
310-283502-5	PZ-2B	Total/NA	Groundwater	6020B	424661
310-283502-6	MW-D	Total/NA	Groundwater	6020B	424661
MB 310-424661/1-A	Method Blank	Total/NA	Water	6020B	424661
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	6020B	424661
310-283502-1 MS	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-1 MSD	MW-2	Total/NA	Groundwater	6020B	424661

Metals

Analysis Batch: 425254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-2	MW-5	Total/NA	Groundwater	6020B	424661
310-283502-4	MW-8	Total/NA	Groundwater	6020B	424661
310-283502-5	PZ-2B	Total/NA	Groundwater	6020B	424661
310-283502-6	MW-D	Total/NA	Groundwater	6020B	424661

Analysis Batch: 426074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	6020B	424661
310-283502-1 MS	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-1 MSD	MW-2	Total/NA	Groundwater	6020B	424661

Analysis Batch: 426079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-424661/1-A	Method Blank	Total/NA	Water	6020B	424661
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	6020B	424661
310-283502-1 MS	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-1 MSD	MW-2	Total/NA	Groundwater	6020B	424661

Analysis Batch: 426465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-424661/1-A	Method Blank	Total/NA	Water	6020B	424661
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	6020B	424661
310-283502-1 MS	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-1 MSD	MW-2	Total/NA	Groundwater	6020B	424661

Analysis Batch: 426555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-424661/1-A	Method Blank	Total/NA	Water	6020B	424661
310-283502-1 MS	MW-2	Total/NA	Groundwater	6020B	424661
310-283502-1 MSD	MW-2	Total/NA	Groundwater	6020B	424661

Analysis Batch: 426645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-424661/2-A	Lab Control Sample	Total/NA	Water	6020B	424661

Prep Batch: 426775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	3005A	
310-283502-4	MW-8	Total/NA	Groundwater	3005A	
310-283502-6	MW-D	Total/NA	Groundwater	3005A	
MB 310-426775/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-426775/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 427084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	6020B	426775
310-283502-4	MW-8	Total/NA	Groundwater	6020B	426775
310-283502-6	MW-D	Total/NA	Groundwater	6020B	426775
MB 310-426775/1-A	Method Blank	Total/NA	Water	6020B	426775

Metals (Continued)

Analysis Batch: 427084 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-426775/2-A	Lab Control Sample	Total/NA	Water	6020B	426775

General Chemistry

Analysis Batch: 424756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-1	MW-2	Total/NA	Groundwater	I-3765-85	
310-283502-2	MW-5	Total/NA	Groundwater	I-3765-85	
310-283502-4	MW-8	Total/NA	Groundwater	I-3765-85	
310-283502-5	PZ-2B	Total/NA	Groundwater	I-3765-85	
310-283502-6	MW-D	Total/NA	Groundwater	I-3765-85	
MB 310-424756/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-424756/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 772911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-4	MW-8	Total/NA	Groundwater	9030B	
MB 500-772911/1-A	Method Blank	Total/NA	Water	9030B	
LCS 500-772911/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 772912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283502-4	MW-8	Total/NA	Groundwater	9034	772911
MB 500-772911/1-A	Method Blank	Total/NA	Water	9034	772911
LCS 500-772911/2-A	Lab Control Sample	Total/NA	Water	9034	772911

Lab Chronicle

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: MW-2
Lab Sample ID: 310-283502-1
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 14:01
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	425254	NFT2	EET CF	06/20/24 17:44
Total/NA	Prep	3005A			426775	QTZ5	EET CF	07/10/24 09:00
Total/NA	Analysis	6020B		1	427084	NFT2	EET CF	07/11/24 20:57
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	424981	NFT2	EET CF	06/18/24 18:25
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: MW-5
Lab Sample ID: 310-283502-2
Date Collected: 06/12/24 10:15
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 14:23
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	425254	NFT2	EET CF	06/20/24 17:54
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	424981	NFT2	EET CF	06/18/24 18:36
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: MW-8
Lab Sample ID: 310-283502-4
Date Collected: 06/12/24 11:40
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 14:46
Total/NA	Prep	8151A			518676	QJZ6	ELLE	06/18/24 15:50
Total/NA	Analysis	8151A		1	519353	UAMZ	ELLE	06/20/24 15:36
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	425254	NFT2	EET CF	06/20/24 17:57
Total/NA	Prep	3005A			426775	QTZ5	EET CF	07/10/24 09:00
Total/NA	Analysis	6020B		1	427084	NFT2	EET CF	07/11/24 21:01
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	424981	NFT2	EET CF	06/18/24 18:47
Total/NA	Prep	9030B			772911	CLB	EET CHI	06/17/24 18:20 - 06/17/24 18:30 [1]
Total/NA	Analysis	9034		1	772912	CLB	EET CHI	06/17/24 21:18 - 06/17/24 21:49 [1]
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Lab Chronicle

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Client Sample ID: PZ-2B
Lab Sample ID: 310-283502-5
Date Collected: 06/12/24 13:13
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 15:09
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	425254	NFT2	EET CF	06/20/24 18:15
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	424981	NFT2	EET CF	06/18/24 18:49
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: MW-D
Lab Sample ID: 310-283502-6
Date Collected: 06/12/24 12:19
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 15:31
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	425254	NFT2	EET CF	06/20/24 18:18
Total/NA	Prep	3005A			426775	QTZ5	EET CF	07/10/24 09:00
Total/NA	Analysis	6020B		1	427084	NFT2	EET CF	07/11/24 21:04
Total/NA	Prep	3005A			424661	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	424981	NFT2	EET CF	06/18/24 18:51
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: Trip Blank
Lab Sample ID: 310-283502-7
Date Collected: 06/12/24 00:00
Matrix: Trip Blank
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 10:37

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

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

Laboratory: Eurofins Chicago

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

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

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

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

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	0001.01	11-30-24
A2LA	ISO/IEC 17025	0001.01	11-30-24
Alabama	State	43200	01-31-25
Alaska	State	PA00009	06-30-24
Alaska (UST)	State	17-027	02-28-25
Arizona	State	AZ0780	03-12-25
Arkansas DEQ	State	88-00660	08-09-24
California	State	2792	11-30-24
Colorado	State	PA00009	06-30-25
Connecticut	State	PH-0746	06-30-25
DE Haz. Subst. Cleanup Act (HSCA)	State	019-006 (PA cert)	01-31-25
Delaware (DW)	State	N/A	01-31-25
Florida	NELAP	E87997	06-30-24
Georgia (DW)	State	C048	01-31-25
Hawaii	State	N/A	01-31-25
Illinois	NELAP	200027	01-31-25
Iowa	State	361	03-01-26
Kansas	NELAP	E-10151	10-31-24
Kentucky (DW)	State	KY90088	12-31-24
Kentucky (UST)	State	0001.01	11-30-24
Kentucky (WW)	State	KY90088	12-31-24
Louisiana (All)	NELAP	02055	06-30-24
Maine	State	2019012	03-12-25
Maryland	State	100	06-30-25
Massachusetts	State	M-PA009	06-30-25
Michigan	State	9930	01-31-25
Minnesota	NELAP	042-999-487	12-31-24
Mississippi	State	023	01-31-25
Missouri	State	450	01-31-25
Montana (DW)	State	0098	01-01-25
Nebraska	State	NE-OS-32-17	01-31-25
New Hampshire	NELAP	2730	01-10-25
New Jersey	NELAP	PA011	06-30-24
New York	NELAP	10670	04-01-25
North Carolina (DW)	State	42705	06-30-24
North Carolina (WW/SW)	State	521	12-31-24
North Dakota	State	R-205	01-31-24 *
Oklahoma	NELAP	9804	08-31-24

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

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC (Continued)

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

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	PA200001	09-11-24
Pennsylvania	NELAP	36-00037	01-31-25
Quebec Ministry of Environment and Fight against Climate Change	PALA	507	09-16-24
Rhode Island	State	LAO00338	12-30-24
South Carolina	State	89002	01-31-25
Tennessee	State	02838	01-31-25
Texas	NELAP	T104704194-23-46	08-31-24
USDA	US Federal Programs	525-22-298-19481	10-25-25
Vermont	State	VT - 36037	10-28-24
Virginia	NELAP	460182	06-14-25
Washington	State	C457	04-11-24 *
West Virginia (DW)	State	9906 C	01-31-25
West Virginia DEP	State	055	06-20-24
Wyoming	State	8TMS-L	01-31-25
Wyoming (UST)	A2LA	0001.01	11-30-24

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

Method Summary

Client: SCS Engineers
Job ID: 310-283502-1
Project/Site: Woodbury County SL 1st Semi-Annual 2024
HMSP

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
8151A	Herbicides (GC)	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	EET CF
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
8151A	Extraction (Herbicides)	SW846	ELLE
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

Protocol References:

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

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

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

eurofins | Environment Testing America

310-283502 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 6.13.24 | TIME 1625 | Received By: mc

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 ____

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? ↓

All except MW-6

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): 2.3 | Corrected Temp (°C): 2.3

• 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

Did not receive MW-6

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

TestAmerica Des Moines SC
214

Chain of Custody Record

eurofins

Client Information	Sampler: Cole Tesar	Lab PM: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-93393-25639 1
Client Contact: Ben Madson	Phone: 641-844-4459	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 27223172.24			
Email: bmadson@scsengineers.com	WO #:			
Project Name: Woodbury Co SL 1st 2024 HMSP Event Desc: 1st 2024 Semi-An	Project #: 31007691			
Site: Iowa	SSOW#:			

Analysis Requested

Preservation Codes
A - HCL
D - HNO3
N - None
CB - ZnAcetate/NaOH
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - Appendix I	8260D - Volatile Appendix I Sublist	L_3765_85 - Total Suspended Solids	8260D - (MOD) Volatile Appendix I Sublist + Dichlorodifluoromethane	9034_Calc - Sulfide*	RSK_175 - Methane**	6020B - (MOD) Appendix I List (Iowa) + Fe, Mn	9056A_ORGFM_28D, 9056A_ORGFM_48H Nitrate, Sulfate	8151A - (MOD) 2,4-D***					Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N	A	CB	A	D	N	N						
MW-2	6-12-24	12:19	G	Water			X		X	X											Login with Sites and Events
MW-3	6-12-24	[illegible]	G	Water				X	X			X	X	X							9056 Nitrate SHORT HOLD
MW-5	6-12-24	10:15	G	Water			X	X	X												*9034 Sub Zn Acetate to Chicago
MW-6	6-12-24	9:41	G	Water			X	X	X		X										**RSK_175 Sub 3 HCL vials to Cleveland
MW-8	6-12-24	11:40	G	Water			X		X	X	X				X						***8151 Sub Amber glass 1L NT to Lancaster
PZ-2B	6-12-24	13:13	G	Water			X		X	X											
MW-D	6-12-24	12:19	G	Water			X	X	X												
Trip Blank				Water						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	Ben Madson	6/13/24 10.00	SCS	[signature]	6/13/24 10:30	Eurofins
2				Mc	6-13-24 1625	
3						

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

Ver 01/16/2019

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: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-73475.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Mary.Yang@ET.EurofinsUS.com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Lancaster Laboratories Environm		Accreditations Required (See note): State - Iowa; State Program - Iowa		Job #: 310-283502-1
Address: 2425 New Holland Pike, ,	Due Date Requested: 6/26/2024	Analysis Requested		Preservation Codes:
City: Lancaster	TAT Requested (days):			
State, Zip: PA, 17601				
Phone: 717-656-2300(Tel)	PO #:			
Email:	WO #:			
Project Name: Woodbury County SL 1st Semi-Annual 2024 HMSP	Project #: 31007691			Other:
Site: 310-SCS Woodbury Co SL	SSOW#:			

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)	8151A/8151A_AP (MOD) 2,4-D	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-8 (310-283502-4)	6/12/24	11:40 Central		Water			X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/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
	6/12/24 1450				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/13/24 0930	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: R: 5.2 C: 5.1

NJ

Ver: 04/02/2024

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: Yang, Mary E	Carrier Tracking No(s).	COC No: 310-73477 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State - Iowa, State Program - Iowa		Job #: 310-283502-1
Address: 2417 Bond Street, ,	Due Date Requested: 6/26/2024			Preservation Codes: -
City: University Park	TAT Requested (days):			
State, Zip: IL, 60484	PO #:			
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	WO #:			
Email	Project #: 31007691			Other:
Project Name: Woodbury County SL 1st Semi-Annual 2024 HMSP	SSOW#:			
Site: 310-SCS Woodbury Co SL				

310-283502 COC

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)	9034_Calc/9030B Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-8 (310-283502-4)	6/12/24	11 40 Central		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
[signature]	6/14/24 1535		[signature]	6/15/24 0930	EETA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: 2.5-721

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-283502-1
SDG Number:

Login Number: 283502
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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: 310-283502-1
SDG Number:

Login Number: 283502
List Number: 2
Creator: Scott, Sherri L

List Source: Eurofins Chicago
List Creation: 06/15/24 10:16 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-283502-1
SDG Number:

Login Number: 283502
List Number: 3
Creator: Santiago, Nathaniel

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC
List Creation: 06/15/24 11:54 AM

Question	Answer	Comment
The cooler's custody seal is 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 acceptable,where thermal pres is required(</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	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	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

eurofins | Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 7/1/2024 4:11:14 PM

JOB DESCRIPTION

Woodbury Co SL 1st 2024 Supplemental
1st 2024 Semi-Annual Supplemental

JOB NUMBER

310-283555-1

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

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Table of Contents

Job ID: 310-283555-1 Eurofins Cedar Falls

Job Narrative
310-283555-1

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 6/13/2024 4:25 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.8°C and 2.3°C.

GC/MS VOA
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: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-283555-1	MW-9	Groundwater	06/12/24 16:32	06/13/24 16:25
310-283555-2	MW-11	Groundwater	06/12/24 15:57	06/13/24 16:25
310-283555-3	MW-12	Groundwater	06/12/24 15:27	06/13/24 16:25
310-283555-4	MW-14	Groundwater	06/12/24 14:38	06/13/24 16:25
310-283555-5	PZ-2A	Groundwater	06/12/24 13:45	06/13/24 16:25
310-283555-6	Trip Blank	Trip Blank	06/12/24 00:00	06/13/24 16:25

Detection Summary

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-9 — Lab Sample ID: 310-283555-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	5.96		1.00	0.430	ug/L	1		8260D	Total/NA
Tetrachloroethene	0.730	J	1.00	0.480	ug/L	1		8260D	Total/NA

Client Sample ID: MW-11 — Lab Sample ID: 310-283555-2

No Detections.

Client Sample ID: MW-12 — Lab Sample ID: 310-283555-3

No Detections.

Client Sample ID: MW-14 — Lab Sample ID: 310-283555-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.000995		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	8.63		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: PZ-2A — Lab Sample ID: 310-283555-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Suspended Solids	34.1		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-283555-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-9
Lab Sample ID: 310-283555-1
Date Collected: 06/12/24 16:32
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	5.96		1.00	0.430	ug/L			06/17/24 18:00	1
Tetrachloroethene	0.730	J	1.00	0.480	ug/L			06/17/24 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/17/24 18:00*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 130*		*06/17/24 18:00*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/17/24 18:00*	*1*

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-11
Lab Sample ID: 310-283555-2
Date Collected: 06/12/24 15:57
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/17/24 18:22	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/17/24 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/17/24 18:22*	*1*
Dibromofluoromethane (Surr)	*103*		*73 - 130*		*06/17/24 18:22*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/17/24 18:22*	*1*

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-12
Lab Sample ID: 310-283555-3
Date Collected: 06/12/24 15:27
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/17/24 18:45	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/17/24 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/17/24 18:45*	*1*
Dibromofluoromethane (Surr)	*101*		*73 - 130*		*06/17/24 18:45*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/17/24 18:45*	*1*

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-14
Lab Sample ID: 310-283555-4
Date Collected: 06/12/24 14:38
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/17/24 19:07	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/17/24 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*06/17/24 19:07*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*06/17/24 19:07*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/17/24 19:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	**0.000995**		0.000500	0.000170	mg/L		06/17/24 09:00	07/01/24 00:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**8.63**		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: PZ-2A
Lab Sample ID: 310-283555-5

Date Collected: 06/12/24 13:45
Matrix: Groundwater
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/18/24 03:25	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/18/24 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/18/24 03:25*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*06/18/24 03:25*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*06/18/24 03:25*	*1*

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	34.1		1.88	1.39	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: Trip Blank
Lab Sample ID: 310-283555-6
Date Collected: 06/12/24 00:00
Matrix: Trip Blank
Date Received: 06/13/24 16:25

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/15/24 11:22	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/15/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/15/24 11:22*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*06/15/24 11:22*	*1*
Toluene-d8 (Surr)	*94*		*80 - 120*		*06/15/24 11:22*	*1*

Definitions/Glossary

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Qualifiers

GC/MS VOA

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

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

Matrix: Groundwater — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(73-130)	(80-120)
310-283555-1	MW-9	105	101	103
310-283555-2	MW-11	104	103	103
310-283555-3	MW-12	104	101	103
310-283555-4	MW-14	106	102	103
310-283555-5	PZ-2A	105	102	103

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Trip Blank — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(73-130)	(80-120)
310-283555-6	Trip Blank	105	102	94

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(73-130)	(80-120)
LCS 310-424642/6	Lab Control Sample	99	97	98
LCS 310-424775/6	Lab Control Sample	102	98	103
LCS 310-424777/6	Lab Control Sample	101	95	103
MB 310-424642/5	Method Blank	103	98	97
MB 310-424775/5	Method Blank	104	102	104
MB 310-424777/5	Method Blank	103	102	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Lab Sample ID: MB 310-424642/5
Matrix: Water
Analysis Batch: 424642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/15/24 08:21	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/15/24 08:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/15/24 08:21*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 130*		*06/15/24 08:21*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/15/24 08:21*	*1*

Lab Sample ID: LCS 310-424642/6
Matrix: Water
Analysis Batch: 424642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	20.70		ug/L		103	72 - 126
Tetrachloroethene	20.0	19.22		ug/L		96	71 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*73 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*

Lab Sample ID: MB 310-424775/5
Matrix: Water
Analysis Batch: 424775

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/17/24 14:13	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/17/24 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/17/24 14:13*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*06/17/24 14:13*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*06/17/24 14:13*	*1*

Lab Sample ID: LCS 310-424775/6
Matrix: Water
Analysis Batch: 424775

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	18.13		ug/L		91	72 - 126
Tetrachloroethene	20.0	21.76		ug/L		109	71 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*73 - 130*
Toluene-d8 (Surr)	*103*		*80 - 120*

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

Lab Sample ID: MB 310-424777/5
Matrix: Water
Analysis Batch: 424777

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			06/18/24 01:09	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			06/18/24 01:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/18/24 01:09*	*1*
Dibromofluoromethane (Surr)	*102*		*73 - 130*		*06/18/24 01:09*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*06/18/24 01:09*	*1*

Lab Sample ID: LCS 310-424777/6
Matrix: Water
Analysis Batch: 424777

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	18.34		ug/L		92	72 - 126
Tetrachloroethene	20.0	20.78		ug/L		104	71 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*73 - 130*
Toluene-d8 (Surr)	*103*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-424662/1-A
Matrix: Water
Analysis Batch: 426060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 424662

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.000500		0.000500	0.000170	mg/L		06/17/24 09:00	06/30/24 23:00	1

Lab Sample ID: LCS 310-424662/2-A
Matrix: Water
Analysis Batch: 426060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 424662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cobalt	0.100	0.1051		mg/L		105	80 - 120

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

Lab Sample ID: MB 310-424756/1
Matrix: Water
Analysis Batch: 424756

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			06/17/24 11:46	1

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

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

Lab Sample ID: LCS 310-424756/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 424756

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Suspended Solids			100	94.00		mg/L		94	81 - 116		

QC Association Summary

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

GC/MS VOA

Analysis Batch: 424642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-6	Trip Blank	Total/NA	Trip Blank	8260D	
MB 310-424642/5	Method Blank	Total/NA	Water	8260D	
LCS 310-424642/6	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 424775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-1	MW-9	Total/NA	Groundwater	8260D	
310-283555-2	MW-11	Total/NA	Groundwater	8260D	
310-283555-3	MW-12	Total/NA	Groundwater	8260D	
310-283555-4	MW-14	Total/NA	Groundwater	8260D	
MB 310-424775/5	Method Blank	Total/NA	Water	8260D	
LCS 310-424775/6	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 424777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-5	PZ-2A	Total/NA	Groundwater	8260D	
MB 310-424777/5	Method Blank	Total/NA	Water	8260D	
LCS 310-424777/6	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 424662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-4	MW-14	Total/NA	Groundwater	3005A	
MB 310-424662/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-424662/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 426060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-4	MW-14	Total/NA	Groundwater	6020B	424662
MB 310-424662/1-A	Method Blank	Total/NA	Water	6020B	424662
LCS 310-424662/2-A	Lab Control Sample	Total/NA	Water	6020B	424662

General Chemistry

Analysis Batch: 424756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-283555-4	MW-14	Total/NA	Groundwater	I-3765-85	
310-283555-5	PZ-2A	Total/NA	Groundwater	I-3765-85	
MB 310-424756/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-424756/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

Client Sample ID: MW-9
Lab Sample ID: 310-283555-1
Date Collected: 06/12/24 16:32
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424775	FE5V	EET CF	06/17/24 18:00

Client Sample ID: MW-11
Lab Sample ID: 310-283555-2
Date Collected: 06/12/24 15:57
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424775	FE5V	EET CF	06/17/24 18:22

Client Sample ID: MW-12
Lab Sample ID: 310-283555-3
Date Collected: 06/12/24 15:27
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424775	FE5V	EET CF	06/17/24 18:45

Client Sample ID: MW-14
Lab Sample ID: 310-283555-4
Date Collected: 06/12/24 14:38
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424775	FE5V	EET CF	06/17/24 19:07
Total/NA	Prep	3005A			424662	QTZ5	EET CF	06/17/24 09:00
Total/NA	Analysis	6020B		1	426060	NFT2	EET CF	07/01/24 00:45
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: PZ-2A
Lab Sample ID: 310-283555-5
Date Collected: 06/12/24 13:45
Matrix: Groundwater
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424777	FE5V	EET CF	06/18/24 03:25
Total/NA	Analysis	I-3765-85		1	424756	DGU1	EET CF	06/17/24 11:46

Client Sample ID: Trip Blank
Lab Sample ID: 310-283555-6
Date Collected: 06/12/24 00:00
Matrix: Trip Blank
Date Received: 06/13/24 16:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	424642	WSE8	EET CF	06/15/24 11:22

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: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

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: 310-283555-1
Project/Site: Woodbury Co SL 1st 2024 Supplemental

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

Protocol References:

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

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

Laboratory References:

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

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310-283555 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: 6.13.24 | TIME: 1625 | Received By: mc

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): 2.3 | Corrected Temp (°C): 2.3

• 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

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS

City/State: CITY | STATE IA | Project:

Receipt Information

Date/Time Received: DATE 6·13·24 | TIME 1625 | Received By: mc

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? ↓

All except PZ-2A

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): 1.8 | Corrected Temp (°C): 1.8

• 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

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Client Information	Sampler: Cole TeSar	Lab PM: Yang Mary E	Carrier Tracking No(s):	COC No: 310-93394-25640 1
Client Contact: Ben Madson	Phone: 641-844-4459	E-Mail: Mary Yang@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: A - HCL; N None; D - HNO3
City: West Des Moines	TAT Requested (days):			
State Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 27223172.24			
Email: bmadson@scsengineers com	WO #:			
Project Name: Woodbury Co SL 1st 2024 Supplemental Event Desc: 1st 2024 S	Project #: 31007691			Other:
Site: Iowa	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)	8260D (MOD) Tri and Tetrachloroethene	I_3765_85 Total Suspended Solids	6020B Cobalt	Total Number of containers	Special Instructions/Note.
			Preservation Code:				A	N	D		
MW-9	6-12-24	16:32	G	Water			X				Login with Sites and Events
MW-11	6-12-24	15:57	G	Water			X				
MW-12	6-12-24	15:27	G	Water			X				
MW-14	6-12-24	14:38	G	Water			X	X	X		
PZ-2A	6-12-24	13.45	G	Water			X	X			
Trip Blank				Water			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	Ben Madson	6/13/24 10:00	SCS		6/13/24 10:30	Eurofins
2				MC	6-13-24 1625	
3						

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

Ver 01/16/2019

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-283555-1

Login Number: 283555

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.	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	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/30/2024 9:00:23 AM Revision 1

JOB DESCRIPTION

Woodbury County Landfill
2024 Semi-Annual HMSP

JOB NUMBER

310-289463-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

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
12/30/2024 9:00:23 AM
Revision 1

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

Table of Contents

Job ID: 310-289463-1 — Eurofins Cedar Falls

Job Narrative
310-289463-1

REVISION

The report being provided is a revision of the original report sent on 9/17/2024. The report (revision 1) is being revised due to Removed Dichlorofluoromethane from reported analytes..

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 8/30/2024 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C.

GC/MS VOA
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
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-289463-1	MW-2	Groundwater	08/29/24 11:49	08/30/24 16:20
310-289463-2	MW-5	Groundwater	08/29/24 09:51	08/30/24 16:20
310-289463-3	MW-6	Groundwater	08/29/24 13:32	08/30/24 16:20
310-289463-4	PZ-2B	Groundwater	08/29/24 11:07	08/30/24 16:20
310-289463-5	MW-D	Groundwater	08/29/24 11:07	08/30/24 16:20
310-289463-6	Trip Blank	Trip Blank	08/29/24 00:00	08/30/24 16:20

Detection Summary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-2 — Lab Sample ID: 310-289463-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	7.50		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.636	J	1.00	0.270	ug/L	1		8260D	Total/NA
Benzene	0.270	J	0.500	0.220	ug/L	1		8260D	Total/NA
Chloroethane	0.978	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	8.13		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	5.82		1.00	0.480	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	0.494	J	1.00	0.270	ug/L	1		8260D	Total/NA
Trichloroethene	9.58		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.802	J	1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	3.81		3.00	0.250	ug/L	1		8260D	Total/NA
Barium	0.751		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cadmium	0.000412		0.000200	0.000100	mg/L	1		6020B	Total/NA
Cobalt	0.00154		0.000500	0.000170	mg/L	1		6020B	Total/NA
Nickel	0.0167		0.00500	0.00210	mg/L	1		6020B	Total/NA
Vanadium	0.00152	J	0.00500	0.00110	mg/L	1		6020B	Total/NA

Client Sample ID: MW-5 — Lab Sample ID: 310-289463-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00147	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0297		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000461	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000567		0.000500	0.000260	mg/L	1		6020B	Total/NA
Total Suspended Solids	13.4		3.00	2.22	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-6 — Lab Sample ID: 310-289463-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.000560	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.507		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.00165		0.000500	0.000170	mg/L	1		6020B	Total/NA
Copper	0.00233	J	0.00500	0.00180	mg/L	1		6020B	Total/NA
Lead	0.00144		0.000500	0.000260	mg/L	1		6020B	Total/NA
Nickel	0.00297	J	0.00500	0.00210	mg/L	1		6020B	Total/NA
Selenium	0.00578		0.00500	0.00140	mg/L	1		6020B	Total/NA
Vanadium	0.00194	J	0.00500	0.00110	mg/L	1		6020B	Total/NA
Total Suspended Solids	137		15.0	11.1	mg/L	1		I-3765-85	Total/NA

Client Sample ID: PZ-2B — Lab Sample ID: 310-289463-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.89		1.00	0.220	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	0.270	J	1.00	0.270	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.61		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.97		1.00	0.480	ug/L	1		8260D	Total/NA
Trichloroethene	5.18		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.212	J	1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	3.42		3.00	0.250	ug/L	1		8260D	Total/NA
Arsenic	0.00601		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.508		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000586		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	3.63		1.88	1.39	mg/L	1		I-3765-85	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-D — Lab Sample ID: 310-289463-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	2.81		1.00	0.220	ug/L	1		8260D	Total/NA
Chloroethane	0.857	J	4.00	0.790	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.61		1.00	0.210	ug/L	1		8260D	Total/NA
Tetrachloroethene	3.83		1.00	0.480	ug/L	1		8260D	Total/NA
Trichloroethene	5.47		1.00	0.430	ug/L	1		8260D	Total/NA
Vinyl chloride	0.258	J	1.00	0.180	ug/L	1		8260D	Total/NA
Dichlorodifluoromethane	3.67		3.00	0.250	ug/L	1		8260D	Total/NA
Arsenic	0.00585		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.509		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000580		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	3.87		1.88	1.39	mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blank — Lab Sample ID: 310-289463-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-2

Date Collected: 08/29/24 11:49
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-1

Matrix: Groundwater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 16:14	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 16:14	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 16:14	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 16:14	1
1,1-Dichloroethane	**7.50**		1.00	0.220	ug/L			09/04/24 16:14	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 16:14	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 16:14	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 16:14	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 16:14	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 16:14	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 16:14	1
1,2-Dichloropropane	**0.636**	**J**	1.00	0.270	ug/L			09/04/24 16:14	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 16:14	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 16:14	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 16:14	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 16:14	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 16:14	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 16:14	1
Benzene	**0.270**	**J**	0.500	0.220	ug/L			09/04/24 16:14	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 16:14	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 16:14	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 16:14	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 16:14	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 16:14	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 16:14	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 16:14	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 16:14	1
Chloroethane	**0.978**	**J**	4.00	0.790	ug/L			09/04/24 16:14	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 16:14	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 16:14	1
cis-1,2-Dichloroethene	**8.13**		1.00	0.210	ug/L			09/04/24 16:14	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 16:14	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 16:14	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 16:14	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 16:14	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 16:14	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 16:14	1
Tetrachloroethene	**5.82**		1.00	0.480	ug/L			09/04/24 16:14	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 16:14	1
trans-1,2-Dichloroethene	**0.494**	**J**	1.00	0.270	ug/L			09/04/24 16:14	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 16:14	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 16:14	1
Trichloroethene	**9.58**		1.00	0.430	ug/L			09/04/24 16:14	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 16:14	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 16:14	1
Vinyl chloride	**0.802**	**J**	1.00	0.180	ug/L			09/04/24 16:14	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 16:14	1
Dichlorodifluoromethane	**3.81**		3.00	0.250	ug/L			09/04/24 16:14	1

Client Sample ID: MW-2
Date Collected: 08/29/24 11:49
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-1
Matrix: Groundwater

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*104*		*73 - 130*		*09/04/24 16:14*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/04/24 16:14*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/04/24 16:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 18:35	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 18:45	1
Barium	**0.751**		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 18:45	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 18:45	1
Cadmium	**0.000412**		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 18:45	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 18:45	1
Cobalt	**0.00154**		0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 18:45	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 18:45	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 18:45	1
Nickel	**0.0167**		0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 19:36	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 18:45	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 18:45	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 18:45	1
Vanadium	**0.00152**	**J**	0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 18:45	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 18:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.39	mg/L			09/03/24 11:34	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-5

Date Collected: 08/29/24 09:51
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-2

Matrix: Groundwater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 14:43	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 14:43	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 14:43	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 14:43	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/04/24 14:43	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 14:43	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 14:43	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 14:43	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 14:43	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 14:43	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 14:43	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/04/24 14:43	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 14:43	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 14:43	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 14:43	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 14:43	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 14:43	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 14:43	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 14:43	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 14:43	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 14:43	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 14:43	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 14:43	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 14:43	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 14:43	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 14:43	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 14:43	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/04/24 14:43	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 14:43	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 14:43	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/04/24 14:43	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 14:43	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 14:43	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 14:43	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 14:43	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 14:43	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 14:43	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/04/24 14:43	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 14:43	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 14:43	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 14:43	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 14:43	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/04/24 14:43	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 14:43	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 14:43	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/04/24 14:43	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*73 - 130*		*09/04/24 14:43*	*1*

Client Sample ID: MW-5
Date Collected: 08/29/24 09:51
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-2
Matrix: Groundwater

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/04/24 14:43*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*09/04/24 14:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 18:37	1
Arsenic	**0.00147**	**J**	0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 18:48	1
Barium	**0.0297**		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 18:48	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 18:48	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 18:48	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 18:48	1
Cobalt	**0.000461**	**J**	0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 18:48	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 18:48	1
Lead	**0.000567**		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 18:48	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 19:39	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 18:48	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 18:48	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 18:48	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 18:48	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 18:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**13.4**		3.00	2.22	mg/L			09/03/24 11:34	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-6

Date Collected: 08/29/24 13:32
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-3

Matrix: Groundwater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 15:06	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 15:06	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 15:06	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 15:06	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/04/24 15:06	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 15:06	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 15:06	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 15:06	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 15:06	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 15:06	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 15:06	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/04/24 15:06	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 15:06	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 15:06	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 15:06	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 15:06	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 15:06	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 15:06	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 15:06	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 15:06	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 15:06	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 15:06	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 15:06	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 15:06	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 15:06	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 15:06	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 15:06	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/04/24 15:06	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 15:06	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 15:06	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/04/24 15:06	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 15:06	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 15:06	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 15:06	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 15:06	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 15:06	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 15:06	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/04/24 15:06	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 15:06	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 15:06	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 15:06	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 15:06	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/04/24 15:06	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 15:06	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 15:06	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/04/24 15:06	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*73 - 130*		*09/04/24 15:06*	*1*

Client Sample ID: MW-6

Date Collected: 08/29/24 13:32
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-3

Matrix: Groundwater

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*09/04/24 15:06*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*09/04/24 15:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 18:40	1
Arsenic	**0.000560**	**J**	0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 18:52	1
Barium	**0.507**		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 18:52	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 18:52	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 18:52	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 18:52	1
Cobalt	**0.00165**		0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 18:52	1
Copper	**0.00233**	**J**	0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 18:52	1
Lead	**0.00144**		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 18:52	1
Nickel	**0.00297**	**J**	0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 19:43	1
Selenium	**0.00578**		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 18:52	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 18:52	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 18:52	1
Vanadium	**0.00194**	**J**	0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 18:52	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 18:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide (SW846 9034)	<1.00		1.00	0.231	mg/L		09/04/24 18:26	09/04/24 22:45	1
Total Suspended Solids (USGS I-3765-85)	**137**		15.0	11.1	mg/L			09/03/24 11:34	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: PZ-2B
Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-4
Matrix: Groundwater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 15:28	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 15:28	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 15:28	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 15:28	1
1,1-Dichloroethane	**2.89**		1.00	0.220	ug/L			09/04/24 15:28	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 15:28	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 15:28	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 15:28	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 15:28	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 15:28	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 15:28	1
1,2-Dichloropropane	**0.270**	**J**	1.00	0.270	ug/L			09/04/24 15:28	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 15:28	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 15:28	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 15:28	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 15:28	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 15:28	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 15:28	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 15:28	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 15:28	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 15:28	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 15:28	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 15:28	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 15:28	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 15:28	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 15:28	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 15:28	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/04/24 15:28	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 15:28	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 15:28	1
cis-1,2-Dichloroethene	**1.61**		1.00	0.210	ug/L			09/04/24 15:28	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 15:28	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 15:28	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 15:28	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 15:28	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 15:28	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 15:28	1
Tetrachloroethene	**3.97**		1.00	0.480	ug/L			09/04/24 15:28	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 15:28	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 15:28	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 15:28	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 15:28	1
Trichloroethene	**5.18**		1.00	0.430	ug/L			09/04/24 15:28	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 15:28	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 15:28	1
Vinyl chloride	**0.212**	**J**	1.00	0.180	ug/L			09/04/24 15:28	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 15:28	1
Dichlorodifluoromethane	**3.42**		3.00	0.250	ug/L			09/04/24 15:28	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: PZ-2B

Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-4

Matrix: Groundwater

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*73 - 130*		*09/04/24 15:28*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/04/24 15:28*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*09/04/24 15:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 18:42	1
Arsenic	**0.00601**		0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 18:56	1
Barium	**0.508**		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 18:56	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 18:56	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 18:56	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 18:56	1
Cobalt	**0.000586**		0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 18:56	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 18:56	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 18:56	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 19:47	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 18:56	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 18:56	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 18:56	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 18:56	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 18:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**3.63**		1.88	1.39	mg/L			09/03/24 11:34	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-D

Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-5

Matrix: Groundwater

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 15:51	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 15:51	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 15:51	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 15:51	1
1,1-Dichloroethane	**2.81**		1.00	0.220	ug/L			09/04/24 15:51	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 15:51	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 15:51	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 15:51	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 15:51	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 15:51	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 15:51	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/04/24 15:51	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 15:51	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 15:51	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 15:51	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 15:51	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 15:51	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 15:51	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 15:51	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 15:51	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 15:51	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 15:51	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 15:51	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 15:51	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 15:51	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 15:51	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 15:51	1
Chloroethane	**0.857**	**J**	4.00	0.790	ug/L			09/04/24 15:51	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 15:51	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 15:51	1
cis-1,2-Dichloroethene	**1.61**		1.00	0.210	ug/L			09/04/24 15:51	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 15:51	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 15:51	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 15:51	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 15:51	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 15:51	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 15:51	1
Tetrachloroethene	**3.83**		1.00	0.480	ug/L			09/04/24 15:51	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 15:51	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 15:51	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 15:51	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 15:51	1
Trichloroethene	**5.47**		1.00	0.430	ug/L			09/04/24 15:51	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 15:51	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 15:51	1
Vinyl chloride	**0.258**	**J**	1.00	0.180	ug/L			09/04/24 15:51	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 15:51	1
Dichlorodifluoromethane	**3.67**		3.00	0.250	ug/L			09/04/24 15:51	1

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-D

Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-5

Matrix: Groundwater

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*107*		*73 - 130*		*09/04/24 15:51*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*09/04/24 15:51*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*09/04/24 15:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 18:44	1
Arsenic	**0.00585**		0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 18:59	1
Barium	**0.509**		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 18:59	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 18:59	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 18:59	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 18:59	1
Cobalt	**0.000580**		0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 18:59	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 18:59	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 18:59	1
Nickel	<0.00500		0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 19:50	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 18:59	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 18:59	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 18:59	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 18:59	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 18:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**3.87**		1.88	1.39	mg/L			09/03/24 10:13	1

Client Sample ID: Trip Blank

Date Collected: 08/29/24 00:00
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-6

Matrix: Trip Blank

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 13:13	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 13:13	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 13:13	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 13:13	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/04/24 13:13	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 13:13	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 13:13	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 13:13	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 13:13	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 13:13	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 13:13	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/04/24 13:13	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 13:13	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 13:13	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 13:13	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 13:13	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 13:13	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 13:13	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 13:13	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 13:13	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 13:13	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 13:13	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 13:13	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 13:13	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 13:13	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 13:13	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 13:13	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/04/24 13:13	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 13:13	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 13:13	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/04/24 13:13	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 13:13	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 13:13	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 13:13	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 13:13	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 13:13	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 13:13	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/04/24 13:13	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 13:13	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 13:13	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 13:13	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 13:13	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/04/24 13:13	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 13:13	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 13:13	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/04/24 13:13	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 13:13	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			09/04/24 13:13	1

Client Sample Results

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: Trip Blank

Date Collected: 08/29/24 00:00
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-6

Matrix: Trip Blank

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		73 - 130		09/04/24 13:13	1
Toluene-d8 (Surr)	96		80 - 120		09/04/24 13:13	1
4-Bromofluorobenzene (Surr)	102		80 - 120		09/04/24 13:13	1

Definitions/Glossary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Qualifiers

GC/MS VOA

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

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

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

Matrix: Groundwater

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
310-289463-1	MW-2	104	99	101
310-289463-1 MS	MW-2	100	98	102
310-289463-1 MSD	MW-2	106	99	101
310-289463-2	MW-5	106	98	104
310-289463-3	MW-6	107	95	98
310-289463-4	PZ-2B	103	100	102
310-289463-5	MW-D	107	96	104

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Trip Blank

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
310-289463-6	Trip Blank	110	96	102

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		DBFM	TOL	BFB
Lab Sample ID	Client Sample ID	(73-130)	(80-120)	(80-120)
LCS 310-432169/6	Lab Control Sample	98	102	104
LCS 310-432169/7	Lab Control Sample	105	100	99
MB 310-432169/5	Method Blank	108	100	103

Surrogate Legend

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

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

Lab Sample ID: MB 310-432169/5
Matrix: Water
Analysis Batch: 432169

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			09/04/24 10:36	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			09/04/24 10:36	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			09/04/24 10:36	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			09/04/24 10:36	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			09/04/24 10:36	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			09/04/24 10:36	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			09/04/24 10:36	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			09/04/24 10:36	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			09/04/24 10:36	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			09/04/24 10:36	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			09/04/24 10:36	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			09/04/24 10:36	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			09/04/24 10:36	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			09/04/24 10:36	1
2-Hexanone	<10.0		10.0	2.00	ug/L			09/04/24 10:36	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			09/04/24 10:36	1
Acetone	<10.0		10.0	3.10	ug/L			09/04/24 10:36	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			09/04/24 10:36	1
Benzene	<0.500		0.500	0.220	ug/L			09/04/24 10:36	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			09/04/24 10:36	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			09/04/24 10:36	1
Bromoform	<5.00		5.00	0.780	ug/L			09/04/24 10:36	1
Bromomethane	<4.00		4.00	1.10	ug/L			09/04/24 10:36	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			09/04/24 10:36	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			09/04/24 10:36	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			09/04/24 10:36	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			09/04/24 10:36	1
Chloroethane	<4.00		4.00	0.790	ug/L			09/04/24 10:36	1
Chloroform	<3.00		3.00	1.30	ug/L			09/04/24 10:36	1
Chloromethane	<3.00		3.00	0.610	ug/L			09/04/24 10:36	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			09/04/24 10:36	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			09/04/24 10:36	1
Dibromomethane	<1.00		1.00	0.330	ug/L			09/04/24 10:36	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			09/04/24 10:36	1
Iodomethane	<10.0		10.0	7.00	ug/L			09/04/24 10:36	1
Methylene chloride	<5.00		5.00	1.70	ug/L			09/04/24 10:36	1
Styrene	<1.00		1.00	0.370	ug/L			09/04/24 10:36	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/04/24 10:36	1
Toluene	<1.00		1.00	0.430	ug/L			09/04/24 10:36	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			09/04/24 10:36	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			09/04/24 10:36	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			09/04/24 10:36	1
Trichloroethene	<1.00		1.00	0.430	ug/L			09/04/24 10:36	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			09/04/24 10:36	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			09/04/24 10:36	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			09/04/24 10:36	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			09/04/24 10:36	1
Dichlorodifluoromethane	<3.00		3.00	0.250	ug/L			09/04/24 10:36	1

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

Lab Sample ID: MB 310-432169/5
Matrix: Water
Analysis Batch: 432169

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*108*		*73 - 130*		*09/04/24 10:36*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/04/24 10:36*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*09/04/24 10:36*	*1*

Lab Sample ID: LCS 310-432169/6
Matrix: Water
Analysis Batch: 432169

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	21.38		ug/L		107	71 - 120
1,1,1-Trichloroethane	20.0	21.88		ug/L		109	73 - 129
1,1,2,2-Tetrachloroethane	20.0	21.12		ug/L		106	68 - 124
1,1,2-Trichloroethane	20.0	20.87		ug/L		104	73 - 123
1,1-Dichloroethane	20.0	19.58		ug/L		98	70 - 127
1,1-Dichloroethene	20.0	21.41		ug/L		107	63 - 132
1,2,3-Trichloropropane	20.0	21.42		ug/L		107	65 - 127
1,2-Dibromo-3-chloropropane	20.0	21.70		ug/L		109	50 - 150
1,2-Dibromoethane (EDB)	20.0	21.59		ug/L		108	75 - 125
1,2-Dichlorobenzene	20.0	21.29		ug/L		106	74 - 120
1,2-Dichloroethane	20.0	21.12		ug/L		106	71 - 125
1,2-Dichloropropane	20.0	21.23		ug/L		106	73 - 124
1,4-Dichlorobenzene	20.0	20.21		ug/L		101	72 - 120
2-Butanone (MEK)	40.0	41.59		ug/L		104	50 - 150
2-Hexanone	40.0	43.36		ug/L		108	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	40.26		ug/L		101	60 - 139
Acetone	40.0	38.05		ug/L		95	50 - 150
Acrylonitrile	200	211.3		ug/L		106	50 - 150
Benzene	20.0	20.32		ug/L		102	72 - 124
Bromochloromethane	20.0	21.25		ug/L		106	73 - 130
Bromodichloromethane	20.0	20.92		ug/L		105	74 - 122
Bromoform	20.0	23.18		ug/L		116	61 - 122
Carbon disulfide	20.0	19.82		ug/L		99	59 - 135
Carbon tetrachloride	20.0	21.35		ug/L		107	67 - 132
Chlorobenzene	20.0	20.84		ug/L		104	76 - 120
Chlorodibromomethane	20.0	21.68		ug/L		108	71 - 121
Chloroform	20.0	20.08		ug/L		100	72 - 125
cis-1,2-Dichloroethene	20.0	20.61		ug/L		103	74 - 123
cis-1,3-Dichloropropene	20.0	21.84		ug/L		109	71 - 125
Dibromomethane	20.0	21.73		ug/L		109	74 - 125
Ethylbenzene	20.0	20.67		ug/L		103	74 - 122
Iodomethane	20.0	20.01		ug/L		100	10 - 150
Methylene chloride	20.0	20.11		ug/L		101	50 - 150
Styrene	20.0	21.03		ug/L		105	74 - 121
Tetrachloroethene	20.0	22.14		ug/L		111	71 - 130
Toluene	20.0	20.41		ug/L		102	74 - 123
trans-1,2-Dichloroethene	20.0	21.12		ug/L		106	70 - 126
trans-1,3-Dichloropropene	20.0	20.56		ug/L		103	69 - 123
trans-1,4-Dichloro-2-butene	20.0	20.08		ug/L		100	50 - 150

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

Lab Sample ID: LCS 310-432169/6
Matrix: Water
Analysis Batch: 432169

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	21.21		ug/L		106	72 - 126
Vinyl acetate	40.0	41.18		ug/L		103	50 - 150
Xylenes, Total	40.0	41.28		ug/L		103	73 - 123

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*73 - 130*
Toluene-d8 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*

Lab Sample ID: LCS 310-432169/7
Matrix: Water
Analysis Batch: 432169

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	22.49		ug/L		112	23 - 150
Chloroethane	20.0	19.41		ug/L		97	54 - 136
Chloromethane	20.0	20.43		ug/L		102	38 - 150
Trichlorofluoromethane	20.0	20.02		ug/L		100	54 - 149
Vinyl chloride	20.0	19.93		ug/L		100	56 - 140
Dichlorodifluoromethane	20.0	19.41		ug/L		97	39 - 150
Dichlorofluoromethane	20.0	19.81		ug/L		99	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*105*		*73 - 130*
Toluene-d8 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*

Lab Sample ID: 310-289463-1 MS
Matrix: Groundwater
Analysis Batch: 432169

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	<1.00		25.0	23.37		ug/L		93	55 - 130
1,1,1-Trichloroethane	<1.00		25.0	23.05		ug/L		92	52 - 130
1,1,2,2-Tetrachloroethane	<1.00		25.0	22.39		ug/L		90	54 - 130
1,1,2-Trichloroethane	<1.00		25.0	22.05		ug/L		88	58 - 130
1,1-Dichloroethane	7.50		25.0	27.25		ug/L		79	49 - 130
1,1-Dichloroethene	<2.00		25.0	22.40		ug/L		90	37 - 132
1,2,3-Trichloropropane	<1.00		25.0	23.02		ug/L		92	49 - 130
1,2-Dibromo-3-chloropropane	<5.00		25.0	20.70		ug/L		83	38 - 150
1,2-Dibromoethane (EDB)	<1.00		25.0	21.78		ug/L		87	60 - 130
1,2-Dichlorobenzene	<1.00		25.0	23.55		ug/L		94	59 - 130
1,2-Dichloroethane	<1.00		25.0	22.91		ug/L		92	51 - 130
1,2-Dichloropropane	0.636	J	25.0	23.52		ug/L		92	57 - 130
1,4-Dichlorobenzene	<1.00		25.0	22.58		ug/L		90	57 - 130
2-Butanone (MEK)	<10.0		50.0	42.17		ug/L		84	38 - 150
2-Hexanone	<10.0		50.0	43.53		ug/L		87	46 - 140
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	43.57		ug/L		87	47 - 139

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

Lab Sample ID: 310-289463-1 MS
Matrix: Groundwater
Analysis Batch: 432169

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	<10.0		50.0	37.54		ug/L		75	31 - 150
Acrylonitrile	<5.00		250	220.7		ug/L		88	40 - 150
Benzene	0.270	J	25.0	21.81		ug/L		86	46 - 130
Bromochloromethane	<5.00		25.0	23.33		ug/L		93	57 - 130
Bromodichloromethane	<1.00		25.0	21.51		ug/L		86	57 - 130
Bromoform	<5.00		25.0	24.75		ug/L		99	44 - 130
Carbon disulfide	<1.00		25.0	23.53		ug/L		94	38 - 135
Carbon tetrachloride	<2.00		25.0	22.05		ug/L		88	45 - 132
Chlorobenzene	<1.00		25.0	22.28		ug/L		89	59 - 130
Chlorodibromomethane	<5.00		25.0	22.93		ug/L		92	54 - 130
Chloroform	<3.00		25.0	22.35		ug/L		89	51 - 130
cis-1,2-Dichloroethene	8.13		25.0	28.18		ug/L		80	45 - 130
cis-1,3-Dichloropropene	<5.00		25.0	22.79		ug/L		91	53 - 130
Dibromomethane	<1.00		25.0	21.91		ug/L		88	59 - 130
Ethylbenzene	<1.00		25.0	22.89		ug/L		92	45 - 130
Iodomethane	<10.0		25.0	21.89		ug/L		88	10 - 150
Methylene chloride	<5.00		25.0	22.24		ug/L		89	37 - 150
Styrene	<1.00		25.0	22.79		ug/L		91	47 - 130
Tetrachloroethene	5.82		25.0	27.70		ug/L		88	47 - 130
Toluene	<1.00		25.0	23.25		ug/L		93	51 - 130
trans-1,2-Dichloroethene	0.494	J	25.0	23.02		ug/L		90	48 - 130
trans-1,3-Dichloropropene	<5.00		25.0	22.10		ug/L		88	50 - 130
trans-1,4-Dichloro-2-butene	<10.0		25.0	19.38		ug/L		78	26 - 150
Trichloroethene	9.58		25.0	31.82		ug/L		89	51 - 130
Vinyl acetate	<10.0		50.0	41.38		ug/L		83	29 - 150
Xylenes, Total	<3.00		50.0	51.05		ug/L		102	43 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*100*		*73 - 130*
Toluene-d8 (Surr)	*98*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*

Lab Sample ID: 310-289463-1 MSD
Matrix: Groundwater
Analysis Batch: 432169

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	<1.00		25.0	22.33		ug/L		89	55 - 130	5	20
1,1,1-Trichloroethane	<1.00		25.0	23.20		ug/L		93	52 - 130	1	20
1,1,2,2-Tetrachloroethane	<1.00		25.0	22.07		ug/L		88	54 - 130	1	20
1,1,2-Trichloroethane	<1.00		25.0	22.30		ug/L		89	58 - 130	1	20
1,1-Dichloroethane	7.50		25.0	27.01		ug/L		78	49 - 130	1	20
1,1-Dichloroethene	<2.00		25.0	22.58		ug/L		90	37 - 132	1	26
1,2,3-Trichloropropane	<1.00		25.0	23.08		ug/L		92	49 - 130	0	26
1,2-Dibromo-3-chloropropane	<5.00		25.0	21.53		ug/L		86	38 - 150	4	20
1,2-Dibromoethane (EDB)	<1.00		25.0	22.75		ug/L		91	60 - 130	4	20
1,2-Dichlorobenzene	<1.00		25.0	22.15		ug/L		89	59 - 130	6	20
1,2-Dichloroethane	<1.00		25.0	22.75		ug/L		91	51 - 130	1	20

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

Lab Sample ID: 310-289463-1 MSD
Matrix: Groundwater
Analysis Batch: 432169

Client Sample ID: MW-2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dichloropropane	0.636	J	25.0	23.17		ug/L		90	57 - 130	2	20
1,4-Dichlorobenzene	<1.00		25.0	21.40		ug/L		86	57 - 130	5	20
2-Butanone (MEK)	<10.0		50.0	38.82		ug/L		78	38 - 150	8	20
2-Hexanone	<10.0		50.0	45.33		ug/L		91	46 - 140	4	20
4-Methyl-2-pentanone (MIBK)	<10.0		50.0	44.54		ug/L		89	47 - 139	2	20
Acetone	<10.0		50.0	39.91		ug/L		80	31 - 150	6	29
Acrylonitrile	<5.00		250	221.3		ug/L		89	40 - 150	0	20
Benzene	0.270	J	25.0	22.09		ug/L		87	46 - 130	1	20
Bromochloromethane	<5.00		25.0	23.43		ug/L		94	57 - 130	0	20
Bromodichloromethane	<1.00		25.0	22.19		ug/L		89	57 - 130	3	20
Bromoform	<5.00		25.0	24.11		ug/L		96	44 - 130	3	20
Carbon disulfide	<1.00		25.0	20.94		ug/L		84	38 - 135	12	30
Carbon tetrachloride	<2.00		25.0	23.07		ug/L		92	45 - 132	5	20
Chlorobenzene	<1.00		25.0	21.71		ug/L		87	59 - 130	3	20
Chlorodibromomethane	<5.00		25.0	24.90		ug/L		100	54 - 130	8	20
Chloroform	<3.00		25.0	21.99		ug/L		88	51 - 130	2	20
cis-1,2-Dichloroethene	8.13		25.0	29.42		ug/L		85	45 - 130	4	20
cis-1,3-Dichloropropene	<5.00		25.0	22.29		ug/L		89	53 - 130	2	20
Dibromomethane	<1.00		25.0	22.84		ug/L		91	59 - 130	4	20
Ethylbenzene	<1.00		25.0	22.29		ug/L		89	45 - 130	3	20
Iodomethane	<10.0		25.0	23.66		ug/L		95	10 - 150	8	35
Methylene chloride	<5.00		25.0	22.11		ug/L		88	37 - 150	1	24
Styrene	<1.00		25.0	22.25		ug/L		89	47 - 130	2	20
Tetrachloroethene	5.82		25.0	27.81		ug/L		88	47 - 130	0	20
Toluene	<1.00		25.0	23.53		ug/L		94	51 - 130	1	20
trans-1,2-Dichloroethene	0.494	J	25.0	22.54		ug/L		88	48 - 130	2	22
trans-1,3-Dichloropropene	<5.00		25.0	21.78		ug/L		87	50 - 130	1	20
trans-1,4-Dichloro-2-butene	<10.0		25.0	19.02		ug/L		76	26 - 150	2	23
Trichloroethene	9.58		25.0	30.91		ug/L		85	51 - 130	3	20
Vinyl acetate	<10.0		50.0	39.78		ug/L		80	29 - 150	4	23
Xylenes, Total	<3.00		50.0	49.35		ug/L		99	43 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*106*		*73 - 130*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-432117/1-A
Matrix: Water
Analysis Batch: 432421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00200		0.00200	0.000530	mg/L		09/04/24 09:00	09/05/24 17:06	1
Barium	<0.00200		0.00200	0.000660	mg/L		09/04/24 09:00	09/05/24 17:06	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		09/04/24 09:00	09/05/24 17:06	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		09/04/24 09:00	09/05/24 17:06	1
Chromium	<0.00500		0.00500	0.00120	mg/L		09/04/24 09:00	09/05/24 17:06	1

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

Lab Sample ID: MB 310-432117/1-A
Matrix: Water
Analysis Batch: 432421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.000500		0.000500	0.000170	mg/L		09/04/24 09:00	09/05/24 17:06	1
Copper	<0.00500		0.00500	0.00180	mg/L		09/04/24 09:00	09/05/24 17:06	1
Lead	<0.000500		0.000500	0.000260	mg/L		09/04/24 09:00	09/05/24 17:06	1
Selenium	<0.00500		0.00500	0.00140	mg/L		09/04/24 09:00	09/05/24 17:06	1
Silver	<0.00100		0.00100	0.000500	mg/L		09/04/24 09:00	09/05/24 17:06	1
Thallium	<0.00100		0.00100	0.000570	mg/L		09/04/24 09:00	09/05/24 17:06	1
Vanadium	<0.00500		0.00500	0.00110	mg/L		09/04/24 09:00	09/05/24 17:06	1
Zinc	<0.0200		0.0200	0.00970	mg/L		09/04/24 09:00	09/05/24 17:06	1

Lab Sample ID: MB 310-432117/1-A
Matrix: Water
Analysis Batch: 432787

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		09/04/24 09:00	09/10/24 17:44	1

Lab Sample ID: MB 310-432117/1-A
Matrix: Water
Analysis Batch: 433354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432117

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	<0.00500		0.00500	0.00210	mg/L		09/04/24 09:00	09/16/24 18:27	1

Lab Sample ID: LCS 310-432117/2-A
Matrix: Water
Analysis Batch: 432421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.2029		mg/L		101	80 - 120
Barium	0.100	0.09795		mg/L		98	80 - 120
Beryllium	0.100	0.09523		mg/L		95	80 - 120
Cadmium	0.100	0.09683		mg/L		97	80 - 120
Chromium	0.100	0.09765		mg/L		98	80 - 120
Cobalt	0.100	0.09989		mg/L		100	80 - 120
Copper	0.200	0.1974		mg/L		99	80 - 120
Lead	0.200	0.2023		mg/L		101	80 - 120
Selenium	0.400	0.3731		mg/L		93	80 - 120
Silver	0.100	0.1092		mg/L		109	80 - 120
Thallium	0.100	0.09864		mg/L		99	80 - 120
Vanadium	0.100	0.09320		mg/L		93	80 - 120
Zinc	0.200	0.1872		mg/L		94	80 - 120

Lab Sample ID: LCS 310-432117/2-A
Matrix: Water
Analysis Batch: 432787

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2091		mg/L		105	80 - 120

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

Lab Sample ID: LCS 310-432117/2-A
Matrix: Water
Analysis Batch: 433354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	0.200	0.1982		mg/L		99	80 - 120

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 500-784573/1-A
Matrix: Water
Analysis Batch: 784574

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 784573

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	<1.00		1.00	0.231	mg/L		09/04/24 18:00	09/04/24 21:09	1

Lab Sample ID: LCS 500-784573/2-A
Matrix: Water
Analysis Batch: 784574

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 784573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Sulfide	3.64	3.488		mg/L		96	80 - 120

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

Lab Sample ID: MB 310-432042/1
Matrix: Water
Analysis Batch: 432042

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			09/03/24 10:13	1

Lab Sample ID: LCS 310-432042/2
Matrix: Water
Analysis Batch: 432042

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	97.00		mg/L		97	81 - 116

Lab Sample ID: MB 310-432059/1
Matrix: Water
Analysis Batch: 432059

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.70	mg/L			09/03/24 11:34	1

Lab Sample ID: LCS 310-432059/2
Matrix: Water
Analysis Batch: 432059

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	100.0		mg/L		100	81 - 116

QC Association Summary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

GC/MS VOA

Analysis Batch: 432169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	8260D	
310-289463-2	MW-5	Total/NA	Groundwater	8260D	
310-289463-3	MW-6	Total/NA	Groundwater	8260D	
310-289463-4	PZ-2B	Total/NA	Groundwater	8260D	
310-289463-5	MW-D	Total/NA	Groundwater	8260D	
310-289463-6	Trip Blank	Total/NA	Trip Blank	8260D	
MB 310-432169/5	Method Blank	Total/NA	Water	8260D	
LCS 310-432169/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-432169/7	Lab Control Sample	Total/NA	Water	8260D	
310-289463-1 MS	MW-2	Total/NA	Groundwater	8260D	
310-289463-1 MSD	MW-2	Total/NA	Groundwater	8260D	

Metals

Prep Batch: 432117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	3005A	
310-289463-2	MW-5	Total/NA	Groundwater	3005A	
310-289463-3	MW-6	Total/NA	Groundwater	3005A	
310-289463-4	PZ-2B	Total/NA	Groundwater	3005A	
310-289463-5	MW-D	Total/NA	Groundwater	3005A	
MB 310-432117/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-432117/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 432421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	6020B	432117
310-289463-2	MW-5	Total/NA	Groundwater	6020B	432117
310-289463-3	MW-6	Total/NA	Groundwater	6020B	432117
310-289463-4	PZ-2B	Total/NA	Groundwater	6020B	432117
310-289463-5	MW-D	Total/NA	Groundwater	6020B	432117
MB 310-432117/1-A	Method Blank	Total/NA	Water	6020B	432117
LCS 310-432117/2-A	Lab Control Sample	Total/NA	Water	6020B	432117

Analysis Batch: 432787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	6020B	432117
310-289463-2	MW-5	Total/NA	Groundwater	6020B	432117
310-289463-3	MW-6	Total/NA	Groundwater	6020B	432117
310-289463-4	PZ-2B	Total/NA	Groundwater	6020B	432117
310-289463-5	MW-D	Total/NA	Groundwater	6020B	432117
MB 310-432117/1-A	Method Blank	Total/NA	Water	6020B	432117
LCS 310-432117/2-A	Lab Control Sample	Total/NA	Water	6020B	432117

Analysis Batch: 433354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	6020B	432117
310-289463-2	MW-5	Total/NA	Groundwater	6020B	432117
310-289463-3	MW-6	Total/NA	Groundwater	6020B	432117
310-289463-4	PZ-2B	Total/NA	Groundwater	6020B	432117
310-289463-5	MW-D	Total/NA	Groundwater	6020B	432117

Metals (Continued)

Analysis Batch: 433354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 310-432117/1-A	Method Blank	Total/NA	Water	6020B	432117
LCS 310-432117/2-A	Lab Control Sample	Total/NA	Water	6020B	432117

General Chemistry

Analysis Batch: 432042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-5	MW-D	Total/NA	Groundwater	I-3765-85	
MB 310-432042/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-432042/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Analysis Batch: 432059

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-1	MW-2	Total/NA	Groundwater	I-3765-85	
310-289463-2	MW-5	Total/NA	Groundwater	I-3765-85	
310-289463-3	MW-6	Total/NA	Groundwater	I-3765-85	
310-289463-4	PZ-2B	Total/NA	Groundwater	I-3765-85	
MB 310-432059/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-432059/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Prep Batch: 784573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-3	MW-6	Total/NA	Groundwater	9030B	
MB 500-784573/1-A	Method Blank	Total/NA	Water	9030B	
LCS 500-784573/2-A	Lab Control Sample	Total/NA	Water	9030B	

Analysis Batch: 784574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289463-3	MW-6	Total/NA	Groundwater	9034	784573
MB 500-784573/1-A	Method Blank	Total/NA	Water	9034	784573
LCS 500-784573/2-A	Lab Control Sample	Total/NA	Water	9034	784573

Lab Chronicle

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: MW-2
Date Collected: 08/29/24 11:49
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-1
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 16:14
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432421	NFT2	EET CF	09/05/24 18:45
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	433354	NFT2	EET CF	09/16/24 19:36
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432787	NFT2	EET CF	09/10/24 18:35
Total/NA	Analysis	I-3765-85		1	432059	HE7K	EET CF	09/03/24 11:34

Client Sample ID: MW-5
Date Collected: 08/29/24 09:51
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-2
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 14:43
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432421	NFT2	EET CF	09/05/24 18:48
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	433354	NFT2	EET CF	09/16/24 19:39
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432787	NFT2	EET CF	09/10/24 18:37
Total/NA	Analysis	I-3765-85		1	432059	HE7K	EET CF	09/03/24 11:34

Client Sample ID: MW-6
Date Collected: 08/29/24 13:32
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-3
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 15:06
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432421	NFT2	EET CF	09/05/24 18:52
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	433354	NFT2	EET CF	09/16/24 19:43
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432787	NFT2	EET CF	09/10/24 18:40
Total/NA	Prep	9030B			784573	CLB	EET CHI	09/04/24 18:26 - 09/04/24 18:30 [1]
Total/NA	Analysis	9034		1	784574	CLB	EET CHI	09/04/24 22:45 - 09/04/24 22:58 [1]
Total/NA	Analysis	I-3765-85		1	432059	HE7K	EET CF	09/03/24 11:34

Client Sample ID: PZ-2B
Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-4
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 15:28

Lab Chronicle

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Client Sample ID: PZ-2B
Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-4
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432421	NFT2	EET CF	09/05/24 18:56
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	433354	NFT2	EET CF	09/16/24 19:47
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432787	NFT2	EET CF	09/10/24 18:42
Total/NA	Analysis	I-3765-85		1	432059	HE7K	EET CF	09/03/24 11:34

Client Sample ID: MW-D
Date Collected: 08/29/24 11:07
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-5
Matrix: Groundwater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 15:51
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432421	NFT2	EET CF	09/05/24 18:59
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	433354	NFT2	EET CF	09/16/24 19:50
Total/NA	Prep	3005A			432117	QTZ5	EET CF	09/04/24 09:00
Total/NA	Analysis	6020B		1	432787	NFT2	EET CF	09/10/24 18:44
Total/NA	Analysis	I-3765-85		1	432042	HE7K	EET CF	09/03/24 10:13

Client Sample ID: Trip Blank
Date Collected: 08/29/24 00:00
Date Received: 08/30/24 16:20

Lab Sample ID: 310-289463-6
Matrix: Trip Blank

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432169	WSE8	EET CF	09/04/24 13:13

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: SCS Engineers
Job ID: 310-289463-1
Project/Site: Woodbury County Landfill

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

Laboratory: Eurofins Chicago

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

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

Method Summary

Client: SCS Engineers
Project/Site: Woodbury County Landfill

Job ID: 310-289463-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	EET CHI
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	SW846	EET CHI

Protocol References:

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

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

Laboratory References:

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

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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310-289463 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 8/30/24 TIME 1620 | 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 # _____ 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? ↓

all

Temperature Record

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

Thermometer ID: P | 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): -1.5 | Corrected Temp (°C): 4.5

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

TestAmerica Des Moines SC
214

Chain of Custody Record

eurofins

Client Information	Sampler: Homer Potts	Lab PM: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-95645-25639 1
Client Contact: Ben Madson	Phone:	E-Mail: Mary.Yang@ET EurofinsUS.com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone: 515-776-9255(Tel)	PO #: 27223172.24			
Email: bmadson@scsengineers.com	WO #:			
Project Name: 2ND 2024 Semi-Annual Groundwater Sampling	Project #: 31007691			
Site: Woodbury County Sanitary Landfill (HMSP)	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL
D - HNO3
N - None
CB - ZnAcetate/NaOH
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - (MOD) Volatile Appendix I Sublist + Dichlorodifluoromethane	6020B - Appendix I	8260D - Volatile Appendix I Sublist	I_3766_85 - Total Suspended Solids	9034_Calc - Sulfide	6151A - (MOD) 2,4-D	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A	D	A	N	CB	N		
MW-2	8-29-24	1149	G	Water			X	X		X				Login with HMSP Sites and Events - really truly!
MW-3				Water				X	X	X				Sub Sulfide and Herbicides to Chicago
MW-5	8.29.24	0951	G	Water				X	X	X				
MW-6	8.29.24	1332	G	Water				X	X	X	X			
MW-8				Water			X	X		X	X	X		
PZ-2B	8.29.24	1107	G	Water			X	X		X				
MW-D	8.29.24	1107	G	Water			X	X	X	X				
Trip Blank				Water			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	Homer Potts	8-30-24 / 12:00	SCS			
2						
3					8/30/24 1620	

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

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Yang, Mary E	Carrier Tracking No(s)	COC No: 310-75969 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin: Iowa	Page: Page 1 of 1
Company: Eurofins Environment Testing North Centr		Accreditations Required (See note): State - Iowa, State Program - Iowa		Job #: 310-289463-1
Address: 2417 Bond Street,	Due Date Requested: 9/16/2024			
City: University Park	TAT Requested (days):			
State Zip: IL, 60484				
Phone: 708-534-5200(Tel) 708-534-5211(Fax)	PO #:			
Email:	WO #:			
Project Name: Woodbury County Landfill	Project #: 31007691			
Site: 310-SCS Woodbury Co SL	SSOW#:			

310-289463 COC

Analysis Requested

Preservation Codes: -

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)	9034_Calc/9030B Sulfide	Total Number of containers	Special Instructions/Note:
			Preservation Code.						
MW-6 (310-289463-3)	8/29/24	13 32 Central	G	Water			X	1	

Other:

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
[signature]	9/3/24 1550		[signature]	9/4/24 1000	BETA
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. 2.0-7.9

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-289463-1

Login Number: 289463
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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: 310-289463-1

Login Number: 289463
List Number: 2
Creator: Scott, Sherri L

List Source: Eurofins Chicago
List Creation: 09/04/24 03:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.9
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.	True	

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 9/4/2024 10:33:34 PM

JOB DESCRIPTION

Woodbury County Landfill (Supplemental)
2024 Semi-Annual Supplemental

JOB NUMBER

310-289467-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

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

Authorization

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9/4/2024 10:33:34 PM

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

Table of Contents

Job ID: 310-289467-1 Eurofins Cedar Falls

Job Narrative
310-289467-1

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 8/30/2024 4:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.5°C.

GC/MS VOA
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: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-289467-1	MW-11	Groundwater	08/29/24 14:49	08/30/24 16:20
310-289467-2	MW-12	Groundwater	08/29/24 15:19	08/30/24 16:20
310-289467-3	MW-14	Groundwater	08/29/24 12:14	08/30/24 16:20

Detection Summary

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Client Sample ID: MW-11 — Lab Sample ID: 310-289467-1

No Detections.

Client Sample ID: MW-12 — Lab Sample ID: 310-289467-2

No Detections.

Client Sample ID: MW-14 — Lab Sample ID: 310-289467-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Client Sample ID: MW-11
Lab Sample ID: 310-289467-1
Date Collected: 08/29/24 14:49
Matrix: Groundwater
Date Received: 08/30/24 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			09/03/24 14:47	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/03/24 14:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*09/03/24 14:47*	*1*
Dibromofluoromethane (Surr)	*106*		*73 - 130*		*09/03/24 14:47*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*09/03/24 14:47*	*1*

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Client Sample ID: MW-12
Lab Sample ID: 310-289467-2
Date Collected: 08/29/24 15:19
Matrix: Groundwater
Date Received: 08/30/24 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			09/03/24 15:10	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/03/24 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*09/03/24 15:10*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 130*		*09/03/24 15:10*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*09/03/24 15:10*	*1*

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Client Sample ID: MW-14
Lab Sample ID: 310-289467-3
Date Collected: 08/29/24 12:14
Matrix: Groundwater
Date Received: 08/30/24 16:20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			09/03/24 15:32	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/03/24 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*09/03/24 15:32*	*1*
Dibromofluoromethane (Surr)	*104*		*73 - 130*		*09/03/24 15:32*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*09/03/24 15:32*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

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

Matrix: Groundwater **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(73-130)	(80-120)
310-289467-1	MW-11	100	106	103
310-289467-2	MW-12	101	107	99
310-289467-3	MW-14	103	104	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(73-130)	(80-120)
LCS 310-432067/6	Lab Control Sample	96	101	101
MB 310-432067/5	Method Blank	104	106	102

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

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

Lab Sample ID: MB 310-432067/5
Matrix: Water
Analysis Batch: 432067

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	<1.00		1.00	0.430	ug/L			09/03/24 13:39	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			09/03/24 13:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*09/03/24 13:39*	*1*
Dibromofluoromethane (Surr)	*106*		*73 - 130*		*09/03/24 13:39*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*09/03/24 13:39*	*1*

Lab Sample ID: LCS 310-432067/6
Matrix: Water
Analysis Batch: 432067

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Trichloroethene			20.0	19.69		ug/L		98	72 - 126		
Tetrachloroethene			20.0	19.35		ug/L		97	71 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*73 - 130*
Toluene-d8 (Surr)	*101*		*80 - 120*

QC Association Summary

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

GC/MS VOA

Analysis Batch: 432067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-289467-1	MW-11	Total/NA	Groundwater	8260D	
310-289467-2	MW-12	Total/NA	Groundwater	8260D	
310-289467-3	MW-14	Total/NA	Groundwater	8260D	
MB 310-432067/5	Method Blank	Total/NA	Water	8260D	
LCS 310-432067/6	Lab Control Sample	Total/NA	Water	8260D	

Lab Chronicle

Client: SCS Engineers
Job ID: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Client Sample ID: MW-11
Lab Sample ID: 310-289467-1
Date Collected: 08/29/24 14:49
Matrix: Groundwater
Date Received: 08/30/24 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432067	FE5V	EET CF	09/03/24 14:47

Client Sample ID: MW-12
Lab Sample ID: 310-289467-2
Date Collected: 08/29/24 15:19
Matrix: Groundwater
Date Received: 08/30/24 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432067	FE5V	EET CF	09/03/24 15:10

Client Sample ID: MW-14
Lab Sample ID: 310-289467-3
Date Collected: 08/29/24 12:14
Matrix: Groundwater
Date Received: 08/30/24 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	432067	FE5V	EET CF	09/03/24 15:32

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: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

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: 310-289467-1
Project/Site: Woodbury County Landfill (Supplemental)

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

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

Laboratory References:

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

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310-289467 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: SCS Engineers

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 8/30/24 | TIME 1620 | 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 # _____ 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? ↓

all

Temperature Record

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

Thermometer ID: P | 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): -1.5 | Corrected Temp (°C): 4.5

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: Karner Roth	Lab PM: Yang, Mary E	Carrier Tracking No(s):	COC No: 310-95648-26358 1
Client Contact: Ben Madson	Phone:	E-Mail: Mary Yang@ET EurofinsUS com	State of Origin:	Page: Page 1 of 1
Company: SCS Engineers	PWSID:			Job #:
Address: 1690 All State Court Suite 100	Due Date Requested:			
City: West Des Moines	TAT Requested (days):			
State, Zip: IA, 50265	Compliance Project: Δ Yes Δ No			
Phone: 515-776-9255(Tel)	PO #: 27223172.24			
Email: bmadson@scsengineers com	WO #:			
Project Name: 2nd 2024 Semi-Annual Groundwater Sampling	Project #: 31007691			
Site: Woodbury County Sanitary Landfill (Supplemental)	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D - (MOD) Tri- and Tetrachloroethene	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-9				Water			X		
MW-11	8-29-24	14:49	G	Water			X		
MW-12	8-29-24	15:19	G	Water			X		
MW-14	8-29-24	1214	G	Water			X		
PZ-2A				Water			X		
Trip Blank				Water			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
Karner Roth	8-30-24 / 12:00	SCS			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/30/24 1620	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Ver: 05/06/2024

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-289467-1
SDG Number:

Login Number: 289467
List Number: 1
Creator: Hirsch, Preston

List Source: Eurofins Cedar Falls

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	

Appendix B-2

Data Validation

Completed by: Semir Omerovic
Date of Sampling: 6/12/2024
Lab Report Date: 7/1/2024
Site Name: Woodbury County Sanitary Landfill
Project Type: Supplemental - 1st 2024 Semi-Annual Sampling Event
Lab Report Number: 310-283555-1

	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			No detections.
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Semir Omerovic
Date of Sampling: 6/12/2024
Lab Report Date: 7/12/2024
Site Name: Woodbury County Sanitary Landfill
Project Type: HMSP - 1st 2024 Semi-Annual Sampling Event
Lab Report Number: 310-283502-1

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition		X		Method 8260D: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container: MW-5 (310-283502-2) and Trip Blank (310-283502-7).
Case Narrative	X			
Holding Times	X			
Analytical Sensitivity and Blanks				
Method Blank Detections	X			No detections.
Trip Blank Detections	X			No detections.
Accuracy				
ICV/CCV	X			
LCS/LCSD		X		Method 6020B: The laboratory control sample (LCS) for 310-424661 recovered outside control limits for the following analytes: Nickel. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. MW-5 (310-283502-2) and PZ-2B (310-283502-5)
MS/MSD		X		MS and/or MSD recovery and RPD exceeded control limits in MW-2 for antimony, arsenic, beryllium, cadmium, chromium, cobalt, copper, lead, selenium, vanadium, and zinc. MS/MSD RPD exceeded control limits in MW-2 for barium.
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates		X		Sample MW-2 and duplicate MW-D had less than 50% RPD for analyzed parameters except for arsenic, cobalt, and lead.

Completed by: Semir Omerovic
Date of Sampling: 8/29/2024
Lab Report Date: 9/4/2024
Site Name: Woodbury County Sanitary Landfill
Project Type: Supplemental - 2nd 2024 Semi-Annual Sampling Event
Lab Report Number: 310-289467-1

	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			No detections.
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates			X	

Completed by: Semir Omerovic
Date of Sampling: 8/29/2024
Lab Report Date: 9/17/2024
Site Name: Woodbury County Sanitary Landfill
Project Type: HMSP - 2nd 2024 Semi-Annual Sampling Event
Lab Report Number: 310-289463-1

	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			No detections.
Accuracy				
ICV/CCV	X			
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)	X			
Other QA QC samples	X			
Precision				
QA/QC Sample RPDs	X			
Field Duplicates		X		Sample PZ-2B and duplicate MW-D had less than 50% RPD for analyzed parameters except for 1,2-Dichloroethane and Chloroethane.

Appendix C-1

Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Antimony, mg/L (CAS NO - 7440-36-0)	3/21/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/9/2009	< 0.001	0.0014	< 0.001	< 0.001	< 0.001	< 0.001
	3/30/2010	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/16/2010	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/16/2011	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	10/27/2011	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	5/10/2012	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	10/1/2012	< 0.006	< 0.006	< 0.012	< 0.006	< 0.012	< 0.006
	3/26/2013	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	9/17/2013	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	4/7/2014	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006
	10/28/2014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/6/2015	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	4/16/2015	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	10/21/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/11/2016	< 0.001	0.000313	0.000752	< 0.001	< 0.001	< 0.001
	4/11/2016	N/A	0.000336	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/5/2016	0.00042*	< 0.001	0.000549*	0.000349*	< 0.001	< 0.001
	10/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/17/2017	< 0.001	< 0.001	0.000351*	< 0.001	< 0.001	< 0.001
	4/17/2017	N/A	N/A	N/A	0.000304*	N/A	N/A
	7/18/2017	< 0.001	0.000254*	0.000248*	**0.00105**	< 0.001	< 0.001
	4/2/2018	**0.00174**	< 0.001	0.000678*	**0.00105**	< 0.001	< 0.001
	10/10/2018	< 0.003	< 0.003	< 0.003	**0.0168**	< 0.003	< 0.003
	10/10/2018	N/A	N/A	N/A	N/A	< 0.003	N/A
	3/26/2019	**0.00121**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/31/2019	< 0.001	0.000731*	< 0.001	< 0.001	< 0.001	< 0.001
	7/31/2019	< 0.001	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	N/A	N/A	< 0.001	N/A	N/A	N/A
	3/17/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.002
	8/5/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	8/5/2021	N/A	N/A	N/A	N/A	< 0.002	N/A
	5/4/2022	< 0.002	< 0.002	N/A	< 0.002	N/A	0.000727*
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.002
	11/2/2022	0.00179*	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	11/2/2022	N/A	N/A	N/A	< 0.002	N/A	N/A
	4/12/2023	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002
	4/12/2023	N/A	N/A	N/A	N/A	< 0.002	N/A
	8/29/2023	< 0.002	< 0.002	N/A	< 0.002	N/A	< 0.002
	8/29/2023	N/A	N/A	N/A	< 0.002	N/A	N/A
	6/12/2024	N/A	< 0.002	N/A	< 0.002	< 0.002	< 0.002
	6/12/2024	N/A	< 0.002	N/A	N/A	N/A	N/A
	8/29/2024	< 0.002	< 0.002	N/A	< 0.002	N/A	< 0.002
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.002
Arsenic, mg/L (CAS NO - 7440-38-2)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0047
	9/9/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0108
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.02
	9/16/2010	0.0192	< 0.004	< 0.004	< 0.004	< 0.004	0.0123
	3/16/2011	< 0.004	< 0.004	0.0046	< 0.004	< 0.004	0.0064
	10/27/2011	< 0.001	< 0.001	0.00278	< 0.001	< 0.001	0.00659
	5/10/2012	< 0.001	< 0.001	0.00109	< 0.001	< 0.001	0.00604
	10/1/2012	< 0.001	0.00115	< 0.001	< 0.001	< 0.001	0.00655
	3/26/2013	< 0.001	0.00105	< 0.001	< 0.001	< 0.001	0.00568
	9/17/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00629
	4/7/2014	< 0.001	< 0.001	0.00114	< 0.001	< 0.001	0.00502
	10/28/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00586

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Arsenic, mg/L (CAS NO - 7440-38-2)	4/6/2015	N/A	< 0.002	< 0.002	N/A	0.00471	0.00701
	4/16/2015	< 0.002	N/A	N/A	< 0.002	N/A	N/A
	10/21/2015	< 0.002	< 0.002	0.00738	< 0.002	< 0.002	0.00662
	4/11/2016	0.002	< 0.002	0.0203	< 0.002	0.00118	0.0068
	4/11/2016	N/A	< 0.002	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.002	N/A	N/A
	10/5/2016	< 0.002	< 0.002	**0.0199**	< 0.002	< 0.002	**0.00524**
	10/5/2016	N/A	N/A	N/A	< 0.002	N/A	N/A
	4/17/2017	< 0.002	< 0.002	**0.0182**	< 0.002	< 0.002	**0.00508**
	4/17/2017	N/A	N/A	N/A	< 0.002	N/A	N/A
	7/18/2017	< 0.002	< 0.002	**0.0148**	< 0.002	< 0.002	**0.00461**
	4/2/2018	0.00115*	< 0.002	**0.0125**	0.000597*	< 0.002	**0.00632**
	10/10/2018	0.000936*	0.000814*	**0.0144**	**0.00147**	**0.00216**	**0.00611**
	10/10/2018	N/A	N/A	N/A	N/A	**0.00203**	N/A
	3/26/2019	< 0.002	< 0.002	**0.00838**	< 0.002	< 0.002	**0.00622**
	3/26/2019	N/A	N/A	N/A	< 0.002	N/A	N/A
	7/31/2019	< 0.002	< 0.002	**0.00772**	0.000994*	< 0.002	**0.00659**
	7/31/2019	< 0.002	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.002	< 0.002	**0.00561**	**0.00452**	< 0.002	**0.00591**
	8/25/2020	< 0.002	< 0.002	**0.00752**	0.0011*	< 0.002	**0.00659**
	8/25/2020	N/A	N/A	**0.00789**	N/A	N/A	N/A
	3/17/2021	< 0.002	< 0.002	**0.0107**	0.000821*	< 0.002	**0.0059**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	**0.00593**
	8/5/2021	< 0.002	< 0.002	**0.00851**	< 0.002	< 0.002	**0.00554**
	8/5/2021	N/A	N/A	N/A	N/A	< 0.002	N/A
	5/4/2022	< 0.002	< 0.002	N/A	0.000762*	N/A	**0.00542**
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**0.00534**
	11/2/2022	< 0.002	< 0.002	**0.00928**	< 0.002	< 0.002	**0.00516**
	11/2/2022	N/A	N/A	N/A	< 0.002	N/A	N/A
	4/12/2023	< 0.002	0.000531*	N/A	0.000793*	< 0.002	**0.00568**
	4/12/2023	N/A	N/A	N/A	N/A	0.00137*	N/A
	8/29/2023	< 0.002	< 0.002	N/A	0.000842*	N/A	**0.00651**
	8/29/2023	N/A	N/A	N/A	0.000864*	N/A	N/A
	6/12/2024	N/A	0.000545*	N/A	0.000696*	0.000979*	**0.00552**
	6/12/2024	N/A	< 0.002	N/A	N/A	N/A	N/A
	8/29/2024	0.00056*	< 0.002	N/A	0.00147*	N/A	**0.00601**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**0.00585**
Barium, mg/L (CAS NO - 7440-39-3)	3/21/2009	0.386	0.565	0.402	0.0242	1	0.895
	9/9/2009	0.417	0.497	0.428	0.0274	0.89	0.66
	3/30/2010	0.355	0.49	0.526	0.0251	0.858	1.06
	9/16/2010	0.827	0.597	0.478	0.0193	0.967	0.713
	3/16/2011	0.427	0.498	0.497	0.0264	0.984	0.552
	10/27/2011	0.327	0.383	0.508	0.0192	0.82	0.371
	5/10/2012	0.355	0.385	0.492	0.0233	0.85	0.441
	10/1/2012	0.355	0.382	0.497	0.0254	0.87	0.422
	3/26/2013	0.358	0.356	0.545	0.0278	0.858	0.403
	9/17/2013	0.393	0.403	0.554	0.0307	0.891	0.459
	4/7/2014	0.38	0.367	0.496	0.0259	0.958	0.41
	10/28/2014	0.419	0.45	0.44	0.0343	0.892	0.457
	4/6/2015	N/A	0.431	0.48	N/A	1.08	0.483
	4/16/2015	0.426	N/A	N/A	0.0323	N/A	N/A
	10/21/2015	0.459	0.544	0.396	0.0327	0.894	0.461
	4/11/2016	0.48	0.571	1.14	0.0274	1.1	0.487
	4/11/2016	N/A	0.609	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.0226	N/A	N/A
	10/5/2016	**0.387**	**0.491**	**1.03**	**0.0214**	**0.859**	**0.448**
	10/5/2016	N/A	N/A	N/A	**0.0183**	N/A	N/A
	4/17/2017	**0.416**	**0.456**	**1.28**	**0.0242**	**0.792**	**0.472**
	4/17/2017	N/A	N/A	N/A	**0.41**	N/A	N/A
	7/18/2017	**0.411**	**0.43**	**1**	**0.0218**	**0.949**	**0.444**
	4/2/2018	**0.438**	**0.449**	**0.94**	**0.0275**	**0.91**	**0.453**

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Barium, mg/L (CAS NO - 7440-39-3)	10/10/2018	0.442	0.504	0.828	0.0462	0.901	0.471
	10/10/2018	N/A	N/A	N/A	N/A	0.887	N/A
	3/26/2019	0.443	0.499	0.764	0.0284	0.965	0.474
	3/26/2019	N/A	N/A	N/A	0.0295	N/A	N/A
	7/31/2019	0.481	0.511	0.723	0.0331	0.931	0.547
	7/31/2019	0.472	N/A	N/A	N/A	N/A	N/A
	2/12/2020	0.445	0.48	0.64	0.564	0.868	0.537
	8/25/2020	0.562	0.523	0.698	0.0328	1.02	0.582
	8/25/2020	N/A	N/A	0.743	N/A	N/A	N/A
	3/17/2021	0.596	0.47	0.884	0.0317	1.01	0.582
	3/17/2021	N/A	N/A	N/A	N/A	N/A	0.66
	8/5/2021	0.549	0.367	0.731	0.0261	0.884	0.521
	8/5/2021	N/A	N/A	N/A	N/A	0.877	N/A
	5/4/2022	0.541	0.508	N/A	0.026	N/A	0.489
	5/4/2022	N/A	N/A	N/A	N/A	N/A	0.48
	11/2/2022	0.599	0.34	0.693	0.0248	0.909	0.504
	11/2/2022	N/A	N/A	N/A	0.0259	N/A	N/A
	4/12/2023	0.578	0.295	N/A	0.0292	1.07	0.56
	4/12/2023	N/A	N/A	N/A	N/A	1.06	N/A
	8/29/2023	0.525	0.399	N/A	0.0276	N/A	0.535
	8/29/2023	N/A	N/A	N/A	0.0278	N/A	N/A
	6/12/2024	N/A	0.485	N/A	0.0249	1.14	0.59
	6/12/2024	N/A	0.506	N/A	N/A	N/A	N/A
	8/29/2024	0.507	0.751	N/A	0.0297	N/A	0.508
	8/29/2024	N/A	N/A	N/A	N/A	N/A	0.509
Beryllium, mg/L (CAS NO - 7440-41-7)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/9/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2010	< 0.01	< 0.004	< 0.004	< 0.004	< 0.004	< 0.01
	3/16/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/27/2011	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/10/2012	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/1/2012	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	9/17/2013	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/7/2014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/28/2014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/6/2015	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	4/16/2015	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	10/21/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/11/2016	0.000333	< 0.001	< 0.001	< 0.001	0.000739	< 0.001
	4/11/2016	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/17/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/17/2017	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/18/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/2/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/10/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/10/2018	N/A	N/A	N/A	N/A	< 0.001	N/A
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/31/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/31/2019	< 0.001	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	N/A	N/A	< 0.001	N/A	N/A	N/A
	3/17/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.001

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Beryllium, mg/L (CAS NO - 7440-41-7)	8/5/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/5/2021	N/A	N/A	N/A	N/A	< 0.001	N/A
	5/4/2022	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/2/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/2/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/12/2023	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	4/12/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	8/29/2023	< 0.001	< 0.001	N/A	< 0.001	N/A	0.000332*
	8/29/2023	N/A	N/A	N/A	< 0.001	N/A	N/A
	6/12/2024	N/A	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	6/12/2024	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/29/2024	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.001
Cadmium, mg/L (CAS NO - 7440-43-9)	3/21/2009	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0018
	9/9/2009	< 0.001	< 0.001	0.0016	< 0.001	< 0.001	0.0018
	3/30/2010	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0046
	9/16/2010	0.0028	< 0.001	< 0.001	< 0.001	< 0.001	0.002
	3/16/2011	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	0.0008
	10/27/2011	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000845
	5/10/2012	< 0.0005	< 0.0005	0.00052	< 0.0005	< 0.0005	< 0.0005
	10/1/2012	< 0.0005	< 0.0005	< 0.0005	0.000559	< 0.0005	< 0.0005
	3/26/2013	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	9/17/2013	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/7/2014	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	10/28/2014	< 0.0005	< 0.0005	< 0.0005	0.000553	< 0.0005	< 0.0005
	4/6/2015	N/A	< 0.0005	< 0.0005	N/A	0.00289	< 0.0005
	4/16/2015	< 0.0005	N/A	N/A	< 0.0005	N/A	N/A
	10/21/2015	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000593	< 0.0005
	4/11/2016	0.000124	0.000508	0.000689	0.000096	0.000954	0.00121
	4/11/2016	N/A	0.000488	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.000098	N/A	N/A
	10/5/2016	0.000197*	**0.000652**	< 0.0005	< 0.0005	< 0.0005	0.000062*
	10/5/2016	N/A	N/A	N/A	0.00008*	N/A	N/A
	4/17/2017	< 0.0005	0.000296*	< 0.0005	0.000095*	0.000109*	0.000217*
	4/17/2017	N/A	N/A	N/A	< 0.0005	N/A	N/A
	7/18/2017	< 0.0005	0.000204*	< 0.0005	< 0.0005	< 0.0005	0.000079*
	4/2/2018	0.000228*	**0.000625**	0.000251*	0.000097*	< 0.0005	0.000085*
	10/10/2018	< 0.0005	0.00046*	0.000243*	**0.00119**	< 0.0005	< 0.0005
	10/10/2018	N/A	N/A	N/A	N/A	< 0.0005	N/A
	3/26/2019	0.000082*	0.000306*	< 0.0005	< 0.0005	< 0.0005	0.000135*
	3/26/2019	N/A	N/A	N/A	< 0.0005	N/A	N/A
	7/31/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000086*
	7/31/2019	< 0.0005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.0001	**0.000351**	< 0.0001	< 0.0001	< 0.0001	**0.0001**
	8/25/2020	**0.000542**	**0.00026**	0.000057*	0.000088*	0.000073*	**0.000308**
	8/25/2020	N/A	N/A	< 0.0001	N/A	N/A	N/A
	3/17/2021	< 0.0001	**0.000981**	< 0.0001	0.000081*	< 0.0001	0.000075*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.0001
	8/5/2021	< 0.0001	**0.000163**	< 0.0001	< 0.0001	0.000066*	< 0.0001
	8/5/2021	N/A	N/A	N/A	N/A	< 0.0001	N/A
	5/4/2022	< 0.0001	**0.00112**	N/A	< 0.0001	N/A	< 0.0001
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**0.000298**
	11/2/2022	**0.000404**	0.000099*	**0.000215**	< 0.0001	< 0.0001	< 0.0001
	11/2/2022	N/A	N/A	N/A	< 0.0001	N/A	N/A
	4/12/2023	< 0.0002	**0.00041**	N/A	< 0.0002	< 0.0002	< 0.0002
	4/12/2023	N/A	N/A	N/A	N/A	0.000104*	N/A
	8/29/2023	< 0.0002	**0.0005**	N/A	< 0.0002	N/A	**0.000367**
	8/29/2023	N/A	N/A	N/A	< 0.0002	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Cadmium, mg/L (CAS NO - 7440-43-9)	6/12/2024	N/A	**0.000442**	N/A	< 0.0002	< 0.0002	< 0.0002
	6/12/2024	N/A	**0.000424**	N/A	N/A	N/A	N/A
	8/29/2024	< 0.0002	**0.000412**	N/A	< 0.0002	N/A	< 0.0002
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.0002
Chromium, mg/L (CAS NO - 7440-47-3)	3/21/2009	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0224
	9/9/2009	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0216
	3/30/2010	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0973
	9/16/2010	0.0309	< 0.01	< 0.01	< 0.01	< 0.01	< 0.025
	3/16/2011	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008
	10/27/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/10/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/1/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/17/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/7/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/28/2014	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/6/2015	N/A	< 0.005	< 0.005	N/A	0.0145	< 0.005
	4/16/2015	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	10/21/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/11/2016	0.00569	0.00132	< 0.005	0.00253	0.00239	0.000435
	4/11/2016	N/A	0.000963	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00143	N/A	N/A
	10/5/2016	< 0.005	< 0.005	< 0.005	0.0023*	< 0.005	< 0.005
	10/5/2016	N/A	N/A	N/A	0.00112*	N/A	N/A
	4/17/2017	< 0.005	< 0.005	< 0.005	0.000975*	< 0.005	< 0.005
	4/17/2017	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/18/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/2/2018	0.00247*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	10/10/2018	0.00208*	0.0021*	0.00243*	**0.00529**	**0.00958**	0.00168*
	10/10/2018	N/A	N/A	N/A	N/A	**0.00824**	N/A
	3/26/2019	< 0.005	< 0.005	< 0.005	0.00122*	< 0.005	< 0.005
	3/26/2019	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/31/2019	< 0.005	< 0.005	0.00472*	0.00107*	< 0.005	< 0.005
	7/31/2019	< 0.005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/25/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/25/2020	N/A	N/A	< 0.005	N/A	N/A	N/A
	3/17/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	8/5/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/5/2021	N/A	N/A	N/A	N/A	< 0.005	N/A
	5/4/2022	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/2/2022	< 0.005	< 0.005	0.00218*	< 0.005	0.00139*	< 0.005
	11/2/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/12/2023	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	4/12/2023	N/A	N/A	N/A	N/A	0.00398*	N/A
	8/29/2023	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	8/29/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	6/12/2024	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	6/12/2024	N/A	< 0.005	N/A	N/A	N/A	N/A
	8/29/2024	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Cobalt, mg/L (CAS NO - 7440-48-4)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0128
	9/9/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0154
	3/30/2010	< 0.004	< 0.004	0.008	< 0.004	< 0.004	0.0345
	9/16/2010	0.0196	< 0.004	0.0103	< 0.004	0.0047	0.011
	3/16/2011	< 0.004	< 0.004	0.0072	< 0.004	< 0.004	< 0.004
	10/27/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/10/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/1/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	3/26/2013	< 0.00132	< 0.00132	0.00236	0.00143	0.00164	0.00164
	9/17/2013	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
	4/7/2014	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
	10/28/2014	< 0.007	< 0.007	0.00962	< 0.007	< 0.007	< 0.007
	4/6/2015	N/A	< 0.0005	0.00638	N/A	0.00568	0.000561
	4/16/2015	0.000727	N/A	N/A	< 0.0005	N/A	N/A
	10/21/2015	0.00162	< 0.0005	0.0132	< 0.0005	0.000856	0.000606
	4/11/2016	0.00226	0.000318	0.00647	0.00152	0.00369	0.000672
	4/11/2016	N/A	0.000284	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.000751	N/A	N/A
	10/5/2016	0.000234*	0.000285*	**0.00439**	0.000092*	0.000489*	**0.000599**
	10/5/2016	N/A	N/A	N/A	0.000071*	N/A	N/A
	4/17/2017	0.000062*	0.000165*	**0.00518**	< 0.0005	0.000092*	**0.000506**
	4/17/2017	N/A	N/A	N/A	0.000049*	N/A	N/A
	7/18/2017	0.00005*	< 0.0005	**0.00363**	0.000097*	0.000207*	0.000473*
	4/2/2018	**0.000937**	0.000115*	**0.00636**	**0.000784**	0.000093*	**0.000541**
	10/10/2018	< 0.001	< 0.001	**0.00746**	0.000863*	**0.00113**	0.000664*
	10/10/2018	N/A	N/A	N/A	N/A	**0.00103**	N/A
	3/26/2019	0.00032*	< 0.0005	**0.00491**	0.000427*	0.00015*	**0.000591**
	3/26/2019	N/A	N/A	N/A	0.00039*	N/A	N/A
	7/31/2019	< 0.0005	< 0.0005	**0.00867**	**0.0005**	< 0.0005	**0.000695**
	7/31/2019	< 0.0005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.0005	< 0.0005	**0.00483**	**0.00531**	0.000347*	**0.000727**
	8/25/2020	0.000104*	< 0.0005	**0.00167**	0.000334*	0.000386*	**0.000722**
	8/25/2020	N/A	N/A	**0.00181**	N/A	N/A	N/A
	3/17/2021	0.000171*	< 0.0005	**0.0022**	0.000325*	< 0.0005	**0.000729**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	**0.000734**
	8/5/2021	0.000169*	< 0.0005	**0.00188**	0.000275*	0.000115*	**0.000746**
	8/5/2021	N/A	N/A	N/A	N/A	0.000122*	N/A
	5/4/2022	0.00021*	< 0.0005	N/A	0.000203*	N/A	**0.00063**
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**0.000645**
	11/2/2022	**0.00124**	< 0.0005	**0.00482**	< 0.0005	**0.000664**	**0.000601**
	11/2/2022	N/A	N/A	N/A	0.000206*	N/A	N/A
	4/12/2023	< 0.0005	< 0.0005	N/A	0.000344*	**0.000591**	**0.000611**
	4/12/2023	N/A	N/A	N/A	N/A	**0.00182**	N/A
	8/29/2023	0.000225*	0.000204*	N/A	0.000185*	N/A	**0.000939**
	8/29/2023	N/A	N/A	N/A	0.000197*	N/A	N/A
	6/12/2024	N/A	< 0.0005	N/A	0.000264*	**0.00416**	**0.000593**
	6/12/2024	N/A	0.000179*	N/A	N/A	N/A	N/A
	8/29/2024	**0.00165**	**0.00154**	N/A	0.000461*	N/A	**0.000586**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**0.00058**
Copper, mg/L (CAS NO - 7440-50-8)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0309
	9/9/2009	0.0072	< 0.004	0.0072	< 0.004	0.0058	0.029
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	0.0065	0.0455
	9/16/2010	0.0422	< 0.004	< 0.004	< 0.004	0.0093	0.0256
	3/16/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0077
	10/27/2011	< 0.02	< 0.02	< 0.02	< 0.02	0.0203	0.0214
	5/10/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/1/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/17/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/7/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/28/2014	0.00449	0.00674	0.00436	0.0217	0.00246	0.00854
	4/6/2015	N/A	< 0.002	< 0.002	N/A	0.0266	< 0.002
	4/16/2015	< 0.002	N/A	N/A	0.0087	N/A	N/A
	10/21/2015	0.00511	< 0.002	0.00439	0.0122	0.00853	0.0022
	4/11/2016	0.00422	0.00304	0.00265	0.00237	0.0234	< 0.005
	4/11/2016	N/A	0.00129	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00137	N/A	N/A
	10/5/2016	0.0014*	< 0.005	0.00122*	0.0013*	0.00308*	< 0.005
	10/5/2016	N/A	N/A	N/A	< 0.005	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Copper, mg/L (CAS NO - 7440-50-8)	4/17/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/17/2017	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/18/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/2/2018	**0.0146**	0.00179*	< 0.005	0.00318*	< 0.005	< 0.005
	10/10/2018	0.0012*	0.00115*	**0.00306**	**0.0362**	**0.00522**	0.00083*
	10/10/2018	N/A	N/A	N/A	N/A	**0.00484**	N/A
	3/26/2019	0.00246*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/26/2019	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/31/2019	< 0.005	< 0.005	< 0.005	0.00262*	< 0.005	< 0.005
	7/31/2019	< 0.005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/25/2020	< 0.005	0.00183*	< 0.005	< 0.005	< 0.005	< 0.005
	8/25/2020	N/A	N/A	< 0.005	N/A	N/A	N/A
	3/17/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	8/5/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/5/2021	N/A	N/A	N/A	N/A	< 0.005	N/A
	5/4/2022	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/2/2022	**0.00792**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/2/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/12/2023	0.00196*	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	4/12/2023	N/A	N/A	N/A	N/A	**0.00539**	N/A
	8/29/2023	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	8/29/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	6/12/2024	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	6/12/2024	N/A	< 0.005	N/A	N/A	N/A	N/A
	8/29/2024	0.00233*	< 0.005	N/A	< 0.005	N/A	< 0.005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Lead, mg/L (CAS NO - 7439-92-1)	3/21/2009	< 0.004	< 0.004	0.0042	< 0.004	< 0.004	0.0392
	9/9/2009	0.0066	< 0.004	< 0.004	< 0.004	< 0.004	0.0252
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	0.0054	0.0644
	9/16/2010	0.0376	< 0.004	< 0.004	< 0.004	0.0079	0.0232
	3/16/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.0065
	10/27/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	5/10/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/1/2012	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/26/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/17/2013	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/7/2014	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	0.00521
	10/28/2014	0.00139	0.00208	0.00119	0.00139	0.000574	0.00114
	4/6/2015	N/A	< 0.0005	< 0.0005	N/A	0.0107	< 0.0005
	4/16/2015	0.00134	N/A	N/A	0.000666	N/A	N/A
	10/21/2015	0.00336	< 0.0005	0.000805	0.0024	0.00258	0.00106
	4/11/2016	0.00364	< 0.0005	0.000989	0.00124	0.0107	0.000549
	4/11/2016	N/A	< 0.0005	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.000671	N/A	N/A
	10/5/2016	0.00027*	< 0.0005	< 0.0005	< 0.0005	**0.000749**	0.000458*
	10/5/2016	N/A	N/A	N/A	< 0.0005	N/A	N/A
	4/17/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/17/2017	N/A	N/A	N/A	< 0.0005	N/A	N/A
	7/18/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/2/2018	**0.00316**	< 0.0005	**0.000709**	0.00025*	< 0.0005	< 0.0005
	10/10/2018	< 0.0005	< 0.0005	**0.00103**	**0.00397**	**0.00225**	0.000368*
	10/10/2018	N/A	N/A	N/A	N/A	**0.0021**	N/A
	3/26/2019	**0.000879**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	3/26/2019	N/A	N/A	N/A	< 0.0005	N/A	N/A
	7/31/2019	< 0.0005	< 0.0005	0.000289*	0.000306*	< 0.0005	< 0.0005
	7/31/2019	< 0.0005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000388*

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Lead, mg/L (CAS NO - 7439-92-1)	8/25/2020	< 0.0005	< 0.0005	0.000184*	< 0.0005	< 0.0005	0.000153*
	8/25/2020	N/A	N/A	0.000287*	N/A	N/A	N/A
	3/17/2021	< 0.0005	< 0.0005	< 0.0005	0.000245*	< 0.0005	0.000211*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.0005
	8/5/2021	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0003*
	8/5/2021	N/A	N/A	N/A	N/A	< 0.0005	N/A
	5/4/2022	< 0.0005	< 0.0005	N/A	< 0.0005	N/A	< 0.0005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.0005
	11/2/2022	**0.00139**	< 0.0005	**0.000721**	< 0.0005	< 0.0005	< 0.0005
	11/2/2022	N/A	N/A	N/A	< 0.0005	N/A	N/A
	4/12/2023	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005
	4/12/2023	N/A	N/A	N/A	N/A	**0.00182**	N/A
	8/29/2023	0.000342*	< 0.0005	N/A	< 0.0005	N/A	**0.000974**
	8/29/2023	N/A	N/A	N/A	< 0.0005	N/A	N/A
	6/12/2024	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005
	6/12/2024	N/A	< 0.0005	N/A	N/A	N/A	N/A
	8/29/2024	**0.00144**	< 0.0005	N/A	**0.000567**	N/A	< 0.0005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.0005
Mercury, mg/L (CAS NO - 7439-97-6)	3/21/2009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	4/7/2014	N/A	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002
	10/28/2014	N/A	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002
	4/6/2015	N/A	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002
	10/21/2015	N/A	< 0.0002	< 0.0002	N/A	< 0.0002	< 0.0002
	8/5/2016	N/A	N/A	N/A	< 0.0002	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0002	N/A	< 0.0002	N/A
	8/25/2020	N/A	< 0.0002	N/A	N/A	N/A	< 0.0002
	3/17/2021	N/A	N/A	N/A	< 0.0002	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	3/21/2009	0.0062	0.0097	0.0099	0.0041	0.0089	0.0339
	9/9/2009	0.0107	0.0079	0.0212	< 0.004	0.0107	0.0409
	3/30/2010	0.0064	0.0111	0.0294	< 0.004	0.0138	0.0992
	9/16/2010	0.0573	0.0109	0.0278	0.0044	0.0153	0.0312
	3/16/2011	0.0126	0.0136	0.0302	0.0088	0.0168	0.0149
	10/27/2011	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	5/10/2012	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/1/2012	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	3/26/2013	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	9/17/2013	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/28/2014	< 0.005	< 0.005	0.0241	< 0.005	< 0.005	< 0.005
	4/6/2015	N/A	< 0.005	0.0188	N/A	0.0183	< 0.005
	4/16/2015	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	10/21/2015	< 0.005	0.00514	0.0189	< 0.005	< 0.005	< 0.005
	4/11/2016	0.00577	0.00418	0.0113	0.00543	0.0108	< 0.005
	4/11/2016	N/A	0.00416	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00196	N/A	N/A
	10/5/2016	< 0.005	**0.0136**	**0.00545**	< 0.005	0.00187*	< 0.005
	10/5/2016	N/A	N/A	N/A	0.00216*	N/A	N/A
	4/17/2017	< 0.005	**0.00523**	**0.0113**	< 0.005	0.00124*	< 0.005
	4/17/2017	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/18/2017	< 0.005	0.0013*	**0.00636**	< 0.005	0.0019*	< 0.005
	4/2/2018	0.00455*	**0.00962**	**0.0189**	0.0026*	0.00215*	0.00166*
	10/10/2018	0.000695*	**0.00784**	**0.0243**	**0.00573**	**0.00605**	0.0011*
	10/10/2018	N/A	N/A	N/A	N/A	**0.00547**	N/A
	3/26/2019	< 0.005	**0.00628**	**0.0125**	< 0.005	< 0.005	< 0.005
	3/26/2019	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/31/2019	< 0.005	< 0.005	**0.0139**	< 0.005	< 0.005	< 0.005
	7/31/2019	< 0.005	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.005	< 0.005	**0.0113**	**0.00989**	< 0.005	< 0.005
	8/25/2020	< 0.005	< 0.005	**0.00559**	< 0.005	0.00214*	< 0.005
	8/25/2020	N/A	N/A	**0.00605**	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Nickel, mg/L (CAS NO - 7440-02-0)	3/17/2021	< 0.005	**0.00722**	**0.00627**	< 0.005	< 0.005	< 0.005
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	8/5/2021	< 0.005	< 0.005	**0.00661**	< 0.005	< 0.005	< 0.005
	8/5/2021	N/A	N/A	N/A	N/A	< 0.005	N/A
	5/4/2022	< 0.005	**0.0136**	N/A	< 0.005	N/A	< 0.005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/2/2022	0.0021*	< 0.005	**0.0211**	< 0.005	0.00345*	< 0.005
	11/2/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/12/2023	< 0.005	0.00332*	N/A	< 0.005	0.00274*	< 0.005
	4/12/2023	N/A	N/A	N/A	N/A	**0.00679**	N/A
	8/29/2023	< 0.005	0.00306*	N/A	0.00224*	N/A	**0.0055**
	8/29/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	6/12/2024	N/A	**0.00687**	N/A	< 0.005	**0.00611**	< 0.005
	6/12/2024	N/A	**0.00632**	N/A	N/A	N/A	N/A
	8/29/2024	0.00297*	**0.0167**	N/A	< 0.005	N/A	< 0.005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Selenium, mg/L (CAS NO - 7782-49-2)	3/21/2009	0.0083	< 0.004	< 0.004	0.0077	< 0.004	< 0.004
	9/9/2009	0.0057	< 0.004	< 0.004	0.007	< 0.004	< 0.004
	3/30/2010	0.0067	< 0.004	< 0.004	0.0053	< 0.004	< 0.02
	9/16/2010	< 0.004	0.0042	< 0.004	< 0.004	< 0.004	< 0.004
	3/16/2011	0.0061	< 0.004	< 0.004	0.0081	< 0.004	< 0.004
	10/27/2011	0.00643	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/10/2012	0.00596	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	10/1/2012	0.00866	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/26/2013	0.00747	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	9/17/2013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/7/2014	0.00573	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	10/28/2014	0.00592	< 0.005	< 0.005	0.0129	0.0119	< 0.005
	4/6/2015	N/A	0.00542	< 0.005	N/A	< 0.005	< 0.005
	4/16/2015	0.00658	N/A	N/A	0.0129	N/A	N/A
	10/21/2015	0.00881	< 0.005	< 0.005	0.0135	< 0.005	< 0.005
	4/11/2016	0.0102	0.00438	0.00077	0.0119	0.00178	< 0.005
	4/11/2016	N/A	0.00418	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00892	N/A	N/A
	10/5/2016	**0.00544**	< 0.005	< 0.005	0.00424*	< 0.005	< 0.005
	10/5/2016	N/A	N/A	N/A	0.00311*	N/A	N/A
	4/17/2017	**0.00682**	< 0.005	< 0.005	**0.00658**	< 0.005	< 0.005
	4/17/2017	N/A	N/A	N/A	**0.00735**	N/A	N/A
	7/18/2017	**0.00711**	0.00254*	< 0.005	0.00492*	< 0.005	< 0.005
	4/2/2018	**0.00752**	0.00126*	< 0.005	0.00244*	0.00137*	< 0.005
	10/10/2018	**0.0068**	< 0.0025	< 0.0025	**0.00477**	0.00194*	< 0.0025
	10/10/2018	N/A	N/A	N/A	N/A	0.0014*	N/A
	3/26/2019	**0.00697**	0.00228*	< 0.005	< 0.005	0.00103*	< 0.005
	3/26/2019	N/A	N/A	N/A	0.00114*	N/A	N/A
	7/31/2019	**0.00658**	**0.00754**	< 0.005	< 0.005	0.00112*	< 0.005
	7/31/2019	**0.00671**	N/A	N/A	N/A	N/A	N/A
	2/12/2020	**0.00598**	< 0.005	< 0.005	< 0.005	0.0012*	< 0.005
	8/25/2020	0.00308*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/25/2020	N/A	N/A	< 0.005	N/A	N/A	N/A
	3/17/2021	0.00222*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	8/5/2021	0.00194*	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/5/2021	N/A	N/A	N/A	N/A	< 0.005	N/A
	5/4/2022	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/2/2022	0.00278*	0.00307*	< 0.005	< 0.005	< 0.005	< 0.005
	11/2/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/12/2023	**0.00524**	< 0.005	N/A	< 0.005	0.00156*	< 0.005
	4/12/2023	N/A	N/A	N/A	N/A	< 0.005	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Selenium, mg/L (CAS NO - 7782-49-2)	8/29/2023	**0.00652**	< 0.005	N/A	< 0.005	N/A	0.00182*
	8/29/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	6/12/2024	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005
	6/12/2024	N/A	< 0.005	N/A	N/A	N/A	N/A
	8/29/2024	**0.00578**	< 0.005	N/A	< 0.005	N/A	< 0.005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Silver, mg/L (CAS NO - 7440-22-4)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/9/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/16/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/27/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/10/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/1/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	9/17/2013	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/7/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/28/2014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/6/2015	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	4/16/2015	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	10/21/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/11/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/11/2016	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/17/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/17/2017	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/18/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/2/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/10/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	10/10/2018	N/A	N/A	N/A	N/A	< 0.0005	N/A
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/31/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/31/2019	< 0.001	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	N/A	N/A	< 0.001	N/A	N/A	N/A
	3/17/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.001
	8/5/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/5/2021	N/A	N/A	N/A	N/A	< 0.001	N/A
	5/4/2022	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/2/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/2/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/12/2023	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	4/12/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	8/29/2023	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	8/29/2023	N/A	N/A	N/A	< 0.001	N/A	N/A
	6/12/2024	N/A	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	6/12/2024	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/29/2024	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.001

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Thallium, mg/L (CAS NO - 7440-28-0)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/9/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/30/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	9/16/2010	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	3/16/2011	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	10/27/2011	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	5/10/2012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	10/1/2012	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	3/26/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	9/17/2013	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	4/7/2014	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	10/28/2014	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/6/2015	N/A	< 0.001	< 0.001	N/A	< 0.001	< 0.001
	4/16/2015	< 0.001	N/A	N/A	< 0.001	N/A	N/A
	10/21/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/11/2016	0.000076	< 0.001	< 0.001	< 0.001	0.00004	0.000026
	4/11/2016	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	10/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/5/2016	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/17/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/17/2017	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/18/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	4/2/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	10/10/2018	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	10/10/2018	N/A	N/A	N/A	N/A	< 0.002	N/A
	3/26/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/26/2019	N/A	N/A	N/A	< 0.001	N/A	N/A
	7/31/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/31/2019	< 0.001	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/25/2020	N/A	N/A	< 0.001	N/A	N/A	N/A
	3/17/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.001
	8/5/2021	< 0.001	0.000394*	< 0.001	< 0.001	< 0.001	< 0.001
	8/5/2021	N/A	N/A	N/A	N/A	< 0.001	N/A
	5/4/2022	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.001
	11/2/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/2/2022	N/A	N/A	N/A	< 0.001	N/A	N/A
	4/12/2023	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001
	4/12/2023	N/A	N/A	N/A	N/A	< 0.001	N/A
	8/29/2023	0.000329*	< 0.001	N/A	< 0.001	N/A	0.000396*
	8/29/2023	N/A	N/A	N/A	< 0.001	N/A	N/A
	6/12/2024	N/A	< 0.001	N/A	0.000581*	< 0.001	< 0.001
	6/12/2024	N/A	< 0.001	N/A	N/A	N/A	N/A
	8/29/2024	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.001
Tin, mg/L (CAS NO - 7440-31-5)	3/21/2009	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
	4/7/2014	N/A	< 0.1	< 0.1	N/A	< 0.1	< 0.1
	10/28/2014	N/A	< 0.1	< 0.1	N/A	< 0.1	< 0.1
	4/6/2015	N/A	< 0.1	< 0.1	N/A	< 0.1	< 0.1
	10/21/2015	N/A	< 0.1	< 0.1	N/A	< 0.1	< 0.1
	8/5/2016	N/A	N/A	N/A	< 0.005	N/A	N/A
	2/12/2020	N/A	N/A	< 0.005	N/A	< 0.005	N/A
	8/25/2020	N/A	< 0.005	N/A	N/A	N/A	< 0.005
	3/17/2021	N/A	N/A	N/A	< 0.005	N/A	N/A

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Vanadium, mg/L (CAS NO - 7440-62-2)	3/21/2009	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.0641
	9/9/2009	0.0183	< 0.01	< 0.01	< 0.01	0.014	0.0602
	3/30/2010	0.0147	< 0.01	< 0.01	< 0.01	0.0293	0.246
	9/16/2010	0.0665	< 0.01	< 0.01	< 0.01	< 0.02	< 0.05
	3/16/2011	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/27/2011	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	5/10/2012	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/1/2012	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	3/26/2013	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	9/17/2013	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	10/28/2014	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/6/2015	N/A	< 0.005	< 0.005	N/A	0.0349	< 0.005
	4/16/2015	< 0.005	N/A	N/A	< 0.005	N/A	N/A
	10/21/2015	0.00536	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	4/11/2016	0.0124	0.00151	0.000723	0.00158	0.0273	0.000565
	4/11/2016	N/A	0.00157	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00119	N/A	N/A
	10/5/2016	0.00105*	0.0023*	0.00047*	0.000585*	0.00215*	0.000526*
	10/5/2016	N/A	N/A	N/A	0.000455*	N/A	N/A
	4/17/2017	0.000874*	0.00229*	< 0.005	< 0.005	0.00133*	< 0.005
	4/17/2017	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/18/2017	0.000856*	0.00137*	< 0.005	< 0.005	0.00123*	< 0.005
	4/2/2018	0.00473*	0.00194*	0.000662*	0.000545*	0.00137*	< 0.005
	10/10/2018	0.00317*	0.00387*	0.00282*	0.0044*	**0.0117**	0.0022*
	10/10/2018	N/A	N/A	N/A	N/A	**0.0111**	N/A
	3/26/2019	0.00139*	0.00156*	< 0.005	< 0.005	0.00132*	< 0.005
	3/26/2019	N/A	N/A	N/A	< 0.005	N/A	N/A
	7/31/2019	0.000957*	0.00099*	0.000868*	< 0.005	0.00134*	< 0.005
	7/31/2019	0.00104*	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.005	0.00111*	< 0.005	< 0.005	0.00102*	< 0.005
	8/25/2020	< 0.005	0.00111*	< 0.005	< 0.005	0.000911*	< 0.005
	8/25/2020	N/A	N/A	< 0.005	N/A	N/A	N/A
	3/17/2021	< 0.005	0.00141*	< 0.005	< 0.005	0.00131*	< 0.005
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.005
	8/5/2021	< 0.005	0.00115*	< 0.005	< 0.005	0.00122*	< 0.005
	8/5/2021	N/A	N/A	N/A	N/A	0.00119*	N/A
	5/4/2022	< 0.005	0.00156*	N/A	< 0.005	N/A	< 0.005
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.005
	11/2/2022	0.00157*	< 0.005	< 0.005	< 0.005	0.0011*	< 0.005
	11/2/2022	N/A	N/A	N/A	< 0.005	N/A	N/A
	4/12/2023	< 0.005	0.00121*	N/A	< 0.005	**0.00957**	< 0.005
	4/12/2023	N/A	N/A	N/A	N/A	0.00118*	N/A
	8/29/2023	0.00139*	0.00179*	N/A	< 0.005	N/A	0.0013*
	8/29/2023	N/A	N/A	N/A	< 0.005	N/A	N/A
	6/12/2024	N/A	0.00119*	N/A	< 0.005	< 0.005	< 0.005
	6/12/2024	N/A	0.00121*	N/A	N/A	N/A	N/A
	8/29/2024	0.00194*	0.00152*	N/A	< 0.005	N/A	< 0.005
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.005
Zinc, mg/L (CAS NO - 7440-66-6)	3/21/2009	0.0237	0.0232	0.0253	< 0.01	0.0362	0.0652
	9/9/2009	0.0222	< 0.01	0.0122	< 0.01	0.0129	0.0779
	3/30/2010	0.011	0.0243	< 0.01	< 0.01	0.0166	0.238
	9/16/2010	0.126	< 0.01	< 0.01	< 0.01	0.0205	0.0859
	3/16/2011	0.0102	0.0123	0.0125	0.0106	< 0.008	0.0293
	10/27/2011	< 0.02	0.0216	< 0.02	< 0.02	< 0.02	0.0215
	5/10/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/1/2012	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0438
	3/26/2013	0.0219	0.0243	0.0693	0.0236	0.0388	0.0697
	9/17/2013	0.103	0.104	0.139	0.08	0.146	0.183
	4/7/2014	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	10/28/2014	0.144	< 0.02	0.0326	0.0453	0.0313	0.0997

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Zinc, mg/L (CAS NO - 7440-66-6)	4/6/2015	N/A	< 0.01	< 0.01	N/A	0.0448	0.0122
	4/16/2015	0.015	N/A	N/A	0.0197	N/A	N/A
	10/21/2015	0.0471	< 0.01	< 0.01	0.0234	< 0.01	0.0396
	4/11/2016	0.0134	< 0.01	< 0.01	< 0.01	0.0193	0.0235
	4/11/2016	N/A	0.00973	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	0.00536	N/A	N/A
	10/5/2016	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	10/5/2016	N/A	N/A	N/A	0.00548*	N/A	N/A
	4/17/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	4/17/2017	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/18/2017	< 0.02	< 0.02	< 0.02	< 0.02	**0.0229**	< 0.02
	4/2/2018	0.0151*	< 0.02	< 0.02	0.0128*	< 0.02	< 0.02
	10/10/2018	< 0.02	0.00892*	0.0135*	**0.0347**	0.0128*	< 0.02
	10/10/2018	N/A	N/A	N/A	N/A	0.0128*	N/A
	3/26/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/26/2019	N/A	N/A	N/A	< 0.02	N/A	N/A
	7/31/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/31/2019	< 0.02	N/A	N/A	N/A	N/A	N/A
	2/12/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/25/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/25/2020	N/A	N/A	< 0.02	N/A	N/A	N/A
	3/17/2021	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 0.02
	8/5/2021	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	8/5/2021	N/A	N/A	N/A	N/A	< 0.02	N/A
	5/4/2022	< 0.02	< 0.02	N/A	< 0.02	N/A	< 0.02
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.02
	11/2/2022	0.0159*	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	11/2/2022	N/A	N/A	N/A	< 0.02	N/A	N/A
	4/12/2023	< 0.02	< 0.02	N/A	< 0.02	0.0113*	< 0.02
	4/12/2023	N/A	N/A	N/A	N/A	< 0.02	N/A
	8/29/2023	< 0.02	< 0.02	N/A	< 0.02	N/A	0.00748*
	8/29/2023	N/A	N/A	N/A	< 0.02	N/A	N/A
	6/12/2024	N/A	0.013*	N/A	< 0.02	< 0.02	< 0.02
	6/12/2024	N/A	**0.224**	N/A	N/A	N/A	N/A
	8/29/2024	< 0.02	< 0.02	N/A	< 0.02	N/A	< 0.02
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.02
Total Suspended Solids, mg/L (CAS NO - TSS)	4/6/2015	N/A	5.8	12.6	N/A	276	9.6
	4/16/2015	54.3	N/A	N/A	11.8	N/A	N/A
	10/21/2015	145	9.4	23.7	14.4	226	26.9
	4/11/2016	446	6	38.3	48.5	2100	15.1
	4/11/2016	N/A	5.25	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	31	N/A	N/A
	10/5/2016	**71.4**	**2.13**	**30**	**6.12**	**60.9**	**36.9**
	10/5/2016	N/A	N/A	N/A	**12.7**	N/A	N/A
	4/17/2017	**2.13**	< 1.88	**14.4**	**2.75**	**11.9**	**5.25**
	7/18/2017	**6**	< 1.88	**23**	1.38*	**3.13**	**3.38**
	4/2/2018	**85**	**2.25**	**25.8**	**2.75**	1.75*	**4.13**
	10/10/2018	**1.88**	1.13*	**15.5**	**26.7**	**125**	**5.13**
	10/10/2018	N/A	N/A	N/A	N/A	**32.3**	N/A
	3/26/2019	**26.8**	< 1.88	**6.38**	**2.75**	**2**	**3.63**
	3/26/2019	N/A	N/A	N/A	**3.87**	N/A	N/A
	7/31/2019	< 1.88	< 1.88	**9.63**	**4.62**	1.25*	**2.88**
	7/31/2019	< 1.88	N/A	N/A	N/A	N/A	N/A
	2/12/2020	0.875*	< 1.88	**5.25**	**4.89**	< 1.88	**8.25**
	8/25/2020	< 1.88	< 1.88	**6.38**	1.38*	1.38*	**4**
	8/25/2020	N/A	N/A	**9.87**	N/A	N/A	N/A
	3/17/2021	1.5*	0.75*	**11**	**3.63**	**2**	**7.5**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	4*

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	8/5/2021	< 1.88	< 1.88	**6**	< 1.88	1.38*	**12.8**
	8/5/2021	N/A	N/A	N/A	N/A	1*	N/A
	5/4/2022	1*	**3.75**	N/A	0.875*	N/A	**4.13**
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**5**
	11/2/2022	**29.3**	< 1.88	**16.5**	< 1.88	**5**	**3.38**
	11/2/2022	N/A	N/A	N/A	< 1.88	N/A	N/A
	4/12/2023	1.25*	< 1.88	N/A	1*	**117**	**2.88**
	4/12/2023	N/A	N/A	N/A	N/A	0.875*	N/A
	8/29/2023	**5.88**	**2.25**	N/A	1.5*	N/A	**13.5**
	8/29/2023	N/A	N/A	N/A	1.5*	N/A	N/A
	6/12/2024	N/A	< 1.88	N/A	< 1.88	**2.13**	**3.75**
	6/12/2024	N/A	< 1.88	N/A	N/A	N/A	N/A
	8/29/2024	**137**	< 1.88	N/A	**13.4**	N/A	**3.63**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**3.87**

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.

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	**2**	< 1
	3/30/2010	< 1	< 1	< 1	< 1	**2**	< 1
	9/16/2010	< 1	< 1	< 1	< 1	**1.6**	< 1
	3/16/2011	< 1	< 1	< 1	< 1	**1.1**	< 1
	10/27/2011	< 1	< 1	< 1	< 1	**1.19**	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	**1**	< 1
	5/10/2012	N/A	N/A	N/A	N/A	**1.05**	N/A
	10/1/2012	< 1	< 1	< 1	< 1	**1.22**	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	0.743*	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	0.912*	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	0.694*	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	0.805*	< 1
	4/2/2018	< 1	< 1	< 1	< 1	0.725*	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	0.639*	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	0.554*	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	0.557*	< 1
	8/25/2020	< 1	< 1	< 1	< 1	0.545*	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	0.574*	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	0.601*	< 1
	8/5/2021	N/A	N/A	N/A	N/A	0.512*	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	0.397*	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	0.34*	< 1
	4/12/2023	N/A	N/A	N/A	N/A	0.501*	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	0.273*	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	3/21/2009	< 1	**4.3**	**1.4**	< 1	**16.8**	**2.4**
	9/9/2009	< 1	**5.2**	**1.8**	< 1	**17.6**	**2.9**
	3/30/2010	< 1	**3.7**	**1.6**	< 1	**19.4**	**2.5**
	9/16/2010	< 1	**2.7**	**2**	< 1	**17.3**	**2.3**
	3/16/2011	< 1	**3.6**	**1.5**	< 1	**10.8**	**2.3**
	10/27/2011	< 1	**2.25**	**2.25**	< 1	**12.7**	**1.84**
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	**3.16**	**2.94**	< 1	**18**	**2.73**
	5/10/2012	N/A	N/A	N/A	N/A	**1**	N/A
	10/1/2012	< 1	**2.13**	**2.91**	< 1	**13.1**	**2.22**
	3/26/2013	< 1	**2.39**	**3.31**	< 1	**12.4**	**2.24**
	9/17/2013	< 1	**2.44**	**3.69**	< 1	**16.4**	**2.06**
	4/7/2014	< 1	**3.18**	**2.88**	< 1	**15.6**	**1.86**
	10/28/2014	< 1	**1.68**	**2.9**	< 1	**19.2**	**2.52**
	4/6/2015	N/A	**1.51**	**2.9**	N/A	**18.2**	**2.34**
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	**2.83**	**3.48**	< 1	**21.5**	**3.03**
	4/11/2016	< 1	**2.53**	**3.54**	< 1	**20.6**	**3.55**
	4/11/2016	N/A	**2.49**	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	**3.68**	**4.47**	< 1	**22.5**	**3.62**
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	**5.04**	**3.28**	< 1	**20.3**	**3.05**
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	**4.15**	**4.62**	< 1	**21.9**	**3.22**
	4/2/2018	< 1	**3.85**	**4.27**	< 1	**24.7**	**4.24**
	10/10/2018	< 1	**4.94**	**4.72**	< 1	**24**	**3.95**
	10/10/2018	N/A	N/A	N/A	N/A	**23.6**	N/A
	3/26/2019	< 1	< 1	**4.59**	< 1	**26.9**	**5.49**
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	**4.01**	**5.08**	< 1	**26.8**	**4.61**
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	**4.35**	**4.77**	N/A	**26.6**	**5.85**
	8/25/2020	< 1	**5.12**	**5.94**	< 1	**27.9**	**6.58**
	8/25/2020	N/A	N/A	**6.62**	N/A	N/A	N/A
	3/17/2021	< 1	**4.68**	**4.64**	< 1	**28.5**	**7.53**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	**7.52**
	8/5/2021	< 1	**6.6**	**6.32**	< 1	**30.7**	**6.88**
	8/5/2021	N/A	N/A	N/A	N/A	**28.6**	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	5/4/2022	< 1	5.69	N/A	< 1	N/A	3.96
	5/4/2022	N/A	N/A	N/A	N/A	N/A	3.16
	11/2/2022	< 1	5.68	7.08	< 1	31.8	3.89
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	6.11	N/A	< 1	29.7	3.41
	4/12/2023	N/A	N/A	N/A	N/A	35.8	N/A
	8/29/2023	< 1	4.57	N/A	< 1	N/A	2.52
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	4.71	N/A	< 1	28.1	3.2
	6/12/2024	N/A	4.52	N/A	N/A	N/A	N/A
	8/29/2024	< 1	7.5	N/A	< 1	N/A	2.89
	8/29/2024	N/A	N/A	N/A	N/A	N/A	2.81
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	4/9/2008	N/A	N/A	< 1	N/A	N/A	N/A
	9/10/2008	N/A	N/A	< 1	N/A	N/A	N/A
	3/21/2009	< 1	< 1	< 1	< 1	1.2	< 1
	9/9/2009	< 1	< 1	< 1	< 1	1.2	< 1
	3/30/2010	< 1	< 1	< 1	< 1	1.3	< 1
	9/16/2010	< 1	< 1	< 1	< 1	1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 2	< 2	< 2	< 2	< 2	< 2
	10/27/2011	< 2	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 2	< 2	< 2	< 2	< 2	< 2
	5/10/2012	N/A	N/A	N/A	N/A	< 2	N/A
	10/1/2012	< 2	< 2	< 2	< 2	< 2	< 2
	3/26/2013	< 2	< 2	< 2	< 2	< 2	< 2
	9/17/2013	< 2	< 2	< 2	< 2	< 2	< 2
	4/7/2014	< 2	< 2	< 2	< 2	< 2	< 2
	10/28/2014	< 2	< 2	< 2	< 2	< 2	< 2
	4/6/2015	N/A	< 2	< 2	N/A	< 2	< 2
	4/16/2015	< 2	N/A	N/A	< 2	N/A	N/A
	10/21/2015	< 2	< 2	< 2	< 2	< 2	< 2
	4/11/2016	< 2	< 2	0.236*	< 2	< 2	< 2
	4/11/2016	N/A	< 2	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	10/5/2016	< 2	< 2	0.356*	< 2	0.592*	< 2
	10/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	4/17/2017	< 2	< 2	0.172*	< 2	0.876*	< 2
	4/17/2017	N/A	N/A	N/A	< 2	N/A	N/A
	7/18/2017	< 2	< 2	< 2	< 2	0.909*	< 2
	4/2/2018	< 2	< 2	< 2	< 2	0.78*	< 2
	10/10/2018	< 2	< 2	< 2	< 2	0.699*	< 2
	10/10/2018	N/A	N/A	N/A	N/A	0.572*	N/A
	3/26/2019	< 2	< 2	< 2	< 2	0.712*	< 2
	3/26/2019	N/A	N/A	N/A	< 2	N/A	N/A
	7/31/2019	< 2	< 2	< 2	< 2	0.698*	< 2
	7/31/2019	< 2	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 2	< 2	N/A	0.581*	< 2
	8/25/2020	< 2	< 2	< 2	< 2	0.597*	< 2
	8/25/2020	N/A	N/A	< 2	N/A	N/A	N/A
	3/17/2021	< 2	< 2	< 2	< 2	0.68*	< 2
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 2
	8/5/2021	< 2	< 2	< 2	< 2	0.793*	< 2
	8/5/2021	N/A	N/A	N/A	N/A	0.881*	N/A
	5/4/2022	< 2	< 2	N/A	< 2	N/A	< 2
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 2
	11/2/2022	< 2	< 2	< 2	< 2	< 2	< 2
	11/2/2022	N/A	N/A	N/A	< 2	N/A	N/A
	4/12/2023	< 2	< 2	N/A	< 2	< 2	< 2
	4/12/2023	N/A	N/A	N/A	N/A	0.768*	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	8/29/2023	< 2	< 2	N/A	< 2	N/A	< 2
	8/29/2023	N/A	N/A	N/A	< 2	N/A	N/A
	6/12/2024	N/A	< 2	N/A	< 2	< 2	< 2
	6/12/2024	N/A	< 2	N/A	N/A	N/A	N/A
	8/29/2024	< 2	< 2	N/A	< 2	N/A	< 2
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 2
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	4/11/2016	N/A	< 0.12	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.12	N/A	N/A
	10/5/2016	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	10/5/2016	N/A	N/A	N/A	< 0.12	N/A	N/A
	4/17/2017	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	4/17/2017	N/A	N/A	N/A	< 0.12	N/A	N/A
	7/18/2017	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	4/2/2018	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	10/10/2018	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	10/10/2018	N/A	N/A	N/A	N/A	< 1.2	N/A
	3/26/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	3/26/2019	N/A	N/A	N/A	< 1.2	N/A	N/A
	7/31/2019	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
	7/31/2019	< 1.2	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	4/11/2016	N/A	< 0.13	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.13	N/A	N/A
	10/5/2016	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	10/5/2016	N/A	N/A	N/A	< 0.13	N/A	N/A
	4/17/2017	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	4/17/2017	N/A	N/A	N/A	< 0.13	N/A	N/A
	7/18/2017	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	4/2/2018	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	10/10/2018	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	10/10/2018	N/A	N/A	N/A	N/A	< 0.34	N/A
	3/26/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	3/26/2019	N/A	N/A	N/A	< 0.34	N/A	N/A
	7/31/2019	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34
	7/31/2019	< 0.34	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	0.272*	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	0.232*	< 1	< 1	0.254*	< 1
	4/2/2018	< 1	< 1	0.181*	< 1	0.2*	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	0.42*	0.774*	< 1	0.661*	0.334*
	10/10/2018	N/A	N/A	N/A	N/A	0.646*	N/A
	3/26/2019	< 1	0.353*	0.552*	< 1	0.722*	0.502*
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	0.368*	0.739*	< 1	0.699*	0.381*
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	0.429*	0.569*	N/A	0.823*	0.611*
	8/25/2020	< 1	0.578*	0.66*	< 1	0.811*	0.638*
	8/25/2020	N/A	N/A	0.578*	N/A	N/A	N/A
	3/17/2021	< 1	0.419*	0.684*	< 1	0.768*	0.701*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	0.718*
	8/5/2021	< 1	0.697*	0.799*	< 1	0.733*	0.66*
	8/5/2021	N/A	N/A	N/A	N/A	0.619*	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	5/4/2022	< 1	0.522*	N/A	< 1	N/A	0.386*
	5/4/2022	N/A	N/A	N/A	N/A	N/A	0.403*
	11/2/2022	< 1	0.511*	0.759*	< 1	0.692*	0.295*
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	0.55*	N/A	< 1	0.605*	< 1
	4/12/2023	N/A	N/A	N/A	N/A	0.919*	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	0.434*	N/A	< 1	0.93*	0.279*
	6/12/2024	N/A	0.425*	N/A	N/A	N/A	N/A
	8/29/2024	< 1	0.636*	N/A	< 1	N/A	0.27*
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
2-Butanone, ug/L (CAS NO - 78-93-3)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	2.64*	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	1.08*	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
2-Hexanone, ug/L (CAS NO - 591-78-6)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10
Acetone, ug/L (CAS NO - 67-64-1)	3/21/2009	< 10	< 10	< 10	< 10	< 10	< 10
	9/9/2009	< 10	< 10	< 10	< 10	< 10	< 10
	3/30/2010	< 10	< 10	< 10	< 10	< 10	< 10
	9/16/2010	< 10	< 10	< 10	< 10	< 10	< 10
	3/16/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	3.67*	< 10	< 10	< 10
	4/11/2016	N/A	3.44*	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Acetone, ug/L (CAS NO - 67-64-1)	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	5.68*	< 10	5.96*	< 10	2.52*	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	2.32*	< 10	2.85*	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	4.78*	7.86*	5.19*	**20.3**	7.25*	5.53*
	4/2/2018	2.31*	1.88*	3.22*	< 10	8.41*	< 10
	10/10/2018	< 10	< 10	< 10	5.33*	6.56*	< 10
	10/10/2018	N/A	N/A	N/A	N/A	4.68*	N/A
	3/26/2019	< 10	< 10	< 10	5.37*	< 10	< 10
	3/26/2019	N/A	N/A	N/A	4*	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	6.66*	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	4.65*	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	**10.8**	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10
Acrylonitrile, ug/L (CAS NO - 107-13-1)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	1.21*	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	1.46*	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	0.577*	0.583*	< 10	< 10
	4/2/2018	< 10	< 10	1.17*	0.588*	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Acrylonitrile, ug/L (CAS NO - 107-13-1)	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	2.25*	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	2.31*	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Benzene, ug/L (CAS NO - 71-43-2)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 0.5	< 0.5	< 0.5	< 0.5	**0.54**	< 0.5
	10/27/2011	< 0.5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 0.5	< 0.5	< 0.5	< 0.5	**0.5**	< 0.5
	5/10/2012	N/A	N/A	N/A	N/A	**0.64**	N/A
	10/1/2012	< 0.5	< 0.5	< 0.5	< 0.5	**0.69**	< 0.5
	3/26/2013	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	9/17/2013	< 0.5	< 0.5	< 0.5	< 0.5	**0.798**	< 0.5
	4/7/2014	< 0.5	< 0.5	< 0.5	< 0.5	**0.816**	< 0.5
	10/28/2014	< 0.5	< 0.5	< 0.5	< 0.5	**0.955**	< 0.5
	4/6/2015	N/A	< 0.5	< 0.5	N/A	**0.89**	< 0.5
	4/16/2015	< 0.5	N/A	N/A	< 0.5	N/A	N/A
	10/21/2015	< 0.5	< 0.5	**5.26**	< 0.5	**1.03**	< 0.5
	4/11/2016	< 0.5	< 0.5	**0.902**	< 0.5	**1.12**	< 0.5
	4/11/2016	N/A	< 0.5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 0.5	N/A	N/A
	10/5/2016	< 0.5	< 0.5	**1.1**	< 0.5	**1.19**	0.122*
	10/5/2016	N/A	N/A	N/A	< 0.5	N/A	N/A
	4/17/2017	< 0.5	0.256*	**0.711**	< 0.5	**1.06**	< 0.5
	4/17/2017	N/A	N/A	N/A	< 0.5	N/A	N/A
	7/18/2017	< 0.5	< 0.5	**0.866**	< 0.5	**1.15**	< 0.5
	4/2/2018	< 0.5	0.11*	**0.727**	< 0.5	**1.38**	< 0.5
	10/10/2018	< 0.5	< 0.5	**0.698**	< 0.5	**1.18**	< 0.5
	10/10/2018	N/A	N/A	N/A	N/A	**1.19**	N/A
	3/26/2019	< 0.5	< 0.5	**0.675**	< 0.5	**1.27**	< 0.5
	3/26/2019	N/A	N/A	N/A	< 0.5	N/A	N/A
	7/31/2019	< 0.5	< 0.5	**0.901**	< 0.5	**1.44**	< 0.5
	7/31/2019	< 0.5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 0.5	**0.74**	N/A	**1.36**	< 0.5
	8/25/2020	< 0.5	< 0.5	**1.03**	< 0.5	**1.38**	< 0.5
	8/25/2020	N/A	N/A	**1.11**	N/A	N/A	N/A
	3/17/2021	< 0.5	< 0.5	**0.82**	< 0.5	**1.3**	0.255*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	0.246*

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Benzene, ug/L (CAS NO - 71-43-2)	8/5/2021	< 0.5	< 0.5	**1.01**	< 0.5	**1.26**	0.373*
	8/5/2021	N/A	N/A	N/A	N/A	**1.28**	N/A
	5/4/2022	< 0.5	< 0.5	N/A	< 0.5	N/A	< 0.5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 0.5
	11/2/2022	< 0.5	< 0.5	**0.984**	< 0.5	**1.13**	< 0.5
	11/2/2022	N/A	N/A	N/A	< 0.5	N/A	N/A
	4/12/2023	< 0.5	< 0.5	N/A	< 0.5	**1.11**	< 0.5
	4/12/2023	N/A	N/A	N/A	N/A	**1.37**	N/A
	8/29/2023	< 0.5	< 0.5	N/A	< 0.5	N/A	< 0.5
	8/29/2023	N/A	N/A	N/A	< 0.5	N/A	N/A
	6/12/2024	N/A	< 0.5	N/A	< 0.5	**1.12**	< 0.5
	6/12/2024	N/A	< 0.5	N/A	N/A	N/A	N/A
	8/29/2024	< 0.5	0.27*	N/A	< 0.5	N/A	< 0.5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 0.5
Bromochloromethane, ug/L (CAS NO - 74-97-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	< 5	< 5	< 5	< 5	< 5	< 5
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/17/2017	N/A	N/A	N/A	< 5	N/A	N/A
	7/18/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/2/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A
	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Bromochloromethane, ug/L (CAS NO - 74-97-5)	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Bromoform, ug/L (CAS NO - 75-25-2)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	< 5	< 5	< 5	< 5	< 5	< 5
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/17/2017	N/A	N/A	N/A	< 5	N/A	N/A
	7/18/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/2/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A
	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Bromomethane, ug/L (CAS NO - 74-83-9)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 20	< 20	< 20	< 20	< 20	< 20
	10/27/2011	< 20	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 4	< 4	< 4	< 4	< 4	< 4
	5/10/2012	N/A	N/A	N/A	N/A	< 4	N/A
	10/1/2012	< 20	< 20	< 20	< 20	< 20	< 20

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Bromomethane, ug/L (CAS NO - 74-83-9)	3/26/2013	< 4	< 4	< 4	< 4	< 4	< 4
	9/17/2013	< 4	< 4	< 4	< 4	< 4	< 4
	4/7/2014	< 4	< 4	< 4	< 4	< 4	< 4
	10/28/2014	< 4	< 4	< 4	< 4	< 4	< 4
	4/6/2015	N/A	< 4	< 4	N/A	< 4	< 4
	4/16/2015	< 4	N/A	N/A	< 4	N/A	N/A
	10/21/2015	< 4	< 4	< 4	< 4	< 4	< 4
	4/11/2016	< 4	< 4	< 4	< 4	< 4	< 4
	4/11/2016	N/A	< 4	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	10/5/2016	< 4	< 4	< 4	< 4	< 4	< 4
	10/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	4/17/2017	0.353*	0.374*	0.585*	0.591*	0.509*	0.487*
	4/17/2017	N/A	N/A	N/A	0.338*	N/A	N/A
	7/18/2017	< 4	0.279*	< 4	< 4	0.356*	0.275*
	4/2/2018	< 4	< 4	< 4	< 4	< 4	< 4
	10/10/2018	< 4	< 4	< 4	< 4	< 4	< 4
	10/10/2018	N/A	N/A	N/A	N/A	< 4	N/A
	3/26/2019	< 4	< 4	< 4	< 4	< 4	< 4
	3/26/2019	N/A	N/A	N/A	< 4	N/A	N/A
	7/31/2019	< 4	< 4	< 4	< 4	< 4	< 4
	7/31/2019	< 4	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 4	< 4	N/A	< 4	< 4
	8/25/2020	< 4	< 4	< 4	< 4	< 4	< 4
	8/25/2020	N/A	N/A	< 4	N/A	N/A	N/A
	3/17/2021	< 4	< 4	< 4	< 4	< 4	< 4
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 4
	8/5/2021	< 4	< 4	< 4	< 4	< 4	< 4
	8/5/2021	N/A	N/A	N/A	N/A	< 4	N/A
	5/4/2022	< 4	< 4	N/A	< 4	N/A	< 4
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 4
	11/2/2022	< 4	< 4	< 4	< 4	< 4	< 4
	11/2/2022	N/A	N/A	N/A	< 4	N/A	N/A
	4/12/2023	< 4	< 4	N/A	< 4	< 4	< 4
	4/12/2023	N/A	N/A	N/A	N/A	< 4	N/A
	8/29/2023	< 4	< 4	N/A	< 4	N/A	< 4
	8/29/2023	N/A	N/A	N/A	< 4	N/A	N/A
	6/12/2024	N/A	< 4	N/A	< 4	< 4	< 4
	6/12/2024	N/A	< 4	N/A	N/A	N/A	N/A
	8/29/2024	< 4	< 4	N/A	< 4	N/A	< 4
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 4
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	10/5/2016	< 1	< 1	**1.05**	< 1	< 1	0.38*
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	0.162*	< 1	**1.46**	< 1	0.186*	**2.9**
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	0.157*	< 1	0.487*	**1.02**	0.193*	< 1
	4/2/2018	< 1	< 1	0.529*	0.531*	0.207*	< 1
	10/10/2018	< 1	< 1	0.479*	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	**2.07**	< 1	< 1
	3/26/2019	N/A	N/A	N/A	**1.61**	N/A	N/A
	7/31/2019	< 1	< 1	0.903*	**1.9**	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	0.925*	0.586*	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 2	< 2	< 2	< 2	< 2	< 2
	10/27/2011	< 2	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 2	< 2	< 2	< 2	< 2	< 2
	5/10/2012	N/A	N/A	N/A	N/A	< 2	N/A
	10/1/2012	< 2	< 2	< 2	< 2	< 2	< 2
	3/26/2013	< 2	< 2	< 2	< 2	< 2	< 2
	9/17/2013	< 2	< 2	< 2	< 2	< 2	< 2
	4/7/2014	< 2	< 2	< 2	< 2	< 2	< 2
	10/28/2014	< 2	< 2	< 2	< 2	< 2	< 2
	4/6/2015	N/A	< 2	< 2	N/A	< 2	< 2
	4/16/2015	< 2	N/A	N/A	< 2	N/A	N/A
	10/21/2015	< 2	< 2	< 2	< 2	< 2	< 2
	4/11/2016	< 2	< 2	< 2	< 2	< 2	< 2
	4/11/2016	N/A	< 2	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	10/5/2016	< 2	< 2	< 2	< 2	< 2	< 2
	10/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	4/17/2017	< 2	< 2	< 2	< 2	< 2	< 2
	4/17/2017	N/A	N/A	N/A	< 2	N/A	N/A
	7/18/2017	< 2	< 2	< 2	< 2	< 2	< 2
	4/2/2018	< 2	< 2	< 2	< 2	< 2	< 2
	10/10/2018	< 2	< 2	< 2	< 2	< 2	< 2
	10/10/2018	N/A	N/A	N/A	N/A	< 2	N/A
	3/26/2019	< 2	< 2	< 2	< 2	< 2	< 2
	3/26/2019	N/A	N/A	N/A	< 2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	7/31/2019	< 2	< 2	< 2	< 2	< 2	< 2
	7/31/2019	< 2	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 2	< 2	N/A	< 2	< 2
	8/25/2020	< 2	< 2	< 2	< 2	< 2	< 2
	8/25/2020	N/A	N/A	< 2	N/A	N/A	N/A
	3/17/2021	< 2	< 2	< 2	< 2	< 2	< 2
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 2
	8/5/2021	< 2	< 2	< 2	< 2	< 2	< 2
	8/5/2021	N/A	N/A	N/A	N/A	< 2	N/A
	5/4/2022	< 2	< 2	N/A	< 2	N/A	< 2
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 2
	11/2/2022	< 2	< 2	< 2	< 2	< 2	< 2
	11/2/2022	N/A	N/A	N/A	< 2	N/A	N/A
	4/12/2023	< 2	< 2	N/A	< 2	< 2	< 2
	4/12/2023	N/A	N/A	N/A	N/A	< 2	N/A
	8/29/2023	< 2	< 2	N/A	< 2	N/A	< 2
	8/29/2023	N/A	N/A	N/A	< 2	N/A	N/A
	6/12/2024	N/A	< 2	N/A	< 2	< 2	< 2
	6/12/2024	N/A	< 2	N/A	N/A	N/A	N/A
	8/29/2024	< 2	< 2	N/A	< 2	N/A	< 2
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 2
Chlorobenzene, ug/L (CAS NO - 108-90-7)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	0.336*	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	0.309*	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	0.437*	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	0.561*	N/A	N/A	N/A
	3/17/2021	< 1	< 1	0.463*	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	0.476*	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	< 5	< 5	< 5	< 5	< 5	< 5
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/17/2017	N/A	N/A	N/A	< 5	N/A	N/A
	7/18/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/2/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A
	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Chloroethane, ug/L (CAS NO - 75-00-3)	3/21/2009	< 1	< 1	< 1	< 1	**1.9**	< 1
	9/9/2009	< 1	< 1	< 1	< 1	**2.1**	< 1
	3/30/2010	< 1	< 1	< 1	< 1	**2.1**	< 1
	9/16/2010	< 1	< 1	**1.1**	< 1	**1.8**	< 1
	3/16/2011	< 1	< 1	**1.8**	< 1	**1.6**	< 1
	10/27/2011	< 4	< 4	< 4	< 4	< 4	< 4
	10/27/2011	< 4	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 4	< 4	< 4	< 4	< 4	< 4
	5/10/2012	N/A	N/A	N/A	N/A	< 4	N/A
	10/1/2012	< 4	< 4	< 4	< 4	< 4	< 4
	3/26/2013	< 4	< 4	< 4	< 4	< 4	< 4
	9/17/2013	< 4	< 4	< 4	< 4	< 4	< 4
	4/7/2014	< 4	< 4	< 4	< 4	< 4	< 4
	10/28/2014	< 4	< 4	< 4	< 4	< 4	< 4
	4/6/2015	N/A	< 4	< 4	N/A	< 4	< 4
	4/16/2015	< 4	N/A	N/A	< 4	N/A	N/A
	10/21/2015	< 4	< 4	< 4	< 4	< 4	< 4
	4/11/2016	< 4	< 4	2.81*	< 4	2.48*	1.15*
	4/11/2016	N/A	< 4	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	10/5/2016	< 4	< 4	**4.24**	< 4	2.77*	1.06*
	10/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	4/17/2017	< 4	1.06*	**5.32**	< 4	2.34*	1.46*
	4/17/2017	N/A	N/A	N/A	< 4	N/A	N/A
	7/18/2017	< 4	0.585*	**5.75**	< 4	2.44*	< 4
	4/2/2018	< 4	< 4	**5.64**	< 4	2.23*	1.02*
	10/10/2018	< 4	< 4	**5.34**	< 4	1.88*	< 4
	10/10/2018	N/A	N/A	N/A	N/A	1.52*	N/A
	3/26/2019	< 4	< 4	**4.07**	< 4	1.51*	1.39*
	3/26/2019	N/A	N/A	N/A	< 4	N/A	N/A
	7/31/2019	< 4	< 4	< 4	< 4	1.75*	< 4
	7/31/2019	< 4	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 4	**8.42**	N/A	**4.13**	3.03*
	8/25/2020	< 4	< 4	**4.3**	< 4	2.4*	< 4
	8/25/2020	N/A	N/A	3.78*	N/A	N/A	N/A
	3/17/2021	< 4	< 4	**5.42**	**32.9**	< 4	1.6*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	1.45*
	8/5/2021	< 4	< 4	**5.48**	< 4	1.69*	< 4
	8/5/2021	N/A	N/A	N/A	N/A	1.95*	N/A
	5/4/2022	< 4	< 4	N/A	< 4	N/A	< 4
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 4
	11/2/2022	< 4	< 4	**4.69**	< 4	2.16*	< 4
	11/2/2022	N/A	N/A	N/A	< 4	N/A	N/A
	4/12/2023	< 4	0.798*	N/A	< 4	2.51*	0.852*
	4/12/2023	N/A	N/A	N/A	N/A	2.52*	N/A
	8/29/2023	< 4	< 4	N/A	< 4	N/A	< 4
	8/29/2023	N/A	N/A	N/A	< 4	N/A	N/A
	6/12/2024	N/A	< 4	N/A	< 4	2.28*	< 4
	6/12/2024	N/A	< 4	N/A	N/A	N/A	N/A
	8/29/2024	< 4	0.978*	N/A	< 4	N/A	< 4
	8/29/2024	N/A	N/A	N/A	N/A	N/A	0.857*

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Chloroform, ug/L (CAS NO - 67-66-3)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	0.335*	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	0.343*	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 3	< 3	< 3	< 3	< 3	< 3
	10/10/2018	N/A	N/A	N/A	N/A	< 3	N/A
	3/26/2019	< 3	< 3	< 3	< 3	< 3	< 3
	3/26/2019	N/A	N/A	N/A	< 3	N/A	N/A
	7/31/2019	< 3	< 3	< 3	< 3	< 3	< 3
	7/31/2019	< 3	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 3	< 3	N/A	< 3	< 3
	8/25/2020	< 3	< 3	< 3	< 3	< 3	< 3
	8/25/2020	N/A	N/A	< 3	N/A	N/A	N/A
	3/17/2021	< 3	< 3	< 3	< 3	< 3	< 3
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 3
	8/5/2021	< 3	< 3	< 3	< 3	< 3	< 3
	8/5/2021	N/A	N/A	N/A	N/A	< 3	N/A
	5/4/2022	< 3	< 3	N/A	< 3	N/A	< 3
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 3
	11/2/2022	< 3	< 3	< 3	< 3	< 3	< 3
	11/2/2022	N/A	N/A	N/A	< 3	N/A	N/A
	4/12/2023	< 3	< 3	N/A	< 3	< 3	< 3
	4/12/2023	N/A	N/A	N/A	N/A	< 3	N/A
	8/29/2023	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2023	N/A	N/A	N/A	< 3	N/A	N/A
	6/12/2024	N/A	< 3	N/A	< 3	< 3	< 3
	6/12/2024	N/A	< 3	N/A	N/A	N/A	N/A
	8/29/2024	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 3
Chloromethane, ug/L (CAS NO - 74-87-3)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 3	< 3	< 3	< 3	< 3	< 3
	10/27/2011	< 3	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 3	< 3	< 3	< 3	< 3	< 3
	5/10/2012	N/A	N/A	N/A	N/A	< 3	N/A
	10/1/2012	< 3	< 3	< 3	< 3	< 3	< 3

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Chloromethane, ug/L (CAS NO - 74-87-3)	3/26/2013	< 3	< 3	< 3	< 3	< 3	< 3
	9/17/2013	< 3	< 3	< 3	< 3	< 3	< 3
	4/7/2014	< 3	< 3	< 3	< 3	< 3	< 3
	10/28/2014	< 3	< 3	< 3	< 3	< 3	< 3
	4/6/2015	N/A	< 3	< 3	N/A	< 3	< 3
	4/16/2015	< 3	N/A	N/A	< 3	N/A	N/A
	10/21/2015	< 3	< 3	< 3	< 3	< 3	< 3
	4/11/2016	< 3	< 3	< 3	< 3	< 3	< 3
	4/11/2016	N/A	< 3	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 3	N/A	N/A
	10/5/2016	< 3	< 3	< 3	< 3	< 3	< 3
	10/5/2016	N/A	N/A	N/A	< 3	N/A	N/A
	4/17/2017	0.557*	0.386*	1.55*	0.669*	0.498*	1.37*
	4/17/2017	N/A	N/A	N/A	< 3	N/A	N/A
	7/18/2017	< 3	< 3	0.427*	< 3	< 3	< 3
	4/2/2018	< 3	< 3	< 3	< 3	< 3	< 3
	10/10/2018	< 3	< 3	< 3	< 3	< 3	< 3
	10/10/2018	N/A	N/A	N/A	N/A	< 3	N/A
	3/26/2019	< 3	< 3	< 3	< 3	< 3	< 3
	3/26/2019	N/A	N/A	N/A	< 3	N/A	N/A
	7/31/2019	< 3	< 3	< 3	< 3	< 3	< 3
	7/31/2019	< 3	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 3	< 3	N/A	< 3	< 3
	8/25/2020	< 3	< 3	< 3	< 3	< 3	< 3
	8/25/2020	N/A	N/A	< 3	N/A	N/A	N/A
	3/17/2021	< 3	< 3	< 3	< 3	< 3	< 3
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 3
	8/5/2021	< 3	< 3	< 3	< 3	< 3	< 3
	8/5/2021	N/A	N/A	N/A	N/A	< 3	N/A
	5/4/2022	< 3	< 3	N/A	< 3	N/A	< 3
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 3
	11/2/2022	< 3	< 3	< 3	< 3	< 3	< 3
	11/2/2022	N/A	N/A	N/A	< 3	N/A	N/A
	4/12/2023	< 3	< 3	N/A	< 3	< 3	< 3
	4/12/2023	N/A	N/A	N/A	N/A	< 3	N/A
	8/29/2023	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2023	N/A	N/A	N/A	< 3	N/A	N/A
	6/12/2024	N/A	< 3	N/A	< 3	< 3	< 3
	6/12/2024	N/A	< 3	N/A	N/A	N/A	N/A
	8/29/2024	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 3
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	**1.3**	< 1	< 1	< 1
	3/16/2011	< 1	< 1	**1.2**	< 1	< 1	< 1
	10/27/2011	< 1	< 1	**2.52**	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	**3.06**	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	**3.93**	< 1	< 1	< 1
	3/26/2013	< 1	< 1	**3.84**	< 1	< 1	< 1
	9/17/2013	< 1	< 1	**4.43**	< 1	< 1	< 1
	4/7/2014	< 1	< 1	**3**	< 1	< 1	< 1
	10/28/2014	< 1	< 1	**2.96**	< 1	< 1	< 1
	4/6/2015	N/A	< 1	**2.83**	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	**4.1**	< 1	< 1	< 1
	4/11/2016	< 1	0.239*	**4.84**	< 1	0.779*	0.635*
	4/11/2016	N/A	0.281*	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	10/5/2016	< 1	0.832*	**8.57**	< 1	**1.07**	0.685*
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	**1.78**	**6.91**	< 1	0.721*	0.667*
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	**1.01**	**8.82**	< 1	0.993*	0.624*
	4/2/2018	< 1	0.992*	**7.53**	< 1	**1.04**	**1.31**
	10/10/2018	< 1	**1.27**	**8.36**	< 1	0.905*	**1.26**
	10/10/2018	N/A	N/A	N/A	N/A	0.849*	N/A
	3/26/2019	< 1	0.927*	**6.87**	< 1	**1.32**	**2.06**
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	0.917*	**11.2**	< 1	**1.12**	**2.15**
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	**1.01**	**8.12**	N/A	**1.2**	**2.96**
	8/25/2020	< 1	**1.77**	**10.4**	< 1	**1.39**	**3.56**
	8/25/2020	N/A	N/A	**12**	N/A	N/A	N/A
	3/17/2021	< 1	**1.69**	**8.71**	< 1	**1.26**	**4.26**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	**4.18**
	8/5/2021	< 1	**4.01**	**14.4**	< 1	**1.36**	**3.57**
	8/5/2021	N/A	N/A	N/A	N/A	**1.26**	N/A
	5/4/2022	< 1	**3.36**	N/A	< 1	N/A	**2.11**
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**1.92**
	11/2/2022	< 1	**3.24**	**17.6**	< 1	**1.87**	**1.97**
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	**3.97**	N/A	< 1	**1.82**	**1.92**
	4/12/2023	N/A	N/A	N/A	N/A	**2.77**	N/A
	8/29/2023	< 1	**3.88**	N/A	< 1	N/A	**1.39**
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	**3.74**	N/A	< 1	**3.68**	**1.71**
	6/12/2024	N/A	**3.75**	N/A	N/A	N/A	N/A
	8/29/2024	< 1	**8.13**	N/A	< 1	N/A	**1.61**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**1.61**
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	< 5	< 5	< 5	< 5	< 5	< 5
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/17/2017	N/A	N/A	N/A	< 5	N/A	N/A
	7/18/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/2/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Ethylbenzene, ug/L (CAS NO - 100-41-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Ethylbenzene, ug/L (CAS NO - 100-41-4)	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
Iodomethane, ug/L (CAS NO - 74-88-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 20	< 20	< 20	< 20	< 20	< 20
	10/27/2011	< 20	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	8.05*	< 10	< 10	8.05*	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Iodomethane, ug/L (CAS NO - 74-88-4)	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10
Methylene Bromide, ug/L (CAS NO - 74-95-3)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Methylene Chloride, ug/L (CAS NO - 75-09-2)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	6.7	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	< 5	6.12	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	6.22	< 5
	5/10/2012	N/A	N/A	N/A	N/A	5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	1.51*	< 5	0.453*	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	0.285*	0.468*	0.945*	0.343*	1.21*	0.472*
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	0.38*	0.832*	1.45*	0.475*	0.961*	0.392*
	4/17/2017	N/A	N/A	N/A	0.449*	N/A	N/A
	7/18/2017	< 5	< 5	0.176*	< 5	0.173*	< 5
	4/2/2018	0.183*	0.282*	2.18*	< 5	0.688*	0.306*
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A
	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	1.7*	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A
	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
Styrene, ug/L (CAS NO - 100-42-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Styrene, ug/L (CAS NO - 100-42-5)	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	0.557*	0.506*	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	3/21/2009	< 1	< 1	< 1	< 1	< 1	**4.8**
	9/9/2009	< 1	**1.3**	< 1	< 1	< 1	**4.7**
	3/30/2010	< 1	**2.3**	< 1	< 1	< 1	**4.1**
	9/16/2010	< 1	< 1	< 1	< 1	< 1	**3.8**
	3/16/2011	< 1	**2.3**	< 1	< 1	< 1	**4.3**
	10/27/2011	< 1	**3.64**	< 1	< 1	< 1	**4.26**
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	**2.87**	< 1	< 1	< 1	**3.98**
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	**4.47**	**1.04**	< 1	< 1	**4.59**
	3/26/2013	< 1	**4.94**	**1.33**	< 1	< 1	**4.39**
	9/17/2013	< 1	**4.01**	< 1	< 1	< 1	**3.71**
	4/7/2014	< 1	**5.33**	**1.09**	< 1	< 1	**4.4**
	10/28/2014	< 1	**1.12**	< 1	< 1	< 1	**3.97**
	4/6/2015	N/A	**1.35**	< 1	N/A	< 1	**3.66**
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	**1.7**	**1.16**	< 1	< 1	**3.62**
	4/11/2016	< 1	**1.7**	0.709*	< 1	0.557*	**4.16**
	4/11/2016	N/A	**1.58**	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	10/5/2016	< 1	**2.51**	0.679*	< 1	0.636*	**2.78**
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	**5.25**	0.735*	< 1	0.555*	**4.15**
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	**3.69**	0.931*	< 1	0.667*	**4.29**
	4/2/2018	< 1	**3.23**	0.91*	< 1	0.764*	**5.84**
	10/10/2018	< 1	**3.61**	0.927*	< 1	0.686*	**4.25**
	10/10/2018	N/A	N/A	N/A	N/A	0.646*	N/A
	3/26/2019	< 1	**2.26**	0.994*	< 1	0.872*	**6.32**
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	**2.14**	**1.02**	< 1	0.925*	**6.56**
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	**2.09**	0.979*	N/A	0.89*	**7.66**
	8/25/2020	< 1	**2.12**	0.724*	< 1	0.677*	**6.36**
	8/25/2020	N/A	N/A	0.882*	N/A	N/A	N/A
	3/17/2021	< 1	**2.37**	< 1	< 1	0.608*	**7.52**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	**7.43**
	8/5/2021	< 1	**3.07**	< 1	< 1	0.841*	**7.53**
	8/5/2021	N/A	N/A	N/A	N/A	0.741*	N/A
	5/4/2022	< 1	**2.75**	N/A	< 1	N/A	**5.58**
	5/4/2022	N/A	N/A	N/A	N/A	N/A	**5.14**
	11/2/2022	< 1	**3.26**	< 1	< 1	0.729*	**5.34**
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	**2.59**	N/A	< 1	0.863*	**4.17**
	4/12/2023	N/A	N/A	N/A	N/A	**1.02**	N/A
	8/29/2023	< 1	**3.1**	N/A	< 1	N/A	**3.21**
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	**4.61**	N/A	< 1	**1.19**	**4.41**
	6/12/2024	N/A	**4.53**	N/A	N/A	N/A	N/A
	8/29/2024	< 1	**5.82**	N/A	< 1	N/A	**3.97**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**3.83**
Toluene, ug/L (CAS NO - 108-88-3)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	**1.89**	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	0.206*	< 1	< 1	0.295*
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	< 1	< 1	0.323*	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	< 1	< 1
	4/2/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	< 1	< 1	< 1	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Toluene, ug/L (CAS NO - 108-88-3)	7/31/2019	< 1	< 1	< 1	< 1	< 1	< 1
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	< 1	< 1
	8/25/2020	< 1	< 1	< 1	< 1	< 1	< 1
	8/25/2020	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	< 1	< 1	< 1	< 1	< 1	< 1
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 1
	8/5/2021	< 1	< 1	< 1	< 1	< 1	< 1
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A
	5/4/2022	< 1	< 1	N/A	< 1	N/A	< 1
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	< 1	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	< 1	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	< 1	N/A	< 1	< 1	< 1
	6/12/2024	N/A	< 1	N/A	N/A	N/A	N/A
	8/29/2024	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	< 1	< 1
	5/10/2012	N/A	N/A	N/A	N/A	< 1	N/A
	10/1/2012	< 1	< 1	< 1	< 1	< 1	< 1
	3/26/2013	< 1	< 1	< 1	< 1	< 1	< 1
	9/17/2013	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	< 1	< 1	< 1	< 1	< 1	< 1
	10/28/2014	< 1	< 1	< 1	< 1	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	< 1	< 1	< 1	< 1	< 1	< 1
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	< 1	< 1	< 1	< 1	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	0.476*	< 1	< 1	< 1	< 1
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	0.457*	< 1	< 1	< 1
	4/2/2018	< 1	< 1	0.262*	< 1	< 1	0.258*
	10/10/2018	< 1	< 1	0.357*	< 1	< 1	< 1
	10/10/2018	N/A	N/A	N/A	N/A	< 1	N/A
	3/26/2019	< 1	< 1	< 1	< 1	< 1	0.293*
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	0.405*	< 1	< 1	0.366*
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	0.285*	N/A	< 1	0.365*
	8/25/2020	< 1	0.287*	0.382*	< 1	< 1	0.511*
	8/25/2020	N/A	N/A	0.433*	N/A	N/A	N/A
	3/17/2021	< 1	0.309*	0.324*	< 1	< 1	0.643*
	3/17/2021	N/A	N/A	N/A	N/A	N/A	0.633*
	8/5/2021	< 1	< 1	0.485*	< 1	< 1	0.616*
	8/5/2021	N/A	N/A	N/A	N/A	< 1	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	5/4/2022	< 1	0.394*	N/A	< 1	N/A	0.289*
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 1
	11/2/2022	< 1	< 1	0.514*	< 1	< 1	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	0.322*	N/A	< 1	< 1	< 1
	4/12/2023	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	0.359*	N/A	< 1	< 1	< 1
	6/12/2024	N/A	0.309*	N/A	N/A	N/A	N/A
	8/29/2024	< 1	0.494*	N/A	< 1	N/A	< 1
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 1
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	9/9/2009	< 1	< 1	< 1	< 1	< 1	< 1
	3/30/2010	< 1	< 1	< 1	< 1	< 1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	< 1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 5	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 5	< 5	< 5	< 5	< 5	< 5
	5/10/2012	N/A	N/A	N/A	N/A	< 5	N/A
	10/1/2012	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2013	< 5	< 5	< 5	< 5	< 5	< 5
	9/17/2013	< 5	< 5	< 5	< 5	< 5	< 5
	4/7/2014	< 5	< 5	< 5	< 5	< 5	< 5
	10/28/2014	< 5	< 5	< 5	< 5	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	4/16/2015	< 5	N/A	N/A	< 5	N/A	N/A
	10/21/2015	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	< 5	< 5	< 5	< 5	< 5	< 5
	4/11/2016	N/A	< 5	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	10/5/2016	< 5	< 5	< 5	< 5	< 5	< 5
	10/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	4/17/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/17/2017	N/A	N/A	N/A	< 5	N/A	N/A
	7/18/2017	< 5	< 5	< 5	< 5	< 5	< 5
	4/2/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	< 5	< 5	< 5	< 5	< 5	< 5
	10/10/2018	N/A	N/A	N/A	N/A	< 5	N/A
	3/26/2019	< 5	< 5	< 5	< 5	< 5	< 5
	3/26/2019	N/A	N/A	N/A	< 5	N/A	N/A
	7/31/2019	< 5	< 5	< 5	< 5	< 5	< 5
	7/31/2019	< 5	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 5	< 5	N/A	< 5	< 5
	8/25/2020	< 5	< 5	< 5	< 5	< 5	< 5
	8/25/2020	N/A	N/A	< 5	N/A	N/A	N/A
	3/17/2021	< 5	< 5	< 5	< 5	< 5	< 5
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 5
	8/5/2021	< 5	< 5	< 5	< 5	< 5	< 5
	8/5/2021	N/A	N/A	N/A	N/A	< 5	N/A
	5/4/2022	< 5	< 5	N/A	< 5	N/A	< 5
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 5
	11/2/2022	< 5	< 5	< 5	< 5	< 5	< 5
	11/2/2022	N/A	N/A	N/A	< 5	N/A	N/A
	4/12/2023	< 5	< 5	N/A	< 5	< 5	< 5
	4/12/2023	N/A	N/A	N/A	N/A	< 5	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	8/29/2023	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2023	N/A	N/A	N/A	< 5	N/A	N/A
	6/12/2024	N/A	< 5	N/A	< 5	< 5	< 5
	6/12/2024	N/A	< 5	N/A	N/A	N/A	N/A
	8/29/2024	< 5	< 5	N/A	< 5	N/A	< 5
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 5
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 10	< 10	< 10	< 10	< 10	< 10
	5/10/2012	N/A	N/A	N/A	N/A	< 10	N/A
	10/1/2012	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2013	< 10	< 10	< 10	< 10	< 10	< 10
	9/17/2013	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	< 10	< 10	< 10	< 10	< 10	< 10
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	< 10	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Trichloroethene, ug/L (CAS NO - 79-01-6)	4/9/2008	N/A	N/A	13	N/A	8.6	N/A
	9/10/2008	N/A	N/A	15.5	N/A	12.6	N/A
	3/21/2009	< 1	1.5	10.4	< 1	10.2	2.2
	9/9/2009	< 1	2	11.3	< 1	11.4	2.4
	3/30/2010	< 1	2.1	9.5	< 1	14.3	2
	9/16/2010	< 1	1.1	11.6	< 1	13	2
	3/16/2011	< 1	2.5	9.1	< 1	8.4	2.2
	10/27/2011	< 1	2.43	20.4	< 1	12.3	2.62
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	2.4	16.8	< 1	1	2.18
	5/10/2012	N/A	N/A	N/A	N/A	12	N/A
	10/1/2012	< 1	2.61	23.3	< 1	14.5	2.65
	3/26/2013	< 1	2.85	23.2	< 1	9.67	2.33
	9/17/2013	< 1	2.78	32.2	< 1	15.8	2.65
	4/7/2014	< 1	4.32	18.4	< 1	14	3.82
	10/28/2014	< 1	1.66	14.3	< 1	15.9	2.86
	4/6/2015	N/A	1.87	17.4	N/A	15.4	2.88
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	1.37	17.8	< 1	16.5	3.35
	4/11/2016	< 1	1.7	18.2	< 1	15.7	4.34
	4/11/2016	N/A	1.75	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	2.52	19.9	< 1	16.7	2.97
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	5.7	17.2	< 1	15.6	3.85
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	4.21	18.6	< 1	16.9	4.13
	4/2/2018	< 1	3.28	15.2	< 1	18.4	5.56
	10/10/2018	< 1	4.18	16.5	< 1	17	4.86
	10/10/2018	N/A	N/A	N/A	N/A	16.5	N/A
	3/26/2019	< 1	2.56	15.3	< 1	17.8	7.05
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	2.94	18.7	< 1	18.4	6.74
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	3.1	17.2	N/A	17.8	9.33
	8/25/2020	< 1	4.28	22.3	< 1	17.2	11
	8/25/2020	N/A	N/A	23	N/A	N/A	N/A
	3/17/2021	< 1	3.99	16.2	< 1	15.7	11.4
	3/17/2021	N/A	N/A	N/A	N/A	N/A	11.2
	8/5/2021	< 1	6.06	17.4	< 1	16.8	10.1
	8/5/2021	N/A	N/A	N/A	N/A	15.4	N/A
	5/4/2022	< 1	5.38	N/A	< 1	N/A	7.71
	5/4/2022	N/A	N/A	N/A	N/A	N/A	7.31
	11/2/2022	< 1	4.73	16.4	< 1	17.2	5.79
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	5.44	N/A	< 1	16.3	5.69
	4/12/2023	N/A	N/A	N/A	N/A	19.9	N/A
	8/29/2023	< 1	6.16	N/A	< 1	N/A	6.32
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	6.76	N/A	< 1	18.5	5.79
	6/12/2024	N/A	6.55	N/A	N/A	N/A	N/A
	8/29/2024	< 1	9.58	N/A	< 1	N/A	5.18
	8/29/2024	N/A	N/A	N/A	N/A	N/A	5.47
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	3/21/2009	< 1	< 1	< 1	< 1	5	< 1
	9/9/2009	< 1	< 1	< 1	< 1	5.5	< 1
	3/30/2010	< 1	< 1	< 1	< 1	5.1	< 1
	9/16/2010	< 1	< 1	< 1	< 1	4.1	< 1
	3/16/2011	< 1	< 1	< 1	< 1	3.1	< 1
	10/27/2011	< 4	< 4	< 4	< 4	< 4	< 4
	10/27/2011	< 4	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	5/10/2012	< 4	< 4	< 4	< 4	< 4	< 4
	5/10/2012	N/A	N/A	N/A	N/A	< 4	N/A
	10/1/2012	< 4	< 4	< 4	< 4	< 4	< 4
	3/26/2013	< 4	< 4	< 4	< 4	< 4	< 4
	9/17/2013	< 4	< 4	< 4	< 4	< 4	< 4
	4/7/2014	< 4	< 4	< 4	< 4	< 4	< 4
	10/28/2014	< 4	< 4	< 4	< 4	< 4	< 4
	4/6/2015	N/A	< 4	< 4	N/A	< 4	< 4
	4/16/2015	< 4	N/A	N/A	< 4	N/A	N/A
	10/21/2015	< 4	< 4	< 4	< 4	< 4	< 4
	4/11/2016	< 4	< 4	< 4	< 4	1.36*	< 4
	4/11/2016	N/A	< 4	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	10/5/2016	< 4	< 4	< 4	< 4	2.35*	< 4
	10/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	4/17/2017	< 4	< 4	< 4	< 4	2.37*	< 4
	4/17/2017	N/A	N/A	N/A	< 4	N/A	N/A
	7/18/2017	< 4	< 4	< 4	< 4	2.06*	< 4
	4/2/2018	< 4	< 4	< 4	< 4	1.81*	< 4
	10/10/2018	< 4	< 4	< 4	< 4	2.05*	< 4
	10/10/2018	N/A	N/A	N/A	N/A	2.07*	N/A
	3/26/2019	< 4	< 4	< 4	< 4	2.28*	< 4
	3/26/2019	N/A	N/A	N/A	< 4	N/A	N/A
	7/31/2019	< 4	< 4	< 4	< 4	1.84*	< 4
	7/31/2019	< 4	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 4	< 4	N/A	2.01*	< 4
	8/25/2020	< 4	< 4	< 4	< 4	2.05*	< 4
	8/25/2020	N/A	N/A	< 4	N/A	N/A	N/A
	3/17/2021	< 4	< 4	< 4	< 4	1.71*	< 4
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 4
	8/5/2021	< 4	< 4	< 4	< 4	2.81*	< 4
	8/5/2021	N/A	N/A	N/A	N/A	2.53*	N/A
	5/4/2022	< 4	< 4	N/A	< 4	N/A	< 4
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 4
	11/2/2022	< 4	< 4	< 4	< 4	1.43*	< 4
	11/2/2022	N/A	N/A	N/A	< 4	N/A	N/A
	4/12/2023	< 4	< 4	N/A	< 4	1.52*	< 4
	4/12/2023	N/A	N/A	N/A	N/A	1.23*	N/A
	8/29/2023	< 4	< 4	N/A	< 4	N/A	< 4
	8/29/2023	N/A	N/A	N/A	< 4	N/A	N/A
	6/12/2024	N/A	< 4	N/A	< 4	0.823*	< 4
	6/12/2024	N/A	< 4	N/A	N/A	N/A	N/A
	8/29/2024	< 4	< 4	N/A	< 4	N/A	< 4
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 4
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	3/21/2009	< 5	< 5	< 5	< 5	< 5	< 5
	9/9/2009	< 5	< 5	< 5	< 5	< 5	< 5
	3/30/2010	< 5	< 5	< 5	< 5	< 5	< 5
	9/16/2010	< 5	< 5	< 5	< 5	< 5	< 5
	3/16/2011	< 5	< 5	< 5	< 5	< 5	< 5
	10/27/2011	< 2	< 2	< 2	< 2	< 2	< 2
	10/27/2011	< 2	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 50	< 50	< 50	< 50	< 50	< 50
	5/10/2012	N/A	N/A	N/A	N/A	< 50	N/A
	10/1/2012	< 2	< 2	< 2	< 2	< 2	< 2
	3/26/2013	< 2	< 2	< 2	< 2	< 2	< 2
	9/17/2013	< 2	< 2	< 2	< 2	< 2	< 2
	4/7/2014	< 2	< 2	< 2	< 2	< 2	< 2
	10/28/2014	< 10	< 10	< 10	< 10	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	4/16/2015	< 10	N/A	N/A	< 10	N/A	N/A
	10/21/2015	< 10	< 10	< 10	< 10	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	4/11/2016	< 10	< 10	< 10	< 10	< 10	< 10
	4/11/2016	N/A	< 10	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	10/5/2016	< 10	< 10	< 10	< 10	< 10	< 10
	10/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	4/17/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/17/2017	N/A	N/A	N/A	< 10	N/A	N/A
	7/18/2017	< 10	< 10	< 10	< 10	< 10	< 10
	4/2/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	< 10	< 10	< 10	< 10	< 10	< 10
	10/10/2018	N/A	N/A	N/A	N/A	< 10	N/A
	3/26/2019	< 10	< 10	< 10	< 10	< 10	< 10
	3/26/2019	N/A	N/A	N/A	< 10	N/A	N/A
	7/31/2019	< 10	< 10	< 10	< 10	< 10	< 10
	7/31/2019	< 10	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	< 10	< 10	< 10	< 10	4.08*	< 10
	8/25/2020	N/A	N/A	< 10	N/A	N/A	N/A
	3/17/2021	< 10	< 10	< 10	< 10	< 10	< 10
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 10
	8/5/2021	< 10	< 10	< 10	< 10	< 10	< 10
	8/5/2021	N/A	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 10	< 10	N/A	< 10	N/A	< 10
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 10
	11/2/2022	< 10	< 10	< 10	< 10	< 10	< 10
	11/2/2022	N/A	N/A	N/A	< 10	N/A	N/A
	4/12/2023	< 10	< 10	N/A	< 10	< 10	< 10
	4/12/2023	N/A	N/A	N/A	N/A	< 10	N/A
	8/29/2023	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2023	N/A	N/A	N/A	< 10	N/A	N/A
	6/12/2024	N/A	< 10	N/A	< 10	< 10	< 10
	6/12/2024	N/A	< 10	N/A	N/A	N/A	N/A
	8/29/2024	< 10	< 10	N/A	< 10	N/A	< 10
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 10
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	4/9/2008	N/A	N/A	< 1	N/A	N/A	N/A
	9/10/2008	N/A	N/A	< 1	N/A	N/A	N/A
	3/21/2009	< 1	< 1	< 1	< 1	**2.1**	< 1
	9/9/2009	< 1	< 1	< 1	< 1	**2.3**	< 1
	3/30/2010	< 1	< 1	< 1	< 1	**2.5**	< 1
	9/16/2010	< 1	< 1	< 1	< 1	**1.9**	< 1
	3/16/2011	< 1	< 1	< 1	< 1	**1.4**	< 1
	10/27/2011	< 1	< 1	< 1	< 1	**1.55**	< 1
	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 1	< 1	< 1	< 1	**2.08**	< 1
	5/10/2012	N/A	N/A	N/A	N/A	**1**	N/A
	10/1/2012	< 1	< 1	< 1	< 1	**1.89**	< 1
	3/26/2013	< 1	< 1	< 1	< 1	**1.23**	< 1
	9/17/2013	< 1	< 1	< 1	< 1	**1.73**	< 1
	4/7/2014	< 1	< 1	< 1	< 1	**1.98**	< 1
	10/28/2014	< 1	< 1	< 1	< 1	**1.64**	< 1
	4/6/2015	N/A	< 1	< 1	N/A	**2.2**	< 1
	4/16/2015	< 1	N/A	N/A	< 1	N/A	N/A
	10/21/2015	< 1	< 1	< 1	< 1	**1.95**	< 1
	4/11/2016	< 1	< 1	0.353*	< 1	**1.46**	0.44*
	4/11/2016	N/A	< 1	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	10/5/2016	< 1	0.491*	< 1	< 1	**2.12**	< 1
	10/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	< 1	0.69*	0.821*	< 1	**2.28**	0.66*
	4/17/2017	N/A	N/A	N/A	< 1	N/A	N/A
	7/18/2017	< 1	< 1	< 1	< 1	**1.99**	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	4/2/2018	< 1	0.209*	< 1	< 1	**1.92**	0.512*
	10/10/2018	< 1	< 1	0.83*	< 1	**2.18**	< 1
	10/10/2018	N/A	N/A	N/A	N/A	**2.03**	N/A
	3/26/2019	< 1	< 1	0.715*	< 1	**1.88**	0.77*
	3/26/2019	N/A	N/A	N/A	< 1	N/A	N/A
	7/31/2019	< 1	< 1	< 1	< 1	**1.94**	0.599*
	7/31/2019	< 1	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 1	< 1	N/A	**2.1**	0.82*
	8/25/2020	< 1	< 1	< 1	< 1	**2.31**	< 1
	8/25/2020	N/A	N/A	0.771*	N/A	N/A	N/A
	3/17/2021	< 1	< 1	0.494*	< 1	**1.71**	**1.09**
	3/17/2021	N/A	N/A	N/A	N/A	N/A	0.924*
	8/5/2021	< 1	< 1	0.439*	< 1	**1.98**	0.627*
	8/5/2021	N/A	N/A	N/A	N/A	**1.85**	N/A
	5/4/2022	< 1	0.519*	N/A	< 1	N/A	0.534*
	5/4/2022	N/A	N/A	N/A	N/A	N/A	0.469*
	11/2/2022	< 1	< 1	0.691*	< 1	**1.5**	< 1
	11/2/2022	N/A	N/A	N/A	< 1	N/A	N/A
	4/12/2023	< 1	0.395*	N/A	< 1	**1.72**	0.379*
	4/12/2023	N/A	N/A	N/A	N/A	**2.4**	N/A
	8/29/2023	< 1	< 1	N/A	< 1	N/A	< 1
	8/29/2023	N/A	N/A	N/A	< 1	N/A	N/A
	6/12/2024	N/A	0.483*	N/A	< 1	**2.11**	0.354*
	6/12/2024	N/A	0.658*	N/A	N/A	N/A	N/A
	8/29/2024	< 1	0.802*	N/A	< 1	N/A	0.212*
	8/29/2024	N/A	N/A	N/A	N/A	N/A	0.258*
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/21/2009	< 2	< 2	< 2	< 2	< 2	< 2
	9/9/2009	< 2	< 2	< 2	< 2	< 2	< 2
	3/30/2010	< 2	< 2	< 2	< 2	< 2	< 2
	9/16/2010	< 2	< 2	< 2	< 2	< 2	< 2
	3/16/2011	< 2	< 2	< 2	< 2	< 2	< 2
	10/27/2011	< 2	< 3	< 3	< 3	< 3	< 3
	10/27/2011	< 3	N/A	N/A	N/A	N/A	N/A
	10/27/2011	< 3	N/A	N/A	N/A	N/A	N/A
	5/10/2012	< 3	< 3	< 3	< 3	< 3	< 3
	5/10/2012	N/A	N/A	N/A	N/A	< 3	N/A
	10/1/2012	< 3	< 3	< 3	< 3	< 3	< 3
	3/26/2013	< 3	< 3	< 3	< 3	< 3	< 3
	9/17/2013	< 3	< 3	< 3	< 3	< 3	< 3
	4/7/2014	< 3	< 3	< 3	< 3	< 3	< 3
	10/28/2014	< 3	< 3	< 3	< 3	< 3	< 3
	4/6/2015	N/A	< 3	< 3	N/A	< 3	< 3
	4/16/2015	< 3	N/A	N/A	< 3	N/A	N/A
	10/21/2015	< 3	< 3	< 3	< 3	< 3	< 3
	4/11/2016	< 3	< 3	< 3	< 3	< 3	< 3
	4/11/2016	N/A	< 3	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 3	N/A	N/A
	10/5/2016	< 3	< 3	0.509*	< 3	< 3	0.69*
	10/5/2016	N/A	N/A	N/A	< 3	N/A	N/A
	4/17/2017	< 3	< 3	0.389*	< 3	< 3	< 3
	4/17/2017	N/A	N/A	N/A	0.249*	N/A	N/A
	7/18/2017	< 3	< 3	0.463*	< 3	< 3	< 3
	4/2/2018	< 3	< 3	0.299*	< 3	< 3	< 3
	10/10/2018	< 3	< 3	0.447*	< 3	< 3	< 3
	10/10/2018	N/A	N/A	N/A	N/A	< 3	N/A
	3/26/2019	< 3	< 3	< 3	< 3	< 3	< 3
	3/26/2019	N/A	N/A	N/A	< 3	N/A	N/A
	7/31/2019	< 3	< 3	0.498*	< 3	< 3	< 3
	7/31/2019	< 3	N/A	N/A	N/A	N/A	N/A
	2/12/2020	N/A	< 3	< 3	N/A	< 3	< 3

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Appendix I VOC Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Xylenes, total, ug/L (CAS NO - 1330-20-7)	8/25/2020	< 3	< 3	< 3	< 3	< 3	< 3
	8/25/2020	N/A	N/A	< 3	N/A	N/A	N/A
	3/17/2021	< 3	< 3	< 3	< 3	< 3	< 3
	3/17/2021	N/A	N/A	N/A	N/A	N/A	< 3
	8/5/2021	< 3	< 3	0.572*	< 3	< 3	< 3
	8/5/2021	N/A	N/A	N/A	N/A	< 3	N/A
	5/4/2022	< 3	< 3	N/A	< 3	N/A	< 3
	5/4/2022	N/A	N/A	N/A	N/A	N/A	< 3
	11/2/2022	< 3	< 3	0.439*	< 3	< 3	< 3
	11/2/2022	N/A	N/A	N/A	< 3	N/A	N/A
	4/12/2023	< 3	< 3	N/A	< 3	< 3	< 3
	4/12/2023	N/A	N/A	N/A	N/A	< 3	N/A
	8/29/2023	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2023	N/A	N/A	N/A	< 3	N/A	N/A
	6/12/2024	N/A	< 3	N/A	< 3	< 3	< 3
	6/12/2024	N/A	< 3	N/A	N/A	N/A	N/A
	8/29/2024	< 3	< 3	N/A	< 3	N/A	< 3
	8/29/2024	N/A	N/A	N/A	N/A	N/A	< 3
M&P-Xylene, ug/L (CAS NO - 179601-23-1)	3/26/2013	N/A	< 2	< 2	N/A	< 2	< 2
	9/17/2013	N/A	< 2	< 2	N/A	< 2	< 2
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
O-Xylene, ug/L (CAS NO - 95-47-6)	10/27/2011	< 1	N/A	N/A	N/A	N/A	N/A
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	N/A	< 1	< 1
	5/10/2012	N/A	< 1	< 1	N/A	< 1	< 1
	10/1/2012	N/A	< 1	< 1	N/A	< 1	< 1
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	4/7/2014	N/A	< 1	< 1	N/A	< 1	< 1
	10/28/2014	N/A	< 1	< 1	N/A	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	10/21/2015	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	2/12/2020	N/A	N/A	< 1	N/A	< 1	N/A
	8/25/2020	N/A	< 1	N/A	N/A	N/A	< 1
	3/17/2021	N/A	N/A	N/A	< 1	N/A	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 5	< 5	< 5	N/A	< 5	< 5
	5/10/2012	N/A	< 5	< 5	N/A	< 5	< 5
	10/1/2012	N/A	< 5	< 5	N/A	< 5	< 5
	3/26/2013	N/A	< 5	< 5	N/A	< 5	< 5
	9/17/2013	N/A	< 5	< 5	N/A	< 5	< 5
	4/7/2014	N/A	< 5	< 5	N/A	< 5	< 5
	10/28/2014	N/A	< 5	< 5	N/A	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5
	10/21/2015	N/A	< 5	< 5	N/A	< 5	< 5
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	2/12/2020	N/A	N/A	< 5	N/A	< 5	N/A
	8/25/2020	N/A	< 5	N/A	N/A	N/A	< 5
	3/17/2021	N/A	N/A	N/A	< 5	N/A	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	N/A	< 1	< 1
	5/10/2012	N/A	< 1	< 1	N/A	< 1	< 1
	10/1/2012	N/A	< 1	< 1	N/A	< 1	< 1
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	4/7/2014	N/A	< 1	< 1	N/A	< 1	< 1
	10/28/2014	N/A	< 1	< 1	N/A	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	10/21/2015	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	2/12/2020	N/A	N/A	< 1	N/A	< 1	N/A
	8/25/2020	N/A	< 1	N/A	N/A	N/A	< 1
	3/17/2021	N/A	N/A	N/A	< 1	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	N/A	< 1	< 1
	5/10/2012	N/A	< 1	< 1	N/A	< 1	< 1
	10/1/2012	N/A	< 1	< 1	N/A	< 1	< 1
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	4/7/2014	N/A	< 1	< 1	N/A	< 1	< 1
	10/28/2014	N/A	< 1	< 1	N/A	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	10/21/2015	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	2/12/2020	N/A	N/A	< 1	N/A	< 1	N/A
	8/25/2020	N/A	< 1	N/A	N/A	N/A	< 1
	3/17/2021	N/A	N/A	N/A	< 1	N/A	N/A
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 4	< 4	< 4	N/A	< 4	< 4
	5/10/2012	N/A	< 4	< 4	N/A	< 4	< 4
	10/1/2012	N/A	< 4	< 4	N/A	< 4	< 4
	3/26/2013	N/A	< 4	< 4	N/A	< 4	< 4
	9/17/2013	N/A	< 4	< 4	N/A	< 4	< 4
	4/7/2014	N/A	< 4	< 4	N/A	< 4	< 4
	10/28/2014	N/A	< 4	< 4	N/A	< 4	< 4
	4/6/2015	N/A	< 4	< 4	N/A	< 4	< 4
	10/21/2015	N/A	< 4	< 4	N/A	< 4	< 4

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	8/5/2016	N/A	N/A	N/A	< 4	N/A	N/A
	2/12/2020	N/A	N/A	< 4	N/A	< 4	N/A
	8/25/2020	N/A	< 4	N/A	N/A	N/A	< 4
	3/17/2021	N/A	N/A	N/A	< 4	N/A	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	3/21/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/7/2014	N/A	< 1.02	< 1.12	N/A	< 1.04	< 1.14
	10/28/2014	N/A	< 1.04	< 1.09	N/A	< 1.15	< 1.17
	4/6/2015	N/A	< 1.14	< 1.11	N/A	< 1.16	< 1.12
	10/21/2015	N/A	< 1.1	< 1.09	N/A	< 1.03	< 1.15
	8/5/2016	N/A	N/A	N/A	< 1.1	N/A	N/A
	2/12/2020	N/A	N/A	< 1.08	N/A	< 1.07	N/A
	8/25/2020	N/A	< 0.132	N/A	N/A	N/A	< 0.134
	3/17/2021	N/A	N/A	N/A	< 1.07	N/A	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/21/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/7/2014	N/A	< 1.02	< 1.12	N/A	< 1.04	< 1.14
	10/28/2014	N/A	< 1.04	< 1.09	N/A	< 1.15	< 1.17
	4/6/2015	N/A	< 1.14	< 1.11	N/A	< 1.16	< 1.12
	10/21/2015	N/A	< 1.1	< 1.09	N/A	< 1.03	< 1.15
	8/5/2016	N/A	N/A	N/A	< 1.1	N/A	N/A
	2/12/2020	N/A	N/A	< 1.08	N/A	< 1.07	N/A
	8/25/2020	N/A	< 0.132	N/A	N/A	N/A	< 0.134
	3/17/2021	N/A	N/A	N/A	< 1.07	N/A	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/21/2009	< 2	< 2	< 2	< 2	< 2	< 2
	4/7/2014	N/A	< 1.02	< 1.12	N/A	**1.64**	< 1.14
	10/28/2014	N/A	< 1.04	< 1.09	N/A	**1.63**	< 1.17
	4/6/2015	N/A	< 1.14	< 1.11	N/A	< 1.16	< 1.12
	10/21/2015	N/A	< 1.1	< 1.09	N/A	< 1.03	< 1.15
	4/11/2016	N/A	N/A	N/A	N/A	**1.63**	N/A
	8/5/2016	N/A	N/A	N/A	< 1.1	N/A	N/A
	10/5/2016	N/A	N/A	N/A	N/A	< 1.08	N/A
	4/17/2017	N/A	N/A	N/A	N/A	< 1.09	N/A
	7/18/2017	N/A	N/A	N/A	N/A	**1.39**	N/A
	4/2/2018	N/A	N/A	N/A	N/A	**1.37**	N/A
	10/10/2018	N/A	N/A	N/A	N/A	**1.6**	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/26/2019	N/A	N/A	N/A	N/A	< 10.8	N/A
	7/31/2019	N/A	N/A	N/A	N/A	1*	N/A
	2/12/2020	N/A	N/A	0.55*	N/A	< 1.07	N/A
	8/25/2020	N/A	< 0.264	N/A	N/A	**0.888**	< 0.268
	3/17/2021	N/A	N/A	N/A	< 1.07	**1.07**	N/A
	8/5/2021	N/A	N/A	N/A	N/A	**1.77**	N/A
	11/2/2022	N/A	N/A	< 2	N/A	N/A	N/A
	4/12/2023	N/A	N/A	N/A	N/A	**1.7**	N/A
	6/12/2024	N/A	N/A	N/A	N/A	**1.22**	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 21.1	< 21.5	N/A	< 21.1	< 21.5
	10/28/2014	N/A	< 22.2	< 22	N/A	< 22	< 21.1
	4/6/2015	N/A	< 20.6	< 20.6	N/A	< 20.4	< 21.5
	10/21/2015	N/A	< 20.4	< 20.8	N/A	< 20.8	< 22
	8/5/2016	N/A	N/A	N/A	< 20.4	N/A	N/A
	2/12/2020	N/A	N/A	< 20.4	N/A	< 20.6	N/A
	8/25/2020	N/A	< 22.2	N/A	N/A	N/A	< 21.3
	3/17/2021	N/A	N/A	N/A	< 21.1	N/A	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 52.6	< 53.8	N/A	< 52.6	< 53.8
	10/28/2014	N/A	< 55.6	< 54.9	N/A	< 54.9	< 52.6
	4/6/2015	N/A	< 51.5	< 51.5	N/A	< 51	< 53.8
	10/21/2015	N/A	< 51	< 52.1	N/A	< 52.1	< 54.9
	8/5/2016	N/A	N/A	N/A	< 51	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 2	< 2	< 2	N/A	< 2	< 2
	5/10/2012	N/A	< 2	< 2	N/A	< 2	< 2
	10/1/2012	N/A	< 20	< 20	N/A	< 20	< 20
	3/26/2013	N/A	< 2	< 2	N/A	< 2	< 2
	9/17/2013	N/A	< 2	< 2	N/A	< 2	< 2
	4/7/2014	N/A	< 2	< 2	N/A	< 2	< 2
	10/28/2014	N/A	< 2	< 2	N/A	< 2	< 2
	4/6/2015	N/A	< 2	< 2	N/A	< 2	< 2
	10/21/2015	N/A	< 2	< 2	N/A	< 2	< 2
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	2/12/2020	N/A	N/A	< 2	N/A	< 2	N/A
	8/25/2020	N/A	< 2	N/A	N/A	N/A	< 2
	3/17/2021	N/A	N/A	N/A	< 2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4,4`-DDD, ug/L (CAS NO - 72-54-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.00882*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
4,4`-DDE, ug/L (CAS NO - 72-55-9)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.00872*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	0.00339*	N/A	N/A
4,4`-DDT, ug/L (CAS NO - 50-29-3)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.0113*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Acenaphthene, ug/L (CAS NO - 83-32-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Acenaphthylene, ug/L (CAS NO - 208-96-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Acetonitrile, ug/L (CAS NO - 75-05-8)	3/21/2009	< 10	< 10	< 10	< 10	< 10	< 10
	4/7/2014	N/A	< 10000	< 10000	N/A	< 10000	< 10000
	10/28/2014	N/A	< 10000	< 10000	N/A	< 10000	< 10000
	4/6/2015	N/A	< 10000	< 10000	N/A	< 10000	< 10000
	10/21/2015	N/A	< 10000	< 10000	N/A	< 10000	< 10000
	8/5/2016	N/A	N/A	N/A	< 10000	N/A	N/A
	2/12/2020	N/A	N/A	< 10000	N/A	< 10000	N/A
	8/25/2020	N/A	< 10000	N/A	N/A	N/A	< 10000
	3/17/2021	N/A	N/A	N/A	< 10000	N/A	N/A
Acetophenone, ug/L (CAS NO - 98-86-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Acrolein, ug/L (CAS NO - 107-02-8)	3/21/2009	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	< 10	< 10	N/A	< 10	< 10
	5/10/2012	N/A	< 10	< 10	N/A	< 10	< 10
	10/1/2012	N/A	< 10	< 10	N/A	< 10	< 10
	3/26/2013	N/A	< 10	< 10	N/A	< 10	< 10
	9/17/2013	N/A	< 10	< 10	N/A	< 10	< 10
	4/7/2014	N/A	< 10	< 10	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Acrolein, ug/L (CAS NO - 107-02-8)	10/28/2014	N/A	< 10	< 10	N/A	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	10/21/2015	N/A	< 10	< 10	N/A	< 10	< 10
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	2/12/2020	N/A	N/A	< 10	N/A	< 10	N/A
	8/25/2020	N/A	< 10	N/A	N/A	N/A	< 10
	3/17/2021	N/A	N/A	N/A	< 10	N/A	N/A
Aldrin, ug/L (CAS NO - 309-00-2)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Anthracene, ug/L (CAS NO - 120-12-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Alpha-BHC, ug/L (CAS NO - 319-84-6)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	0.00221*	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Beta-BHC, ug/L (CAS NO - 319-85-7)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Delta-BHC, ug/L (CAS NO - 319-86-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	0.00285*	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	0.00626*	N/A	N/A
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	**20.3**	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	**17.3**	N/A	< 10.4	< 11
	4/11/2016	N/A	N/A	< 10	N/A	< 10.9	N/A
	8/5/2016	N/A	N/A	N/A	0.848*	N/A	N/A
	10/5/2016	N/A	N/A	0.831*	N/A	0.927*	N/A
	4/17/2017	N/A	N/A	< 10.2	N/A	N/A	N/A
	7/18/2017	N/A	N/A	< 12.5	N/A	N/A	N/A
	4/2/2018	N/A	N/A	3.52*	N/A	N/A	N/A
	10/10/2018	N/A	N/A	< 10.9	N/A	N/A	N/A
	3/26/2019	N/A	N/A	< 10.9	N/A	N/A	N/A
	7/31/2019	N/A	N/A	< 10.8	N/A	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Chlordane, ug/L (CAS NO - 57-74-9)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 2.06	< 2.08	N/A	< 2.04	< 2.3
	10/28/2014	N/A	< 2.22	< 2.11	N/A	< 2.2	< 2.22
	4/6/2015	N/A	< 2.2	< 2.17	N/A	< 2.17	< 2.17
	10/21/2015	N/A	< 2.06	< 2.02	N/A	< 2.04	< 2.27
	8/5/2016	N/A	N/A	N/A	< 2.4	N/A	N/A
	2/12/2020	N/A	N/A	< 2.15	N/A	< 2.08	N/A
	8/25/2020	N/A	< 2.11	N/A	N/A	N/A	< 2.11
	3/17/2021	N/A	N/A	N/A	< 2.11	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Chloroprene, ug/L (CAS NO - 126-99-8)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	N/A	< 1	< 1
	5/10/2012	N/A	< 1	< 1	N/A	< 1	< 1
	10/1/2012	N/A	< 1	< 1	N/A	< 1	< 1
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	4/7/2014	N/A	< 1	< 1	N/A	< 1	< 1
	10/28/2014	N/A	< 1	< 1	N/A	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	10/21/2015	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	2/12/2020	N/A	N/A	< 1	N/A	< 1	N/A
	8/25/2020	N/A	< 1	N/A	N/A	N/A	< 1
	3/17/2021	N/A	N/A	N/A	< 1	N/A	N/A
Chrysene, ug/L (CAS NO - 218-01-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Cyanide, mg/L (CAS NO - 57-12-5)	3/21/2009	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
	4/7/2014	N/A	< 0.01	< 0.01	N/A	< 0.01	< 0.01
	10/28/2014	N/A	< 0.01	< 0.01	N/A	< 0.01	< 0.01
	4/6/2015	N/A	< 0.01	< 0.01	N/A	< 0.01	< 0.01
	10/21/2015	N/A	< 0.01	< 0.01	N/A	< 0.01	< 0.01
	8/5/2016	N/A	N/A	N/A	< 0.01	N/A	N/A
	2/12/2020	N/A	N/A	< 0.01	N/A	< 0.01	N/A
	8/25/2020	N/A	< 0.01	N/A	N/A	N/A	< 0.01
	3/17/2021	N/A	N/A	N/A	< 0.01	N/A	N/A
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Dibenzofuran, ug/L (CAS NO - 132-64-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	3/21/2009	< 1	**12.2**	**2.6**	< 1	**46.8**	**4.8**
	9/9/2009	< 1	**13.4**	**3.1**	< 1	**57.1**	**4.8**
	3/30/2010	N/A	**7.3**	< 1	N/A	**60.2**	< 1
	9/16/2010	N/A	**4.9**	**2.6**	N/A	**45.4**	**3.9**
	3/16/2011	N/A	**8.5**	**2.6**	N/A	**33.5**	**5.1**
	10/27/2011	< 3	**4.54**	< 3	N/A	**28.6**	**4.34**
	5/10/2012	N/A	< 3	< 3	N/A	**28.2**	**5.1**
	10/1/2012	N/A	**9.3**	**4.05**	N/A	**51**	**7.66**
	3/26/2013	N/A	**4.65**	< 3	N/A	**15.1**	**3.56**
	9/17/2013	N/A	**6.49**	< 3	N/A	**44**	**5.73**
	4/7/2014	N/A	**6.15**	< 3	N/A	**36.1**	**6.39**
	10/28/2014	N/A	< 3	< 3	N/A	**31.2**	**5.91**
	4/6/2015	N/A	< 3	< 3	N/A	**45.5**	**6.53**
	10/21/2015	N/A	**4.4**	< 3	N/A	**35.2**	**5.46**
	4/11/2016	N/A	2.78*	1.66*	< 3	**17.9**	**5.11**
	4/11/2016	N/A	2.58*	N/A	N/A	N/A	N/A
	8/5/2016	N/A	N/A	N/A	< 3	N/A	N/A
	10/5/2016	N/A	**5.02**	2.09*	N/A	**26.3**	**4.94**
	4/17/2017	N/A	**6.37**	1.97*	N/A	**35.6**	**5.95**
	7/18/2017	N/A	**4.54**	1.91*	N/A	**32**	**4.5**
	4/2/2018	N/A	**4.07**	1.34*	N/A	**26**	**5.95**
	10/10/2018	N/A	**4.26**	1.37*	N/A	**24.8**	**4.41**
	3/26/2019	N/A	**3.96**	N/A	N/A	**27.9**	**7.12**
	7/31/2019	N/A	2.52*	N/A	N/A	**25.8**	**5.5**
	2/12/2020	N/A	**3.72**	0.954*	N/A	**32**	**6.61**
	8/25/2020	N/A	**3.89**	N/A	N/A	**25.7**	< 3
	3/17/2021	N/A	< 3	N/A	< 3	**26.8**	< 3
	8/5/2021	N/A	**4.27**	N/A	N/A	**25.2**	**6.13**
	5/4/2022	N/A	**4.63**	N/A	N/A	N/A	**5.22**
	11/2/2022	N/A	2.99*	1.58*	N/A	N/A	**4.53**
	4/12/2023	N/A	**3.67**	N/A	N/A	**26.8**	**4.11**
	8/29/2023	N/A	2.89*	N/A	N/A	N/A	**3.9**
	6/12/2024	N/A	**4.28**	N/A	N/A	**18.9**	**4.29**
	8/29/2024	N/A	**3.81**	N/A	N/A	N/A	**3.67**
	8/29/2024	N/A	N/A	N/A	N/A	N/A	**3.42**
Dieldrin, ug/L (CAS NO - 60-57-1)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.00547*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Dimethoate, ug/L (CAS NO - 60-51-5)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 21.1	< 21.5	N/A	< 21.1	< 21.5
	10/28/2014	N/A	< 22.2	< 22	N/A	< 22	< 21.1
	4/6/2015	N/A	< 20.6	< 20.6	N/A	< 20.4	< 21.5
	10/21/2015	N/A	< 20.4	< 20.8	N/A	< 20.8	< 22
	8/5/2016	N/A	N/A	N/A	< 20.4	N/A	N/A
	2/12/2020	N/A	N/A	< 20.4	N/A	< 20.6	N/A
	8/25/2020	N/A	< 22.2	N/A	N/A	N/A	< 21.3
	3/17/2021	N/A	N/A	N/A	< 21.1	N/A	N/A
Dinoseb, ug/L (CAS NO - 88-85-7)	3/21/2009	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Diphenylamine, ug/L (CAS NO - 122-39-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Disulfoton, ug/L (CAS NO - 298-04-4)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Endosulfan I, ug/L (CAS NO - 959-98-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.00942*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Endosulfan II, ug/L (CAS NO - 33213-65-9)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	0.0086*	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Endrin, ug/L (CAS NO - 72-20-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	3/21/2009	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 2	< 2	< 2	N/A	< 2	< 2
	5/10/2012	N/A	< 2	< 2	N/A	< 2	< 2
	10/1/2012	N/A	< 2	< 2	N/A	< 2	< 2
	3/26/2013	N/A	< 2	< 2	N/A	< 2	< 2
	9/17/2013	N/A	< 2	< 2	N/A	< 2	< 2
	4/7/2014	N/A	< 2	< 2	N/A	< 2	< 2
	10/28/2014	N/A	< 2	< 2	N/A	< 2	< 2
	4/6/2015	N/A	< 2	< 2	N/A	< 2	< 2
	10/21/2015	N/A	< 2	< 2	N/A	< 2	< 2
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	2/12/2020	N/A	N/A	< 2	N/A	< 2	N/A
	8/25/2020	N/A	< 2	N/A	N/A	N/A	< 2
	3/17/2021	N/A	N/A	N/A	< 2	N/A	N/A
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Famphur, ug/L (CAS NO - 52-85-7)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 21.1	< 21.5	N/A	< 21.1	< 21.5
	10/28/2014	N/A	< 22.2	< 22	N/A	< 22	< 21.1
	4/6/2015	N/A	< 20.6	< 20.6	N/A	< 20.4	< 21.5
	10/21/2015	N/A	< 20.4	< 20.8	N/A	< 20.8	< 22
	8/5/2016	N/A	N/A	N/A	< 20.4	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Fluoranthene, ug/L (CAS NO - 206-44-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Fluorene, ug/L (CAS NO - 86-73-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Heptachlor, ug/L (CAS NO - 76-44-8)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Heptachlor, ug/L (CAS NO - 76-44-8)	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	3/21/2009	< 8	< 0.05	< 0.05	< 0.05	< 8	< 0.05
	3/21/2009	< 0.05	< 8	< 8	< 8	< 0.05	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 21.1	< 21.5	N/A	< 21.1	< 21.5
	10/28/2014	N/A	< 22.2	< 22	N/A	< 22	< 21.1
	4/6/2015	N/A	< 20.6	< 20.6	N/A	< 20.4	< 21.5
	10/21/2015	N/A	< 20.4	< 20.8	N/A	< 20.8	< 22
	8/5/2016	N/A	N/A	N/A	< 20.4	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Hexachloroethane, ug/L (CAS NO - 67-72-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Isobutanol, mg/L (CAS NO - 78-83-1)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	4/7/2014	N/A	< 10	< 10	N/A	< 10	< 10
	10/28/2014	N/A	< 10	< 10	N/A	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	10/21/2015	N/A	< 10	< 10	N/A	< 10	< 10
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	2/12/2020	N/A	< 10	< 10	N/A	< 10	< 10
	8/25/2020	N/A	< 10	N/A	N/A	N/A	< 10
	3/17/2021	N/A	N/A	N/A	< 10	N/A	N/A
Isodrin, ug/L (CAS NO - 465-73-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Isophorone, ug/L (CAS NO - 78-59-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Isosafrole, ug/L (CAS NO - 120-58-1)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Kepone, ug/L (CAS NO - 143-50-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 1	< 1	< 1	N/A	< 1	< 1
	5/10/2012	N/A	< 1	< 1	N/A	< 1	< 1
	10/1/2012	N/A	< 1	< 1	N/A	< 1	< 1
	3/26/2013	N/A	< 1	< 1	N/A	< 1	< 1
	9/17/2013	N/A	< 1	< 1	N/A	< 1	< 1
	4/7/2014	N/A	< 1	< 1	N/A	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	10/28/2014	N/A	< 10	< 10	N/A	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	10/21/2015	N/A	< 10	< 10	N/A	< 10	< 10
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	2/12/2020	N/A	N/A	< 10	N/A	< 10	N/A
	8/25/2020	N/A	< 10	N/A	N/A	N/A	< 10
	3/17/2021	N/A	N/A	N/A	< 10	N/A	N/A
Methapyrilene, ug/L (CAS NO - 91-80-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Methoxychlor, ug/L (CAS NO - 72-43-5)	3/21/2009	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	4/7/2014	N/A	< 0.033	< 0.0333	N/A	< 0.0327	< 0.0368
	10/28/2014	N/A	< 0.0356	< 0.0337	N/A	< 0.0352	< 0.0356
	4/6/2015	N/A	< 0.0352	< 0.0348	N/A	< 0.0348	< 0.0348
	10/21/2015	N/A	< 0.033	< 0.0323	N/A	< 0.0327	< 0.0364
	8/5/2016	N/A	N/A	N/A	< 0.0384	N/A	N/A
	2/12/2020	N/A	N/A	< 0.0344	N/A	< 0.0333	N/A
	8/25/2020	N/A	< 0.0337	N/A	N/A	N/A	< 0.0337
	3/17/2021	N/A	N/A	N/A	< 0.0337	N/A	N/A
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	3/21/2009	< 1	< 1	< 1	< 1	< 1	< 1
	10/27/2011	< 2	< 2	< 2	N/A	< 2	< 2
	5/10/2012	N/A	< 2	< 2	N/A	< 2	< 2
	10/1/2012	N/A	< 2	< 2	N/A	< 2	< 2
	3/26/2013	N/A	< 2	< 2	N/A	< 2	< 2
	9/17/2013	N/A	< 2	< 2	N/A	< 2	< 2
	4/7/2014	N/A	< 2	< 2	N/A	< 2	< 2
	10/28/2014	N/A	< 2	< 2	N/A	< 2	< 2
	4/6/2015	N/A	< 2	< 2	N/A	< 2	< 2
	10/21/2015	N/A	< 2	< 2	N/A	< 2	< 2
	8/5/2016	N/A	N/A	N/A	< 2	N/A	N/A
	2/12/2020	N/A	N/A	< 2	N/A	< 2	N/A
	8/25/2020	N/A	< 2	N/A	N/A	N/A	< 2
	3/17/2021	N/A	N/A	N/A	< 2	N/A	N/A
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Naphthalene, ug/L (CAS NO - 91-20-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	10/27/2011	< 5	< 5	< 5	N/A	< 5	< 5
	5/10/2012	N/A	< 5	< 5	N/A	< 5	< 5
	10/1/2012	N/A	< 5	< 5	N/A	< 5	< 5
	3/26/2013	N/A	< 5	< 5	N/A	< 5	< 5
	9/17/2013	N/A	< 5	< 5	N/A	< 5	< 5
	4/7/2014	N/A	< 5	< 5	N/A	< 5	< 5
	10/28/2014	N/A	< 5	< 5	N/A	< 5	< 5
	4/6/2015	N/A	< 5	< 5	N/A	< 5	< 5

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Naphthalene, ug/L (CAS NO - 91-20-3)	10/21/2015	N/A	< 5	< 5	N/A	< 5	< 5
	8/5/2016	N/A	N/A	N/A	< 5	N/A	N/A
	2/12/2020	N/A	N/A	< 5	N/A	< 5	N/A
	8/25/2020	N/A	< 5	N/A	N/A	N/A	< 5
	3/17/2021	N/A	N/A	N/A	< 5	N/A	N/A
Nitrobenzene, ug/L (CAS NO - 98-95-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
O-Toluidine, ug/L (CAS NO - 95-53-4)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
PCB-1016, ug/L (CAS NO - 12674-11-2)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
PCB-1221, ug/L (CAS NO - 11104-28-2)	3/21/2009	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
PCB-1232, ug/L (CAS NO - 11141-16-5)	3/21/2009	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
PCB-1242, ug/L (CAS NO - 53469-21-9)	3/21/2009	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
PCB-1248, ug/L (CAS NO - 12672-29-6)	3/21/2009	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
PCB-1254, ug/L (CAS NO - 11097-69-1)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
PCB-1260, ug/L (CAS NO - 11096-82-5)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 0.842	< 0.909	N/A	< 0.851	< 0.93
	10/28/2014	N/A	< 0.842	< 0.842	N/A	< 0.889	< 0.8
	4/6/2015	N/A	< 0.808	< 0.816	N/A	< 0.816	< 0.842
	10/21/2015	N/A	< 0.825	< 0.899	N/A	< 0.816	< 0.889
	8/5/2016	N/A	N/A	N/A	< 0.87	N/A	N/A
	2/12/2020	N/A	N/A	< 4.3	N/A	< 0.833	N/A
	8/25/2020	N/A	< 0.842	N/A	N/A	N/A	< 0.842
	3/17/2021	N/A	N/A	N/A	< 0.842	N/A	N/A
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Phenanthrene, ug/L (CAS NO - 85-01-8)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Phenol, ug/L (CAS NO - 108-95-2)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Phenol, ug/L (CAS NO - 108-95-2)	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Phorate, ug/L (CAS NO - 298-02-2)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Pronamide, ug/L (CAS NO - 23950-58-5)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Propionitrile, ug/L (CAS NO - 107-12-0)	3/21/2009	< 10	< 10	< 10	< 10	< 10	< 10
	10/27/2011	< 10	< 10	< 10	N/A	< 10	< 10
	5/10/2012	N/A	< 10	< 10	N/A	< 10	< 10
	10/1/2012	N/A	< 10	< 10	N/A	< 10	< 10
	3/26/2013	N/A	< 10	< 10	N/A	< 10	< 10
	9/17/2013	N/A	< 10	< 10	N/A	< 10	< 10
	4/7/2014	N/A	< 10	< 10	N/A	< 10	< 10
	10/28/2014	N/A	< 10	< 10	N/A	< 10	< 10
	4/6/2015	N/A	< 10	< 10	N/A	< 10	< 10
	10/21/2015	N/A	< 10	< 10	N/A	< 10	< 10
	8/5/2016	N/A	N/A	N/A	< 10	N/A	N/A
	2/12/2020	N/A	N/A	< 10	N/A	< 10	N/A
	8/25/2020	N/A	< 10	N/A	N/A	N/A	< 10
	3/17/2021	N/A	N/A	N/A	< 10	N/A	N/A
Pyrene, ug/L (CAS NO - 129-00-0)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Safrole, ug/L (CAS NO - 94-59-7)	3/21/2009	< 8	< 8	< 8	< 8	< 8	< 8
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Sulfide, mg/L (CAS NO - 18496-25-8)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 1	< 1	N/A	**3.06**	< 1
	10/28/2014	N/A	< 1	< 1	N/A	< 1	< 1
	4/6/2015	N/A	< 1	< 1	N/A	< 1	< 1
	10/21/2015	N/A	< 1	< 1	N/A	< 1	< 1
	8/5/2016	N/A	N/A	N/A	< 1	N/A	N/A
	4/17/2017	N/A	N/A	N/A	N/A	< 1	N/A

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Other Constituents	Sample Date	MW-6 UPG	MW-2 DNG	MW-3 DNG	MW-5 DNG	MW-8 DNG	PZ-2B DNG
Sulfide, mg/L (CAS NO - 18496-25-8)	7/18/2017	N/A	N/A	N/A	N/A	< 1	N/A
	10/10/2018	N/A	N/A	N/A	N/A	**3.2**	N/A
	3/26/2019	N/A	N/A	N/A	N/A	< 1	N/A
	7/31/2019	N/A	N/A	N/A	N/A	< 1	N/A
	2/12/2020	N/A	N/A	0.437*	N/A	< 1	N/A
	8/25/2020	< 10	< 10	N/A	N/A	< 10	< 10
	3/17/2021	< 10	N/A	N/A	< 10	< 10	N/A
	8/5/2021	< 10	N/A	N/A	N/A	< 10	N/A
	5/4/2022	< 1	N/A	N/A	N/A	N/A	N/A
	11/2/2022	N/A	N/A	< 1	N/A	N/A	N/A
	4/12/2023	< 1	N/A	N/A	N/A	< 1	N/A
	8/29/2023	< 1	N/A	N/A	N/A	N/A	N/A
	6/12/2024	N/A	N/A	N/A	N/A	< 1	N/A
	8/29/2024	< 1	N/A	N/A	N/A	N/A	N/A
Thionazin, ug/L (CAS NO - 297-97-2)	3/21/2009	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4
	4/7/2014	N/A	< 10.5	< 10.8	N/A	< 10.5	< 10.8
	10/28/2014	N/A	< 11.1	< 11	N/A	< 11	< 10.5
	4/6/2015	N/A	< 10.3	< 10.3	N/A	< 10.2	< 10.8
	10/21/2015	N/A	< 10.2	< 10.4	N/A	< 10.4	< 11
	8/5/2016	N/A	N/A	N/A	< 10.2	N/A	N/A
	2/12/2020	N/A	N/A	< 10.2	N/A	< 10.3	N/A
	8/25/2020	N/A	< 11.1	N/A	N/A	N/A	< 10.6
	3/17/2021	N/A	N/A	N/A	< 10.5	N/A	N/A
Toxaphene, ug/L (CAS NO - 8001-35-2)	3/21/2009	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
	4/7/2014	N/A	< 2.06	< 2.08	N/A	< 2.04	< 2.3
	10/28/2014	N/A	< 2.22	< 2.11	N/A	< 2.2	< 2.22
	4/6/2015	N/A	< 2.2	< 2.17	N/A	< 2.17	< 2.17
	10/21/2015	N/A	< 2.06	< 2.02	N/A	< 2.04	< 2.27
	8/5/2016	N/A	N/A	N/A	< 2.4	N/A	N/A
	2/12/2020	N/A	N/A	< 2.15	N/A	< 2.08	N/A
	8/25/2020	N/A	< 2.11	N/A	N/A	N/A	< 2.11
	3/17/2021	N/A	N/A	N/A	< 2.11	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix C-2

Summary of Groundwater Chemistry – Bracketing

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-9 DNG	MW-11 DNG	MW-12 DNG	MW-13 DNG	MW-14 DNG	PZ-2A DNG
Cobalt, mg/L (CAS NO - 7440-48-4)	4/7/2014	< 0.028	N/A	N/A	N/A	N/A	N/A
	4/16/2015	N/A	N/A	**0.0226**	N/A	N/A	N/A
	4/11/2016	**0.119**	**0.0203**	**0.0137**	N/A	N/A	N/A
	4/17/2017	**0.00738**	0.000046*	0.000231*	N/A	N/A	N/A
	7/18/2017	**0.00521**	0.000047*	0.000072*	N/A	N/A	N/A
	4/2/2018	N/A	< 0.0005	< 0.0005	N/A	N/A	N/A
	10/10/2018	**0.0194**	< 0.0005	N/A	N/A	N/A	N/A
	3/26/2019	**0.0099**	< 0.0005	N/A	**0.000811**	**0.00123**	N/A
	7/31/2019	**0.00178**	< 0.0005	N/A	**0.000606**	**0.000883**	N/A
	2/12/2020	N/A	N/A	N/A	0.000385*	**0.000888**	N/A
	8/25/2020	N/A	N/A	N/A	0.000189*	**0.00113**	N/A
	3/17/2021	N/A	N/A	N/A	N/A	**0.00161**	N/A
	5/4/2022	N/A	N/A	N/A	N/A	< 0.0005	N/A
	4/12/2023	N/A	N/A	N/A	N/A	**0.00109**	N/A
	6/12/2024	N/A	N/A	N/A	N/A	**0.000995**	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	4/7/2014	< 5	N/A	N/A	N/A	N/A	N/A
	4/16/2015	N/A	N/A	< 1	N/A	N/A	N/A
	3/17/2021	N/A	**1.2**	< 1	N/A	N/A	N/A
	5/4/2022	0.744*	0.69*	< 1	N/A	< 1	< 1
	11/2/2022	N/A	0.508*	< 1	N/A	< 1	N/A
	4/12/2023	N/A	< 1	< 1	N/A	< 1	< 1
	8/29/2023	N/A	< 1	< 1	N/A	< 1	N/A
	6/12/2024	0.73*	< 1	< 1	N/A	< 1	< 1
	8/29/2024	N/A	< 1	< 1	N/A	< 1	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	4/7/2014	< 5	N/A	N/A	N/A	N/A	N/A
	4/16/2015	N/A	N/A	< 1	N/A	N/A	N/A
	4/11/2016	**4.08**	**3.44**	< 1	N/A	N/A	N/A
	10/5/2016	0.305*	N/A	< 1	N/A	N/A	N/A
	12/14/2016	N/A	**2.48**	N/A	N/A	N/A	N/A
	4/17/2017	**4.22**	**1.23**	< 1	N/A	N/A	N/A
	7/18/2017	**6.15**	0.881*	< 1	N/A	N/A	N/A
	4/2/2018	N/A	0.636*	< 1	N/A	N/A	N/A
	10/10/2018	**8.6**	**3.11**	< 1	N/A	N/A	N/A
	3/26/2019	**8.43**	**2.97**	< 1	< 1	< 1	N/A
	7/31/2019	**6.55**	**3.25**	< 1	< 1	< 1	N/A
	2/12/2020	N/A	N/A	N/A	< 1	< 1	N/A
	8/25/2020	N/A	N/A	N/A	< 1	< 1	N/A
	3/17/2021	N/A	**2.59**	< 1	N/A	< 1	N/A
	5/4/2022	**9.38**	< 1	< 1	N/A	< 1	< 1
	11/2/2022	N/A	< 1	< 1	N/A	< 1	N/A
	4/12/2023	N/A	< 1	< 1	N/A	< 1	< 1
	8/29/2023	N/A	< 1	< 1	N/A	< 1	N/A
	6/12/2024	**5.96**	< 1	< 1	N/A	< 1	< 1
	8/29/2024	N/A	< 1	< 1	N/A	< 1	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	4/16/2015	N/A	N/A	**10200**	N/A	N/A	N/A
	4/11/2016	**59700**	**9350**	**6140**	N/A	N/A	N/A
	10/5/2016	**6170**	N/A	**7720**	N/A	N/A	N/A
	12/14/2016	N/A	**46**	N/A	N/A	N/A	N/A
	4/17/2017	**4470**	**3.5**	**77.2**	N/A	N/A	N/A
	7/18/2017	**271**	**2.63**	**5.88**	N/A	N/A	N/A
	4/2/2018	N/A	1*	1.38*	N/A	N/A	N/A
	10/10/2018	**613**	< 1.88	N/A	N/A	N/A	N/A
	3/26/2019	**2170**	< 1.88	N/A	**47**	**6.25**	N/A
	7/31/2019	**180**	1.25*	N/A	**27.8**	**10.1**	N/A
	2/12/2020	N/A	N/A	N/A	**31.8**	**38.1**	N/A
	8/25/2020	N/A	N/A	N/A	**6.75**	**22.5**	N/A

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Metals Constituents	Sample Date	MW-9 DNG	MW-11 DNG	MW-12 DNG	MW-13 DNG	MW-14 DNG	PZ-2A DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	3/17/2021	N/A	N/A	N/A	N/A	**34.3**	N/A
	5/4/2022	N/A	N/A	N/A	N/A	1.38*	N/A
	4/12/2023	N/A	N/A	N/A	N/A	**10.6**	N/A
	6/12/2024	N/A	N/A	N/A	N/A	**8.63**	**34.1**

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix C-3

Summary of Groundwater Chemistry – Natural Attenuation

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Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Natural_Attenuations Constituents	Sample Date	MW-3 DNG	MW-8 DNG	MW-9 DNG	MW-11 DNG	MW-12 DNG	MW-13 DNG	MW-14 DNG	PZ-2B DNG
Ammonia as N, mg/L (CAS NO - 7664-41-7)	4/9/2008	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1
	9/10/2008	< 1	**1.7**	N/A	N/A	N/A	N/A	N/A	< 1
	3/21/2009	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1
	4/11/2016	**0.308**	< 0.2	**0.264**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	**0.488**	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	**0.239**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	**0.362**	< 0.2	< 0.2	< 0.2	< 0.2	N/A	N/A	< 0.2
	7/18/2017	**0.3**	< 0.2	< 0.2	< 0.2	< 0.2	N/A	N/A	< 0.2
	4/2/2018	0.196*	< 0.2	N/A	< 0.2	< 0.2	N/A	N/A	< 0.2
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2
	7/31/2019	**0.237**	< 0.2	N/A	N/A	N/A	N/A	N/A	< 0.2
Iron, Total, mg/L (CAS NO - 7439-89-6)	4/11/2016	**9.58**	**18.9**	**81.5**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	**11.3**	**0.122**	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	**1.57**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	**7.12**	< 0.5	**2.41**	< 0.5	0.257*	N/A	N/A	**0.946**
	7/18/2017	**6.47**	< 0.5	**0.601**	< 0.5	< 0.5	N/A	N/A	**0.917**
	4/2/2018	**4.57**	< 0.5	N/A	< 0.5	< 0.5	N/A	N/A	**1.08**
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.12**
	7/31/2019	**2.08**	< 0.5	N/A	N/A	N/A	N/A	N/A	**1.16**
	3/17/2021	**4.17**	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A
	4/12/2023	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	**1.28**
Manganese, mg/L (CAS NO - 7439-96-5)	4/11/2016	**0.872**	**0.141**	**11.3**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	**1.08**	**0.013**	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	**0.672**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	**1.25**	< 0.01	**1.16**	< 0.01	**0.0194**	N/A	N/A	**0.6**
	7/18/2017	**1.27**	**0.0144**	**0.483**	< 0.01	0.00986*	N/A	N/A	**0.563**
	4/2/2018	**1.36**	< 0.01	N/A	< 0.01	< 0.01	N/A	N/A	**0.611**
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.598**
	7/31/2019	**1.29**	< 0.01	N/A	N/A	N/A	N/A	N/A	**0.657**
	3/17/2021	**0.742**	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A
	4/12/2023	N/A	**0.0753**	N/A	N/A	N/A	N/A	N/A	**0.697**
Methane, Dissolved, mg/L (CAS NO - 74-82-8)	4/11/2016	**1.62**	**5.93**	**0.279**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	**2.86**	**33.5**	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	4/17/2017	**2.71**	**6.28**	**0.533**	< 0.005	< 0.005	N/A	N/A	**0.517**
	7/18/2017	**2.59**	**6.89**	**0.611**	< 0.005	< 0.005	N/A	N/A	**0.306**
	4/2/2018	**2.33**	**7.11**	N/A	0.00425*	< 0.005	N/A	N/A	**0.789**
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.785**
	7/31/2019	**1.16**	**4.63**	N/A	N/A	N/A	N/A	N/A	**0.723**
	3/17/2021	**1.09**	**3.54**	N/A	N/A	N/A	N/A	N/A	N/A
	4/12/2023	N/A	**4.78**	N/A	N/A	N/A	N/A	N/A	**0.467**
Nitrate (NO3), mg/L (CAS NO - 14797-55-8)	4/11/2016	**1.11**	**0.179**	**1.64**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	0.0947*	**1.11**	**3.55**	**11.7**	**19.2**	N/A	N/A	**0.512**
	7/18/2017	0.0602*	< 0.1	**2.66**	**12.1**	**18.5**	N/A	N/A	< 0.1
	4/2/2018	< 0.1	< 0.1	N/A	**8.42**	**16.9**	N/A	N/A	< 0.1
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.49**
	7/31/2019	< 0.1	0.0849*	N/A	N/A	N/A	N/A	N/A	< 0.1
	3/17/2021	< 0.1	**0.709**	N/A	N/A	N/A	N/A	N/A	N/A
	4/12/2023	N/A	0.0981*	N/A	N/A	N/A	N/A	N/A	< 0.2
Sulfate, mg/L (CAS NO - 14808-79-8)	4/11/2016	**6.52**	**14.4**	**17.5**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	< 5	**12.1**	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	**12.9**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	< 1	**13.5**	**15.6**	**21.2**	**18.6**	N/A	N/A	**12.6**
	7/18/2017	**8.41**	**15.7**	**16.9**	**20.4**	**21.5**	N/A	N/A	**12.9**
	4/2/2018	**27.2**	**15.4**	N/A	**20.7**	**16.6**	N/A	N/A	**2.8**
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**13.5**
	7/31/2019	**18.3**	**14.4**	N/A	N/A	N/A	N/A	N/A	**12.9**
	2/12/2020	**28**	**16.4**	N/A	N/A	N/A	**33.3**	**21.4**	N/A
	3/17/2021	**14.4**	**15.8**	N/A	N/A	N/A	N/A	N/A	**12.8**
	4/12/2023	N/A	**15**	N/A	N/A	N/A	N/A	N/A	**11.5**

SCS ENGINEERS

Summary of Groundwater Chemistry

Woodbury County Sanitary Landfil - 97-SDP-02-75C

Total Natural_Attenuations Constituents	Sample Date	MW-3 DNG	MW-8 DNG	MW-9 DNG	MW-11 DNG	MW-12 DNG	MW-13 DNG	MW-14 DNG	PZ-2B DNG
Total Organic Carbon, mg/L (CAS NO - TOC)	4/11/2016	**3.81**	**1.12**	**2.88**	N/A	N/A	N/A	N/A	N/A
	10/5/2016	**4.04**	**1.47**	N/A	N/A	N/A	N/A	N/A	N/A
	10/6/2016	N/A	N/A	**1.9**	N/A	N/A	N/A	N/A	N/A
	4/17/2017	**2.2**	**1.2**	**1.46**	0.924*	0.837*	N/A	N/A	0.946*
	7/18/2017	**1.9**	**1.41**	**1.18**	**1.38**	0.864*	N/A	N/A	**1.07**
	4/2/2018	**1.73**	**1.02**	N/A	**1.08**	0.729*	N/A	N/A	0.676*
	10/10/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.08**
	7/31/2019	**1.87**	**1.1**	N/A	N/A	N/A	N/A	N/A	0.755*

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix D

Statistical Method and Output

STATISTICAL METHOD AND OUTPUT

PURPOSE

The purpose of this document is to provide the statistical evaluation of groundwater analytical data collected from the groundwater monitoring network of the closed Woodbury County Sanitary Landfill (Landfill).

STATISTICAL METHOD

Diagnostic and Exploratory Evaluations and Tests of Assumptions

Detection and assessment/corrective action monitoring statistical programs included diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for identification of outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset were managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data were non-detects, simple substitution was used, where non-detect values were assigned a concentration of one-half (½) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data were non-detects, the Kaplan-Meier estimator was used to define the distribution of the dataset. If non-detects comprised greater than 50% of the available data, non-parametric statistical methods were used.

Management of Outliers

Background datasets were evaluated for outliers using the Ohio EPA Method included in the Sanitas™ statistical software program and described below, which included the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contained less than 75% of the measured concentrations below the PQL. Outliers were not confirmed unless a physical cause or explanation for the outlier was determined.

Management of Data (ND data < 75%)

If less than 75% of the background dataset was below the PQL, outliers were statistically evaluated using the following guidelines.

- A parametric dataset with $n < 20$ was evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ was evaluated with the Rosner's outlier test.
- A non-parametric dataset was evaluated with the Tukey's outlier test.

In accordance with the Ohio EPA Method, if a statistically significant outlier was not found using the above tests, but the highest value data point exceeded the second highest data point by an order of magnitude, the highest point was considered an outlier.

Management of Data (ND data ≥ 75%)

If greater than or equal to 75% of the background dataset was less than the PQL, outliers were statistically evaluated using the following guidelines.

- Single detection ≥ the PQL:
  - If ≥ 50% of the background dataset had detections ≥ the method detection limit (MDL), any value ≥ two times the PQL of background was considered an outlier.
  - If < 50% of the background dataset had detections ≥ the MDL, any value ≥ the PQL of background was considered an outlier.
- Two or more detections ≥ the PQL:
  - If ≥ 50% of the background dataset had detections ≥ the MDL, any value ≥ three times the PQL of background was considered an outlier.
  - If < 50% of the background dataset had detections ≥ the MDL, any value ≥ two times the PQL of background was considered an outlier.

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program

The detection monitoring statistical program for the Landfill is defined by Iowa Administrative Code (IAC) 567-113.10(4)"g". Interwell prediction limits with retesting were selected as the appropriate statistical method for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historic detections in background. Prediction limits were established using the process below. Data from the most recent sampling event was compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset had a normal distribution (or could be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits were calculated if at least five datasets had been collected from the background monitoring point(s).
- If the dataset did not have a normal distribution (and could not be transformed to a normal distribution using Ladder of Powers) or had greater than 50% non-detects, non-parametric interwell prediction limits were calculated if at least five datasets had been collected from the background monitoring point(s).
- If an SSI above the prediction limit was indicated, retesting samples using the 1-of-2 retesting scheme should be collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If all of the retesting results are above the prediction limit, the SSI is

confirmed, and the monitoring point should be placed into the assessment monitoring program. If any retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program. The Woodbury County Sanitary Landfill detection monitoring statistical method includes a 1-of-2 retesting scheme; however, retesting is not performed for the assessment monitoring or corrective action monitoring programs. The monitoring wells in the Woodbury County Sanitary Landfill are in the monitoring network in the assessment or corrective action monitoring program; therefore, indicated SSIs are considered as SSIs despite not performing retesting to complete the statistical test.

Double Quantification Method

The quasi-statistical "double quantification" method was used for constituents not detected in the background monitoring points. If a constituent was detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/ Corrective Action Statistical Program

Confidence intervals or confidence bands, as appropriate, were selected as the appropriate statistical methods for comparison of the groundwater analytical data against a fixed groundwater protection standard (GWPS). The assessment/pre-corrective action monitoring statistical evaluations were performed using the most recent eight samples or all samples if less than eight samples were available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation were established using the process below. Transformation of the distribution was not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean was calculated if the dataset had a normal distribution and no statistically significant trend was present.
- A non-parametric confidence interval around a median was calculated if the dataset did not have a normal distribution and no statistically significant trend was present.
- Non-parametric confidence bands around a Theil-Sen trend line were calculated if the dataset had a statistically significant trend.

In the event that the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required.

Statistical Software Output

Sanitas™ statistical software is used to perform the statistical evaluations. Graphical output for the 1st and 2nd 2024 statistical evaluations is included in Attachments A and B of this appendix, respectively.

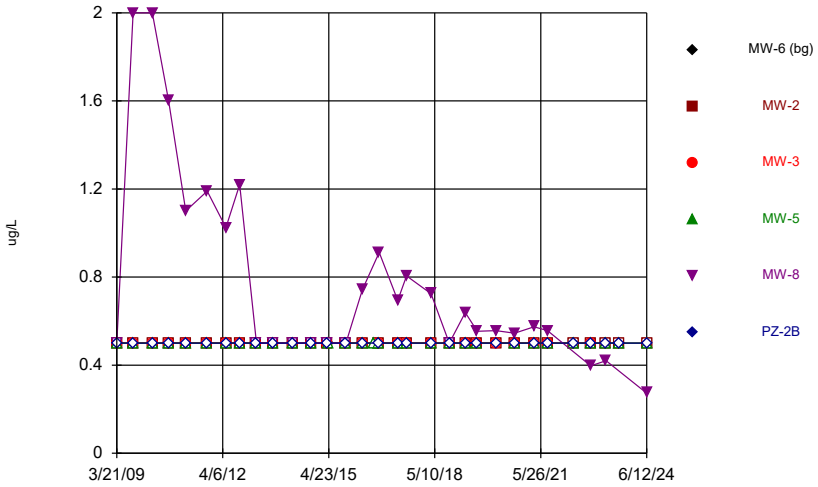
Attachment A

1st 2024 Semi-Annual Statistical Output

Time Series Table and Graphs

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

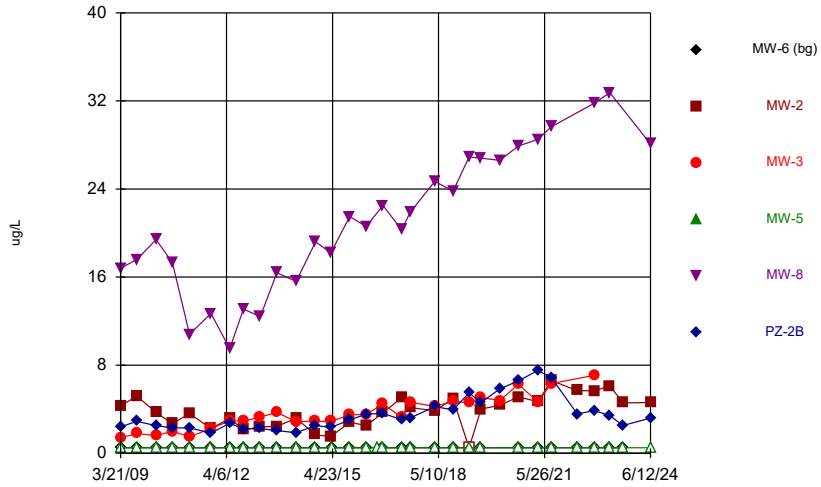
Time Series



Constituent: 1,1,1-Trichloroethane Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

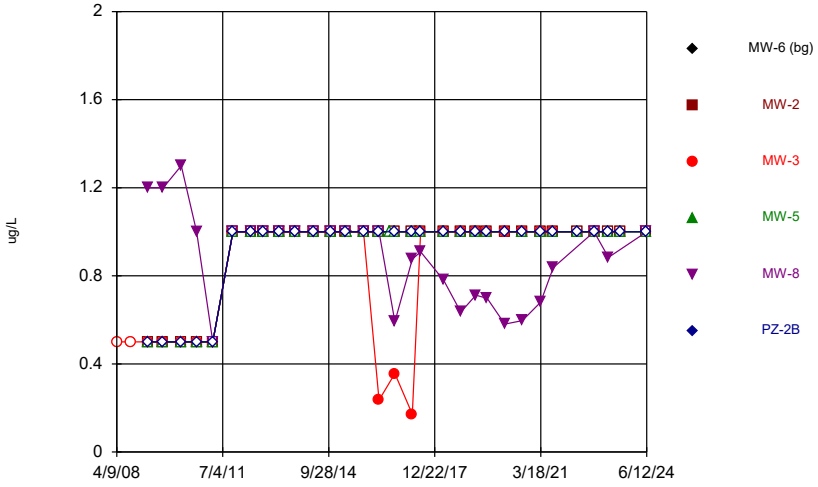
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

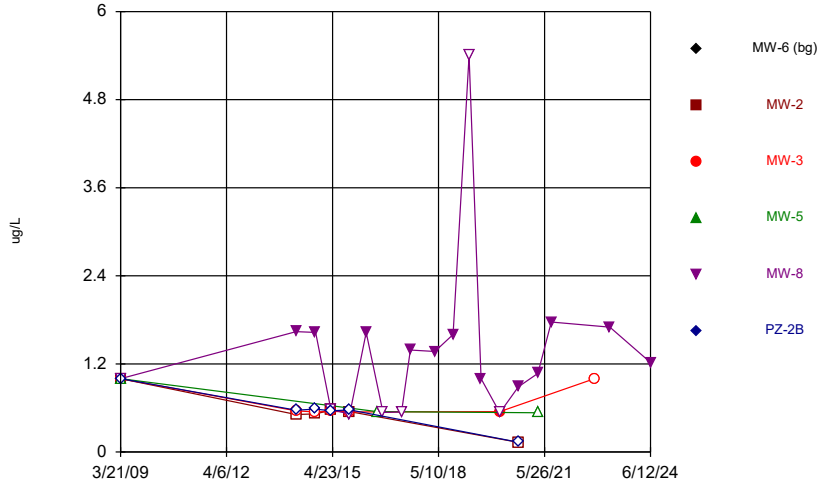
Time Series



Constituent: 1,1-Dichloroethene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

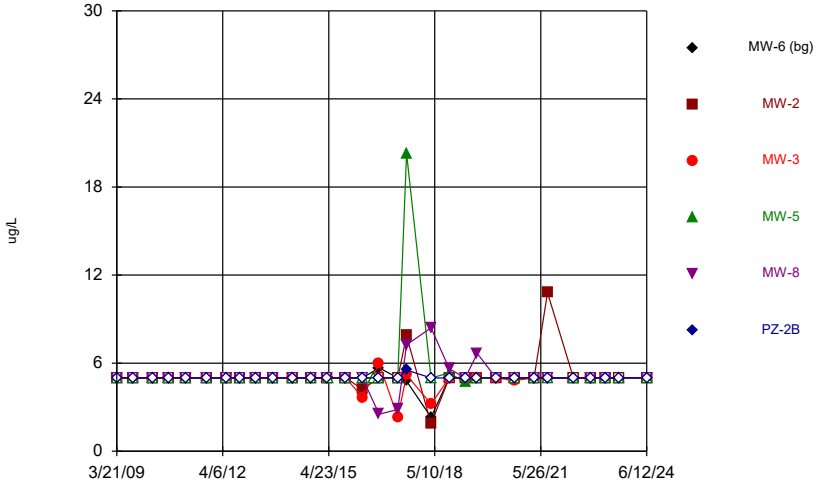
Time Series



Constituent: 2,4-D [2C] Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

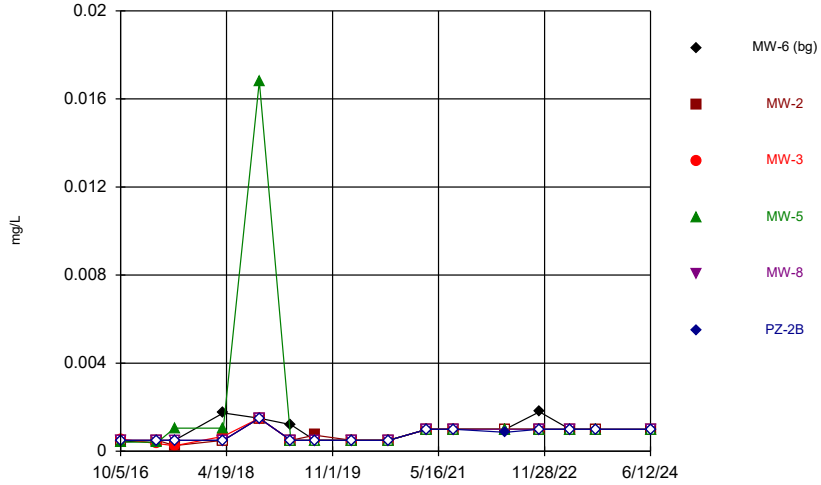
Time Series



Constituent: Acetone Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

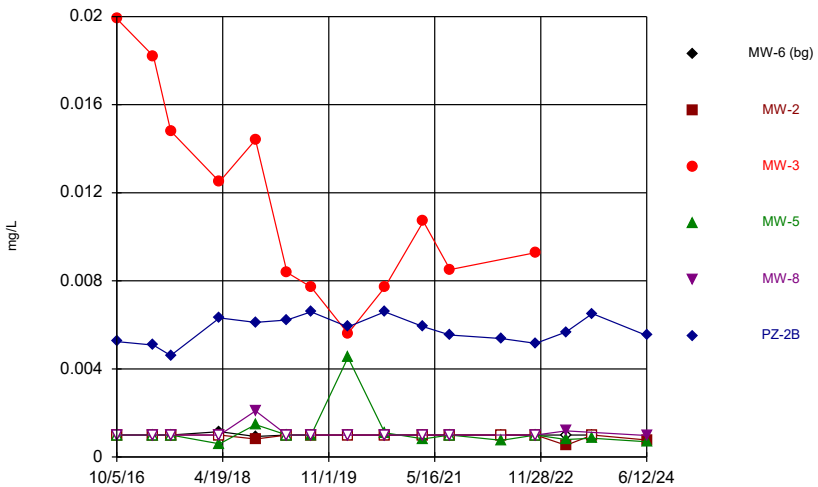
Time Series



Constituent: Antimony Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

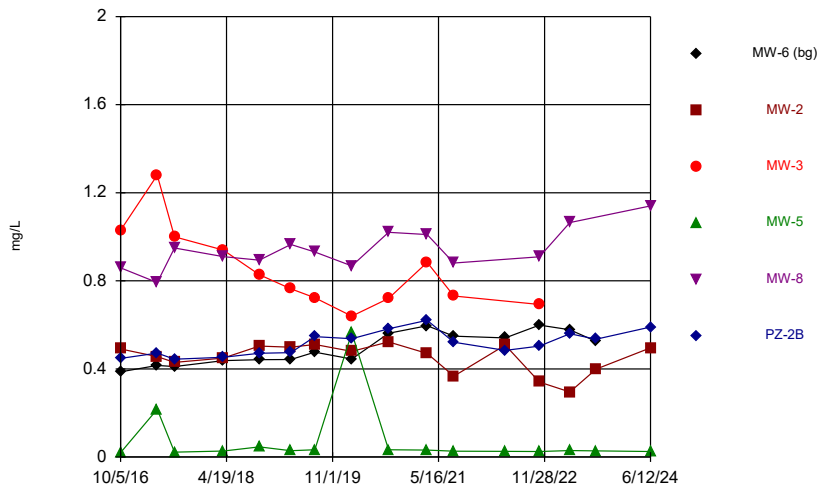
Time Series



Constituent: Arsenic Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

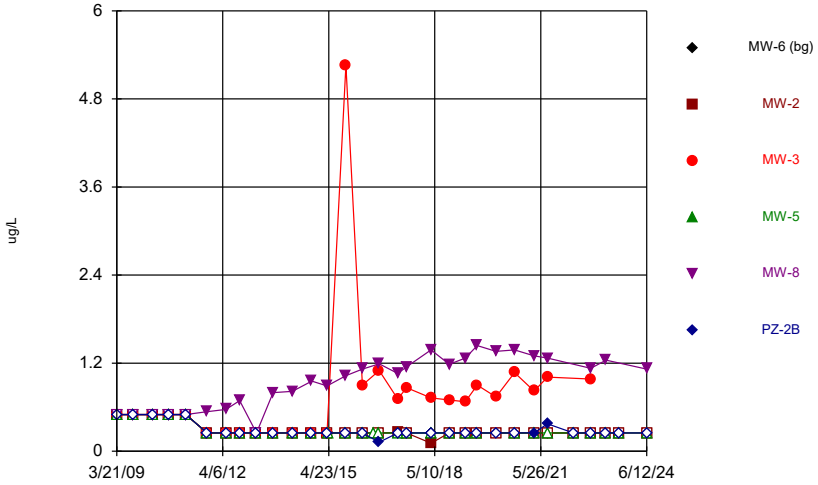
Time Series



Constituent: Barium Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

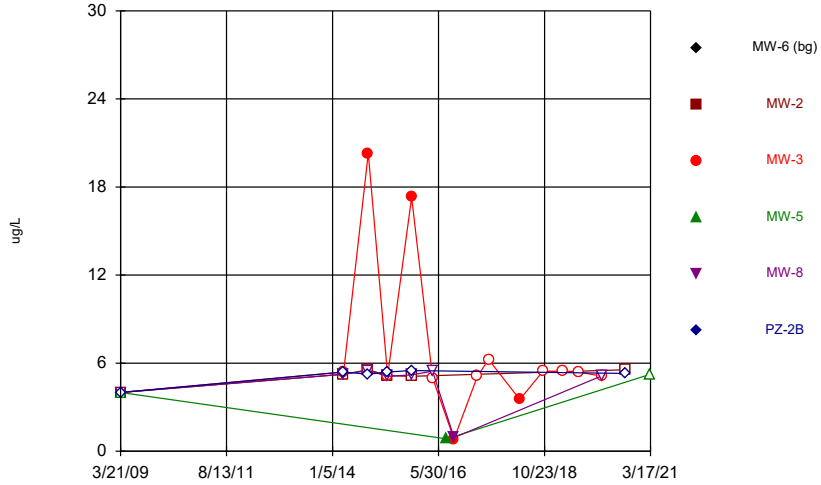
Time Series



Constituent: Benzene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

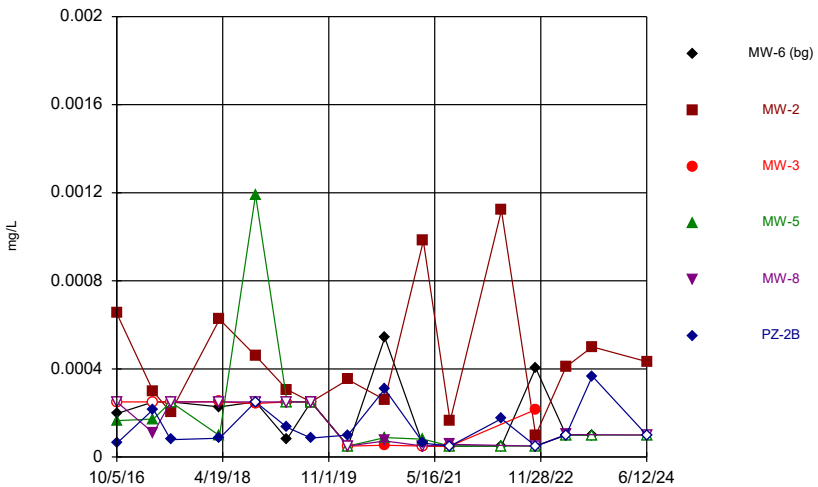
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

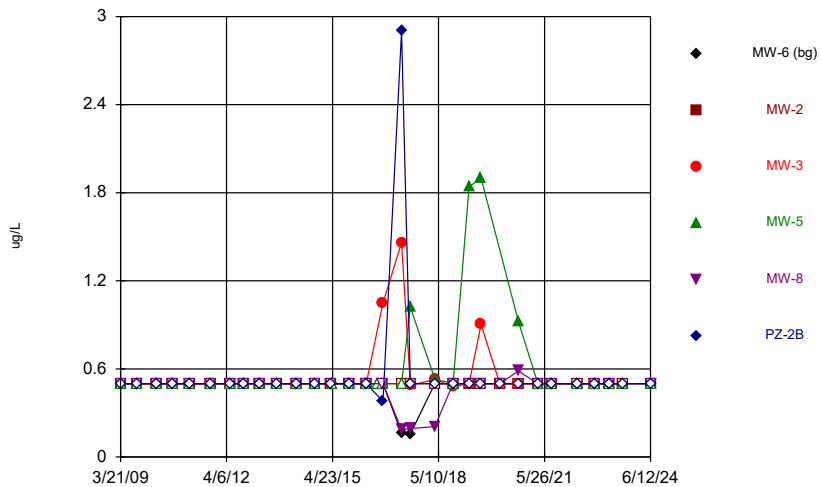
Time Series



Constituent: Cadmium Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

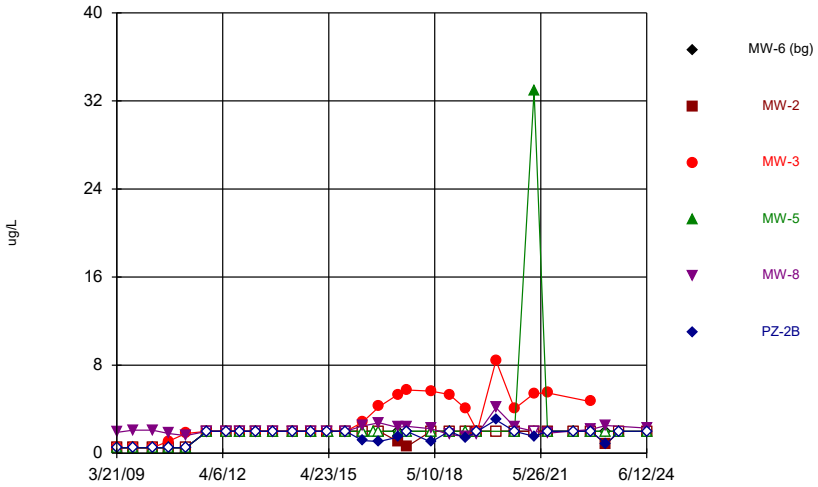
Time Series



Constituent: Carbon Disulfide Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

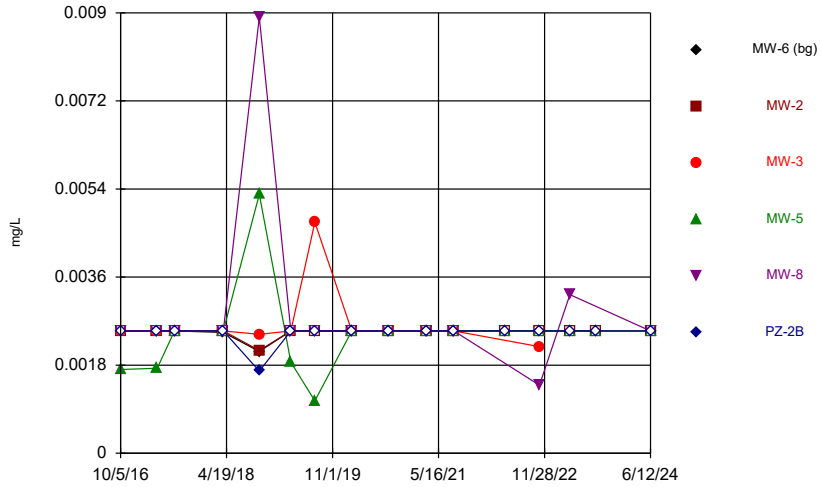
Time Series



Constituent: Chloroethane Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

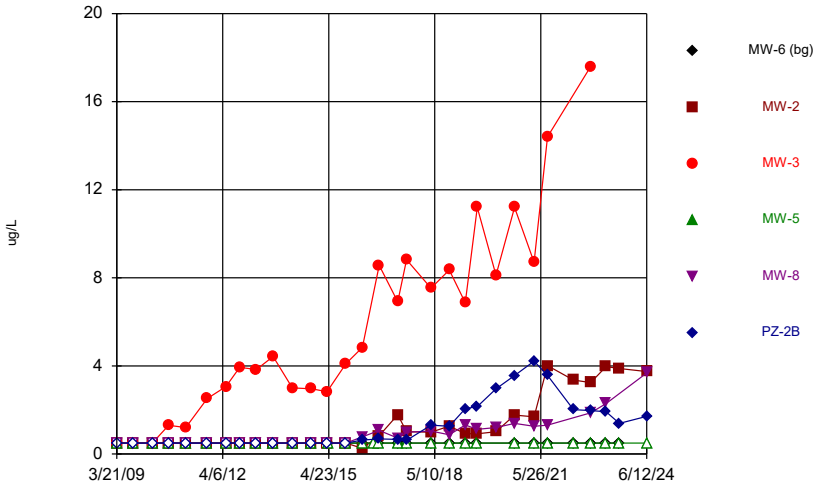
Time Series



Constituent: Chromium Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

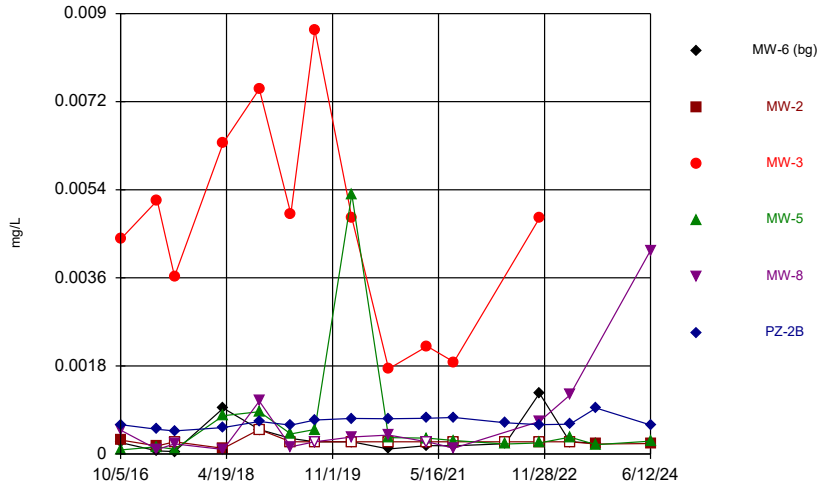
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

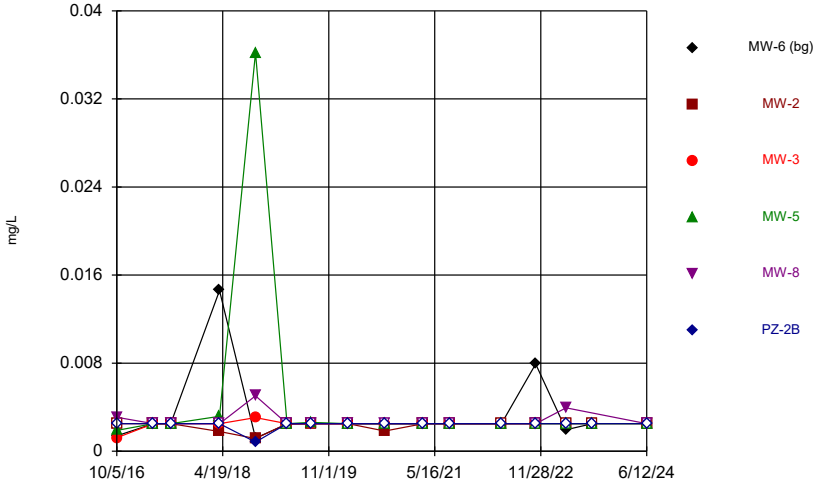
Time Series



Constituent: Cobalt Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

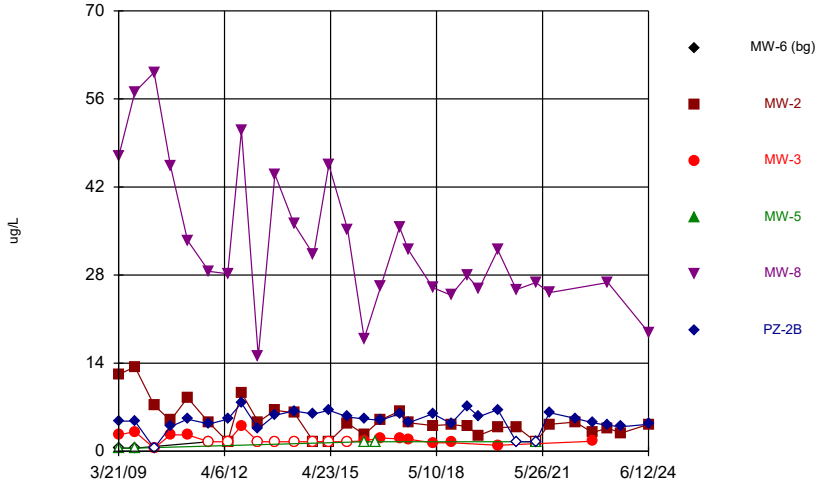
Time Series



Constituent: Copper Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

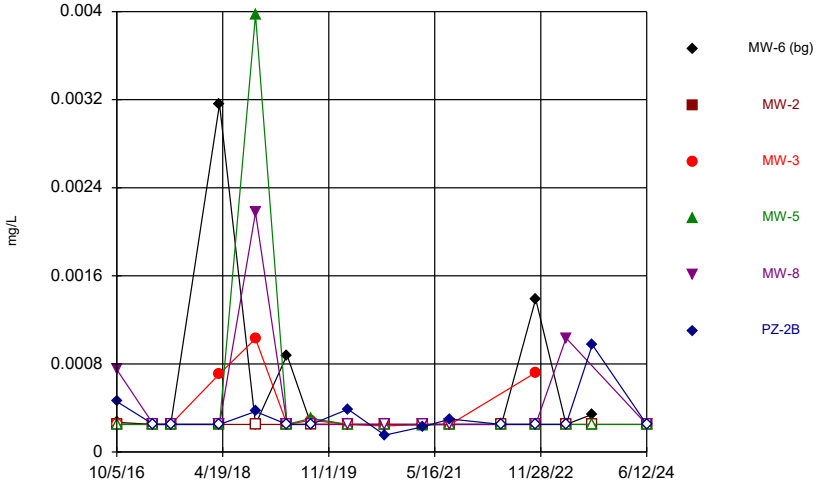
Time Series



Constituent: Dichlorodifluoromethane Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

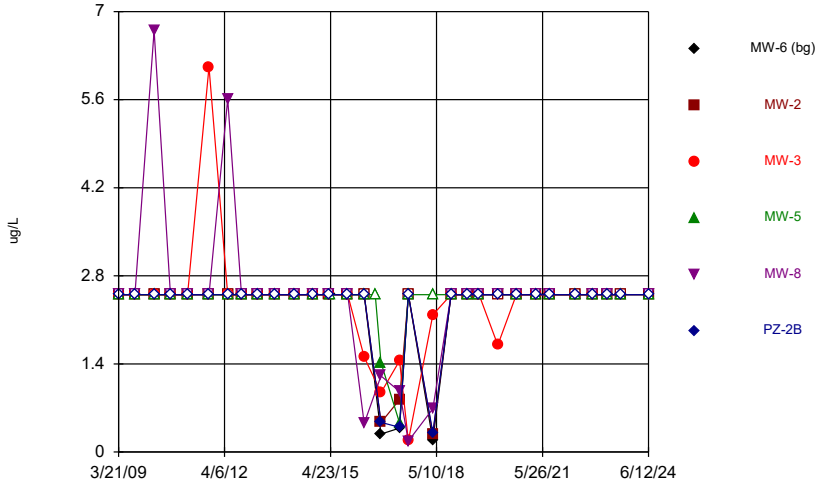
Time Series



Constituent: Lead Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

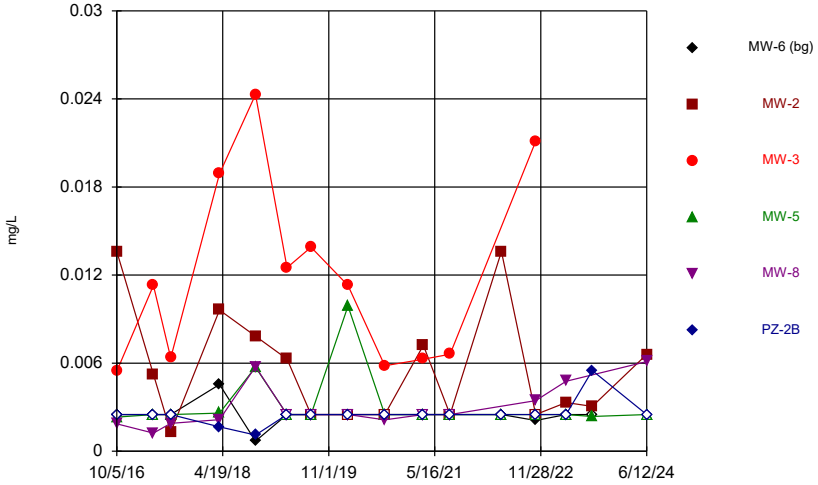
Time Series



Constituent: Methylene Chloride Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

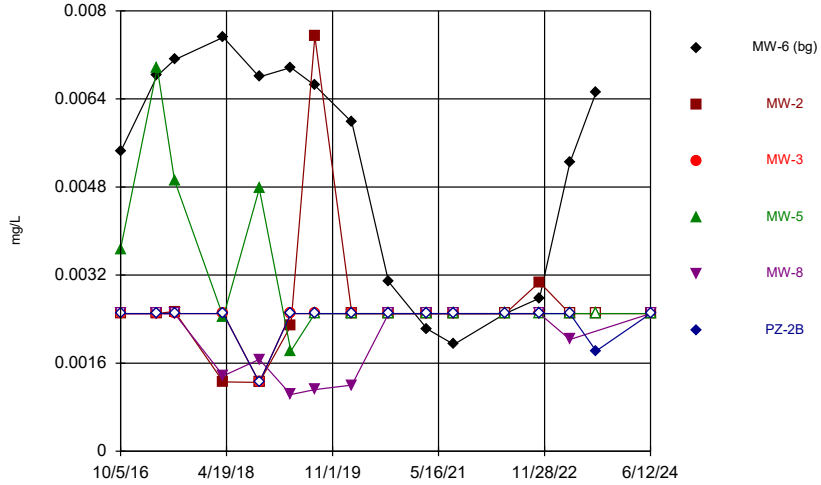
Time Series



Constituent: Nickel Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

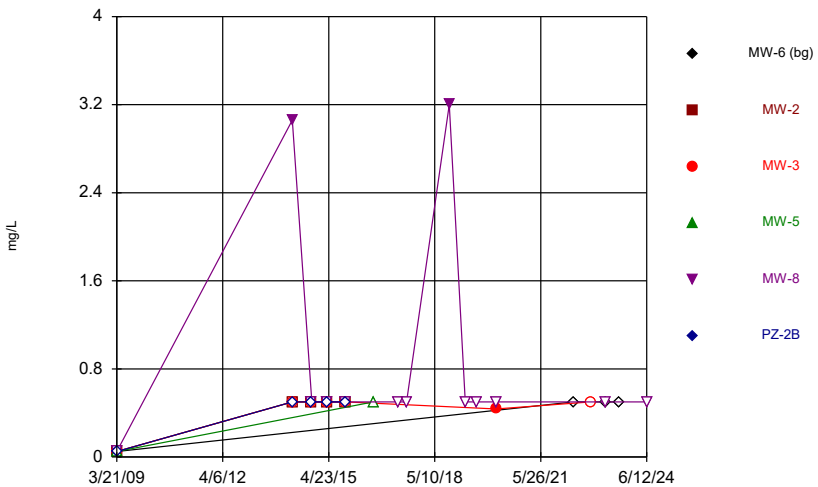
Time Series



Constituent: Selenium Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

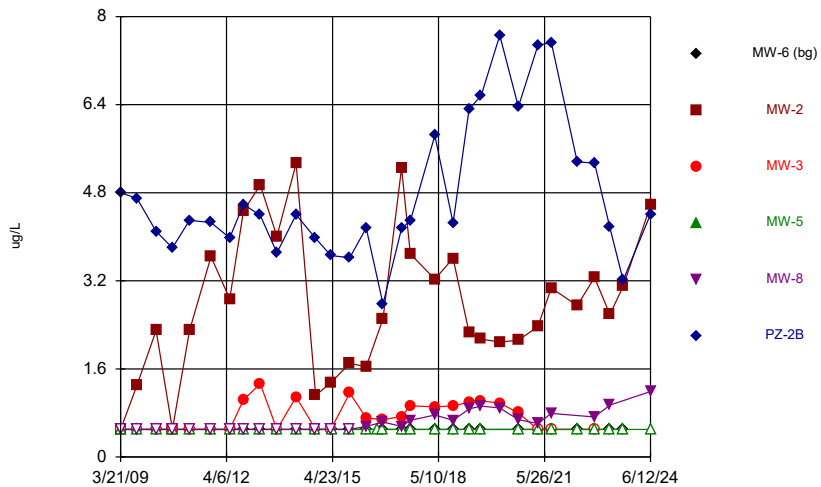
Time Series



Constituent: Sulfide Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

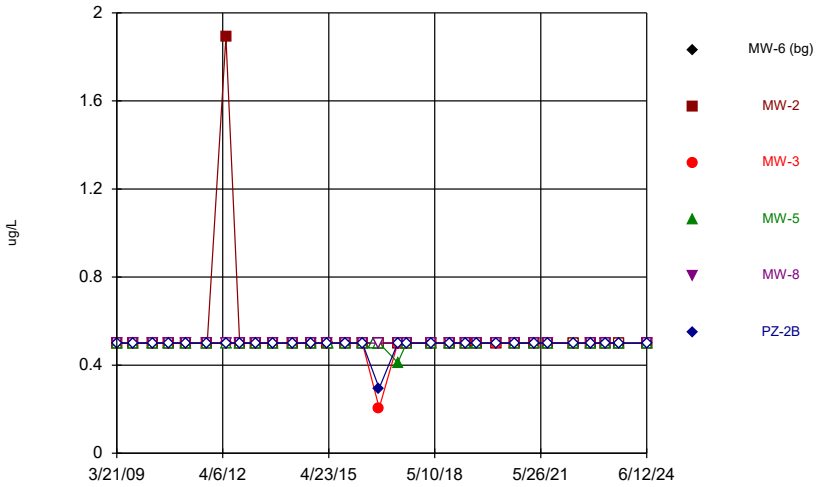
Time Series



Constituent: Tetrachloroethene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

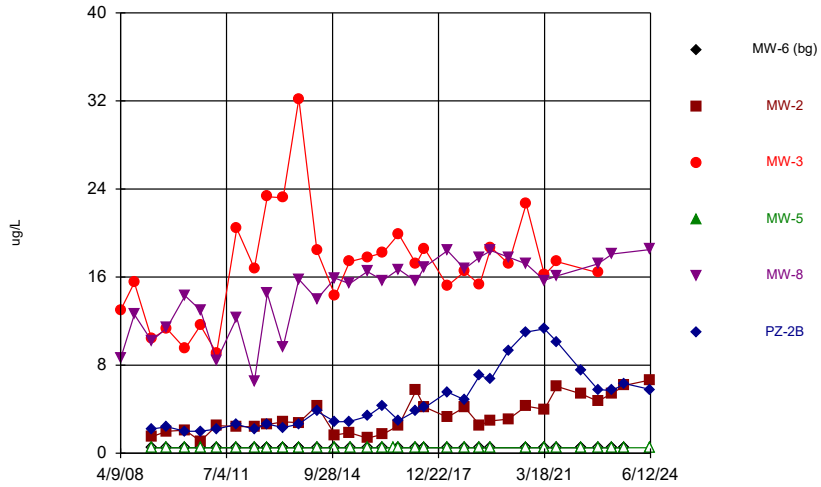
Time Series



Constituent: Toluene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

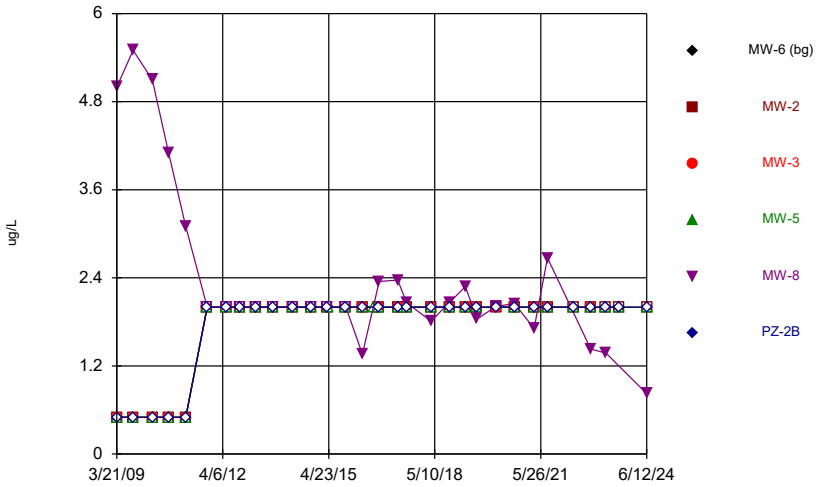
Time Series



Constituent: Trichloroethene Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

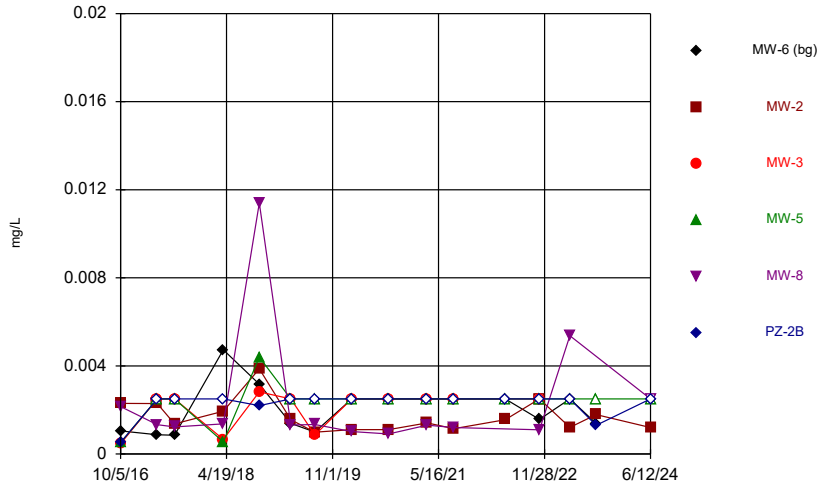
Time Series



Constituent: Trichlorofluoromethane Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

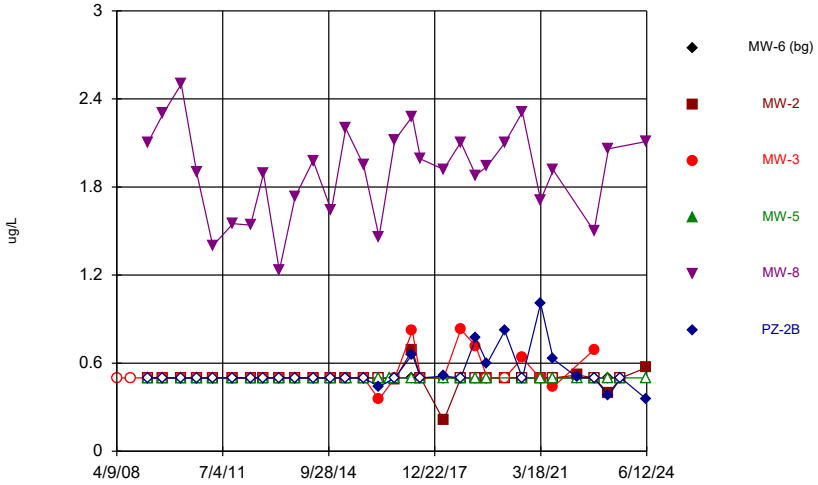
Time Series



Constituent: Vanadium Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

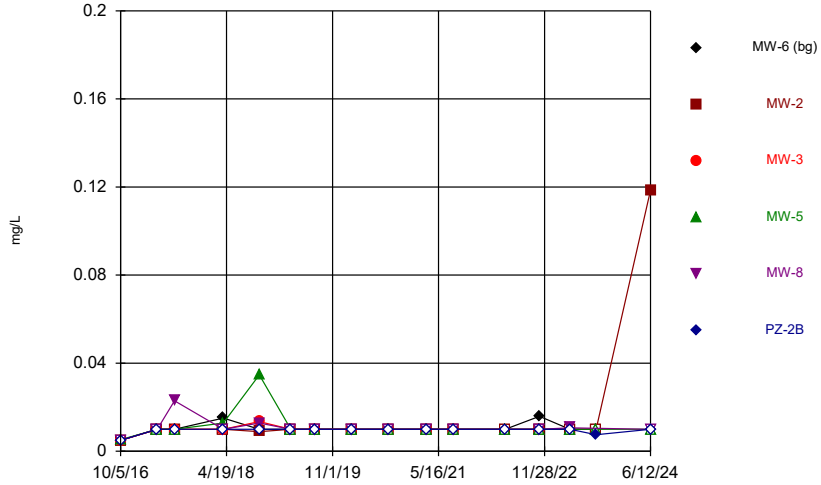
Time Series



Constituent: Vinyl Chloride Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 10/11/2024 11:02 AM View: 2024 SSN Timerseries
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

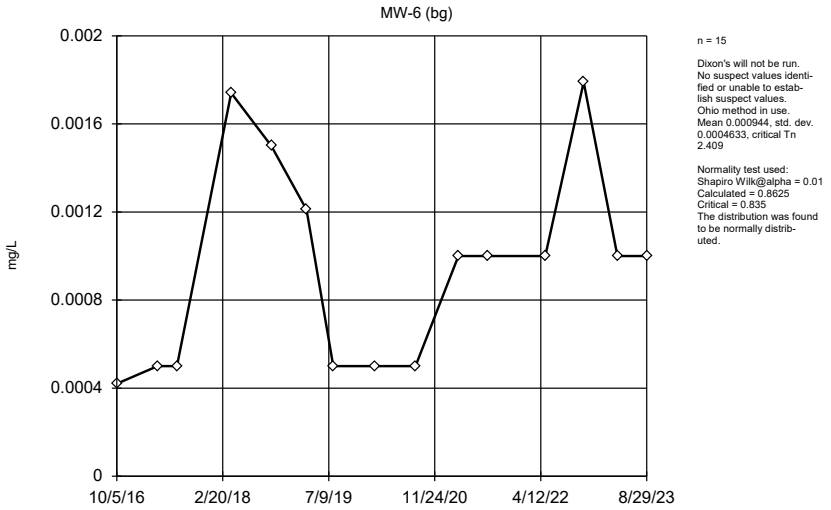
Outliers Table and Graphs

Outlier Analysis

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP Printed 10/11/2024, 11:35 AM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Normality Test
Antimony (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.000944	ShapiroWilk
Arsenic (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	15	0.001006	n/a
Barium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.4939	ShapiroWilk
Beryllium (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	15	0.0005	n/a
Cadmium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.0001902	ShapiroWilk
Chromium (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	15	0.00247	n/a
Cobalt (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.0003315	ShapiroWilk
Copper (mg/L)	**MW-6 (bg)**	**Yes**	**0.0014,0.0146,0.0...**	**10/5/2016,4/2/201...**	**NP (nrm)/OH**	**NaN**	**15**	**0.003469**	**ShapiroWilk**
Lead (mg/L)	**MW-6 (bg)**	**Yes**	**0.00316,0.000879,...**	**4/2/2018,3/26/201...**	**NP (nrm)/OH**	**NaN**	**15**	**0.0005694**	**ShapiroWilk**
Nickel (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	15	0.00249	n/a
Selenium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.005171	ShapiroWilk
Thallium (mg/L)	**MW-6 (bg)**	**Yes**	**0.001**	**10/10/2018**	**OH**	**NaN**	**15**	**0.0005219**	**n/a**
Vanadium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	15	0.002069	ShapiroWilk
Zinc (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	15	0.0104	n/a

EPA Screening (suspected outliers for Dixon's Test)



Constituent: Antimony Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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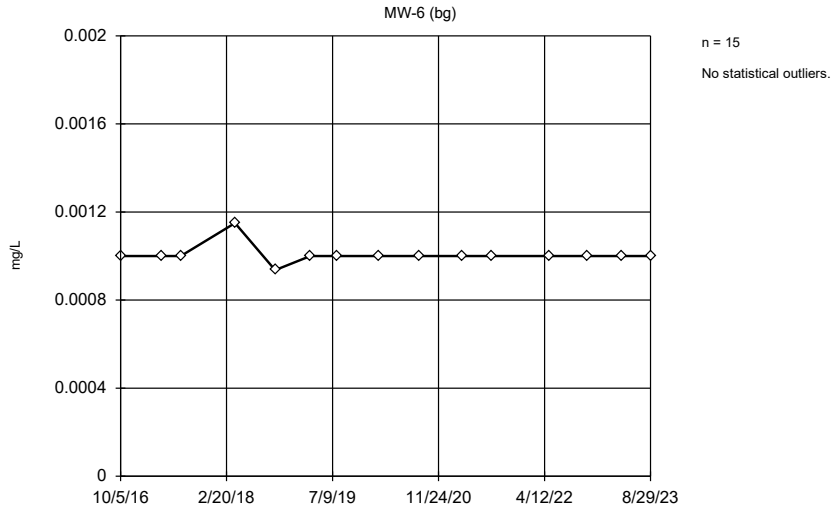
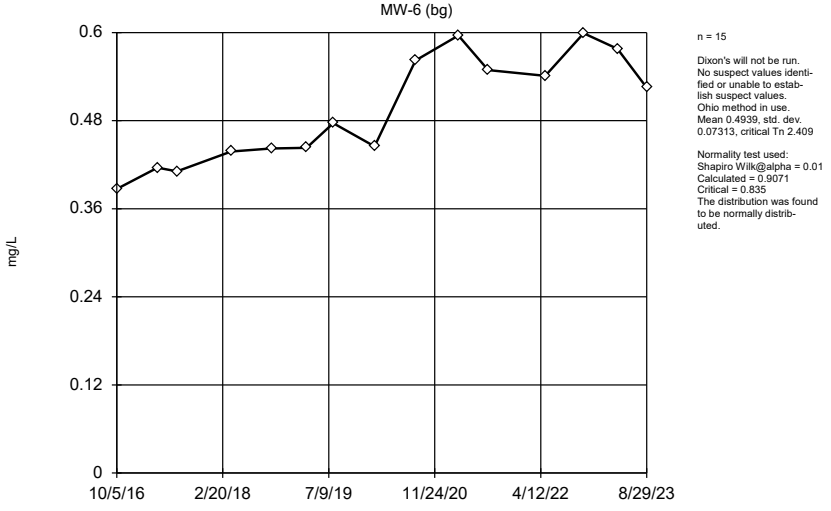
Ohio EPA 0715 Outlier Algorithm



Constituent: Arsenic Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

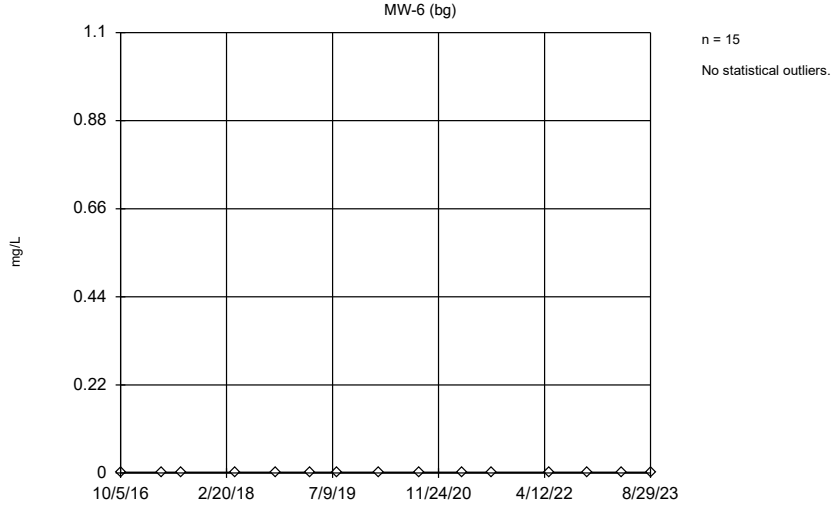
EPA Screening (suspected outliers for Dixon's Test)



Constituent: Barium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

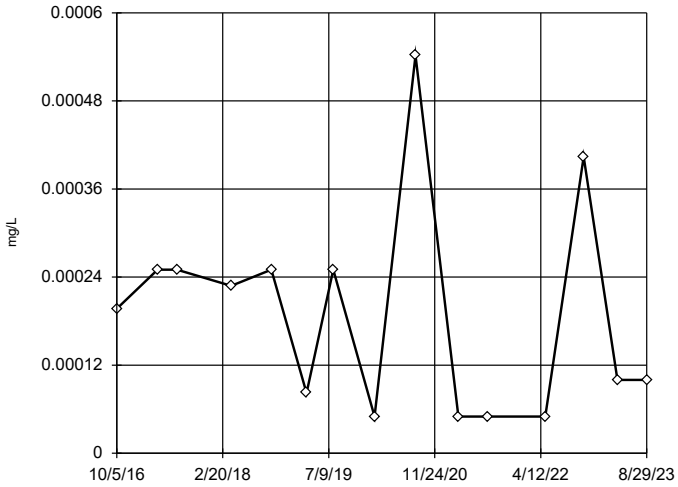
Ohio EPA 0715 Outlier Algorithm



Constituent: Beryllium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0001902, std. dev. 0.0001444, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8543
Critical = 0.835
The distribution was found to be normally distributed.

Constituent: Cadmium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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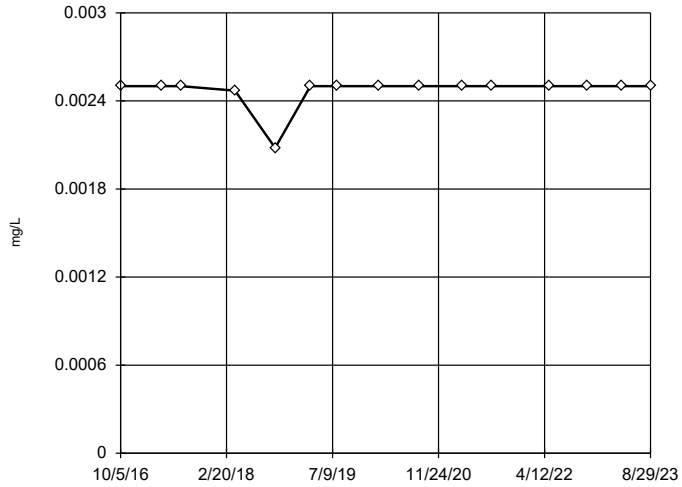
Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 15

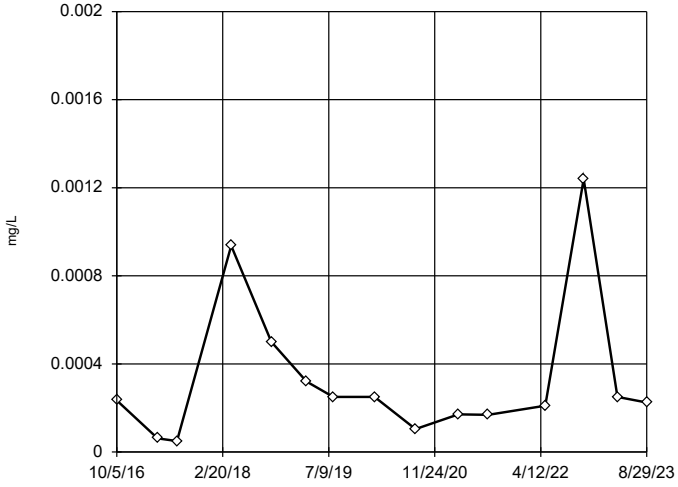
No statistical outliers.

Constituent: Chromium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0003315, std. dev. 0.0003308, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9434
Critical = 0.835 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cobalt Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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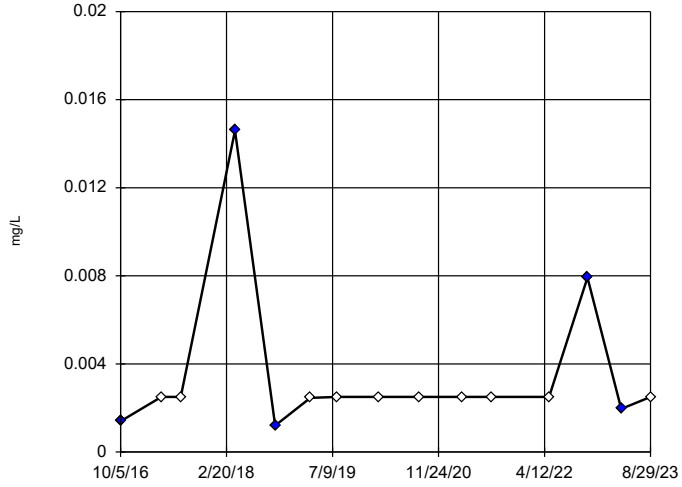
Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 15

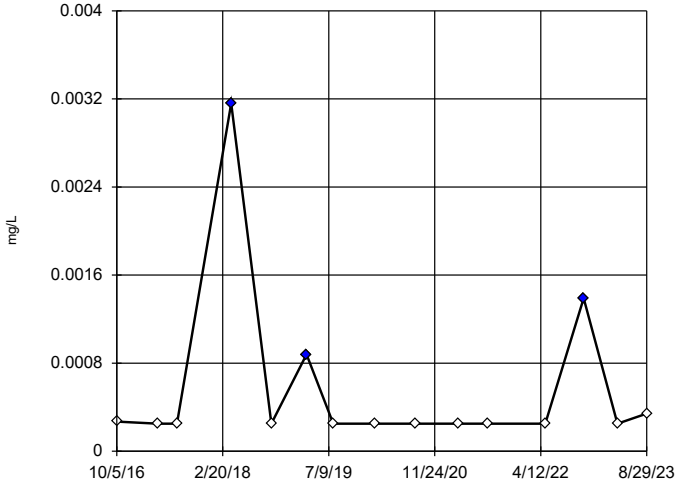
Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.00262, low cutoff = 0.00234, based on IQR multiplier of 3.

Constituent: Copper Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 15

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

High cutoff = 0.000618, low cutoff = -0.000026, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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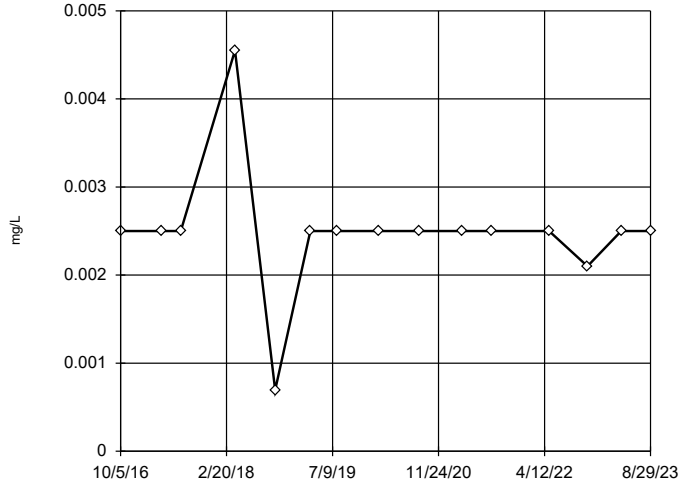
Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 15

No statistical outliers.

Constituent: Nickel Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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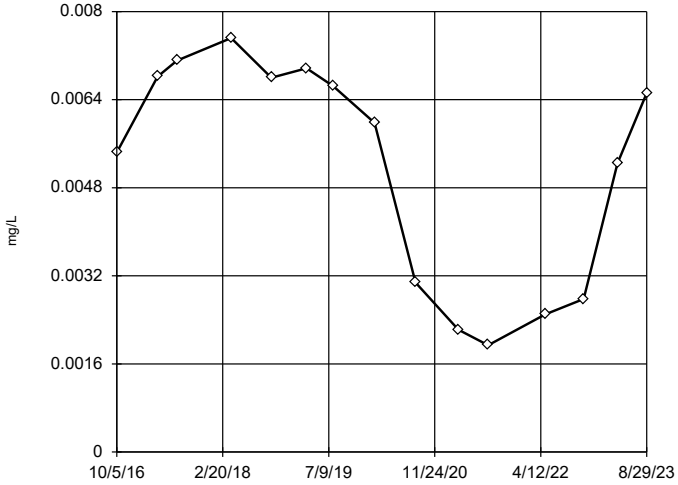
EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.005171, std. dev. 0.002053, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8398
Critical = 0.835
The distribution was found to be normally distributed.

Constituent: Selenium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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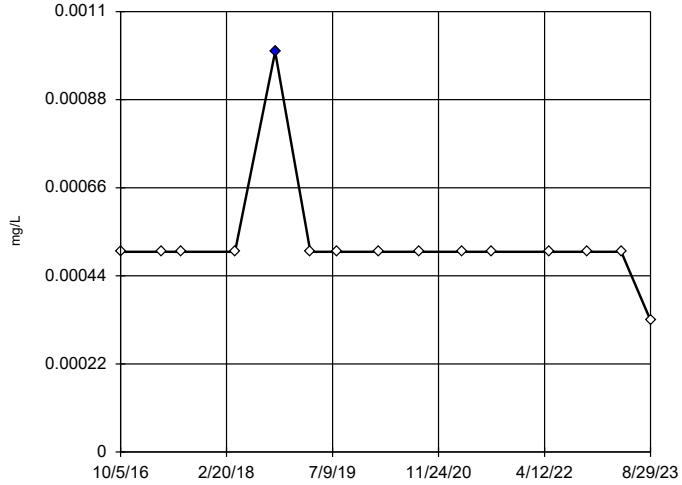
Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



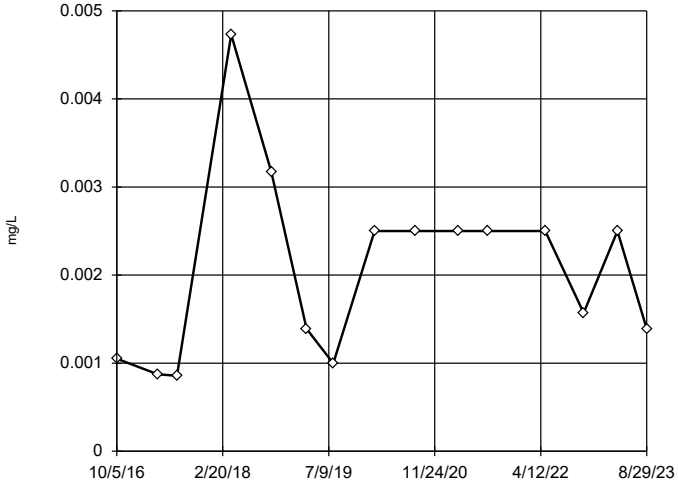
n = 15

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Thallium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 15

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.002069, std. dev. 0.001058, critical Tn 2.409

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.869
Critical = 0.835
The distribution was found to be normally distributed.

Constituent: Vanadium Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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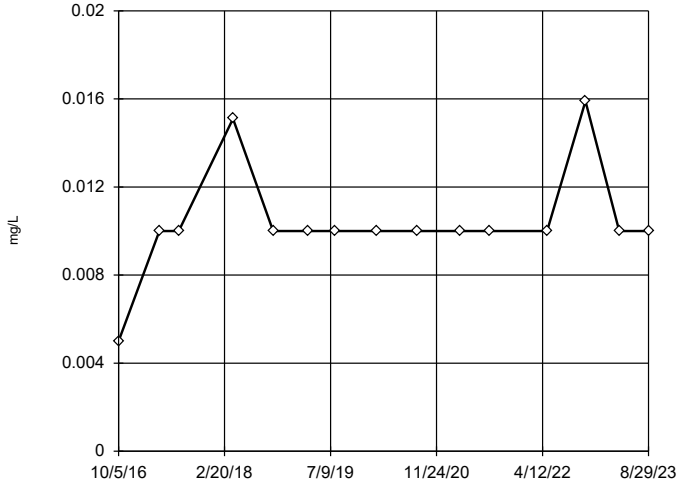
Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 15

No statistical outliers.

Constituent: Zinc Analysis Run 10/11/2024 11:10 AM View: 2024 SSN Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Prediction Limits Table and Graphs

Prediction Limit

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP Printed 9/27/2024, 10:56 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**PZ-2B**	**0.00115**	**n/a**	**6/12/2024**	**0.00552**	**Yes**	**15**	**86.67**	**n/a**	**0.006767**	**NP Inter (NDs) 1 of 2**
Barium (mg/L)	MW-2	0.6695	n/a	6/12/2024	0.4955	No	15	0	No	0.0008101	Param Inter 1 of 2
Barium (mg/L)	MW-5	0.6695	n/a	6/12/2024	0.0249	No	15	0	No	0.0008101	Param Inter 1 of 2
Barium (mg/L)	**MW-8**	**0.6695**	**n/a**	**6/12/2024**	**1.14**	**Yes**	**15**	**0**	**No**	**0.0008101**	**Param Inter 1 of 2**
Barium (mg/L)	PZ-2B	0.6695	n/a	6/12/2024	0.59	No	15	0	No	0.0008101	Param Inter 1 of 2
Cadmium (mg/L)	MW-2	0.000542	n/a	6/12/2024	0.000433	No	15	66.67	n/a	0.006767	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	**MW-8**	**0.001151**	**n/a**	**6/12/2024**	**0.00416**	**Yes**	**15**	**26.67**	**sqrt(x)**	**0.0008101**	**Param Inter 1 of 2**
Cobalt (mg/L)	PZ-2B	0.001151	n/a	6/12/2024	0.000593	No	15	26.67	sqrt(x)	0.0008101	Param Inter 1 of 2
Nickel (mg/L)	**MW-2**	**0.00455**	**n/a**	**6/12/2024**	**0.006595**	**Yes**	**15**	**80**	**n/a**	**0.006767**	**NP Inter (NDs) 1 of 2**
Nickel (mg/L)	**MW-8**	**0.00455**	**n/a**	**6/12/2024**	**0.00611**	**Yes**	**15**	**80**	**n/a**	**0.006767**	**NP Inter (NDs) 1 of 2**
Zinc (mg/L)	MW-2	0.0159	n/a	6/12/2024	0.1185J	No	15	86.67	n/a	0.006767	NP Inter (NDs) 1 of 2

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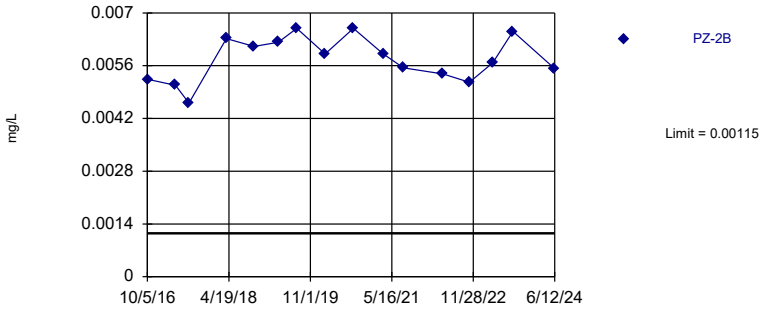
Exceeds Limit: PZ-2B

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 86.67% NDs. Annual per-constituent alpha = 0.06565. Individual comparison alpha = 0.006767 (1 of 2). Assumes 4 future values.

Constituent: Arsenic Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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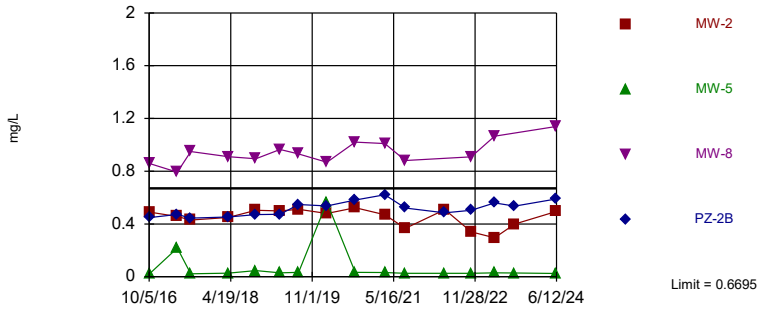
Exceeds Limit: MW-8

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.4939, Std. Dev.=0.07313, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9071, critical = 0.835. Kappa = 2.402 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.004044. Individual comparison alpha = 0.0008101. Comparing 4 points to limit. Assumes 1 future value.

Constituent: Barium Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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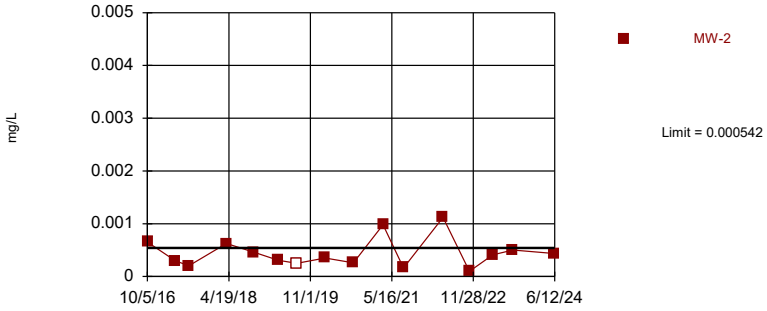
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 66.67% NDs. Annual per-constituent alpha = 0.06565. Individual comparison alpha = 0.006767 (1 of 2). Assumes 4 future values.

Constituent: Cadmium Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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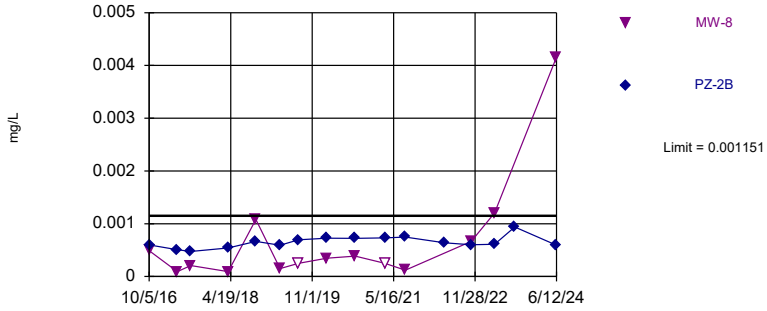
Hollow symbols indicate censored values.

Exceeds Limit: MW-8

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.01545, Std. Dev.=0.007693, n=15, 26.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8539, critical = 0.835. Kappa = 2.402 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.004044. Individual comparison alpha = 0.0008101. Comparing 2 points to limit. Assumes 3 future values.

Constituent: Cobalt Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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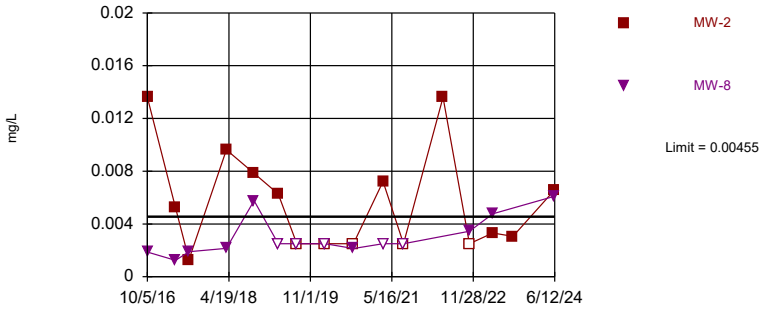
Hollow symbols indicate censored values.

Exceeds Limit: MW-2, MW-8

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 80% NDs. Annual per-constituent alpha = 0.06565. Individual comparison alpha = 0.006767 (1 of 2). Comparing 2 points to limit. Assumes 3 future values.

Constituent: Nickel Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

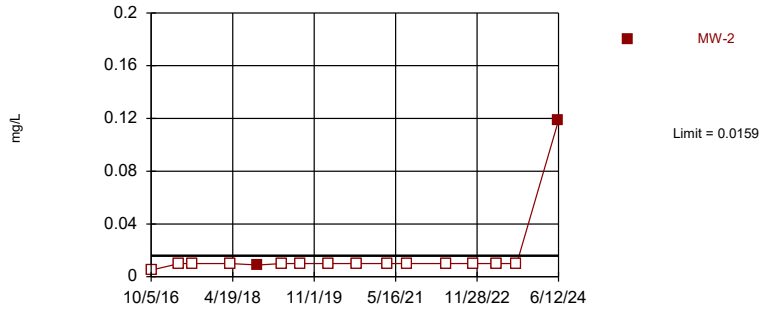
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 86.67% NDs. Annual per-constituent alpha = 0.06565. Individual comparison alpha = 0.006767 (1 of 2). Assumes 4 future values.

Constituent: Zinc Analysis Run 9/27/2024 10:44 AM View: 2024 SSN Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Mann-Kendall Trend Table and Graphs

Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM Printed 10/14/2024, 3:43 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-2	-0.08888	-6	-21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-3	0.5957	16	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-8	1.668	18	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	PZ-2B	-1.312	-20	-21	No	8	0	0.01	NP
2,4-D [2C] (ug/L)	MW-8	0.04572	4	21	No	8	25	0.01	NP
Acetone (ug/L)	MW-2	0	-3	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-3	0.00002049	0	21	No	8	0	0.01	NP
Arsenic (mg/L)	PZ-2B	-0.0001293	-8	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-2	-0.02533	-8	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-3	-0.01682	-8	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-5	-0.0015	-16	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-8	0.03389	12	21	No	8	0	0.01	NP
Barium (mg/L)	PZ-2B	-0.00313	0	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-3	0.07338	14	21	No	8	0	0.01	NP
Benzene (ug/L)	**MW-8**	**-0.06326**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cadmium (mg/L)	MW-2	0.00003259	2	21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-3	-0.000008293	-10	-21	No	8	62.5	0.01	NP
Cadmium (mg/L)	PZ-2B	0.000005785	2	21	No	8	50	0.01	NP
Chloroethane (ug/L)	MW-3	0.1025	4	21	No	8	12.5	0.01	NP
Chloroethane (ug/L)	MW-5	0	-5	-21	No	8	87.5	0.01	NP
Chloroethane (ug/L)	MW-8	0.05911	4	21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-2	0.5769	8	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-3	2.207	17	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	**MW-8**	**0.3451**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**PZ-2B**	**-0.7132**	**-22**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cobalt (mg/L)	MW-3	-0.001326	-14	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-8	0.0002561	15	21	No	8	25	0.01	NP
Cobalt (mg/L)	PZ-2B	-0.00003107	-8	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-3	0	-7	-21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-8	0	5	21	No	8	87.5	0.01	NP
Dichlorodifluoromethane (ug/L)	MW-2	0.05307	2	21	No	8	12.5	0.01	NP
Dichlorodifluoromethane (ug/L)	MW-8	-1.279	-13	-21	No	8	0	0.01	NP
Dichlorodifluoromethane (ug/L)	PZ-2B	0.07693	1	21	No	8	25	0.01	NP
Lead (mg/L)	MW-3	0	-4	-21	No	8	50	0.01	NP
Lead (mg/L)	MW-8	0	5	21	No	8	87.5	0.01	NP
Lead (mg/L)	PZ-2B	0.0000146	12	21	No	8	50	0.01	NP
Nickel (mg/L)	MW-2	0.0002285	5	21	No	8	37.5	0.01	NP
Nickel (mg/L)	MW-3	-0.00316	-8	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-8	0.000628	18	21	No	8	50	0.01	NP
Nickel (mg/L)	PZ-2B	0	5	21	No	8	87.5	0.01	NP
Sulfide (mg/L)	MW-8	0	-3	-21	No	8	87.5	0.01	NP
Tetrachloroethene (ug/L)	MW-2	0.41	18	21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	MW-3	-0.1449	-17	-21	No	8	37.5	0.01	NP
Tetrachloroethene (ug/L)	MW-8	0.03908	6	21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	PZ-2B	-1.07	-18	-21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-2	0.6247	18	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-3	0.1289	2	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-8	0.05767	3	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	PZ-2B	-1.765	-19	-21	No	8	0	0.01	NP
Vanadium (mg/L)	MW-8	0.0002517	8	21	No	8	12.5	0.01	NP

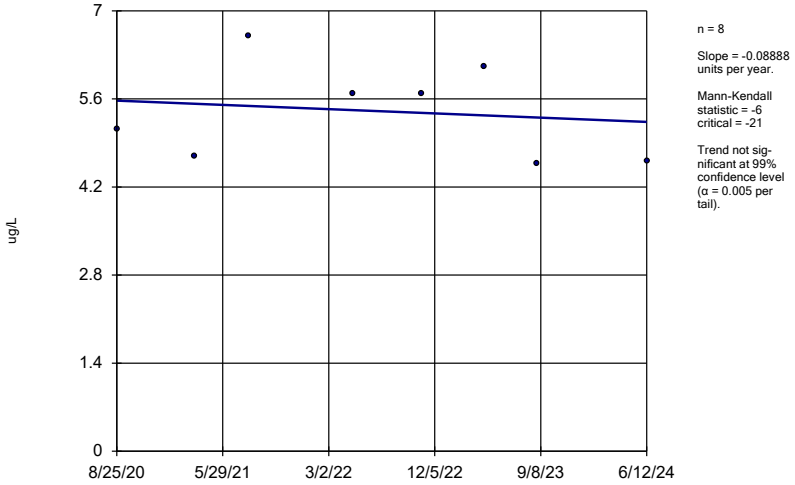
Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM Printed 10/14/2024, 3:43 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Vinyl Chloride (ug/L)	MW-8	-0.005045	0	21	No	8	0	0.01	NP
Vinyl Chloride (ug/L)	PZ-2B	-0.08027	-17	-21	No	8	37.5	0.01	NP
Zinc (mg/L)	MW-2	0	7	21	No	8	87.5	0.01	NP

Sen's Slope Estimator

MW-2



Constituent: 1,1-Dichloroethane Analysis Run 10/14/2024 3:38 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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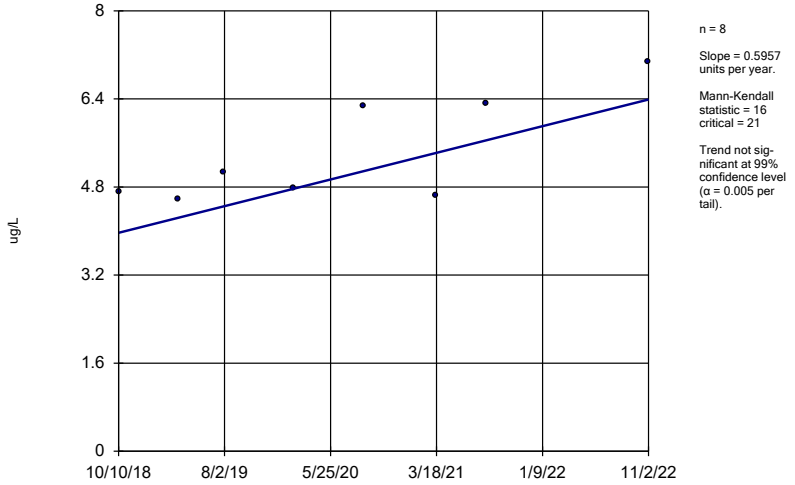
Sen's Slope Estimator

MW-3



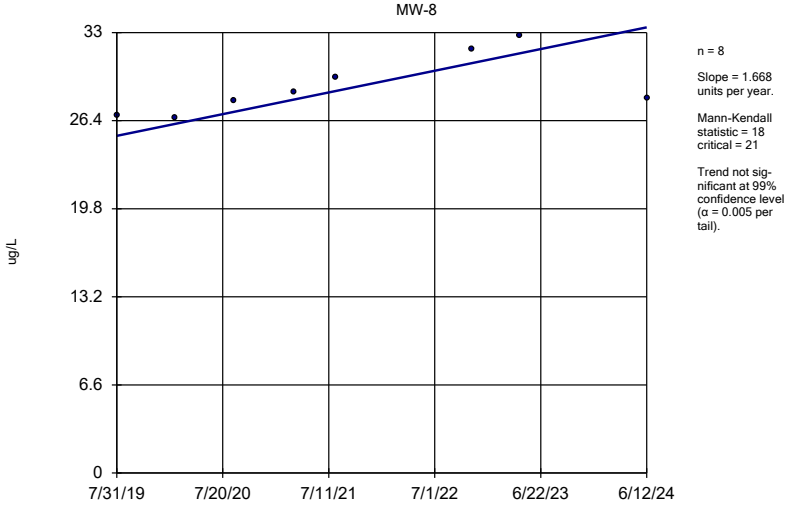
Constituent: 1,1-Dichloroethane Analysis Run 10/14/2024 3:38 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



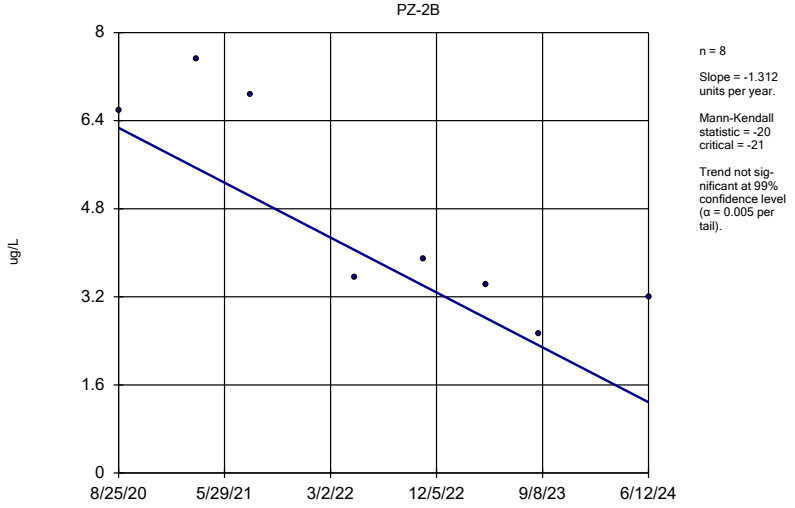
Constituent: 1,1-Dichloroethane Analysis Run 10/14/2024 3:38 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



Constituent: 1,1-Dichloroethane Analysis Run 10/14/2024 3:38 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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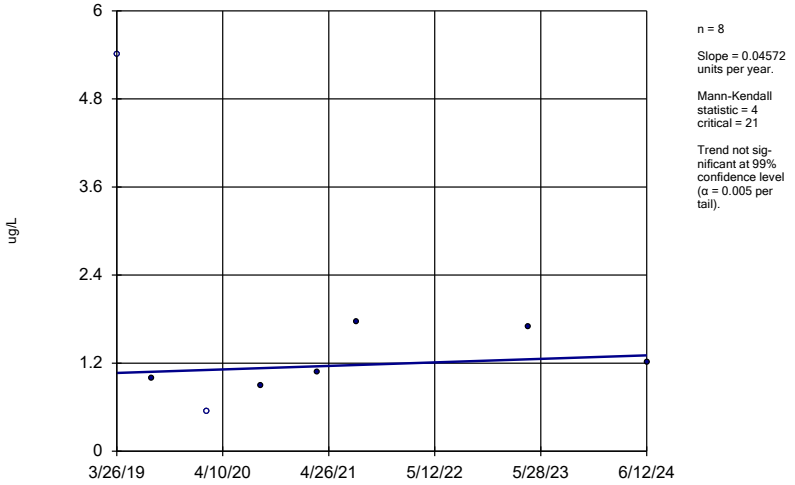
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



Constituent: 2,4-D [2C] Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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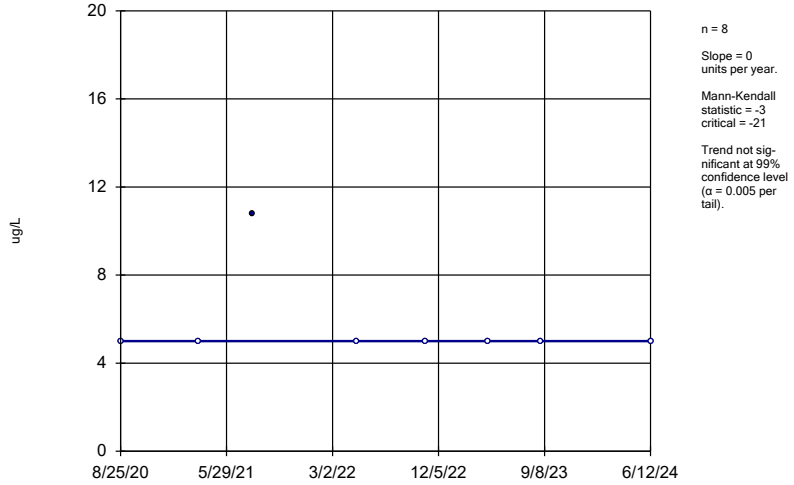
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2



Constituent: Acetone Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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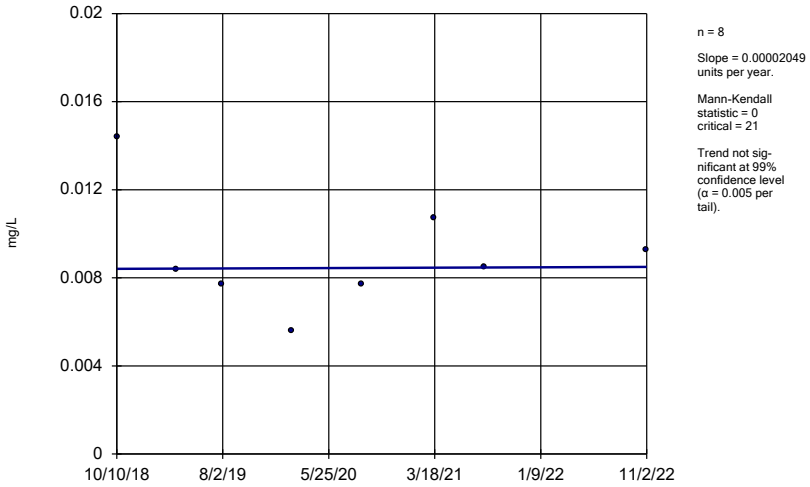
Sen's Slope Estimator

MW-3

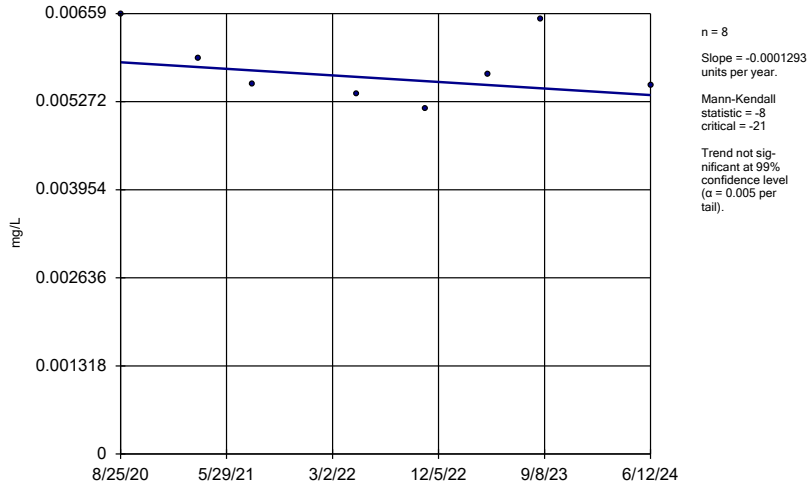


Constituent: Arsenic Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

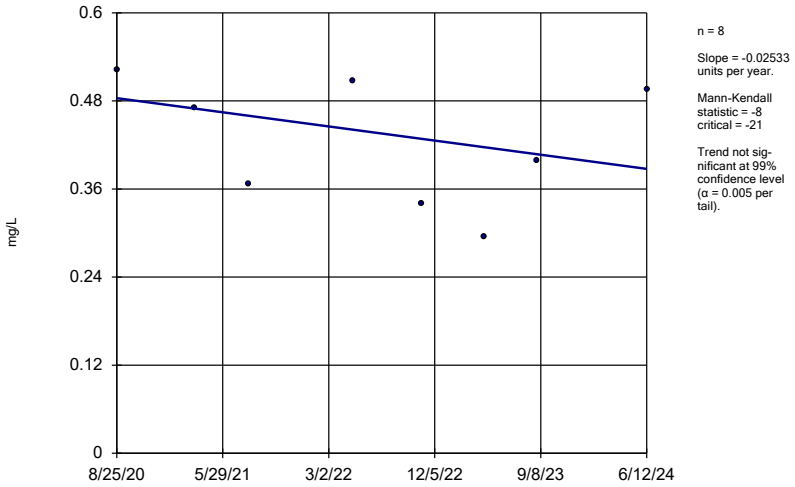
PZ-2B



Constituent: Arsenic Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-2



n = 8

Slope = -0.02533 units per year.

Mann-Kendall statistic = -8
critical = -21

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

Constituent: Barium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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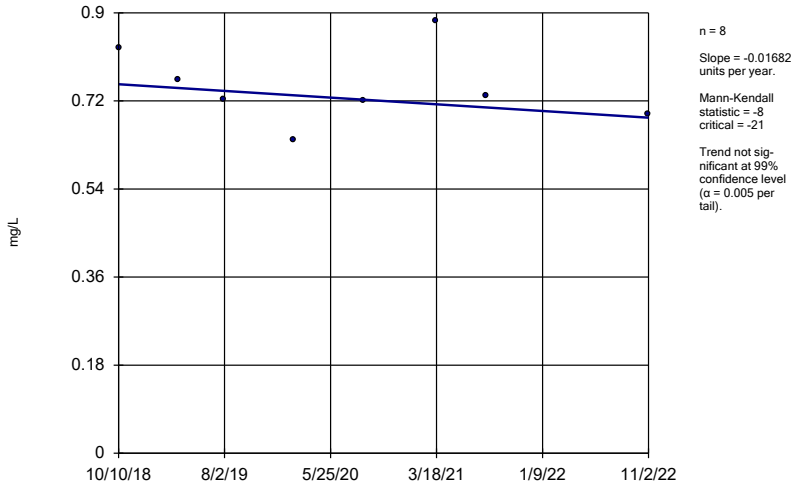
Sen's Slope Estimator

MW-3



n = 8

Slope = -0.01682 units per year.

Mann-Kendall statistic = -8
critical = -21

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

Constituent: Barium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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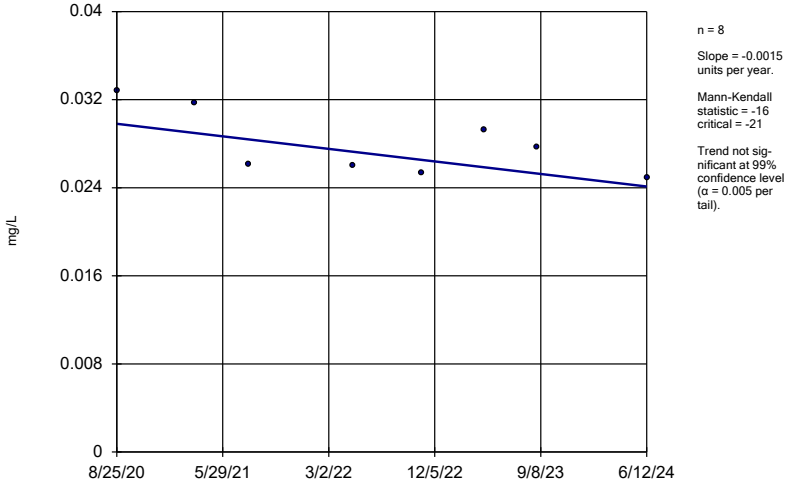
Sen's Slope Estimator

MW-5



n = 8

Slope = -0.0015 units per year.

Mann-Kendall statistic = -16
critical = -21

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

Constituent: Barium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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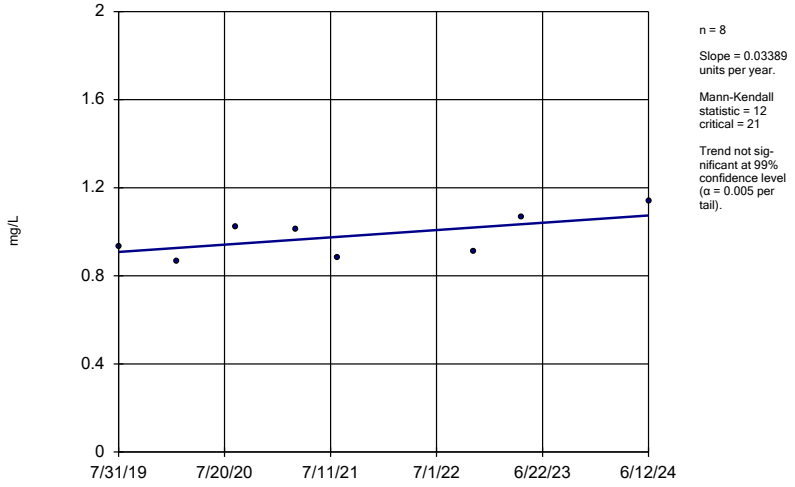
Sen's Slope Estimator

MW-8



n = 8

Slope = 0.03389 units per year.

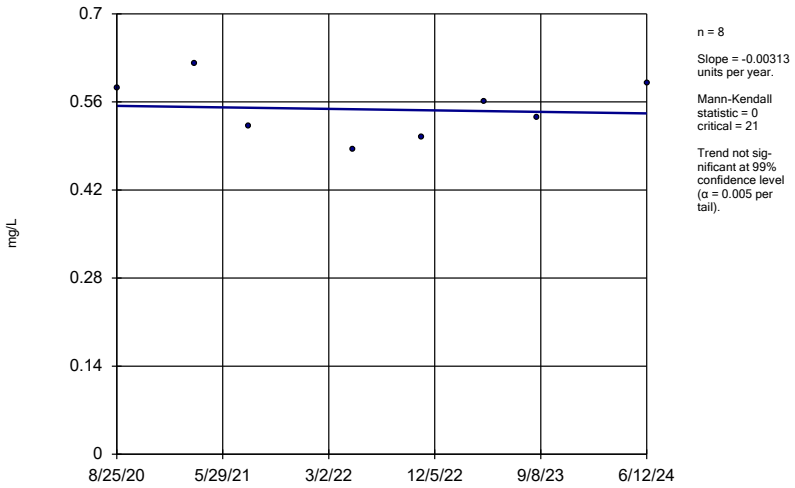
Mann-Kendall statistic = 12
critical = 21

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

Constituent: Barium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

PZ-2B

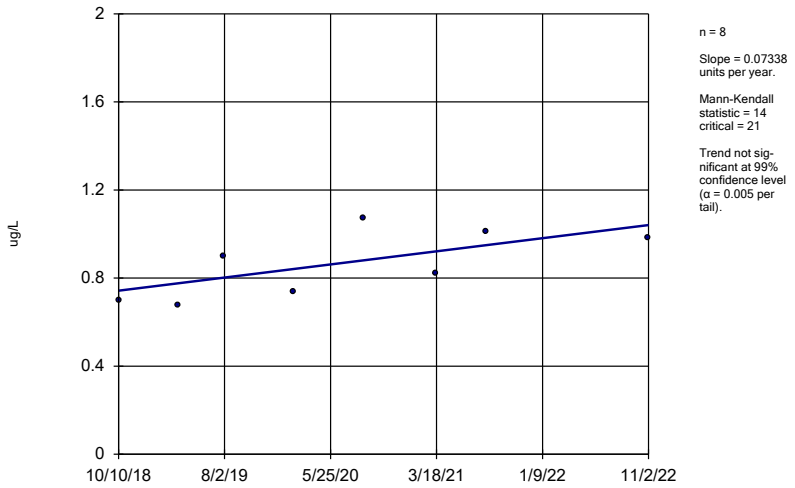


Constituent: Barium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-3

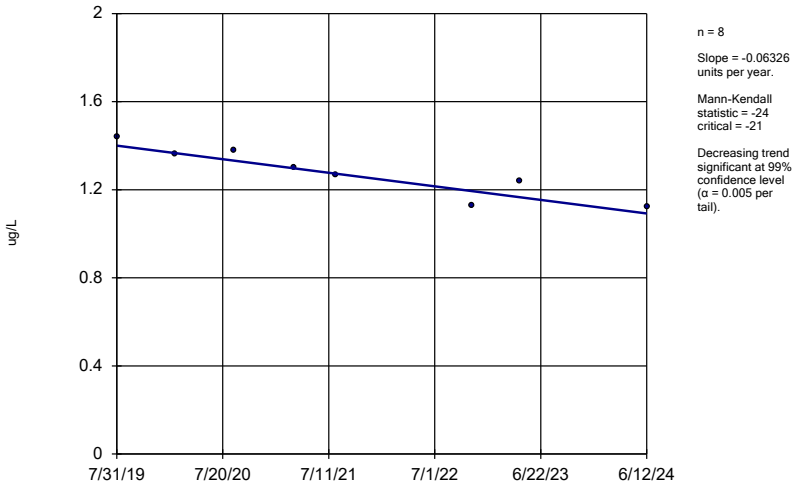


Constituent: Benzene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-8

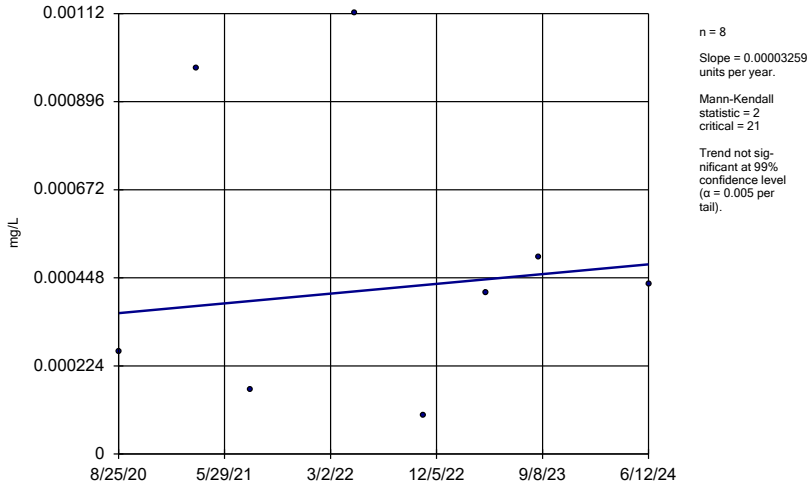


Constituent: Benzene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-2



Constituent: Cadmium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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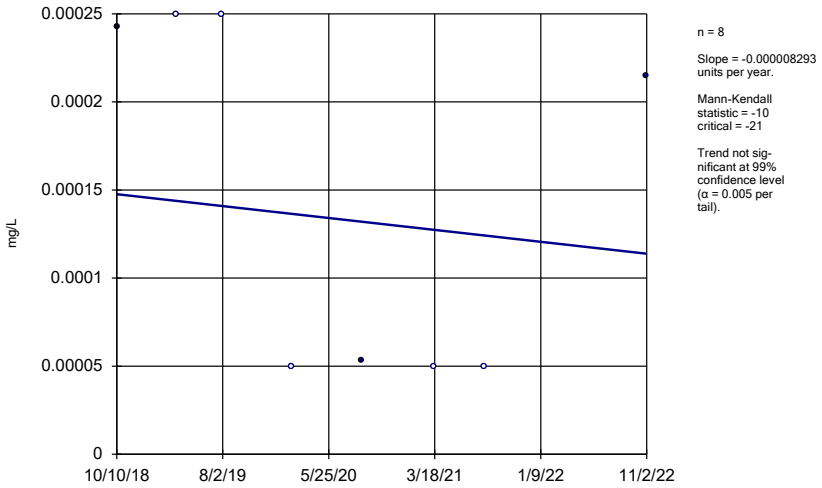
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = -0.000008293 units per year.

Mann-Kendall statistic = -10
critical = -21

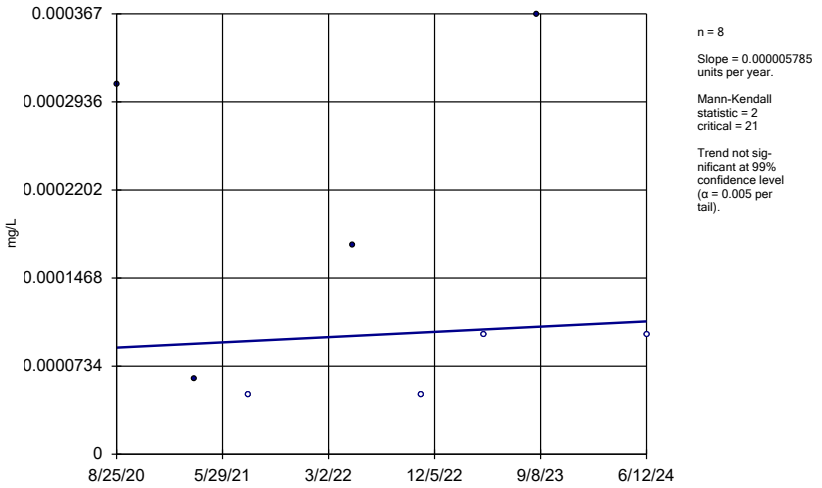
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



n = 8

Slope = 0.000005785 units per year.

Mann-Kendall statistic = 2
critical = 21

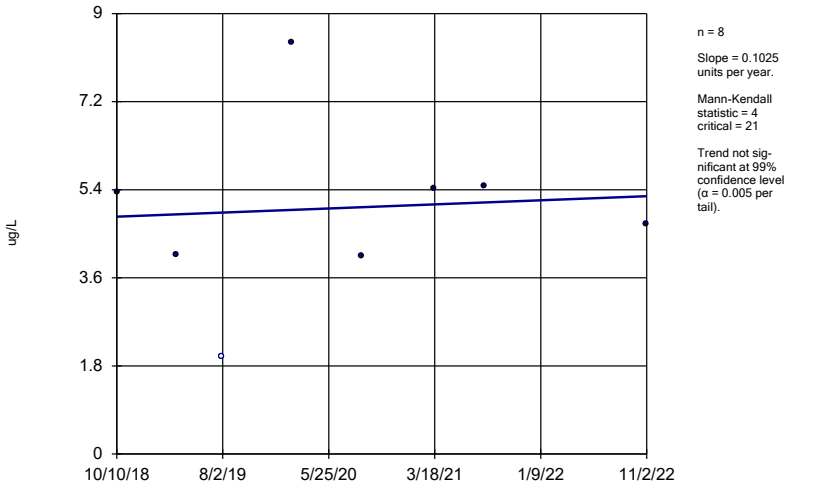
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.1025 units per year.

Mann-Kendall statistic = 4
critical = 21

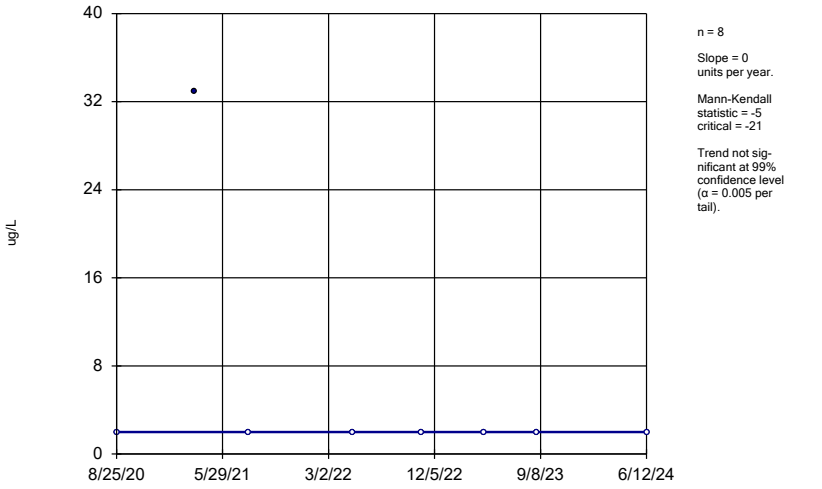
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -5
critical = -21

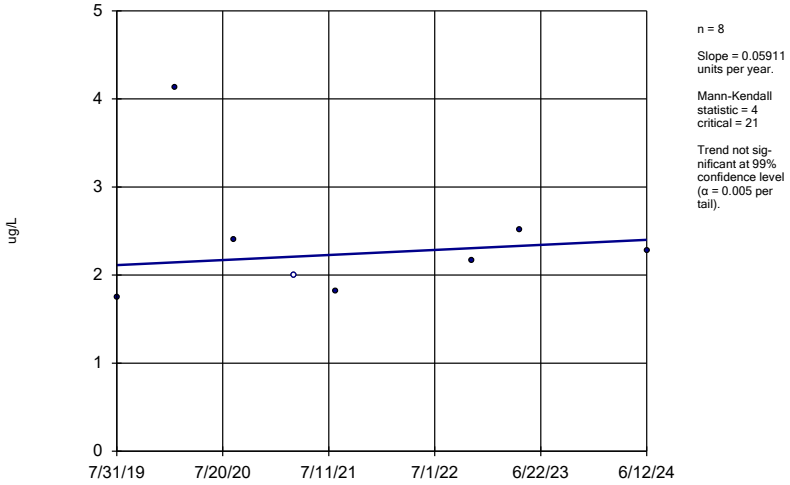
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



n = 8

Slope = 0.05911 units per year.

Mann-Kendall statistic = 4 critical = 21

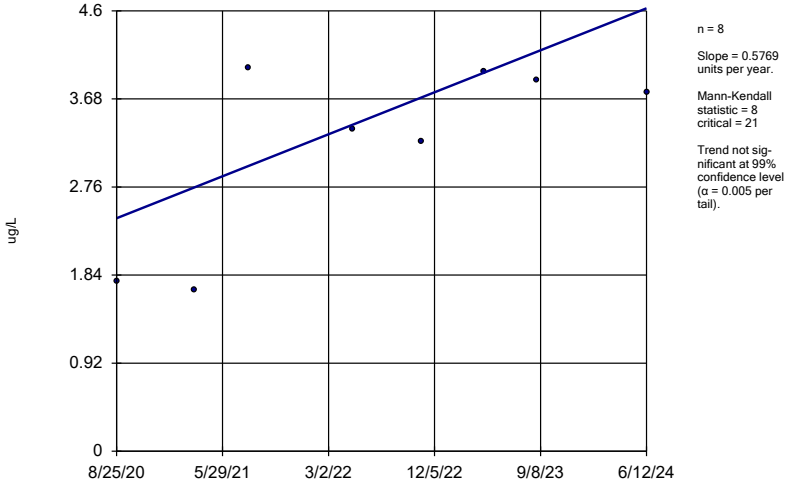
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-2



n = 8

Slope = 0.5769 units per year.

Mann-Kendall statistic = 8 critical = 21

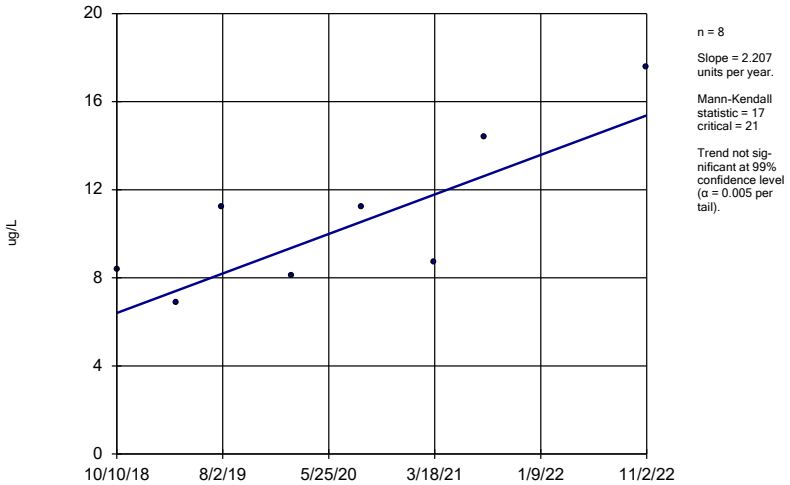
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-3



n = 8

Slope = 2.207 units per year.

Mann-Kendall statistic = 17 critical = 21

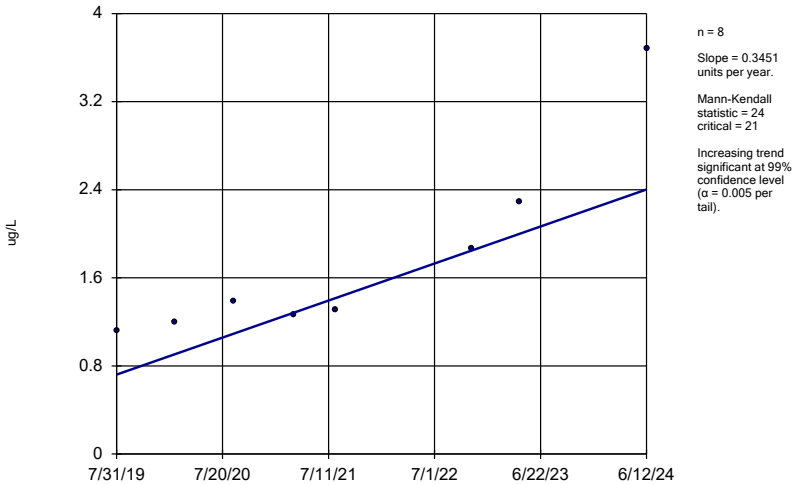
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-8



n = 8

Slope = 0.3451 units per year.

Mann-Kendall statistic = 24 critical = 21

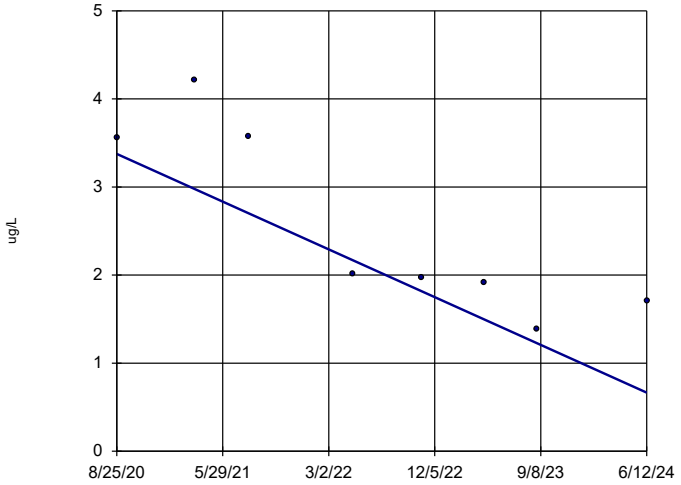
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

PZ-2B



n = 8

Slope = -0.7132 units per year.

Mann-Kendall statistic = -22
critical = -21

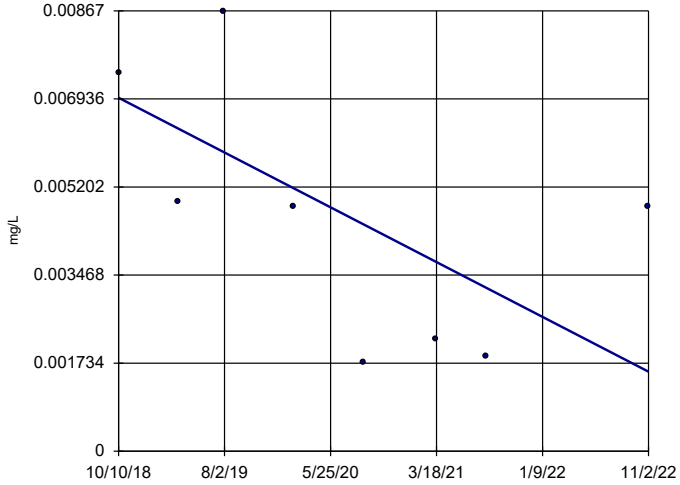
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: cis-1,2-Dichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

MW-3



n = 8

Slope = -0.001326 units per year.

Mann-Kendall statistic = -14
critical = -21

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

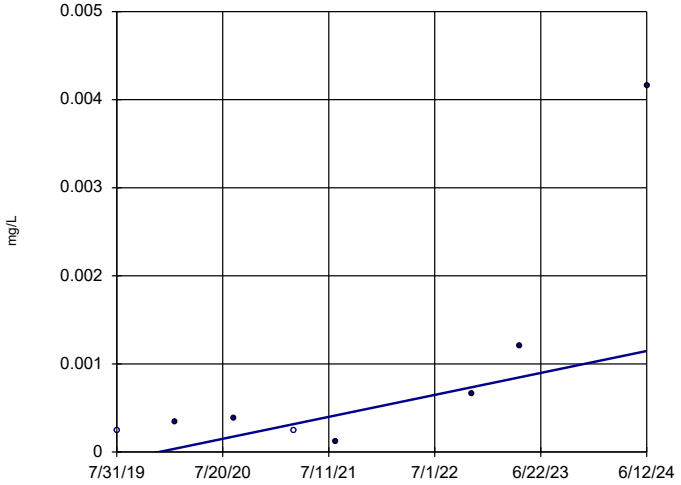
Constituent: Cobalt Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



n = 8

Slope = 0.0002561 units per year.

Mann-Kendall statistic = 15
critical = 21

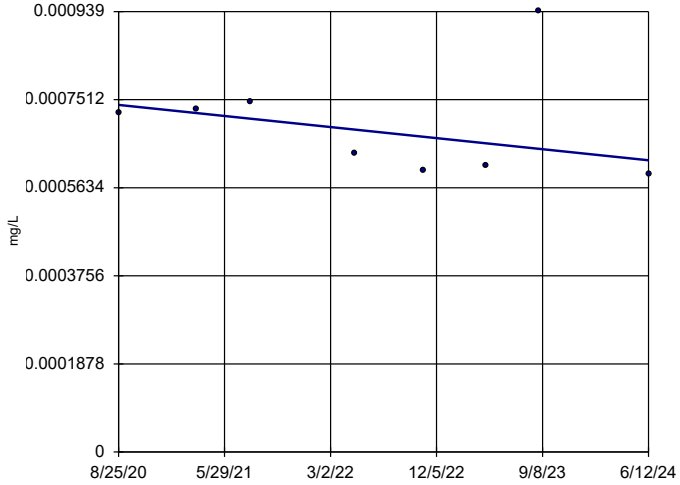
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cobalt Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

PZ-2B



n = 8

Slope = -0.00003107 units per year.

Mann-Kendall statistic = -8
critical = -21

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

Constituent: Cobalt Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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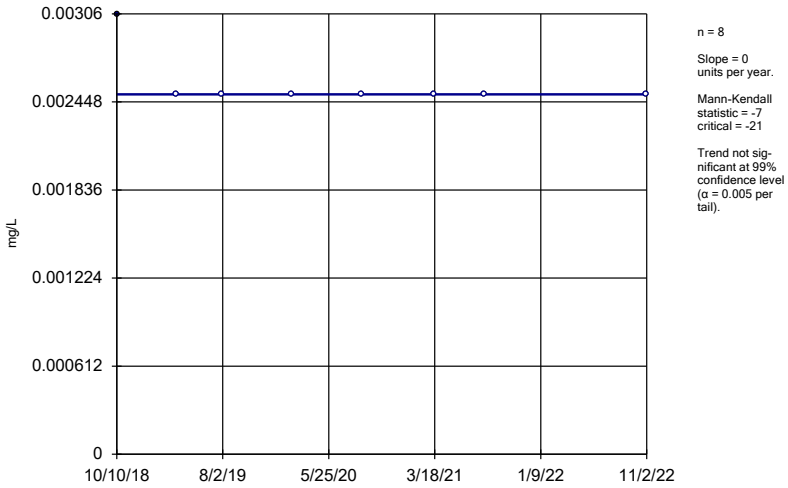
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

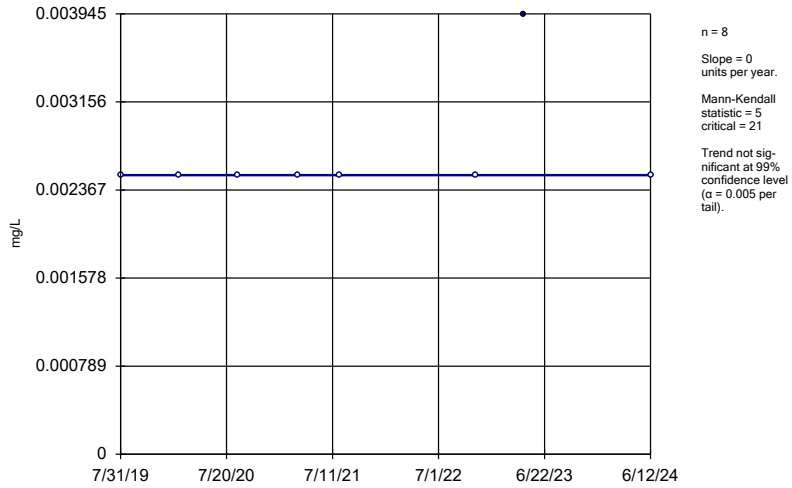


Constituent: Copper Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8

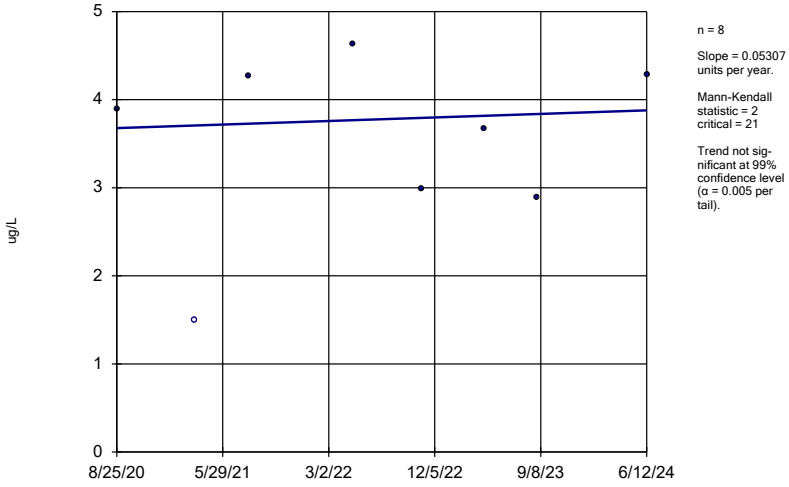


Constituent: Copper Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2

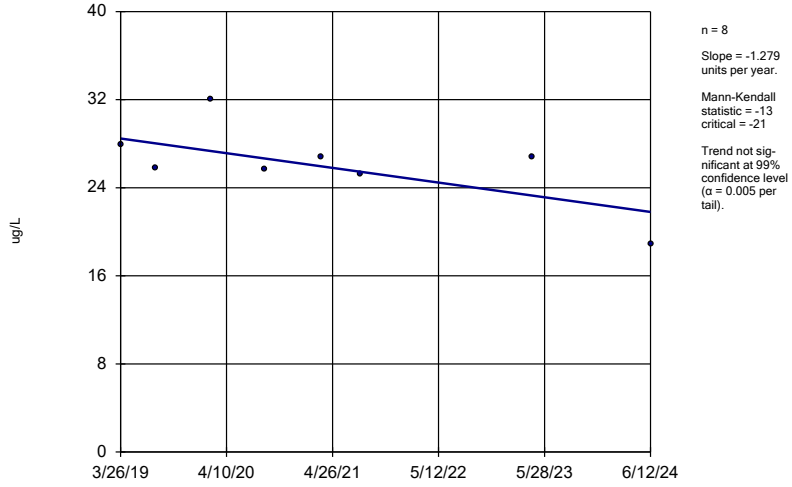


Constituent: Dichlorodifluoromethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8

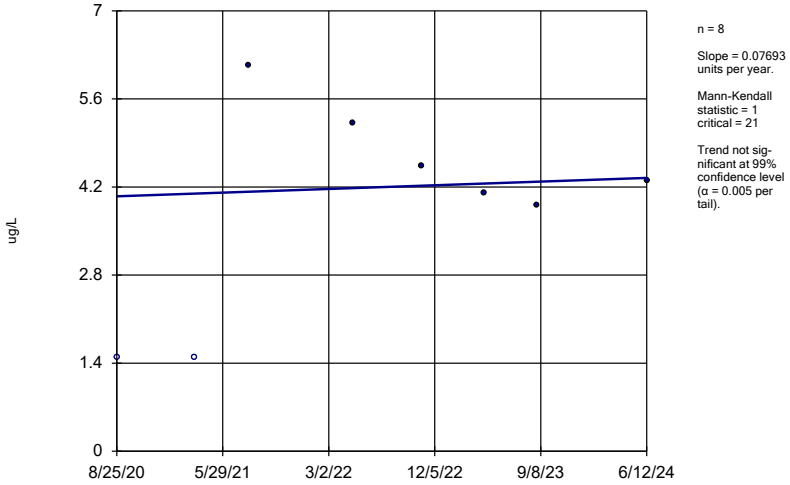


Constituent: Dichlorodifluoromethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



n = 8

Slope = 0.07693 units per year.

Mann-Kendall statistic = 1
critical = 21

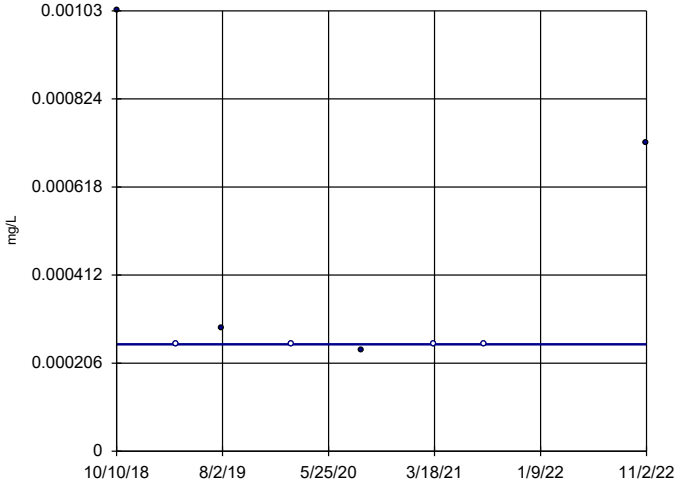
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Dichlorodifluoromethane Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -4
critical = -21

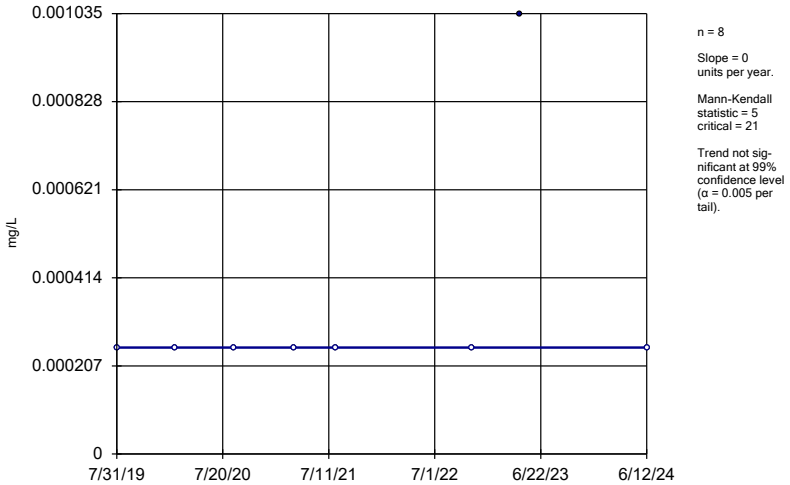
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 5
critical = 21

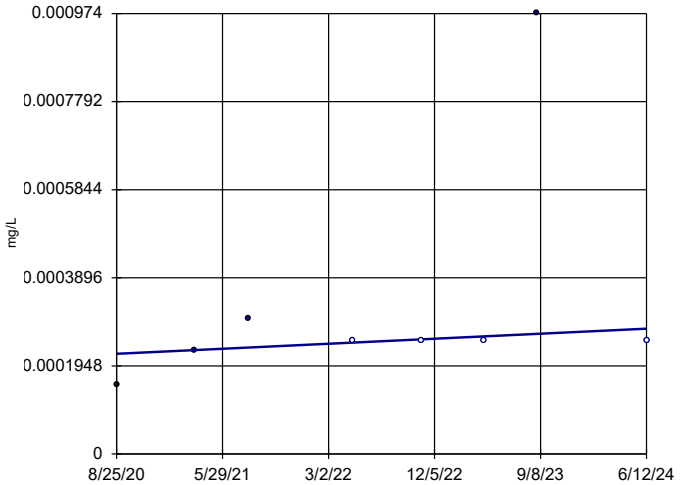
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



n = 8

Slope = 0.0000146 units per year.

Mann-Kendall statistic = 12
critical = 21

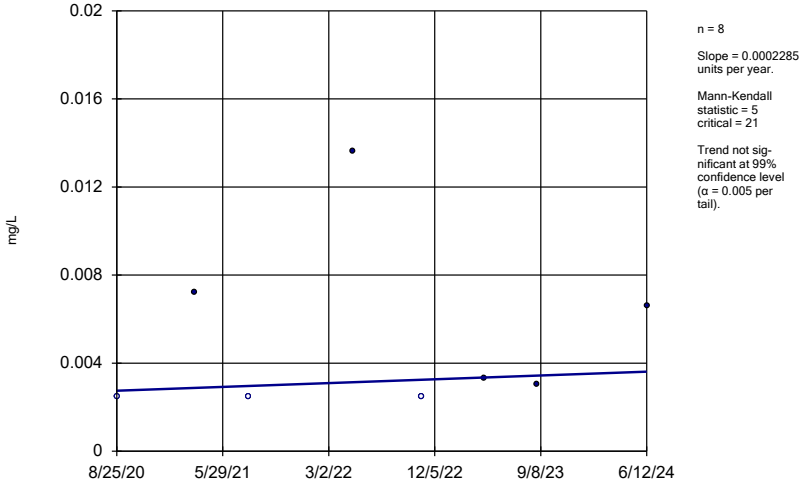
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Lead Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2

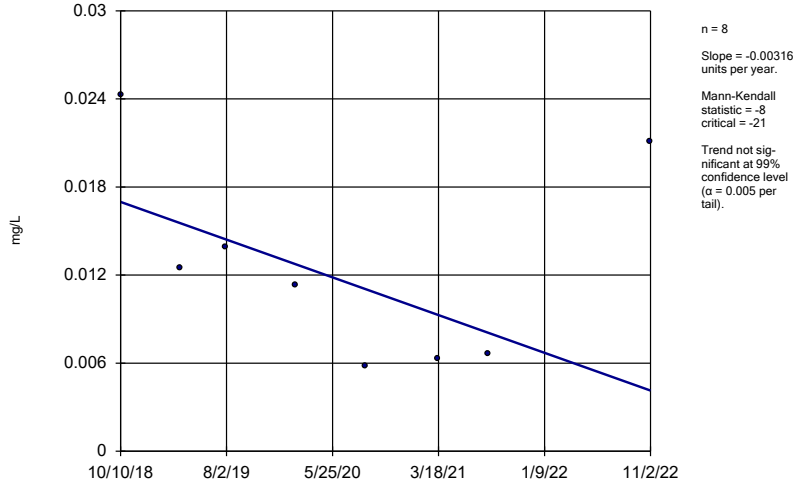


Constituent: Nickel Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

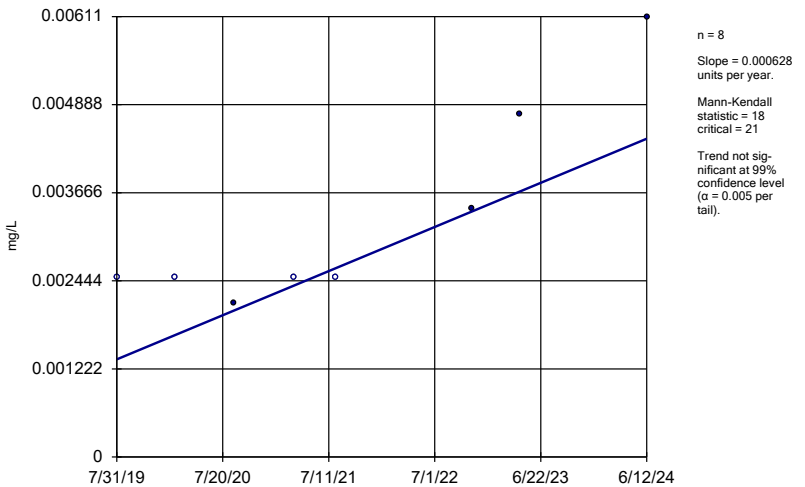


Constituent: Nickel Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8

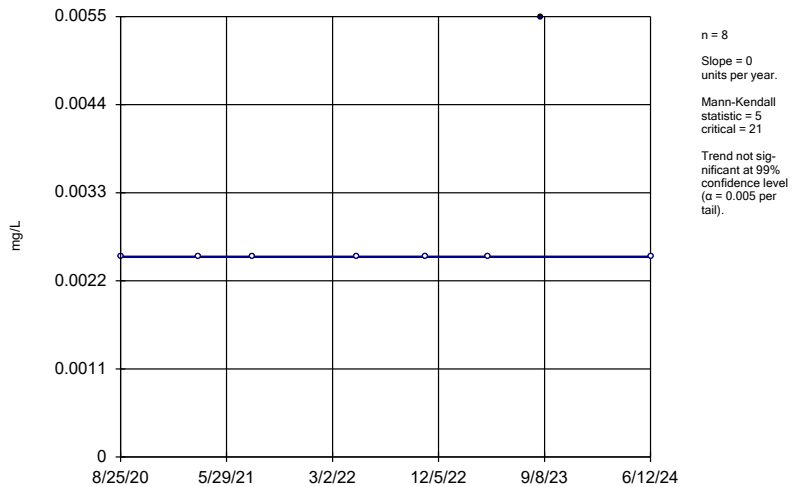


Constituent: Nickel Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B

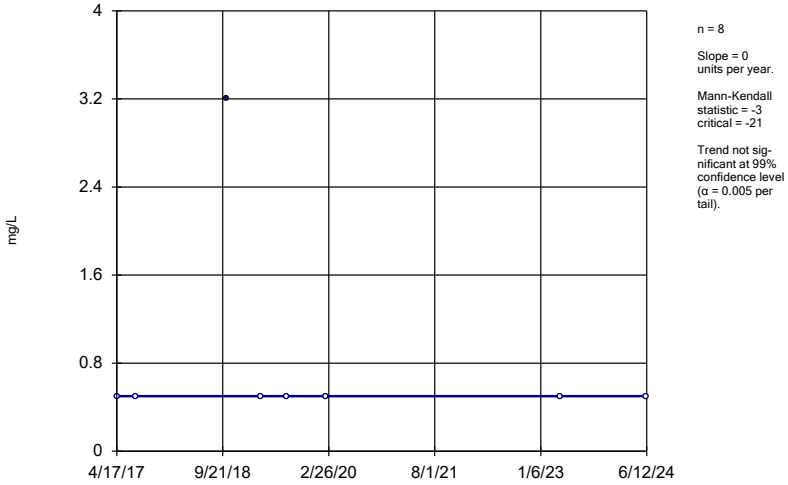


Constituent: Nickel Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8

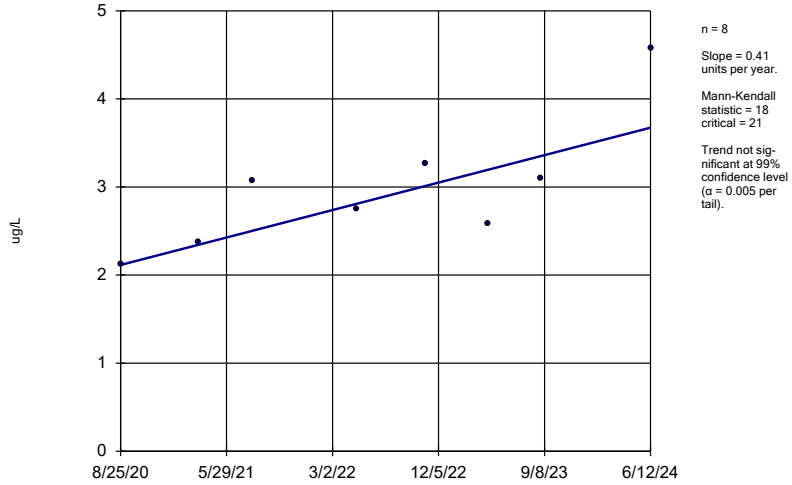


Constituent: Sulfide Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-2

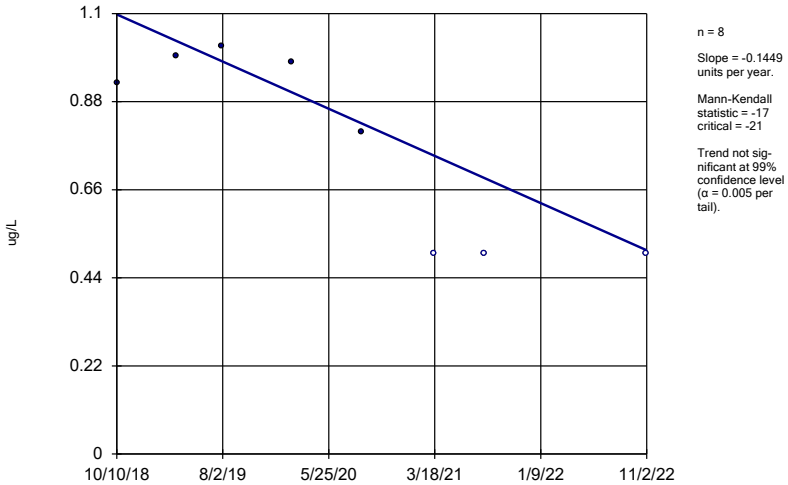


Constituent: Tetrachloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3

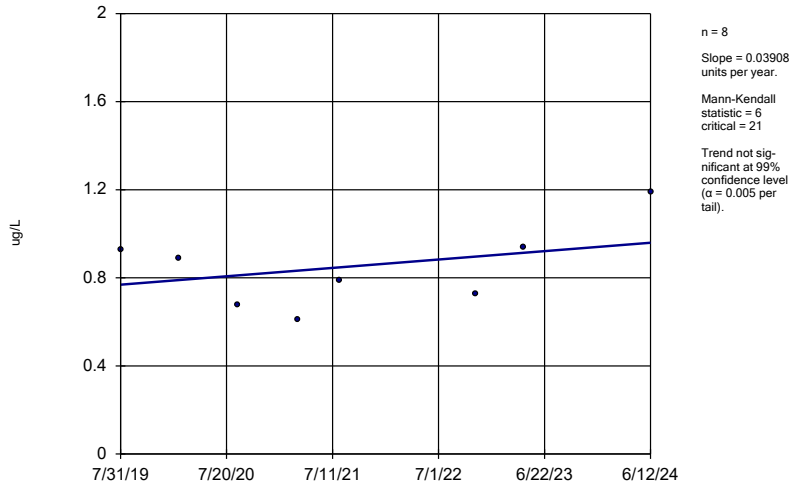


Constituent: Tetrachloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

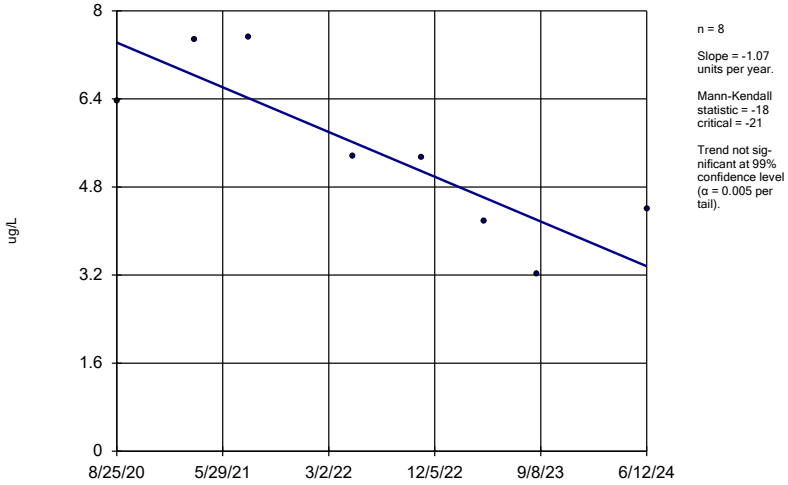
MW-8



Constituent: Tetrachloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sen's Slope Estimator

PZ-2B



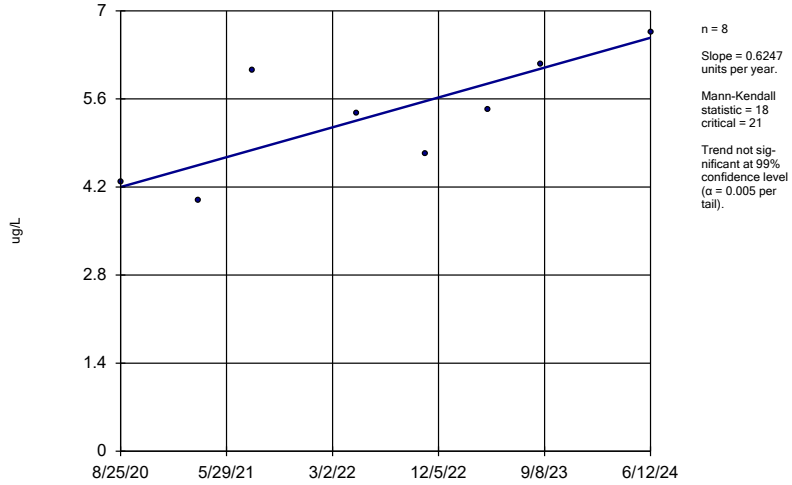
Constituent: Tetrachloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-2



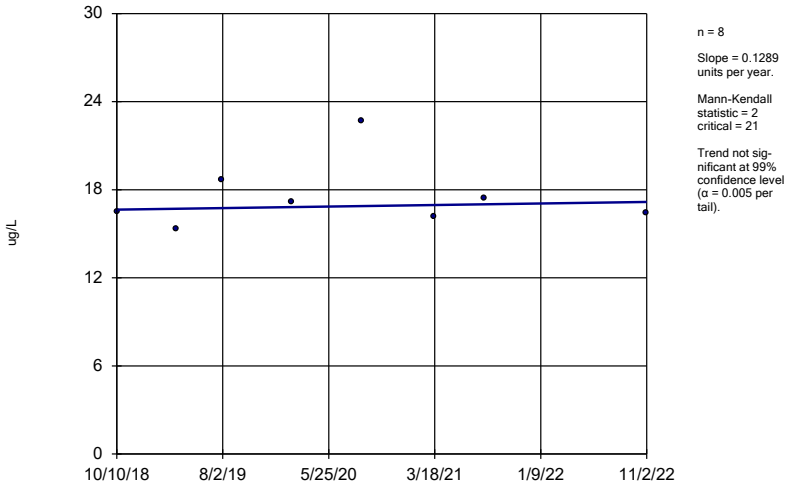
Constituent: Trichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3



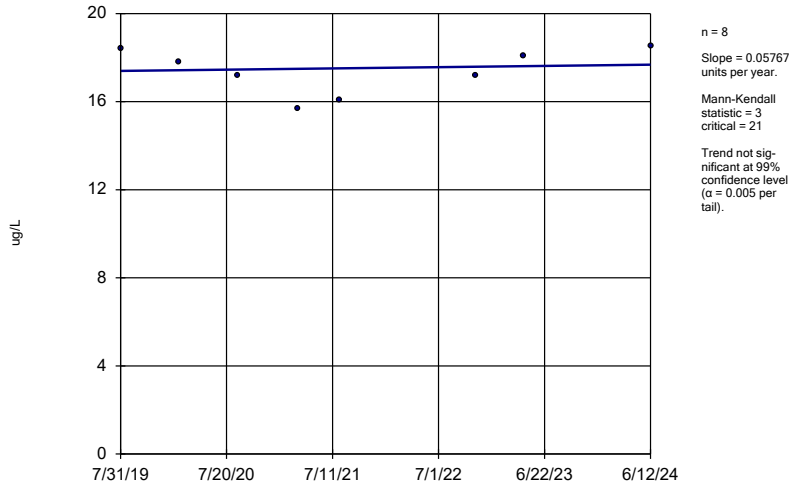
Constituent: Trichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



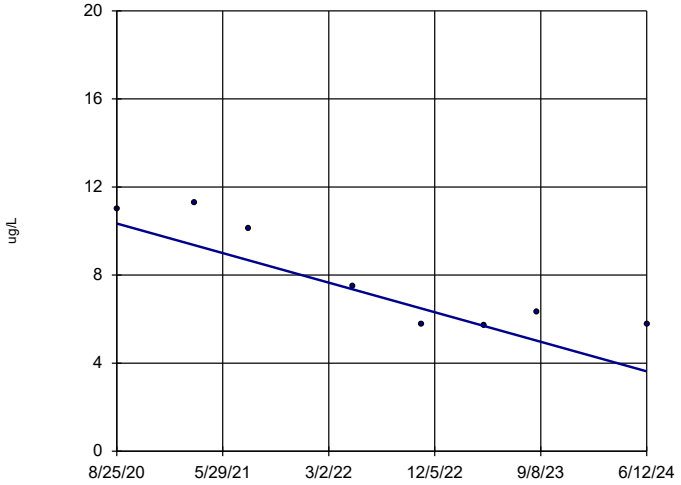
Constituent: Trichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



Constituent: Trichloroethene Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

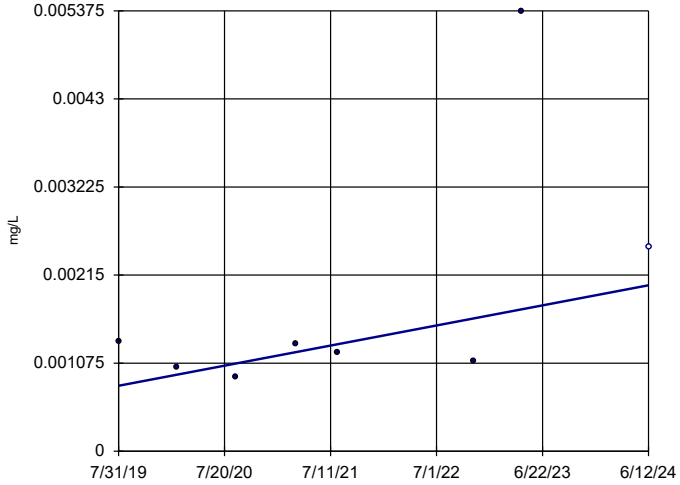
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



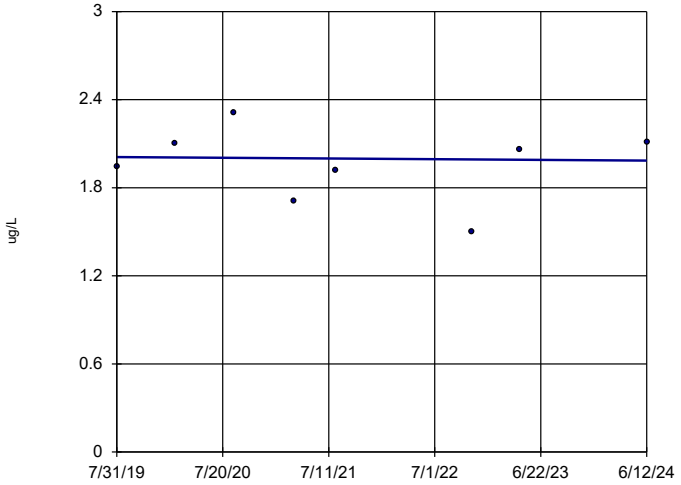
Constituent: Vanadium Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



Constituent: Vinyl Chloride Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

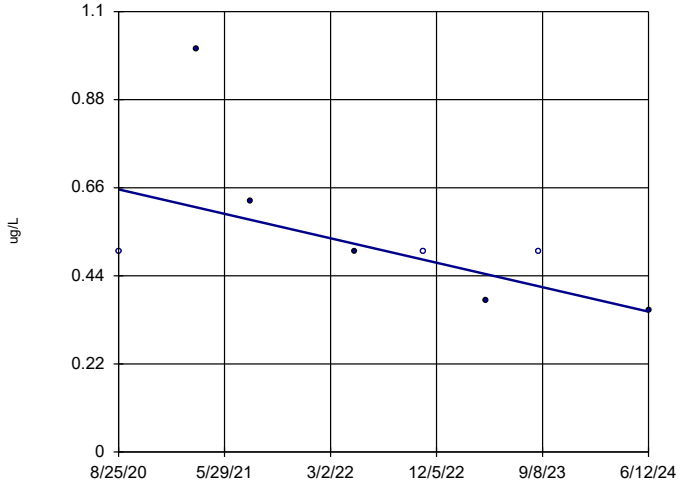
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



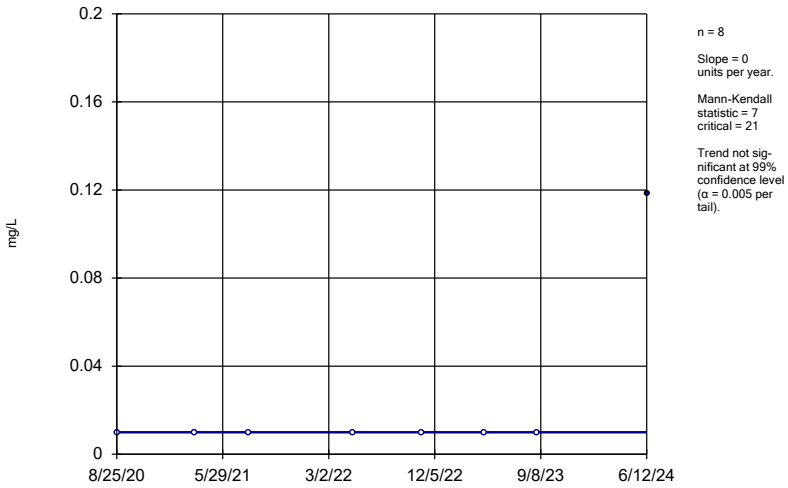
Constituent: Vinyl Chloride Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2



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: Zinc Analysis Run 10/14/2024 3:39 PM View: 2024 SSN MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Confidence Interval Table and Graphs

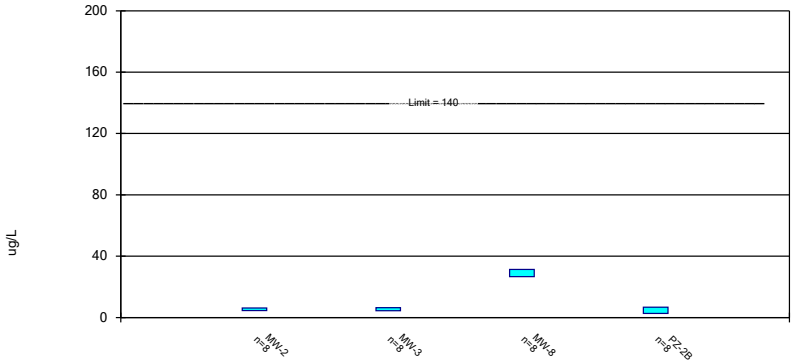
Confidence Interval

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM Printed 10/14/2024, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-2	6.185	4.581	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MW-3	6.466	4.404	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MW-8	31.39	26.64	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	PZ-2B	6.773	2.618	140	No	8	0	No	0.01	Param.
2,4-D [2C] (ug/L)	MW-8	5.4	0.535	70	No	8	25	No	0.004	NP (normality)
Acetone (ug/L)	MW-2	10.8	5	6300	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-3	0.0118	0.006276	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	PZ-2B	0.006337	0.005237	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-2	0.5157	0.3336	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-3	0.8296	0.6663	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-5	0.03114	0.0248	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-8	1.08	0.8757	2	No	8	0	No	0.01	Param.
Barium (mg/L)	PZ-2B	0.5991	0.5002	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-3	1.023	0.702	5	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-2	0.0008883	0.0001032	0.005	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-3	0.00025	0.00005	0.005	No	8	62.5	No	0.004	NP (NDs)
Cadmium (mg/L)	PZ-2B	0.0002749	0.00002938	0.005	No	8	50	No	0.01	Param.
Chloroethane (ug/L)	MW-3	6.857	3.008	2800	No	8	12.5	No	0.01	Param.
Chloroethane (ug/L)	MW-5	32.9	2	2800	No	8	87.5	No	0.004	NP (NDs)
Chloroethane (ug/L)	MW-8	3.183	1.581	2800	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-2	4.218	2.198	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-3	14.66	6.955	70	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-3	0.007289	0.001839	0.0021	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.00416	0.0001185	0.0021	No	8	25	No	0.004	NP (normality)
Cobalt (mg/L)	PZ-2B	0.0008203	0.000575	0.0021	No	8	0	No	0.01	Param.
Copper (mg/L)	MW-3	0.00306	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-8	0.003945	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Dichlorodifluoromethane (ug/L)	MW-2	4.597	2.433	1000	No	8	12.5	No	0.01	Param.
Dichlorodifluoromethane (ug/L)	MW-8	29.98	22.3	1000	No	8	0	No	0.01	Param.
Dichlorodifluoromethane (ug/L)	PZ-2B	5.32	3.225	1000	No	8	25	No	0.01	Param.
Lead (mg/L)	MW-3	0.00103	0.0002355	0.015	No	8	50	No	0.004	NP (normality)
Lead (mg/L)	MW-8	0.001035	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	PZ-2B	0.000974	0.000153	0.015	No	8	50	No	0.004	NP (normality)
Nickel (mg/L)	MW-2	0.009102	0.00174	0.1	No	8	37.5	No	0.01	Param.
Nickel (mg/L)	MW-3	0.02005	0.0054	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-8	0.005197	0.002371	0.1	No	8	50	No	0.01	Param.
Nickel (mg/L)	PZ-2B	0.0055	0.0025	0.1	No	8	87.5	No	0.004	NP (NDs)
Sulfide (mg/L)	MW-8	3.2	0.5	1	No	8	87.5	No	0.004	NP (NDs)
Tetrachloroethene (ug/L)	MW-2	3.775	2.183	5	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-3	1.019	0.8561	5	No	8	37.5	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-8	1.039	0.6487	5	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	PZ-2B	7.134	3.83	5	No	8	0	No	0.01	Param.
Trichloroethene (ug/L)	MW-2	6.338	4.335	5	No	8	0	No	0.01	Param.
Trichloroethene (ug/L)	**MW-3**	**19.97**	**15.11**	**5**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Trichloroethene (ug/L)	**MW-8**	**18.47**	**16.28**	**5**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Trichloroethene (ug/L)	**PZ-2B**	**10.55**	**5.328**	**5**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Vanadium (mg/L)	MW-8	0.005375	0.000911	0.035	No	8	12.5	No	0.004	NP (normality)
Vinyl Chloride (ug/L)	MW-8	2.225	1.687	2	No	8	0	No	0.01	Param.
Vinyl Chloride (ug/L)	PZ-2B	0.7514	0.3147	2	No	8	37.5	No	0.01	Param.
Zinc (mg/L)	MW-2	0.1185	0.01	2	No	8	87.5	No	0.004	NP (NDs)

Parametric Confidence Interval

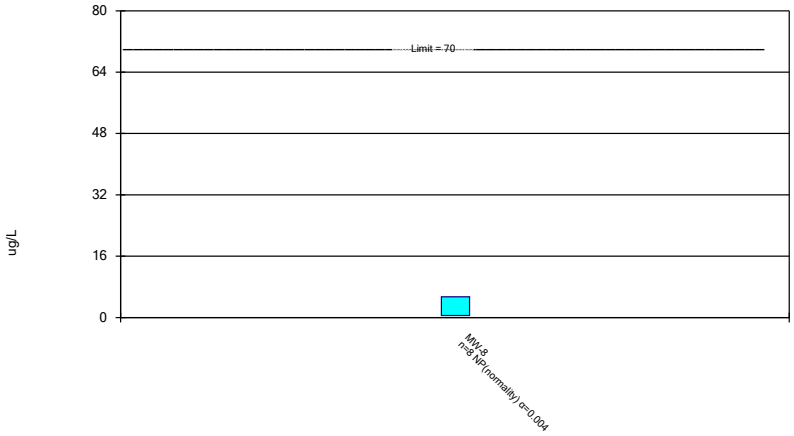
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: 1,1-Dichloroethane Analysis Run 10/14/2024 2:04 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

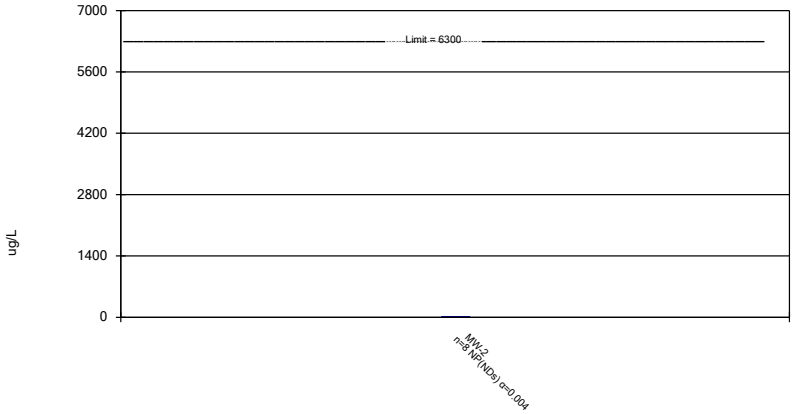
Compliance Limit is not exceeded.



Constituent: 2,4-D [2C] Analysis Run 10/14/2024 2:04 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

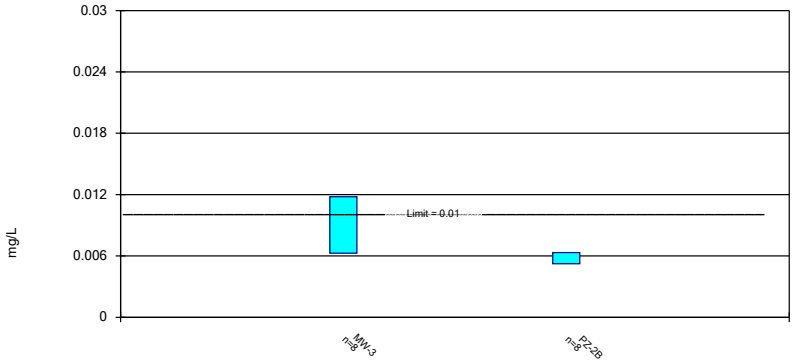
Compliance Limit is not exceeded.



Constituent: Acetone Analysis Run 10/14/2024 2:04 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

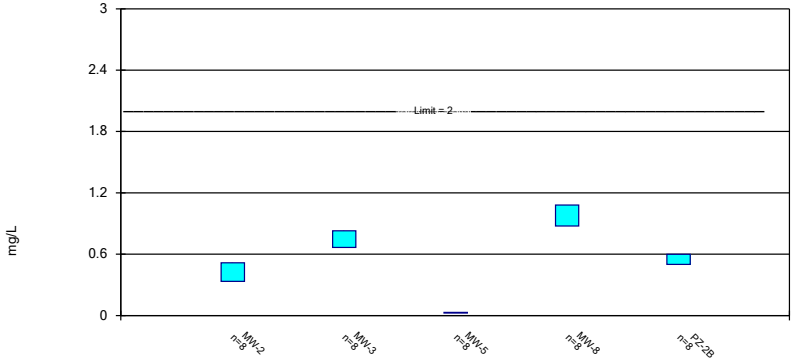
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 10/14/2024 2:04 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

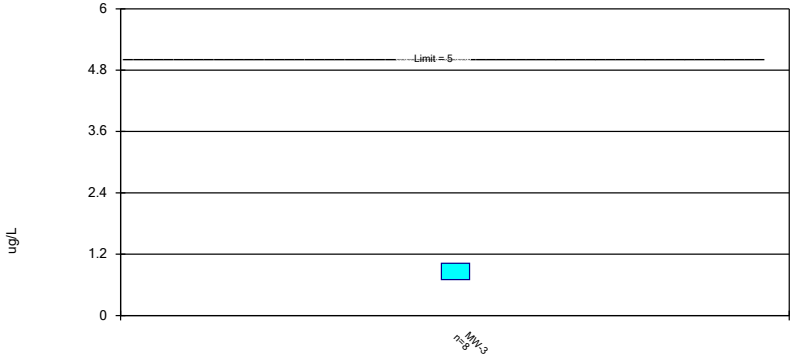
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

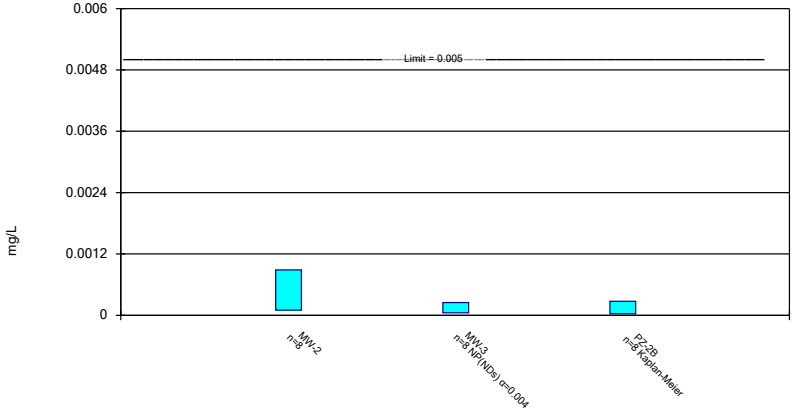
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Benzene Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

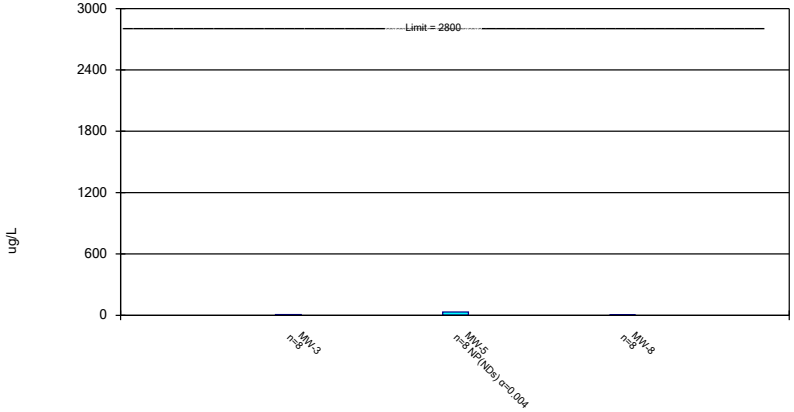
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

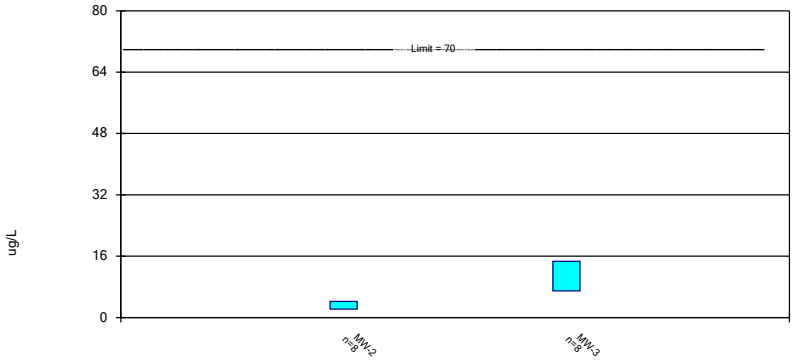
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chloroethane Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

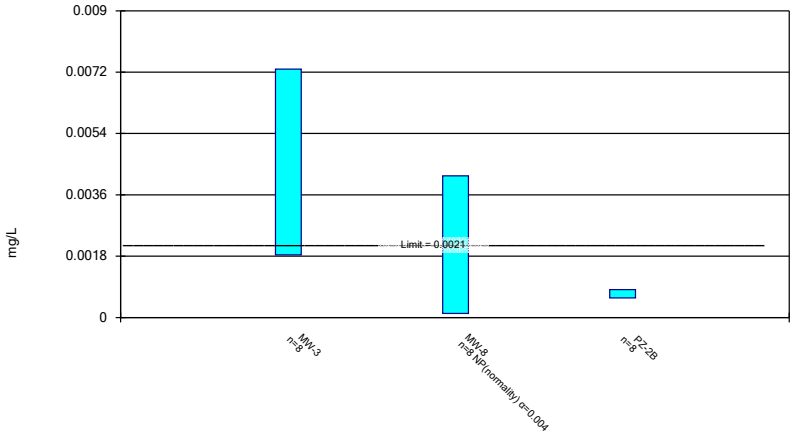
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: cis-1,2-Dichloroethene Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

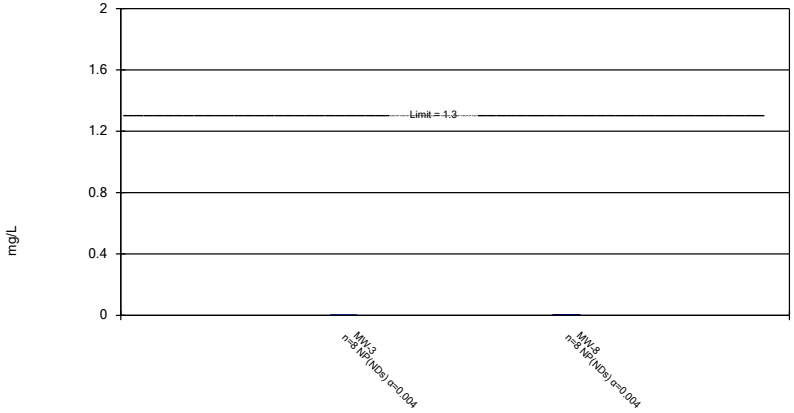
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

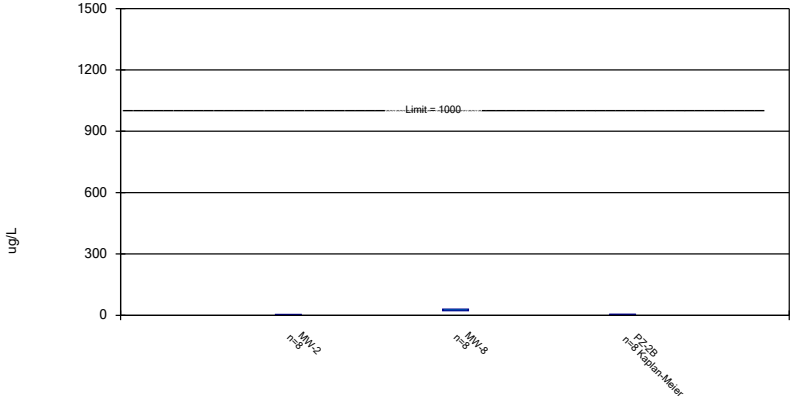
Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

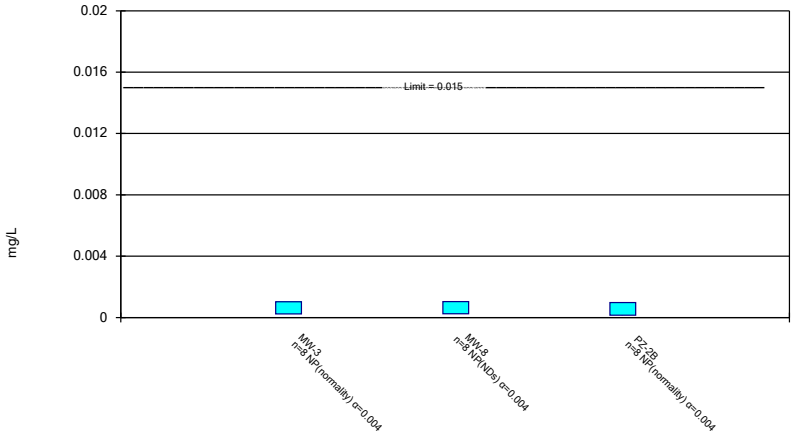
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Dichlorodifluoromethane Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

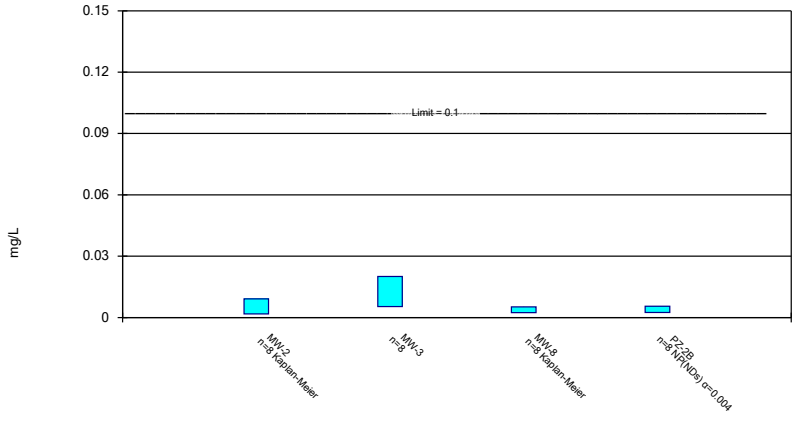


Constituent: Lead Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

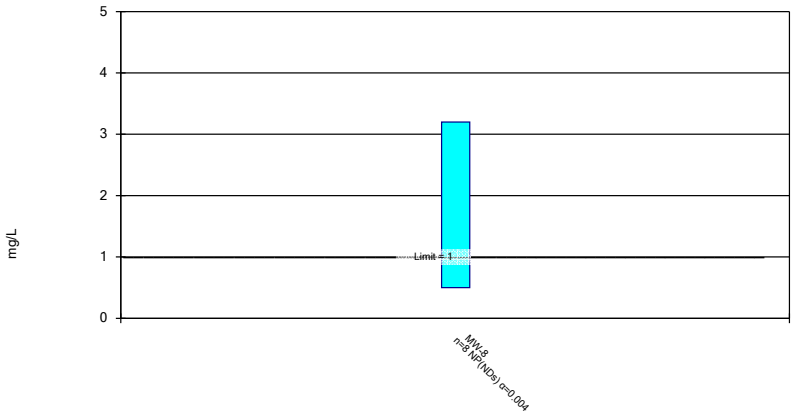


Constituent: Nickel Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

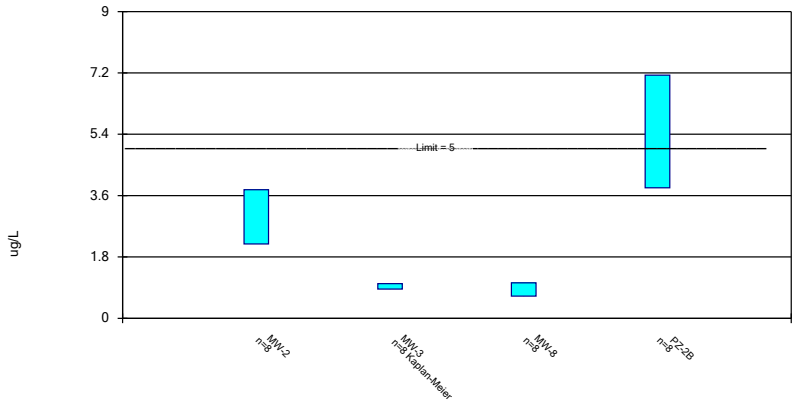


Constituent: Sulfide Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

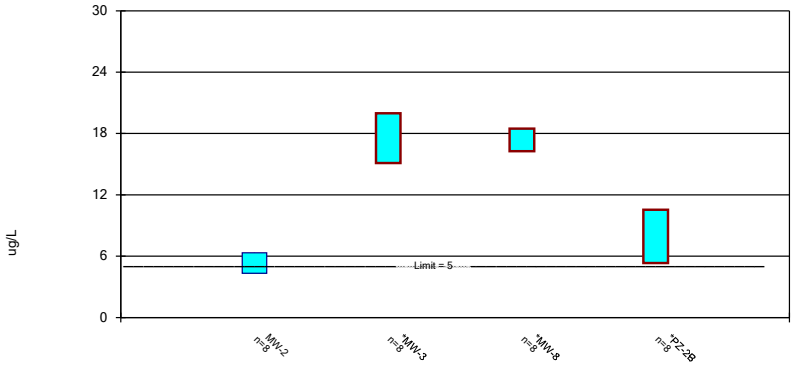


Constituent: Tetrachloroethene Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

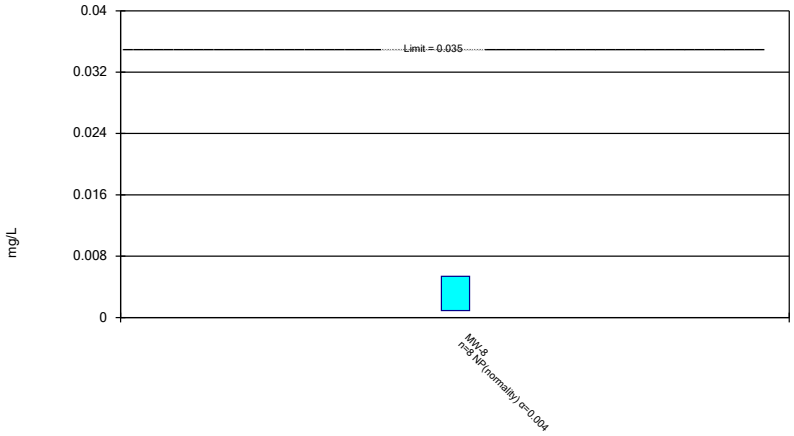
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Trichloroethene Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

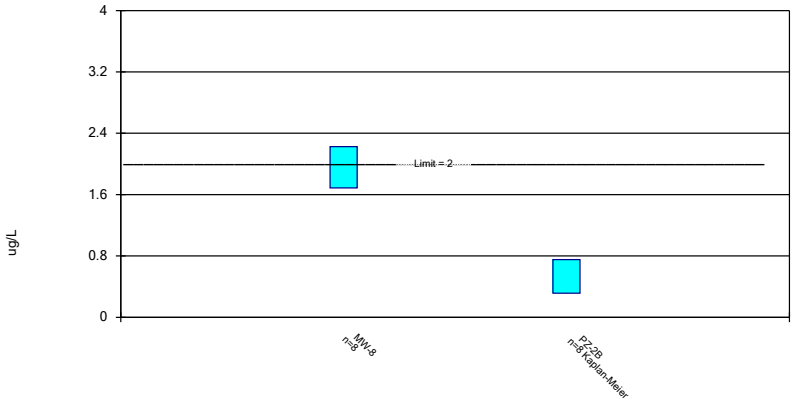
Compliance Limit is not exceeded.



Constituent: Vanadium Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Parametric Confidence Interval

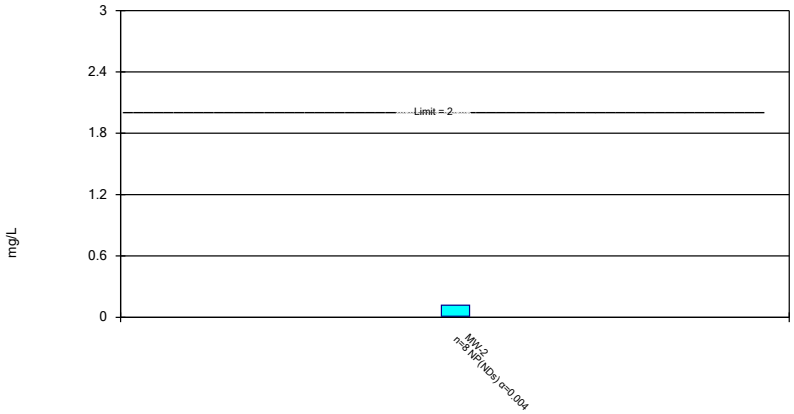
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Vinyl Chloride Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Zinc Analysis Run 10/14/2024 2:05 PM View: 2024 SSN CI
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Theil-Sen Confidence Bands Summary Table and Graphs

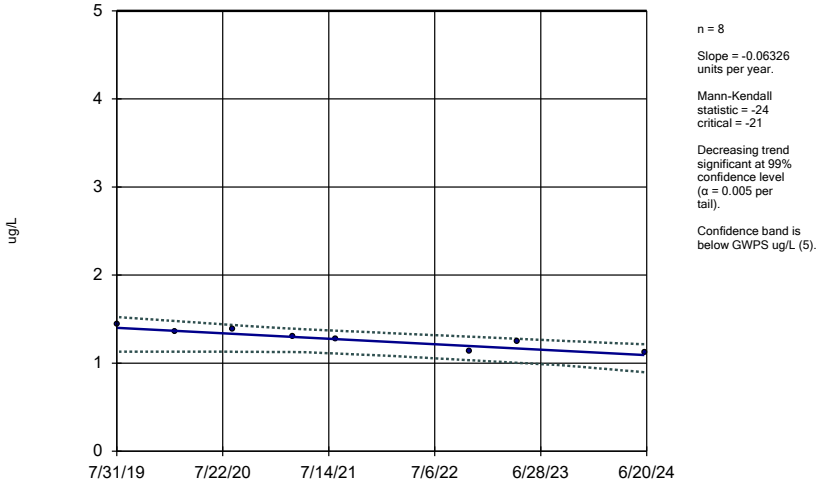
Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM Printed 9/30/2024, 2:47 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Benzene (ug/L)	**MW-8**	**-0.06326**	**-24**	**-21**	**Yes**	**8**	**0**	**n/a**	**n/a**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**MW-8**	**0.3451**	**24**	**21**	**Yes**	**8**	**0**	**n/a**	**n/a**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**PZ-2B**	**-0.7132**	**-22**	**-21**	**Yes**	**8**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Sen's Slope and 99% Confidence Band

MW-8



n = 8

Slope = -0.06326 units per year.

Mann-Kendall statistic = -24 critical = -21

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

Confidence band is below GWPS ug/L (5).

Constituent: Benzene Analysis Run 9/30/2024 2:35 PM View: 2024 SSN TheilSen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

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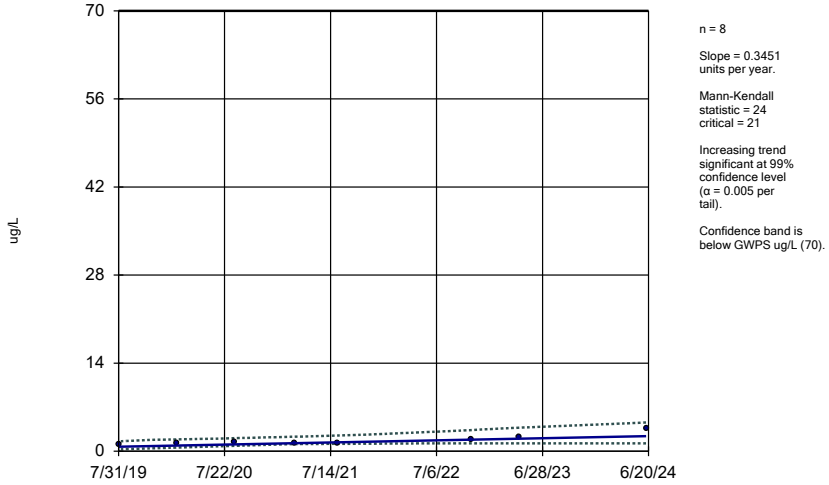
Sen's Slope and 99% Confidence Band

MW-8



n = 8

Slope = 0.3451 units per year.

Mann-Kendall statistic = 24 critical = 21

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

Confidence band is below GWPS ug/L (70).

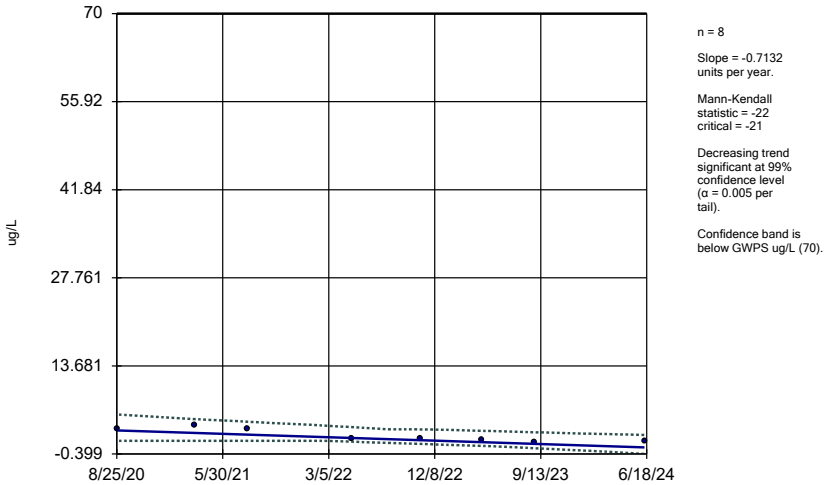
Constituent: cis-1,2-Dichloroethene Analysis Run 9/30/2024 2:35 PM View: 2024 SSN TheilSen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

Sanitas™ v.10.0.22 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

PZ-2B



n = 8

Slope = -0.7132 units per year.

Mann-Kendall statistic = -22 critical = -21

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

Confidence band is below GWPS ug/L (70).

Constituent: cis-1,2-Dichloroethene Analysis Run 9/30/2024 2:35 PM View: 2024 SSN TheilSen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-SSN-MasterAM

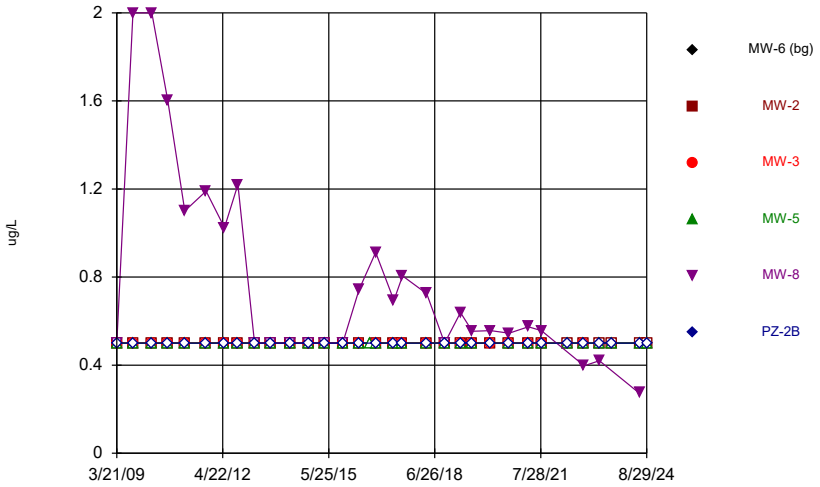
Attachment B

2nd 2024 Semi-Annual Statistical Output

Time Series Table and Graphs

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

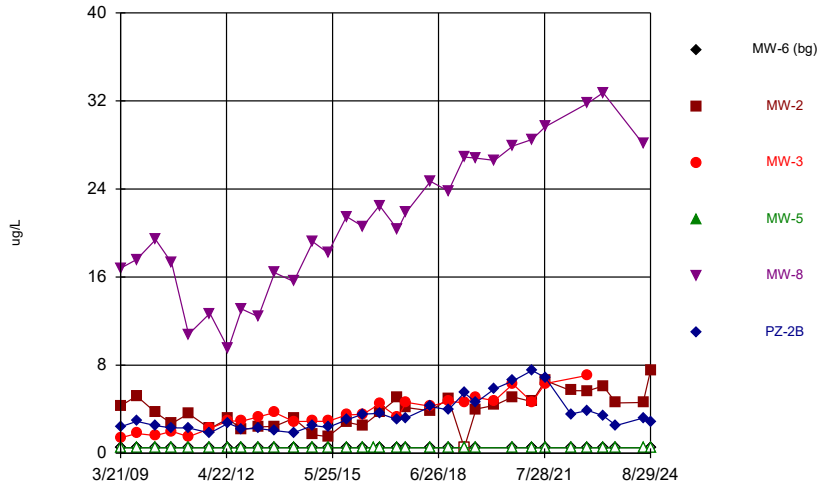
Time Series



Constituent: 1,1,1-Trichloroethane Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

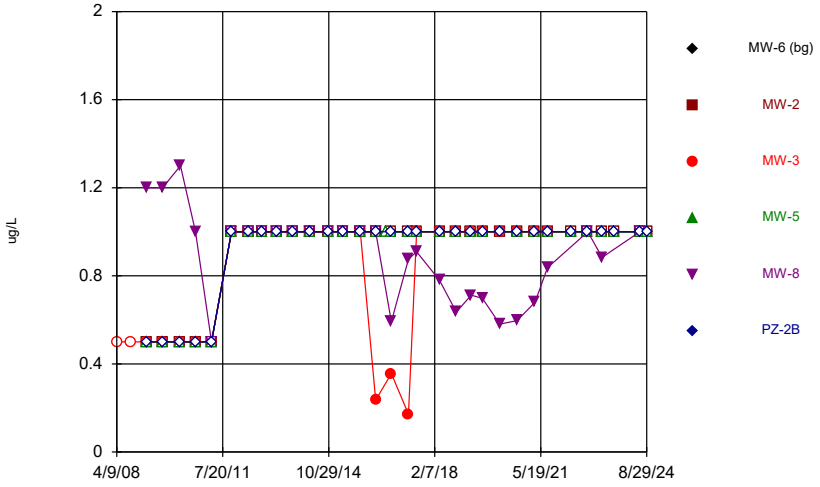
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: 1,1-Dichloroethene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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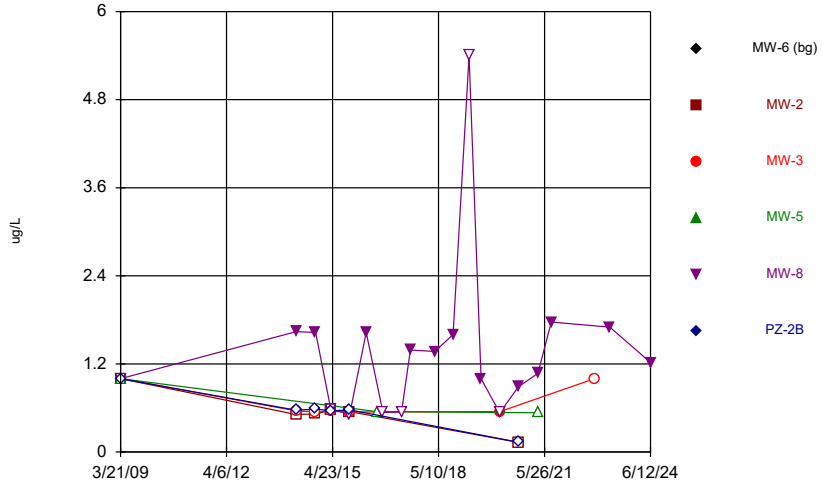
Hollow symbols indicate censored values.

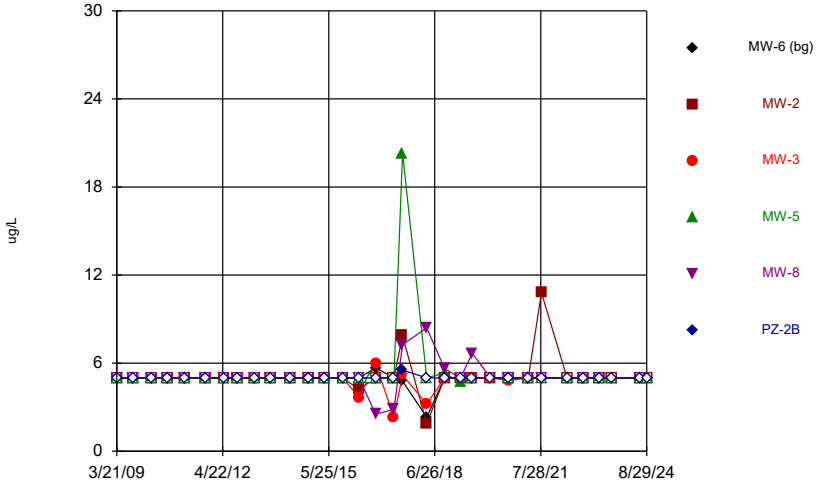
Time Series



Constituent: 2,4-D [2C] Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Acetone Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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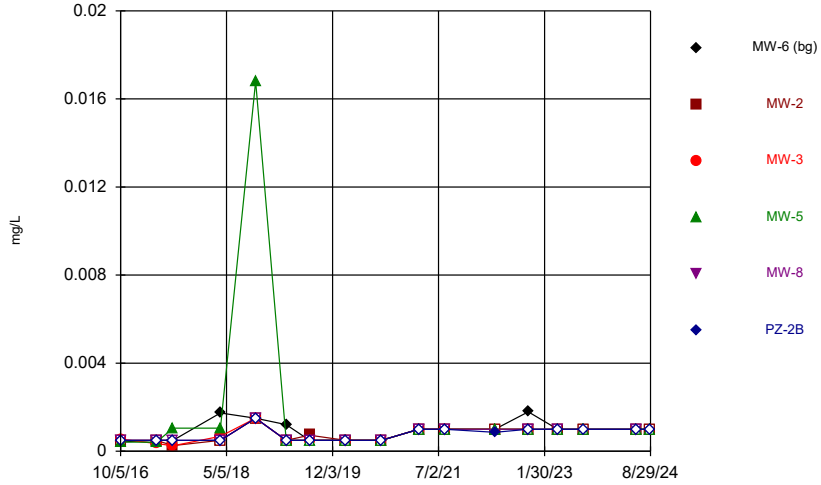
Hollow symbols indicate censored values.

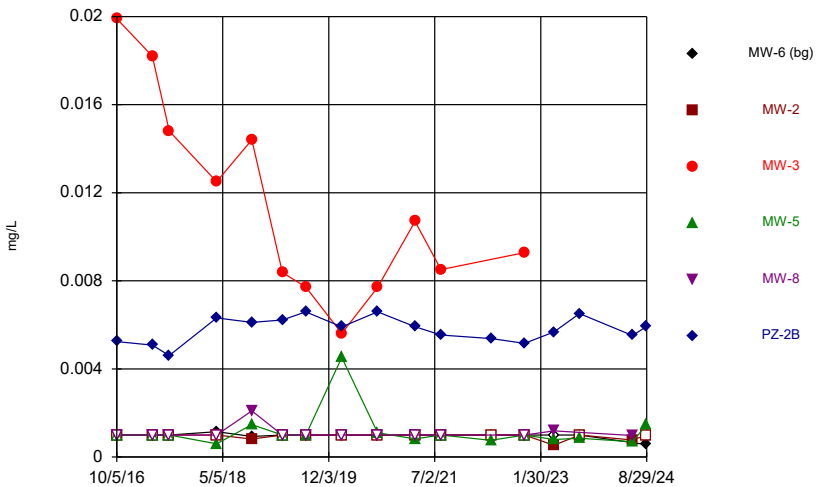
Time Series



Constituent: Antimony Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

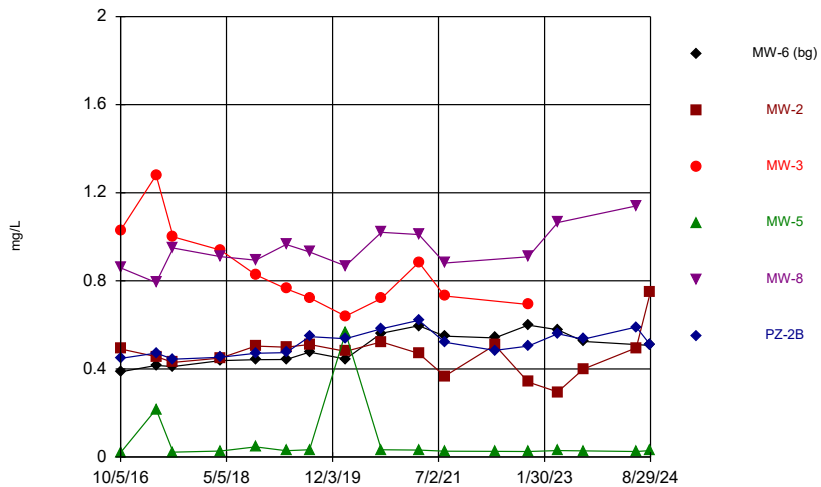
Time Series



Constituent: Arsenic Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

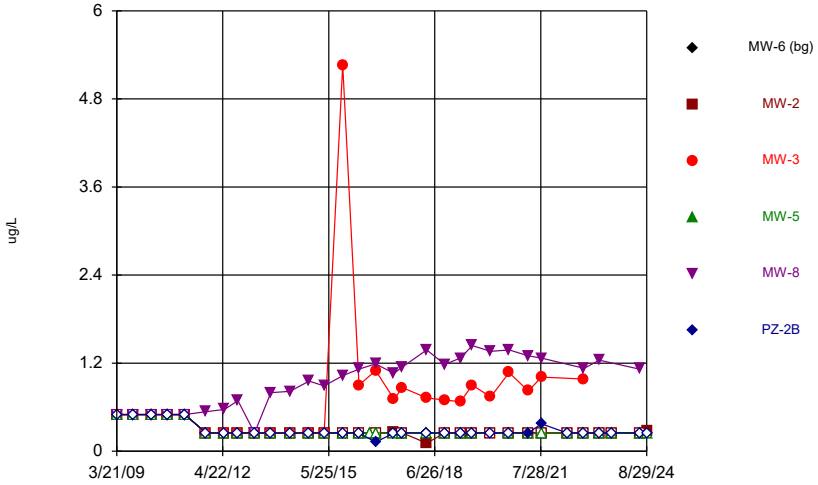
Time Series



Constituent: Barium Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

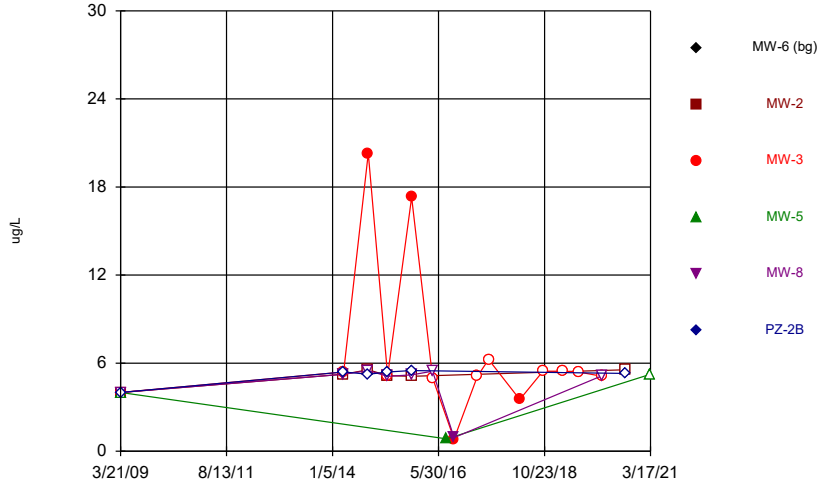
Time Series



Constituent: Benzene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

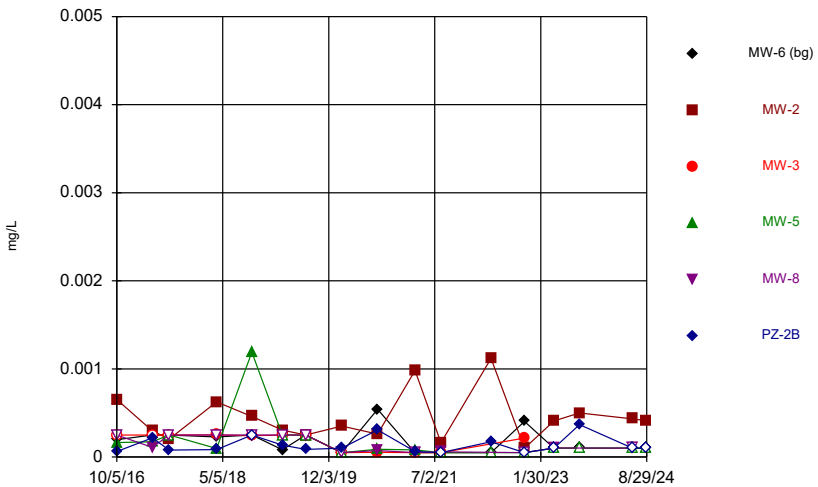
Time Series



Constituent: Bis[2-ethylhexyl]phthalate Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

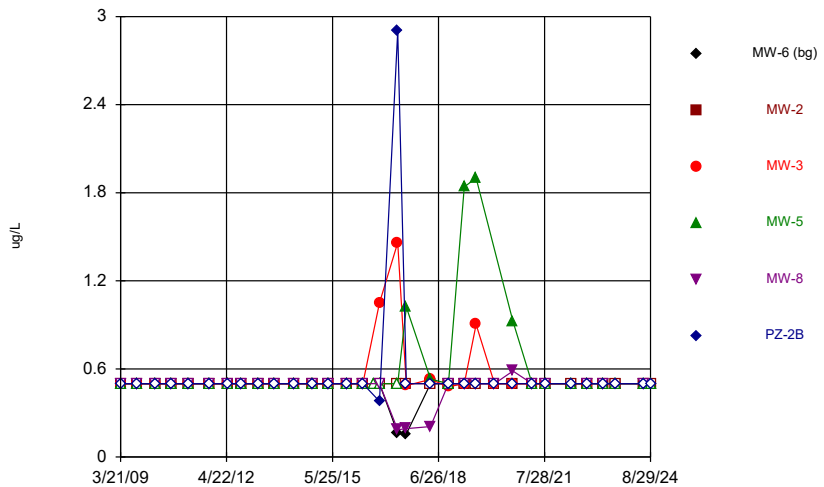
Time Series



Constituent: Cadmium Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

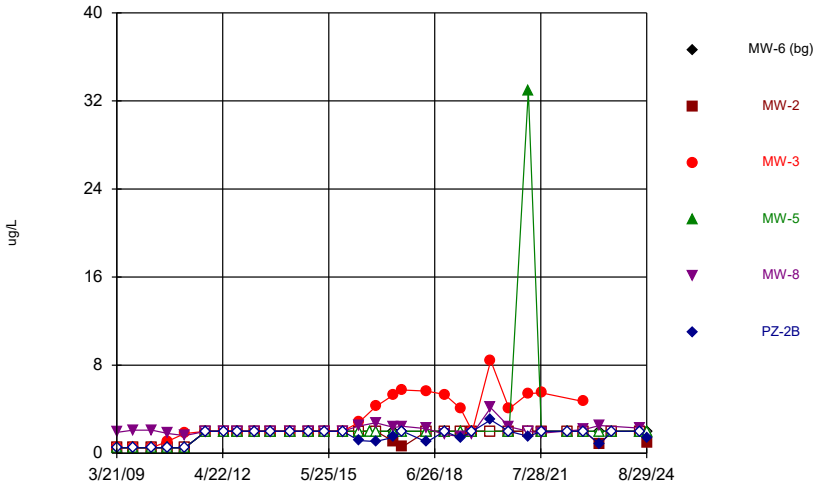
Time Series



Constituent: Carbon Disulfide Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

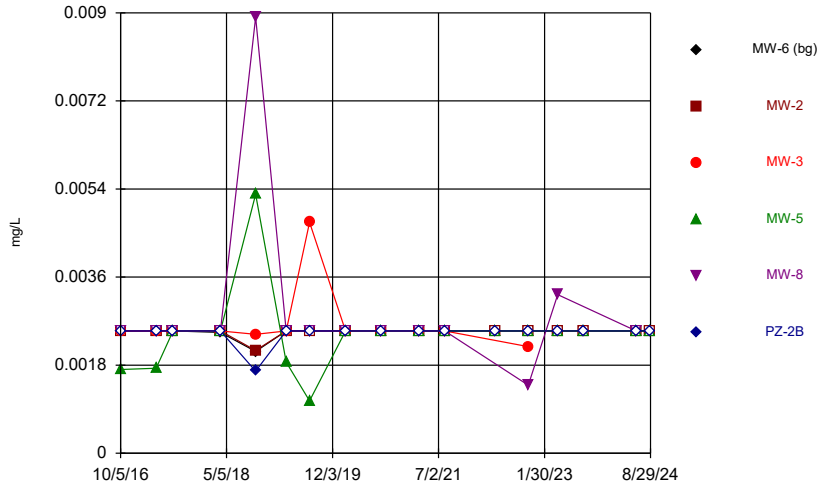
Time Series



Constituent: Chloroethane Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

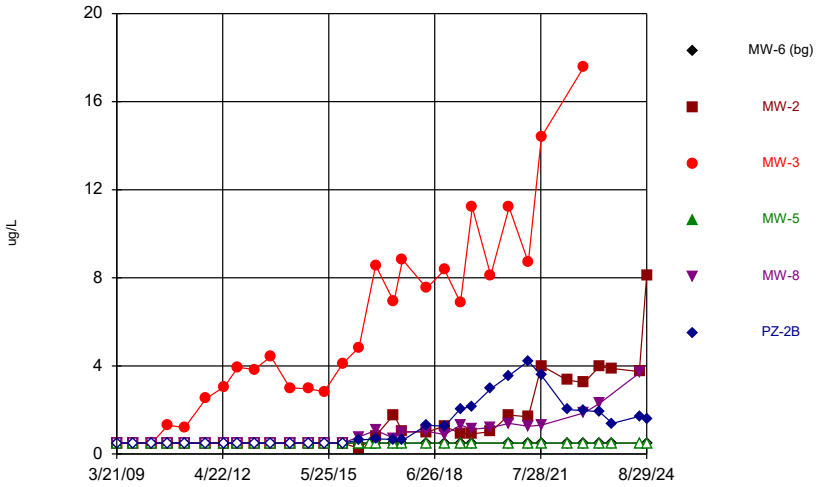
Time Series



Constituent: Chromium Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

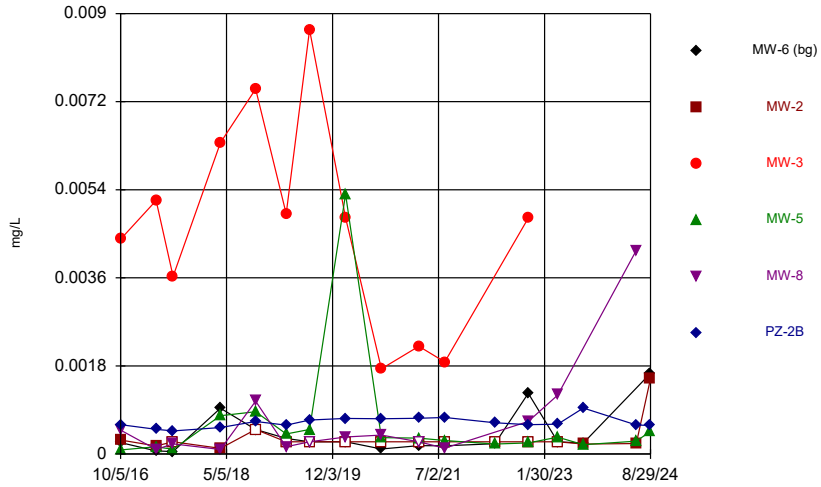
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

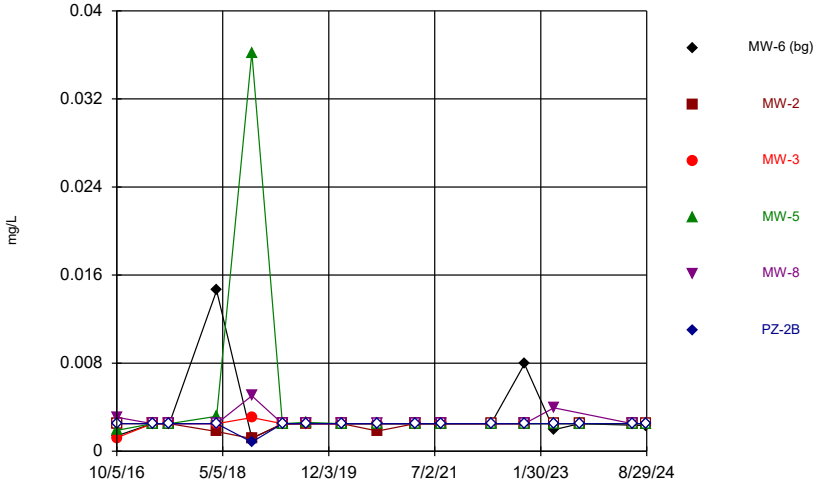
Time Series



Constituent: Cobalt Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

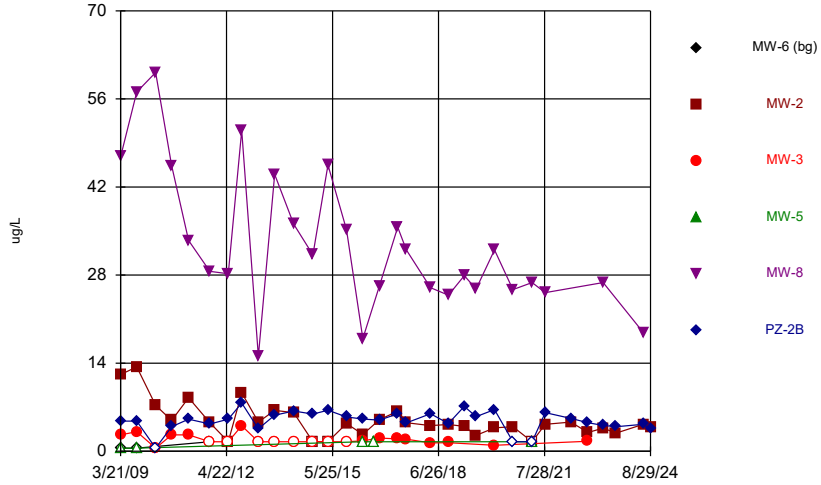
Time Series



Constituent: Copper Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

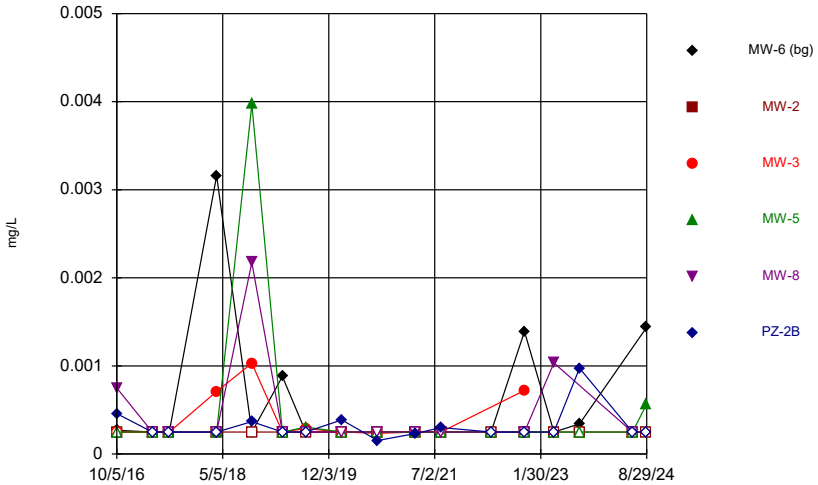
Time Series



Constituent: Dichlorodifluoromethane Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

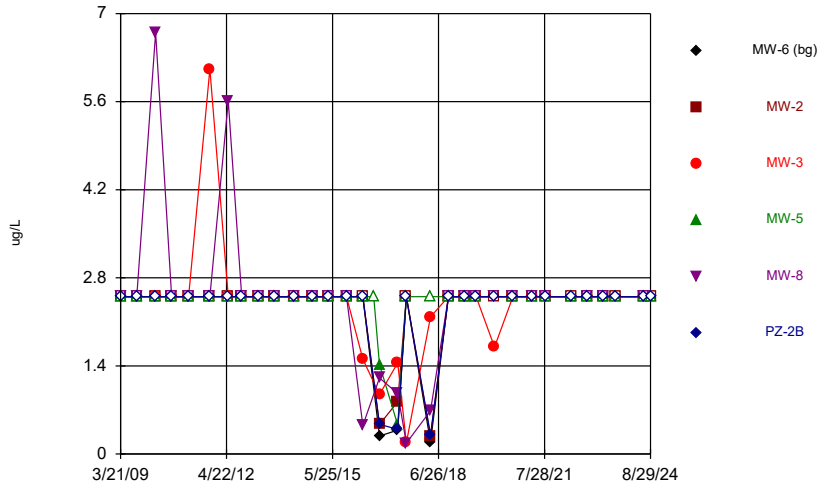
Time Series



Constituent: Lead Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

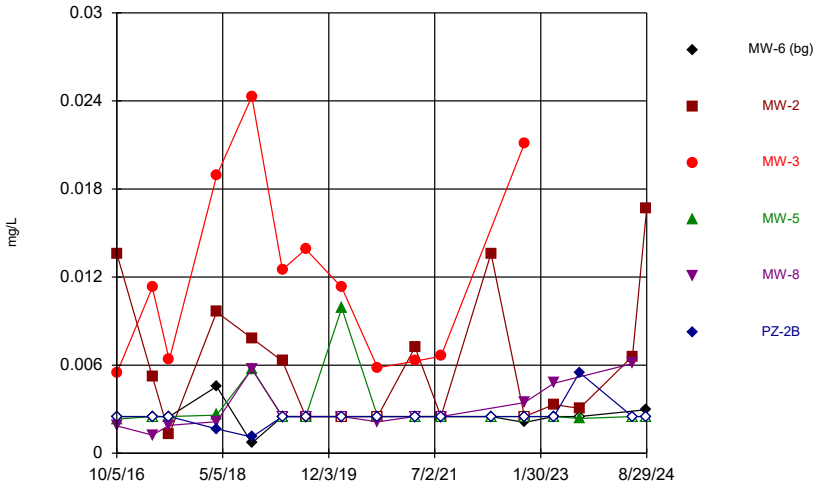
Time Series



Constituent: Methylene Chloride Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

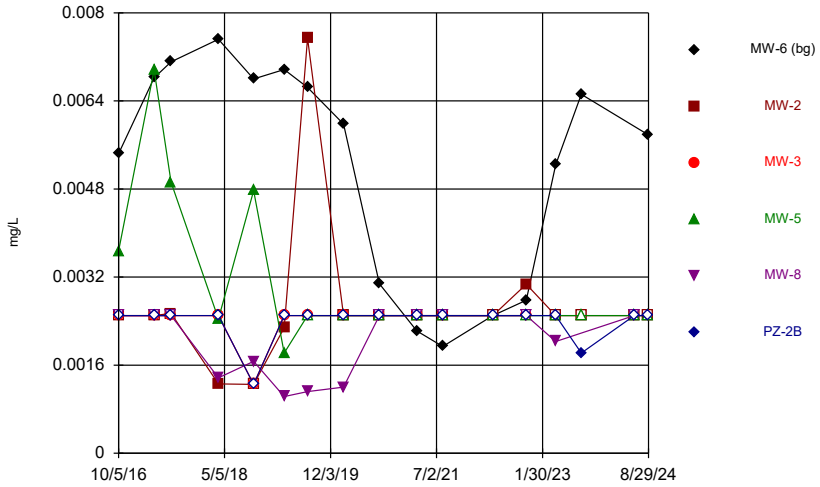
Time Series



Constituent: Nickel Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

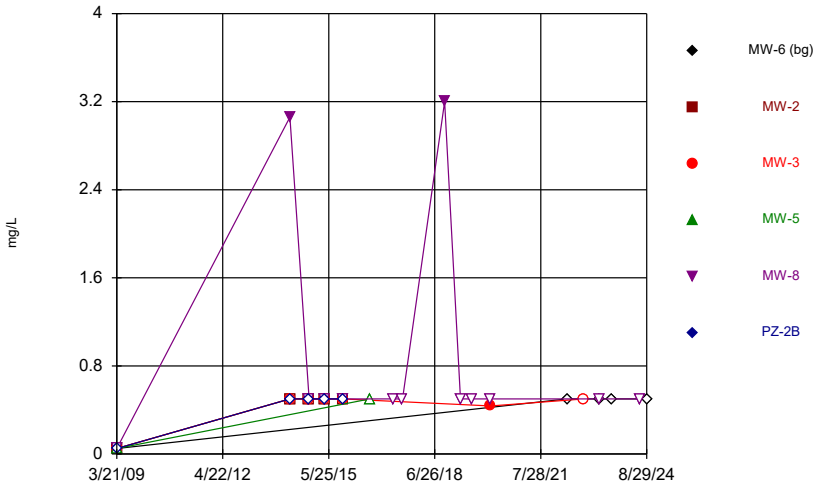
Time Series



Constituent: Selenium Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

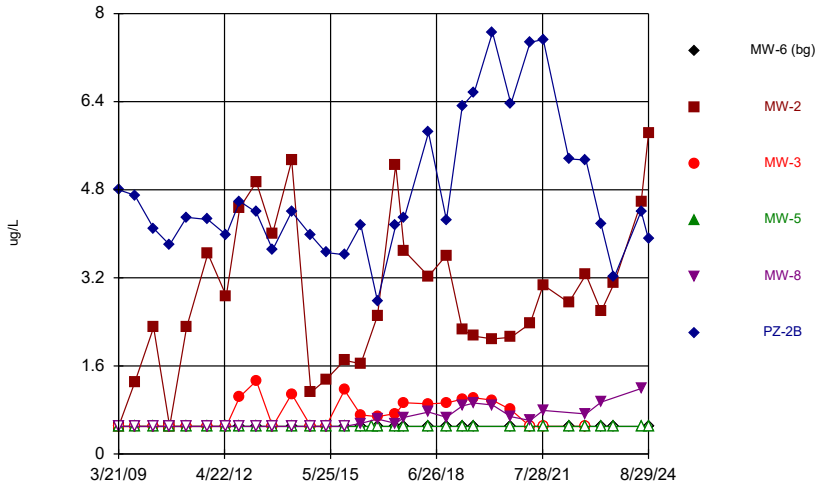
Time Series



Constituent: Sulfide Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

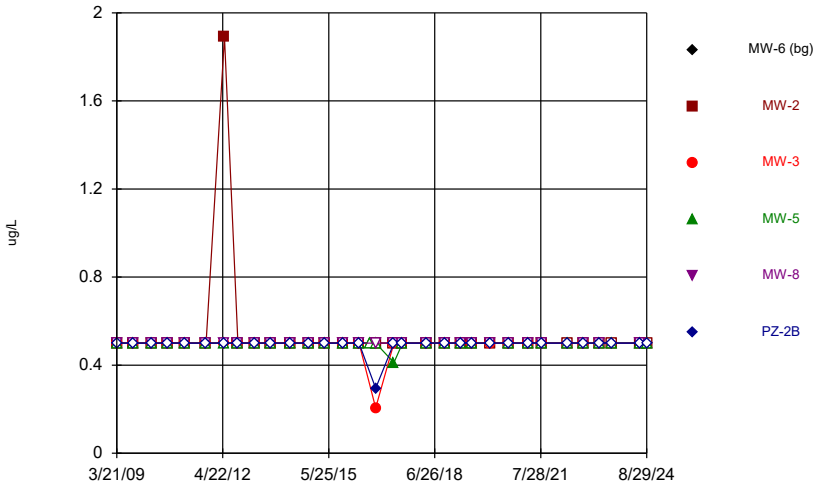
Time Series



Constituent: Tetrachloroethene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

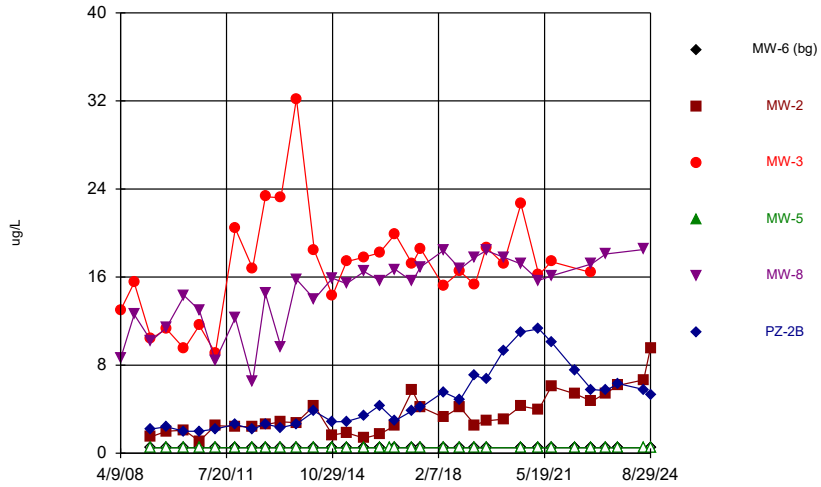
Time Series



Constituent: Toluene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

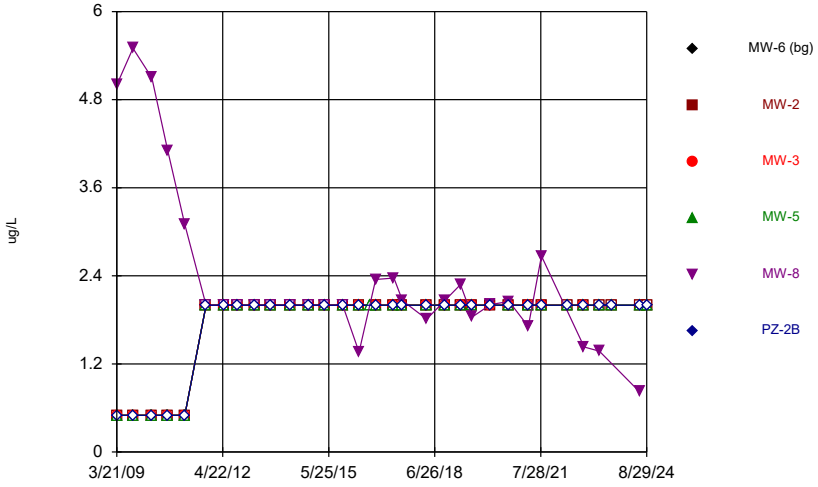
Time Series



Constituent: Trichloroethene Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

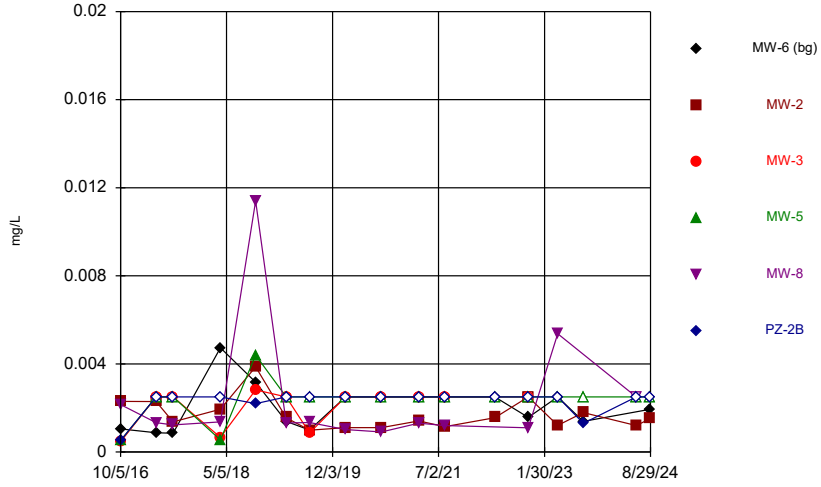
Time Series



Constituent: Trichlorofluoromethane Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

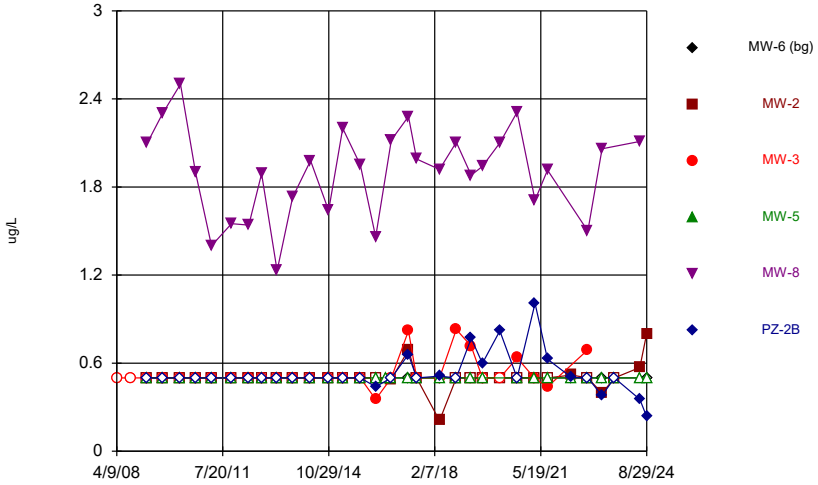
Time Series



Constituent: Vanadium Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

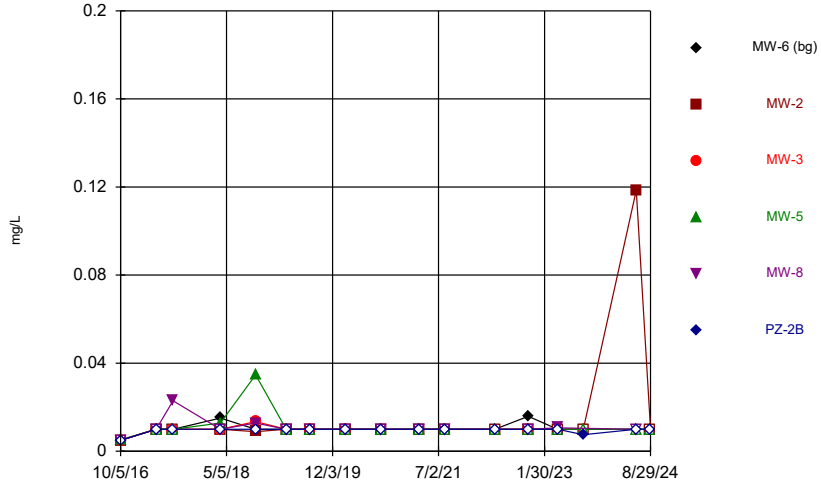
Time Series



Constituent: Vinyl Chloride Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 12/30/2024 8:52 AM View: 2024 AWQR Time Series
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Outliers Table and Graphs

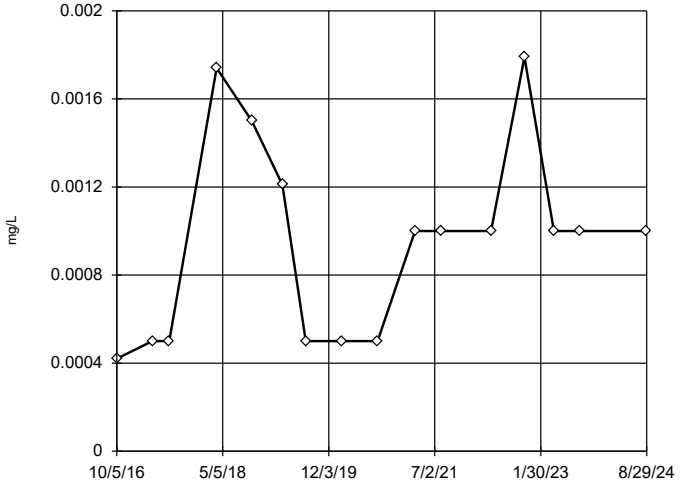
Outlier Analysis

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP Printed 12/30/2024, 10:32 AM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Normality Test
Antimony (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	16	0.0009475	n/a
Arsenic (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	16	0.0009779	n/a
Barium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.4947	ShapiroWilk
Cadmium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.0001846	ShapiroWilk
Chromium (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	16	0.002472	n/a
Cobalt (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.0004139	ShapiroWilk
Copper (mg/L)	**MW-6 (bg)**	**Yes**	**0.0014,0.0146,0.0012,0.00792,0.00196**	**10/5/2016,4/2/2018,10/10/2018,11/2/2022,4/12/2023**	**NP (nrm)/OH**	**NaN**	**16**	**0.003398**	**ShapiroWilk**
Lead (mg/L)	**MW-6 (bg)**	**Yes**	**0.00316**	**4/2/2018**	**NP (nrm)/OH**	**NaN**	**16**	**0.0006238**	**ShapiroWilk**
Nickel (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	16	0.00252	n/a
Selenium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.005209	ShapiroWilk
Thallium (mg/L)	**MW-6 (bg)**	**Yes**	**0.001**	**10/10/2018**	**OH**	**NaN**	**16**	**0.0005206**	**n/a**
Vanadium (mg/L)	MW-6 (bg)	No	n/a	n/a	EPA/OH	0.05	16	0.002061	ShapiroWilk
Zinc (mg/L)	MW-6 (bg)	No	n/a	n/a	OH	NaN	16	0.01037	n/a

Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

No statistical outliers.

Normality test used:
Shapiro Wilk@alpha = 0.05
Calculated = 0
Critical = 0
The distribution was found to be normally distrib-uted.

Constituent: Antimony Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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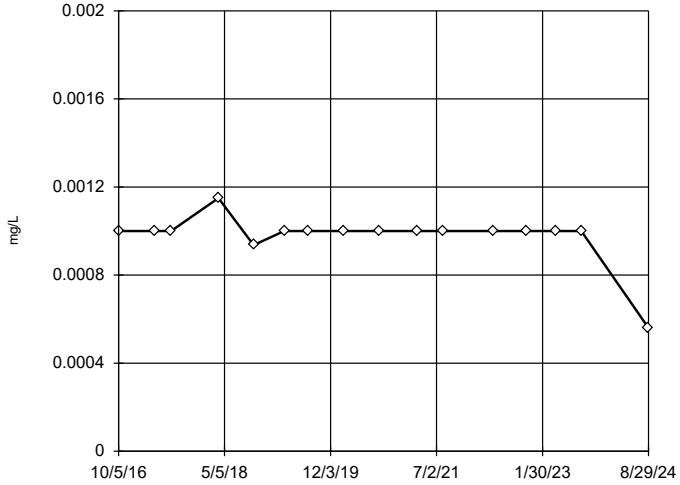
Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

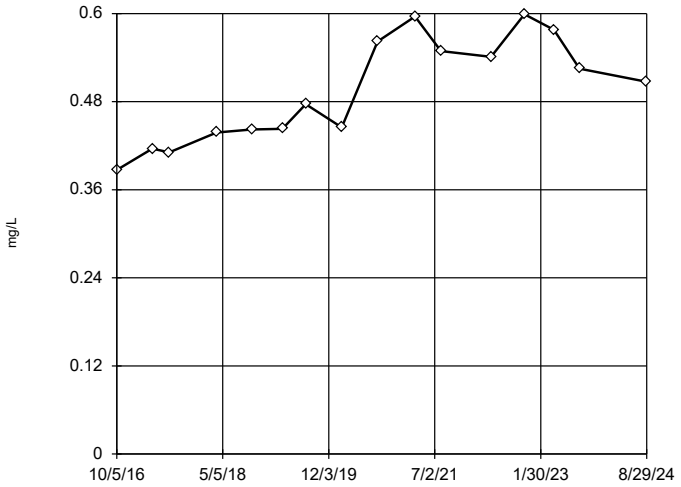
No statistical outliers.

Constituent: Arsenic Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 16

Dixon's will not be run.
No suspect values identi-fied or unable to estab-lish suspect values.
Ohio method in use.
Mean 0.4947, std. dev. 0.07073, critical Tn 2.443

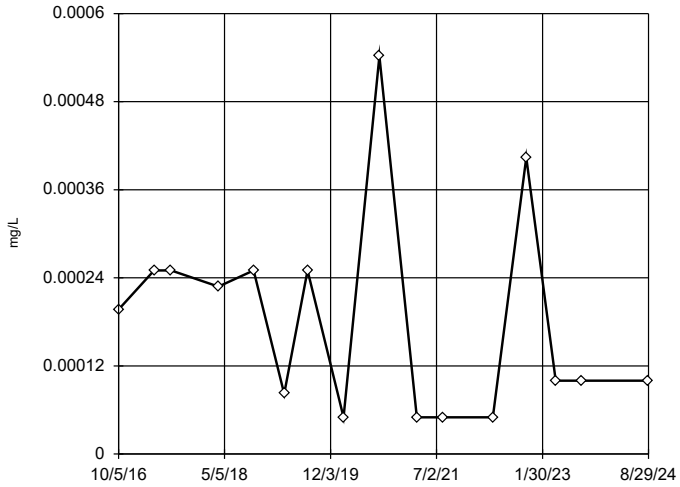
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9261
Critical = 0.844
The distribution was found to be normally distrib-uted.

Constituent: Barium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 16

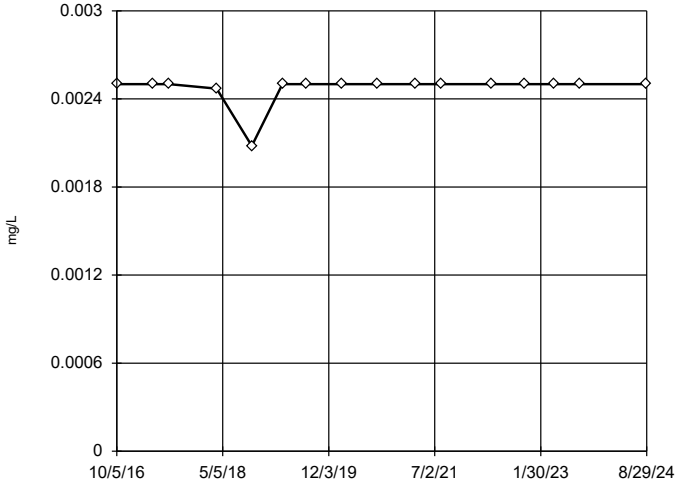
Dixon's will not be run.
No suspect values identi-fied or unable to estab-lish suspect values.
Ohio method in use.
Mean 0.0001846, std. dev. 0.0001413, critical Tn 2.443

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8458
Critical = 0.844
The distribution was found to be normally distrib-uted.

Constituent: Cadmium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

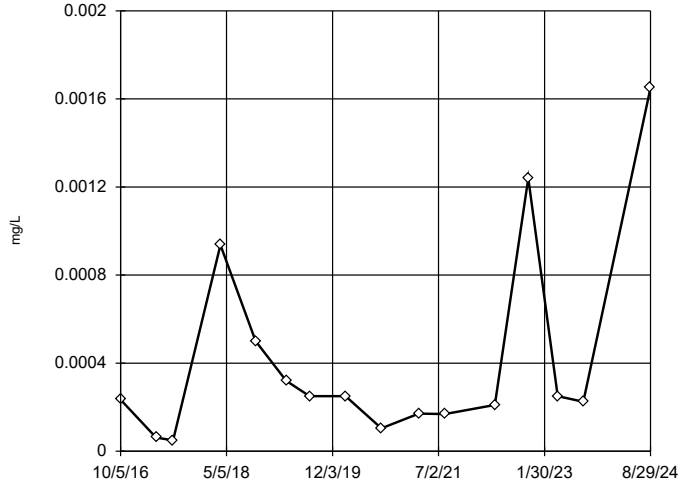
No statistical outliers.

Constituent: Chromium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 16

Dixon's will not be run.
No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.0004139, std. dev. 0.0004591, critical Tn 2.443

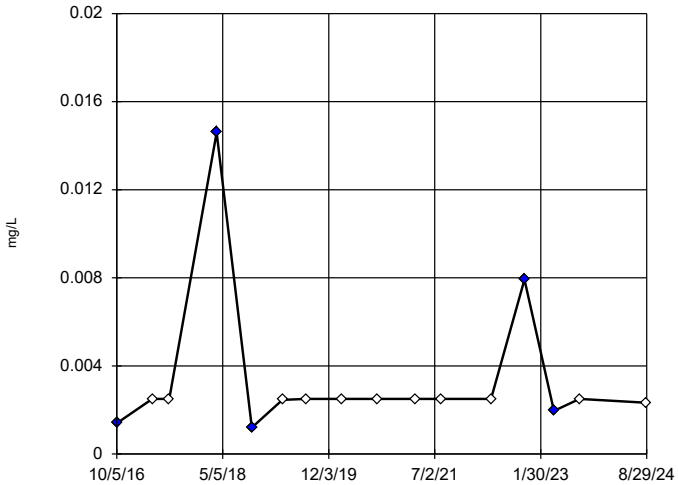
Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.9415
Critical = 0.844 (after natural log transformation)
The distribution was found to be log-normal.

Constituent: Cobalt Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

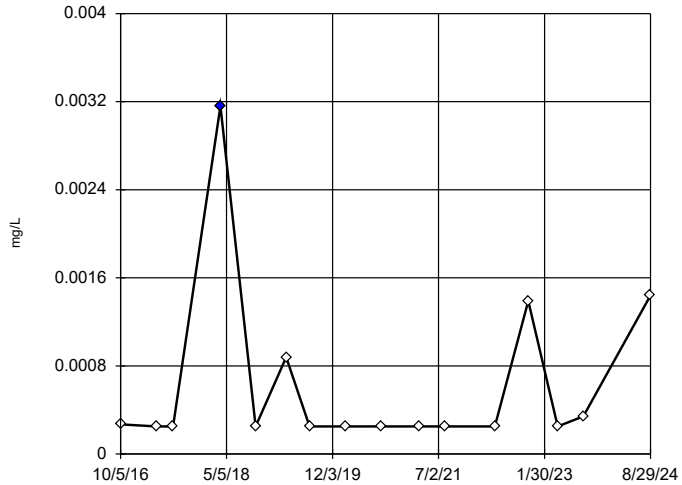
High cutoff = 0.002815, low cutoff = 0.00208, based on IQR multiplier of 3.

Constituent: Copper Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

Outlier is drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Wilk normality test failed at the 0.01 alpha level.

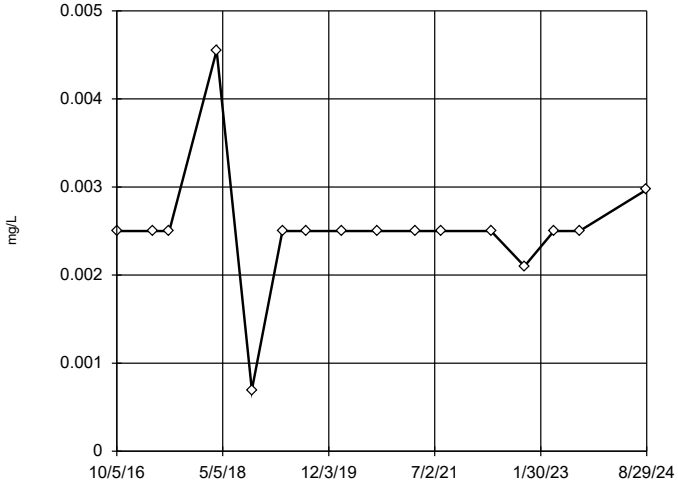
High cutoff = 0.001692, low cutoff = -0.0008315, based on IQR multiplier of 3.

Constituent: Lead Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

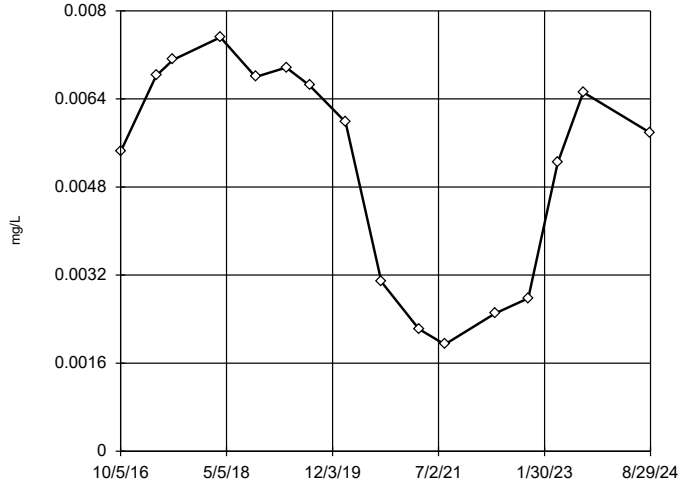
No statistical outliers.

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.5763
Critical = 0.835
The distribution was found to be normally distrib-uted.

Constituent: Nickel Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 16

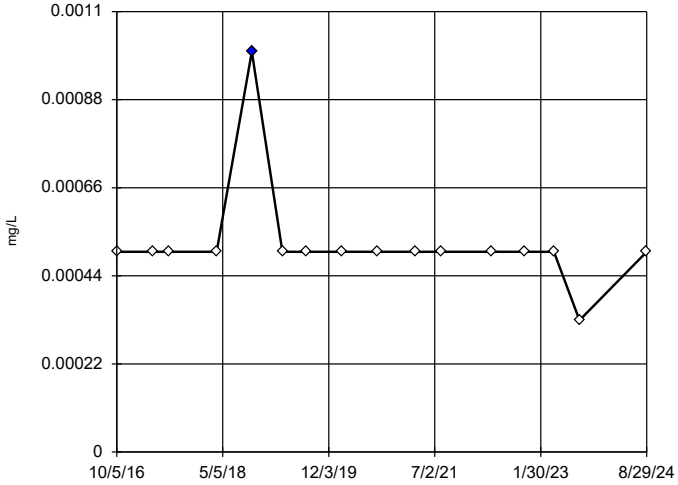
Dixon's will not be run.
No suspect values identi-fied or unable to estab-lish suspect values.
Ohio method in use.
Mean 0.005209, std. dev. 0.001989, critical Tn 2.443

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8467
Critical = 0.844
The distribution was found to be normally distrib-uted.

Constituent: Selenium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



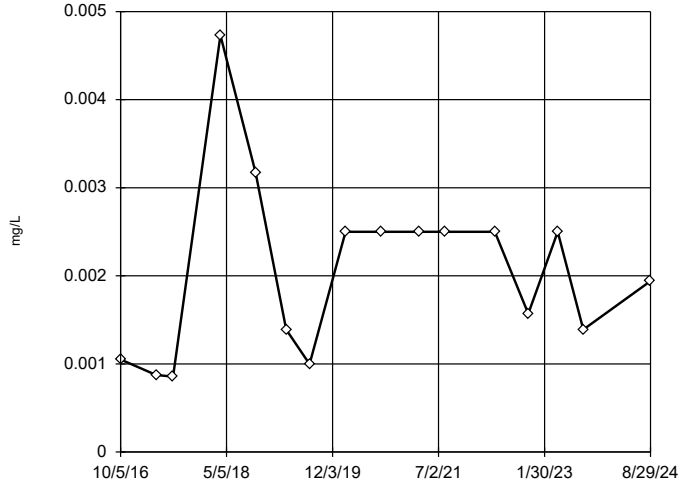
n = 16

Statistical outlier is drawn as solid.
Outlier per Ohio method.

Constituent: Thallium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

EPA Screening (suspected outliers for Dixon's Test)

MW-6 (bg)



n = 16

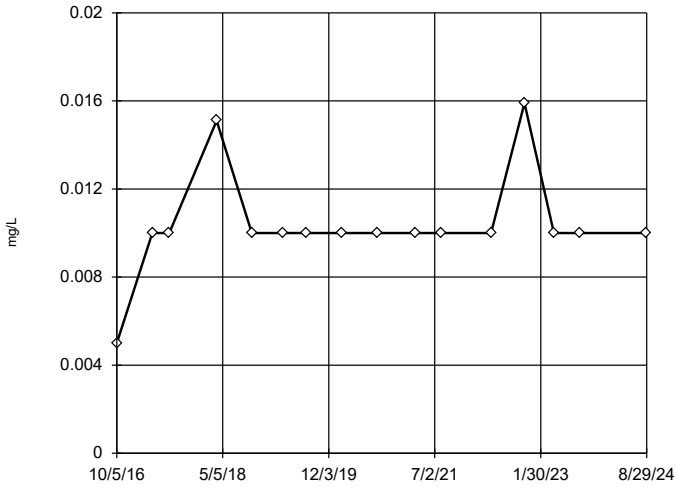
Dixon's will not be run.
No suspect values identi-fied or unable to estab-lish suspect values.
Ohio method in use.
Mean 0.002061, std. dev. 0.001022, critical Tn 2.443

Normality test used:
Shapiro Wilk@alpha = 0.01
Calculated = 0.8789
Critical = 0.844
The distribution was found to be normally distrib-uted.

Constituent: Vanadium Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Ohio EPA 0715 Outlier Algorithm

MW-6 (bg)



n = 16

No statistical outliers.

Constituent: Zinc Analysis Run 12/30/2024 10:28 AM View: 2024 AWQR Outliers

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Prediction Limits Table and Graphs

Prediction Limit

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP Printed 12/30/2024, 11:48 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**PZ-2B**	**0.00115**	**n/a**	**8/29/2024**	**0.00593**	**Yes**	**16**	**81.25**	**n/a**	**0.005898**	**NP Inter (NDs) 1 of 2**
Barium (mg/L)	**MW-2**	**0.6611**	**n/a**	**8/29/2024**	**0.751**	**Yes**	**16**	**0**	**No**	**0.0008101**	**Param Inter 1 of 2**
Barium (mg/L)	MW-5	0.6611	n/a	8/29/2024	0.0297	No	16	0	No	0.0008101	Param Inter 1 of 2
Barium (mg/L)	PZ-2B	0.6611	n/a	8/29/2024	0.5085	No	16	0	No	0.0008101	Param Inter 1 of 2
Cadmium (mg/L)	MW-2	0.000542	n/a	8/29/2024	0.000412	No	16	68.75	n/a	0.005898	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	MW-2	0.001683	n/a	8/29/2024	0.00154	No	16	25	x^(1/3)	0.0008101	Param Inter 1 of 2
Cobalt (mg/L)	PZ-2B	0.001683	n/a	8/29/2024	0.000583	No	16	25	x^(1/3)	0.0008101	Param Inter 1 of 2
Lead (mg/L)	MW-5	0.00316	n/a	8/29/2024	0.000567	No	16	62.5	n/a	0.005898	NP Inter (NDs) 1 of 2
Nickel (mg/L)	**MW-2**	**0.00455**	**n/a**	**8/29/2024**	**0.0167**	**Yes**	**16**	**75**	**n/a**	**0.005898**	**NP Inter (NDs) 1 of 2**

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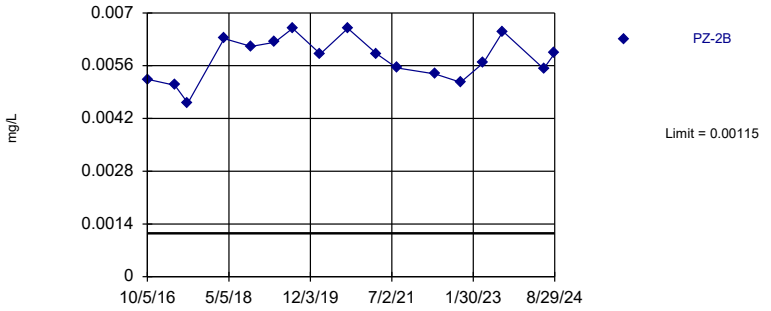
Exceeds Limit: PZ-2B

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 81.25% NDs. Annual per-constituent alpha = 0.05744. Individual comparison alpha = 0.005898 (1 of 2). Assumes 4 future values.

Constituent: Arsenic Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits

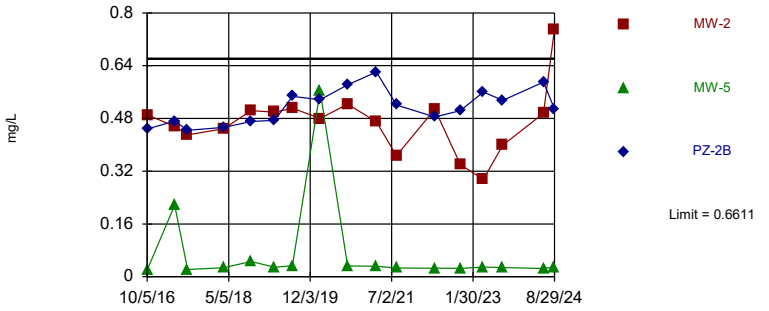
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Exceeds Limit: MW-2

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.4947, Std. Dev.=0.07073, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9261, critical = 0.844. Kappa = 2.352 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.004044. Individual comparison alpha = 0.0008101. Comparing 3 points to limit. Assumes 2 future values.

Constituent: Barium Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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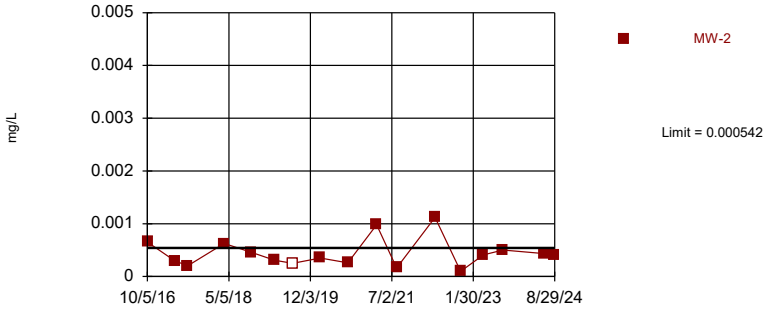
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 68.75% NDs. Annual per-constituent alpha = 0.05744. Individual comparison alpha = 0.005898 (1 of 2). Assumes 4 future values.

Constituent: Cadmium Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits

Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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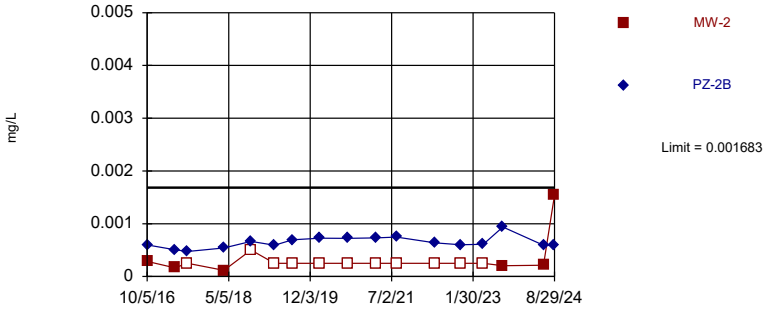
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.06417, Std. Dev.=0.02329, n=16, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8828, critical = 0.844. Kappa = 2.352 (c=13, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.004044. Individual comparison alpha = 0.0008101. Comparing 2 points to limit. Assumes 3 future values.

Constituent: Cobalt Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits

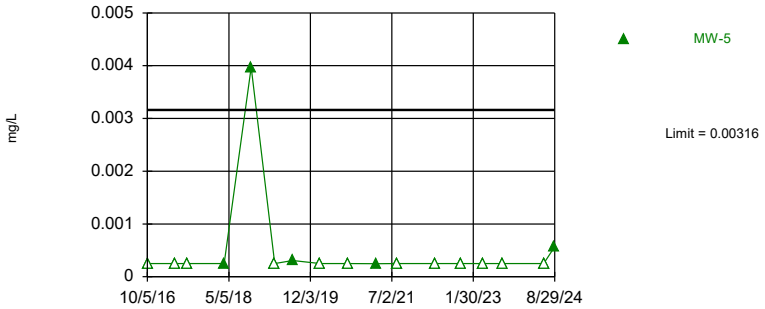
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 62.5% NDs. Annual per-constituent alpha = 0.05744. Individual comparison alpha = 0.005898 (1 of 2). Assumes 4 future values.

Constituent: Lead Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

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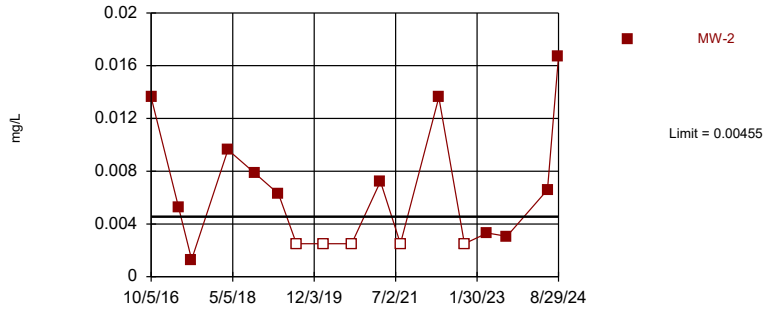
Hollow symbols indicate censored values.

Exceeds Limit: MW-2

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 16 background values. 75% NDs. Annual per-constituent alpha = 0.05744. Individual comparison alpha = 0.005898 (1 of 2). Assumes 4 future values.

Constituent: Nickel Analysis Run 12/30/2024 11:42 AM View: 2024 AWQR Prediction Limits
Woodbury County SLF Client: SCS Engineers Data: WCASW HMSP

Mann-Kendall Trend Table and Graphs

Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit Printed 1/3/2025, 10:11 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-2	0.01849	0	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-3	0.5957	16	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MW-8	1.668	18	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	**PZ-2B**	**-1.324**	**-22**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
2,4-D [2C] (ug/L)	MW-8	0.04572	4	21	No	8	25	0.01	NP
Acetone (ug/L)	MW-2	0	-5	-21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-3	0.00002049	0	21	No	8	0	0.01	NP
Arsenic (mg/L)	PZ-2B	0.00007473	4	21	No	8	0	0.01	NP
Barium (mg/L)	MW-2	0.0393	6	21	No	8	0	0.01	NP
Barium (mg/L)	MW-3	-0.01682	-8	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-5	-0.0003498	-4	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-8	0.03389	12	21	No	8	0	0.01	NP
Barium (mg/L)	PZ-2B	-0.0008037	0	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-3	0.07338	14	21	No	8	0	0.01	NP
Benzene (ug/L)	**MW-8**	**-0.06326**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cadmium (mg/L)	MW-2	-0.00006818	-2	-21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-3	-0.000008293	-10	-21	No	8	62.5	0.01	NP
Cadmium (mg/L)	PZ-2B	0.00001393	8	21	No	8	62.5	0.01	NP
Chloroethane (ug/L)	MW-3	0.1025	4	21	No	8	12.5	0.01	NP
Chloroethane (ug/L)	MW-5	0	-7	-21	No	8	87.5	0.01	NP
Chloroethane (ug/L)	MW-8	0.05911	4	21	No	8	12.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-2	0.7139	10	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	MW-3	2.207	17	21	No	8	0	0.01	NP
cis-1,2-Dichloroethene (ug/L)	**MW-8**	**0.3451**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**PZ-2B**	**-0.6451**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Cobalt (mg/L)	MW-2	0	-2	-21	No	8	62.5	0.01	NP
Cobalt (mg/L)	MW-3	-0.001326	-14	-21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-8	0.0002561	15	21	No	8	25	0.01	NP
Cobalt (mg/L)	PZ-2B	-0.00003547	-14	-21	No	8	0	0.01	NP
Copper (mg/L)	MW-3	0	-7	-21	No	8	87.5	0.01	NP
Copper (mg/L)	MW-8	0	5	21	No	8	87.5	0.01	NP
Dichlorodifluoromethane (ug/L)	MW-2	0.2753	4	21	No	8	12.5	0.01	NP
Dichlorodifluoromethane (ug/L)	MW-8	-1.279	-13	-21	No	8	0	0.01	NP
Dichlorodifluoromethane (ug/L)	PZ-2B	-0.5456	-10	-21	No	8	12.5	0.01	NP
Lead (mg/L)	MW-3	0	-4	-21	No	8	50	0.01	NP
Lead (mg/L)	MW-5	0	13	21	No	8	75	0.01	NP
Lead (mg/L)	MW-8	0	5	21	No	8	87.5	0.01	NP
Lead (mg/L)	PZ-2B	0	4	21	No	8	62.5	0.01	NP
Nickel (mg/L)	MW-2	0.001008	7	21	No	8	25	0.01	NP
Nickel (mg/L)	MW-3	-0.00316	-8	-21	No	8	0	0.01	NP
Nickel (mg/L)	MW-8	0.000628	18	21	No	8	50	0.01	NP
Nickel (mg/L)	PZ-2B	0	3	21	No	8	87.5	0.01	NP
Tetrachloroethene (ug/L)	MW-2	0.746	18	21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	MW-3	-0.1449	-17	-21	No	8	37.5	0.01	NP
Tetrachloroethene (ug/L)	MW-8	0.03908	6	21	No	8	0	0.01	NP
Tetrachloroethene (ug/L)	PZ-2B	-1.225	-20	-21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-2	0.9618	20	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-3	0.1289	2	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	MW-8	0.05767	3	21	No	8	0	0.01	NP
Trichloroethene (ug/L)	PZ-2B	-1.628	-21	-21	No	8	0	0.01	NP

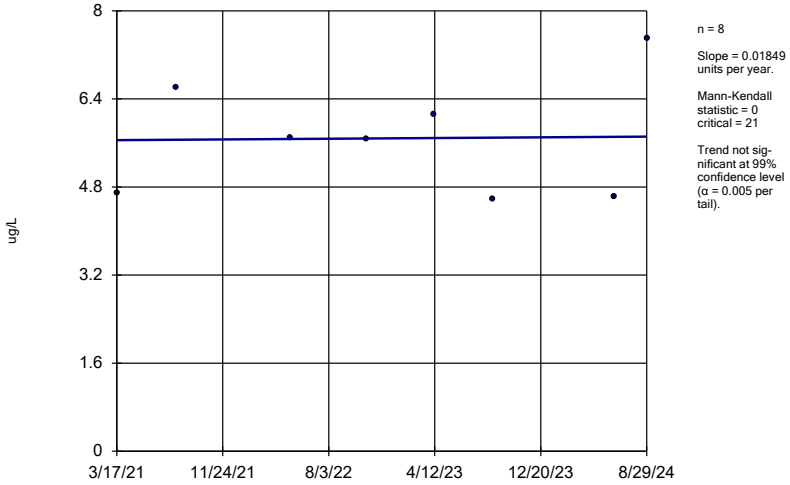
Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit Printed 1/3/2025, 10:11 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Vanadium (mg/L)	MW-8	0.0002517	8	21	No	8	12.5	0.01	NP
Vinyl Chloride (ug/L)	MW-8	-0.005045	0	21	No	8	0	0.01	NP
Vinyl Chloride (ug/L)	**PZ-2B**	**-0.1378**	**-25**	**-21**	**Yes**	**8**	**25**	**0.01**	**NP**
Zinc (mg/L)	MW-2	0	5	21	No	8	87.5	0.01	NP

Sen's Slope Estimator

MW-2



Constituent: 1,1-Dichloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

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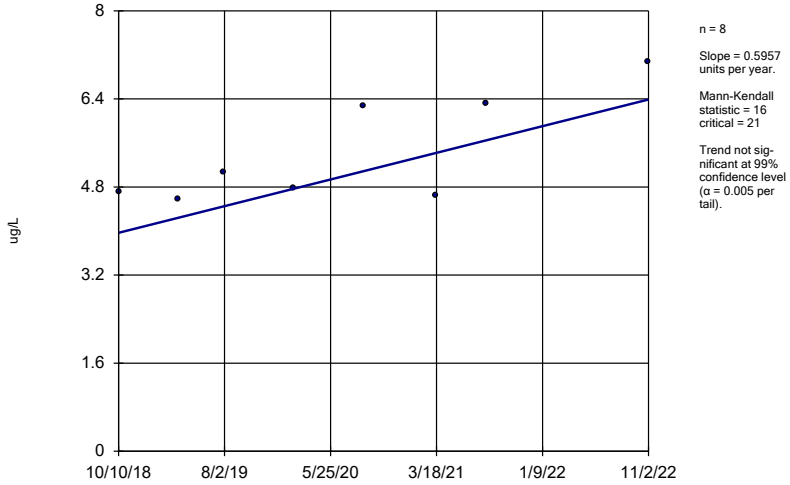
Sen's Slope Estimator

MW-3



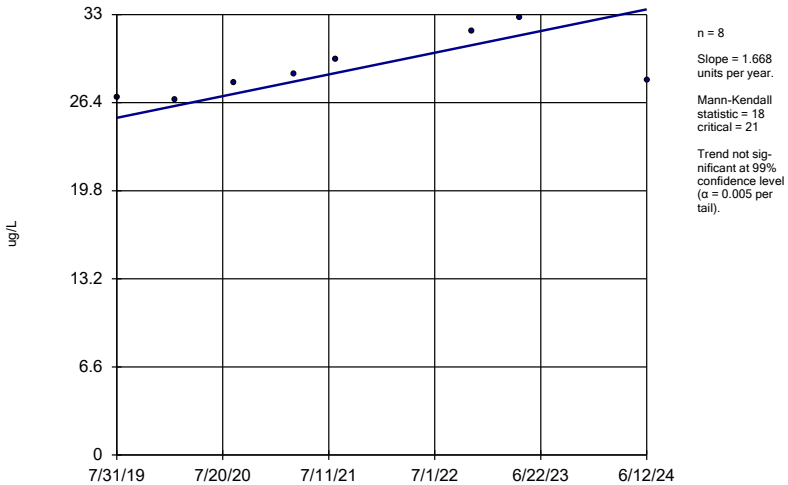
Constituent: 1,1-Dichloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



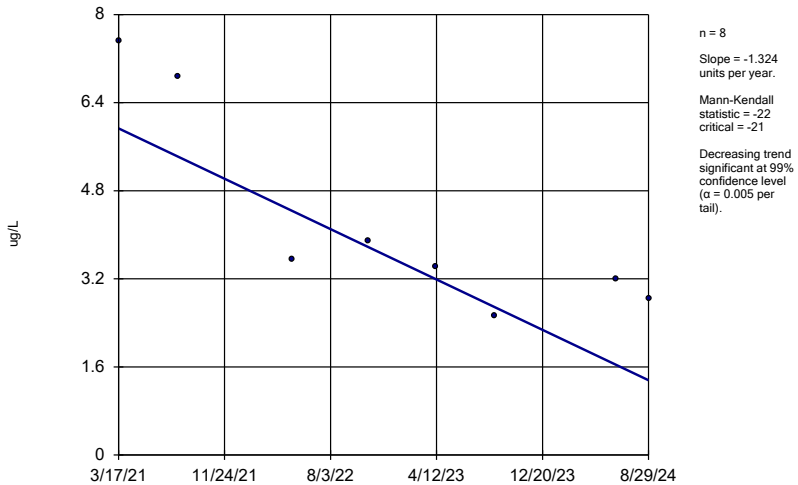
Constituent: 1,1-Dichloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



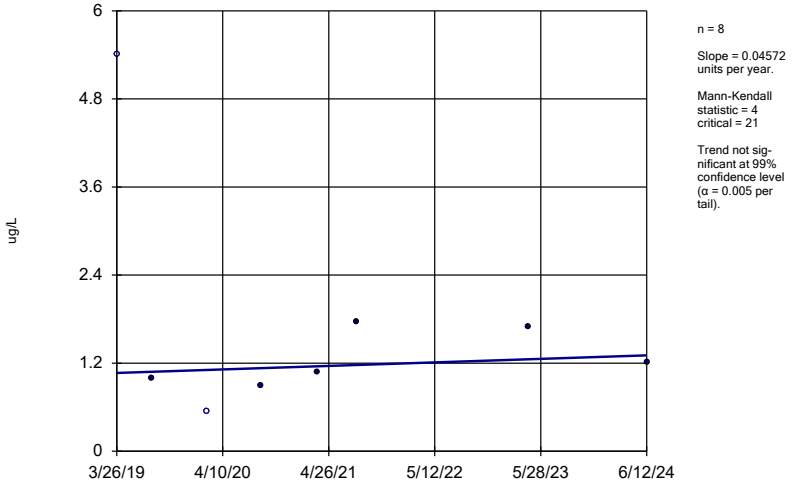
Constituent: 1,1-Dichloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8

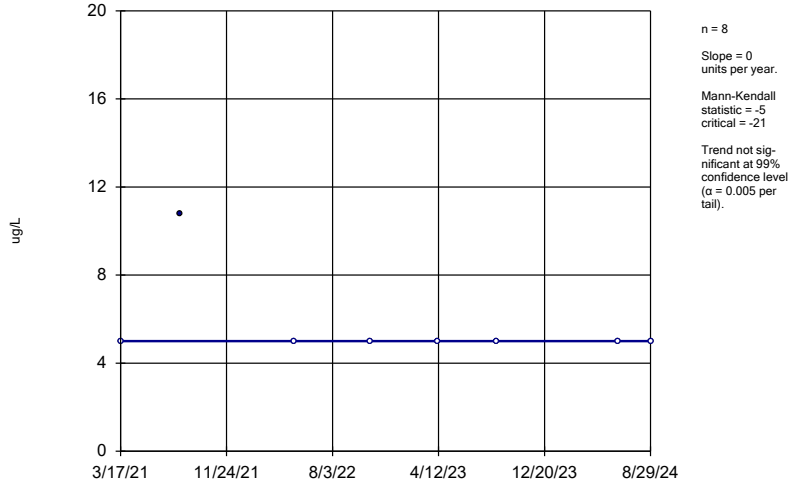


Constituent: 2,4-D [2C] Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2

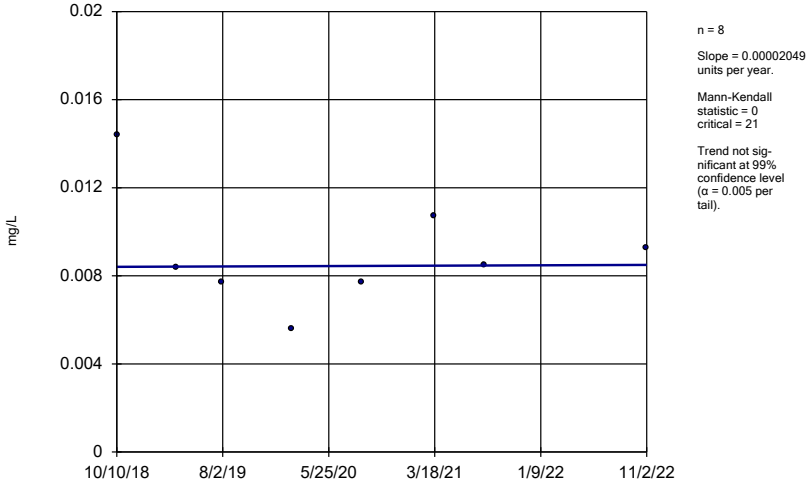


Constituent: Acetone Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

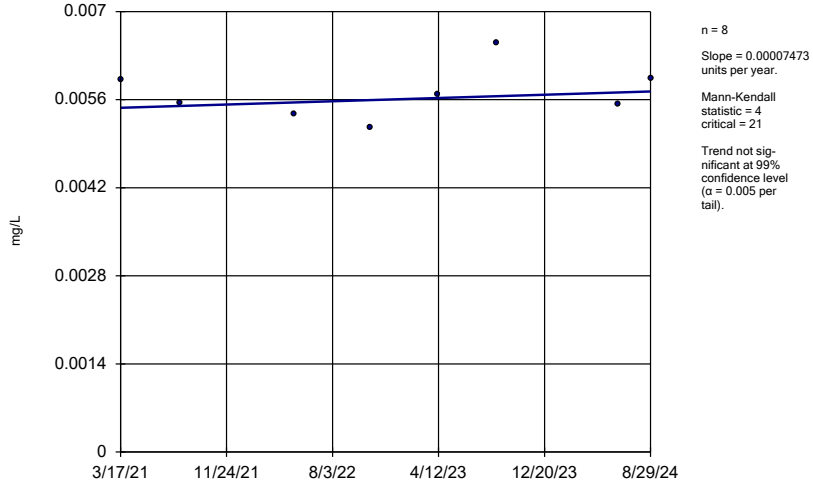


Constituent: Arsenic Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



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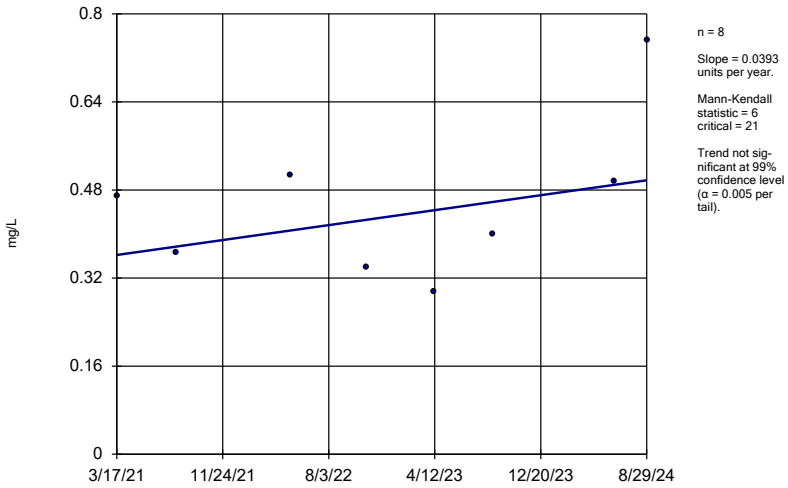
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-2



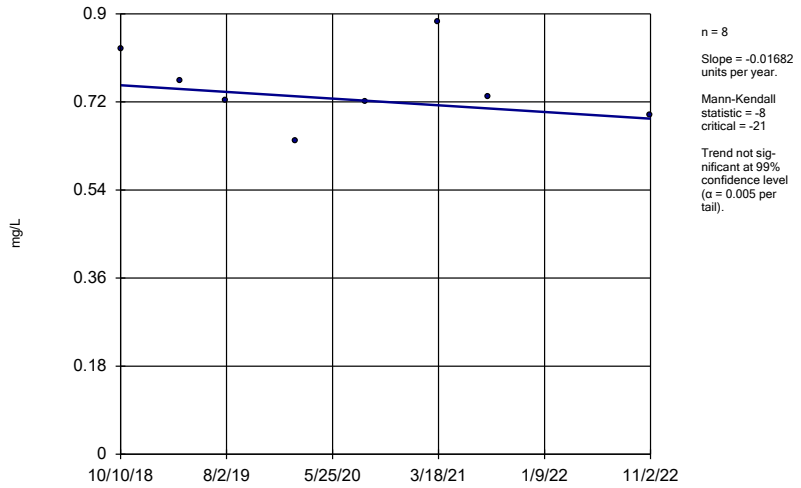
Constituent: Barium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3



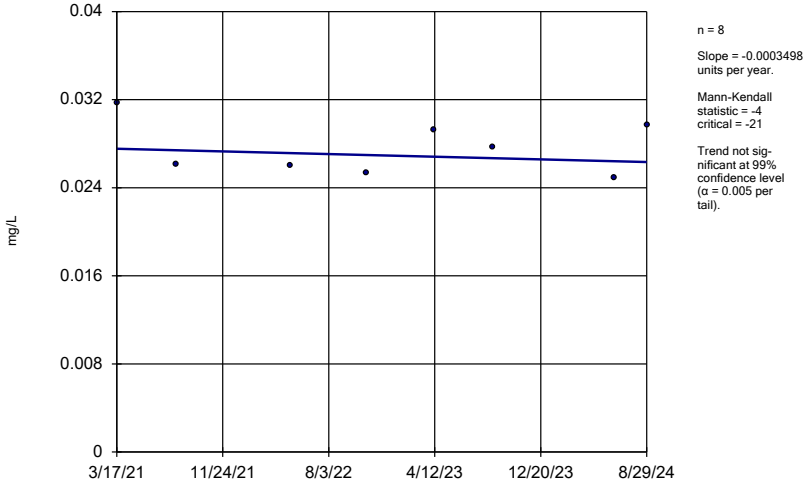
Constituent: Barium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-5



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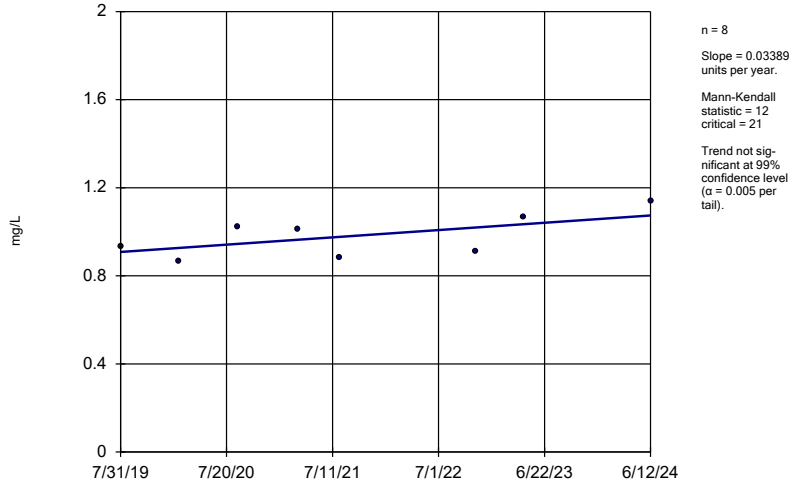
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



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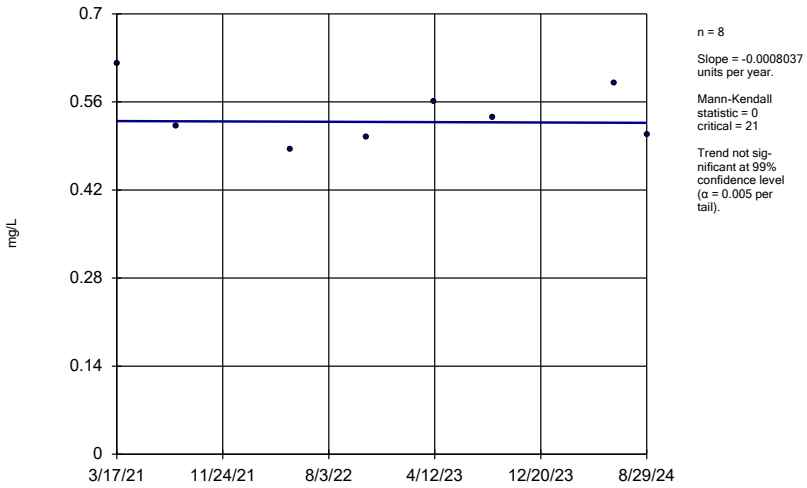
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

PZ-2B

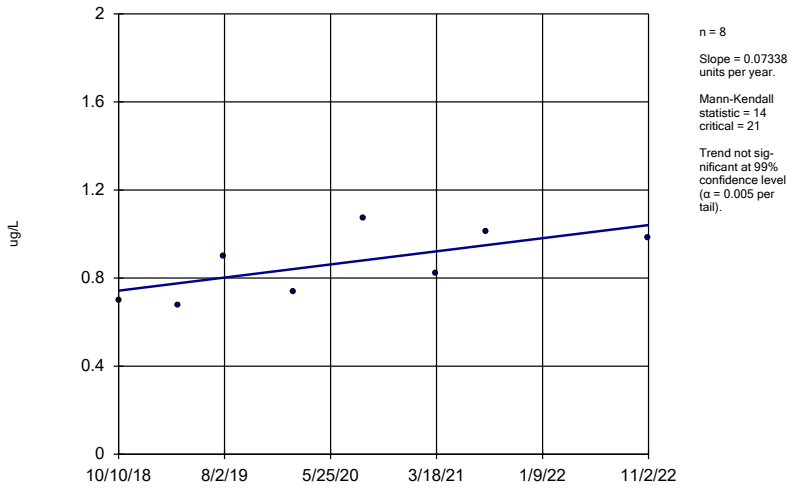


Constituent: Barium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-3

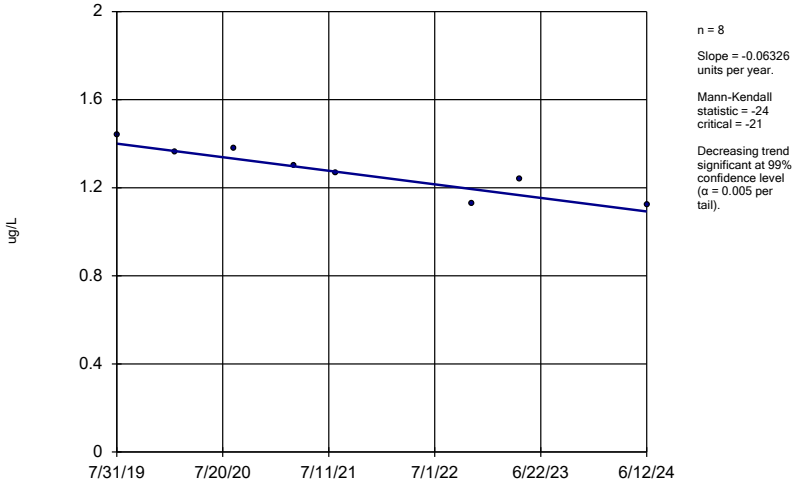


Constituent: Benzene Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-8



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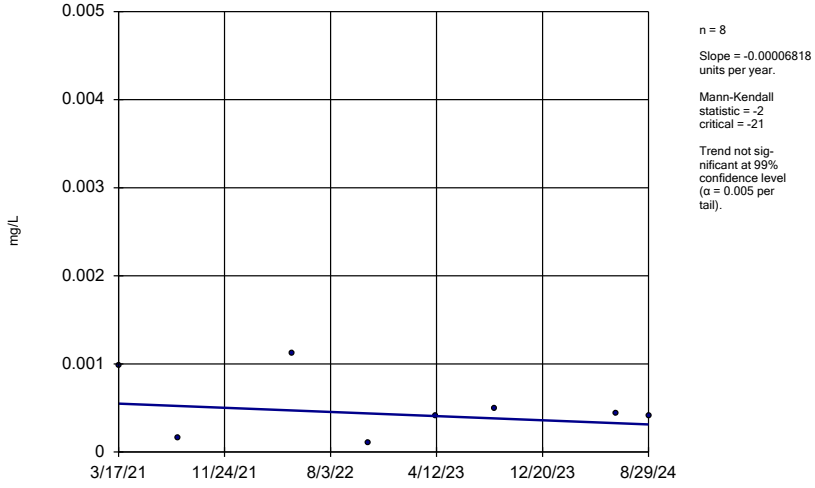
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-2



Constituent: Cadmium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

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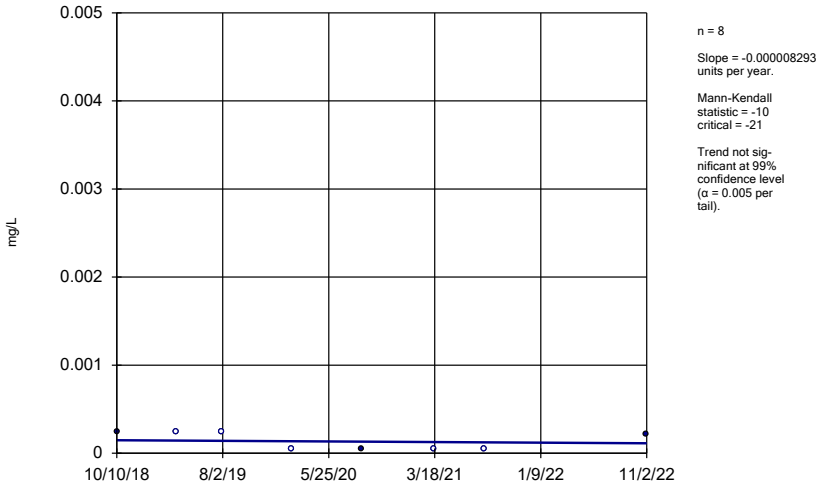
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = -0.000008293 units per year.

Mann-Kendall statistic = -10
critical = -21

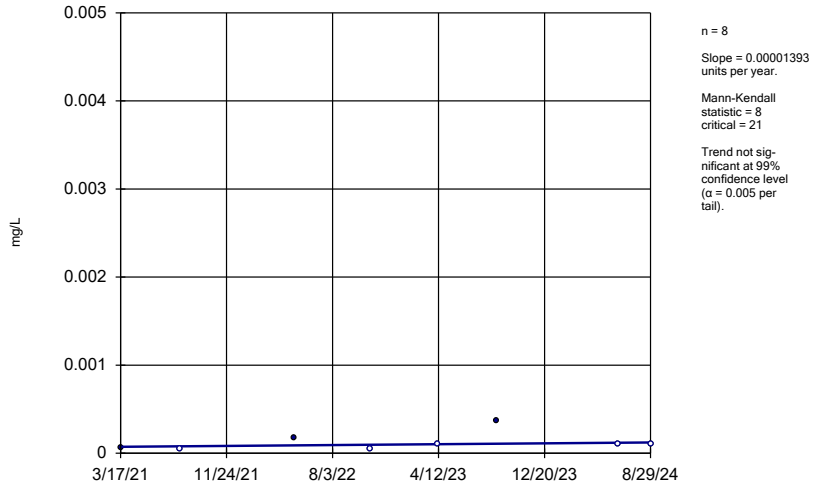
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



n = 8

Slope = 0.00001393 units per year.

Mann-Kendall statistic = 8
critical = 21

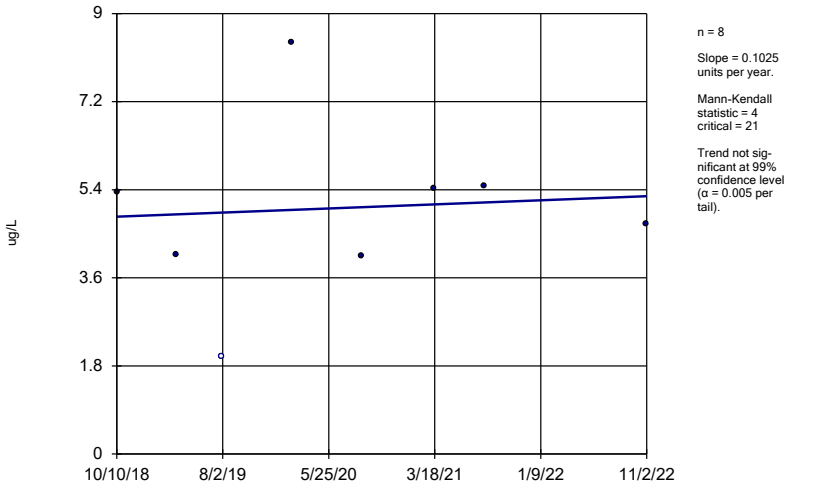
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = 0.1025 units per year.

Mann-Kendall statistic = 4
critical = 21

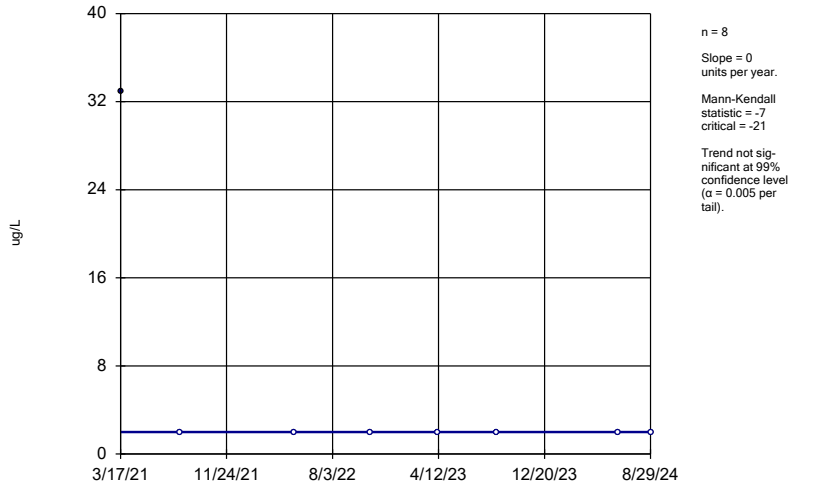
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -7
critical = -21

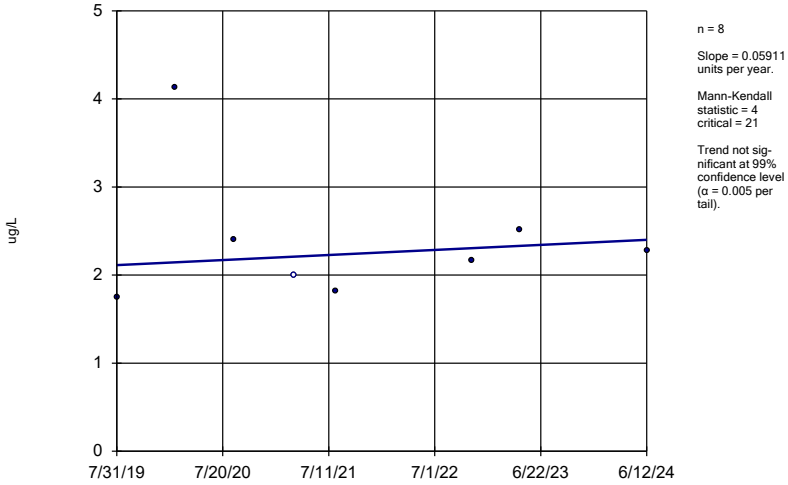
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloroethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



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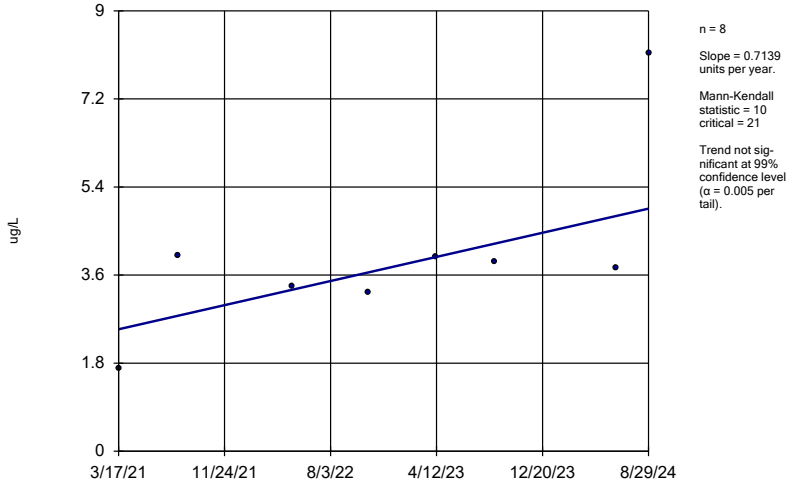
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

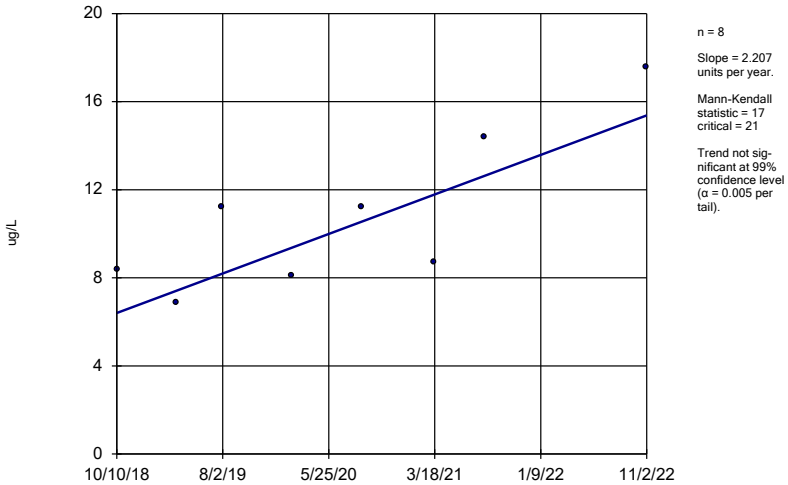
MW-2



Constituent: cis-1,2-Dichloroethene Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-3



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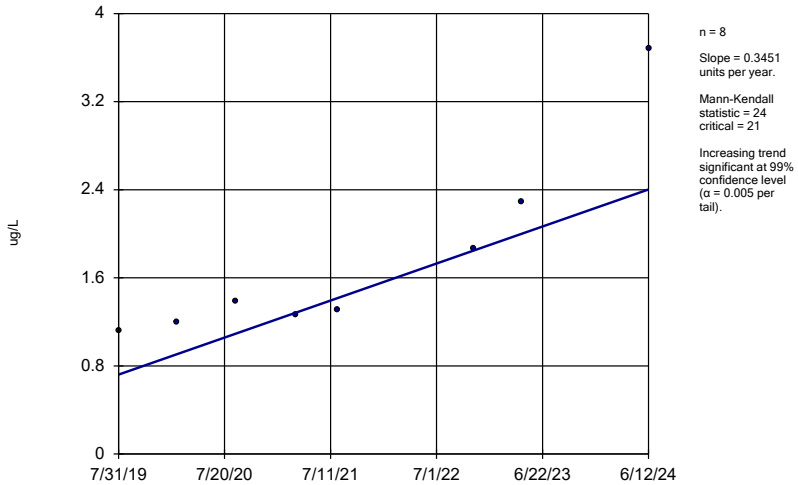
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

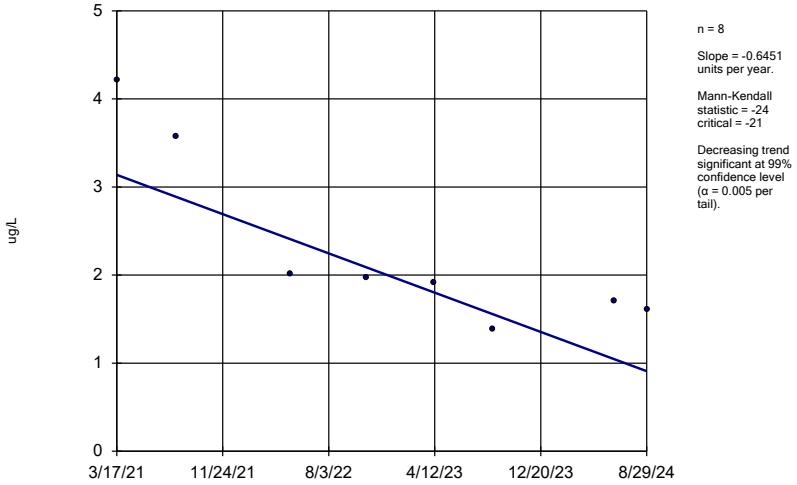
MW-8



Constituent: cis-1,2-Dichloroethene Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

PZ-2B



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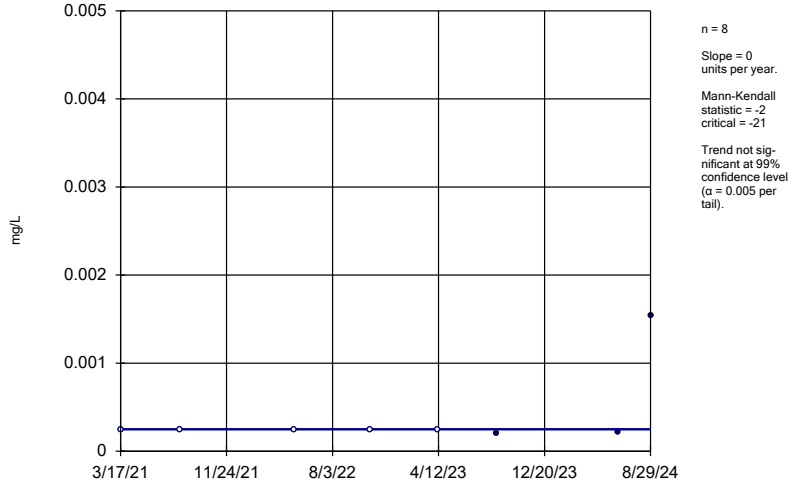
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2

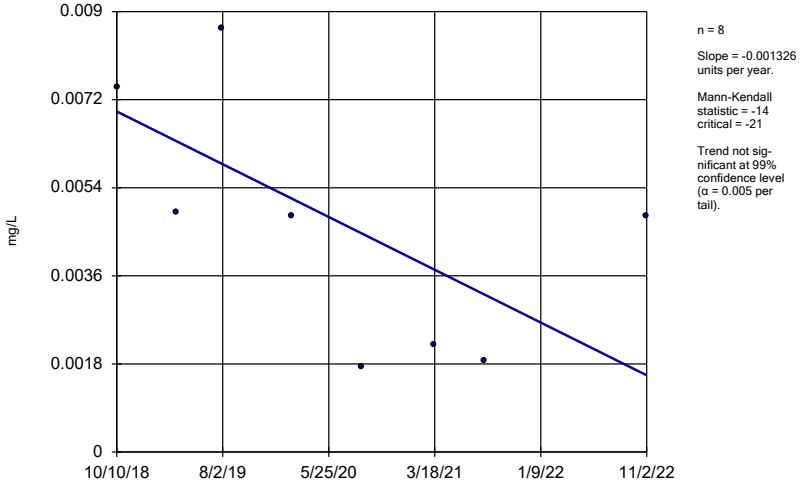


Constituent: Cobalt Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-3



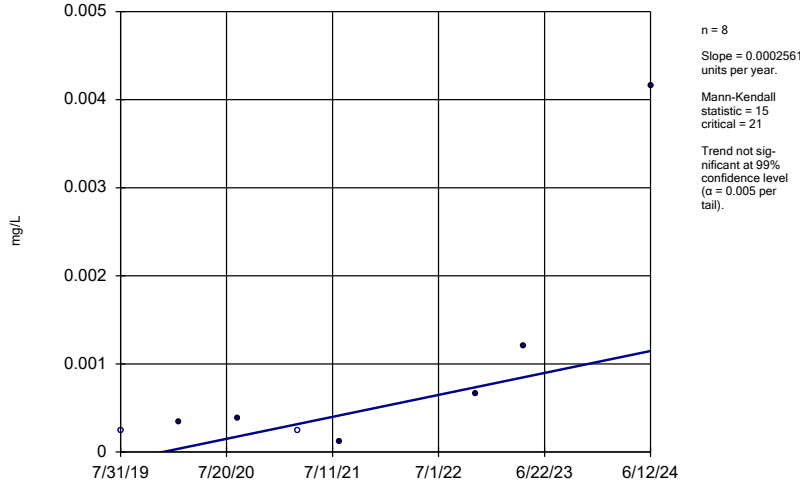
Constituent: Cobalt Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8

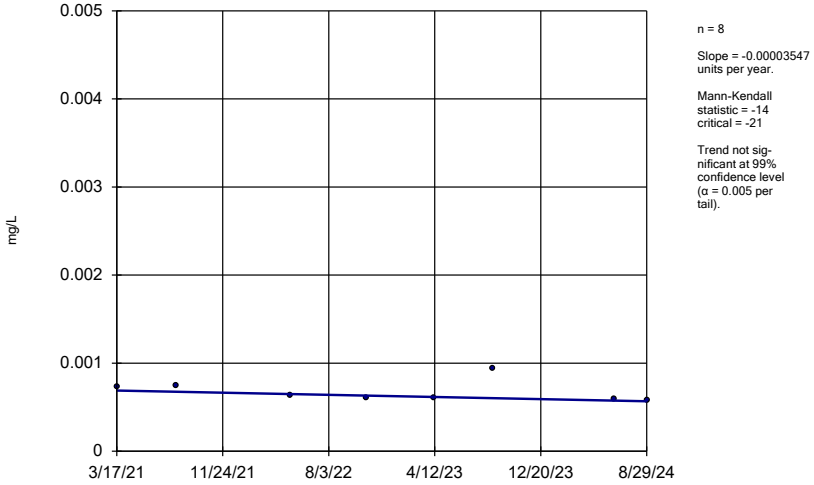


Constituent: Cobalt Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

PZ-2B



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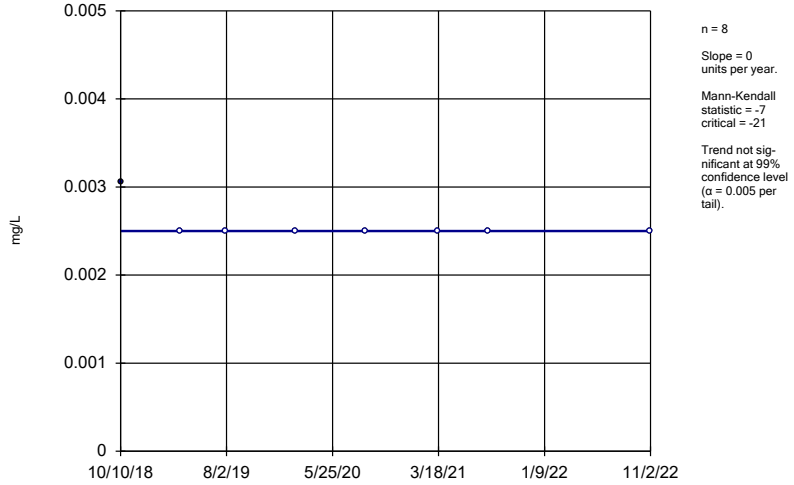
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



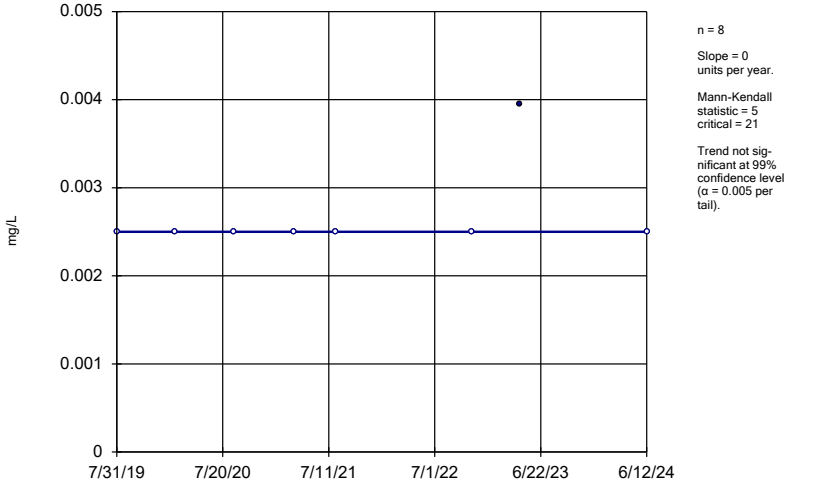
Constituent: Copper Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



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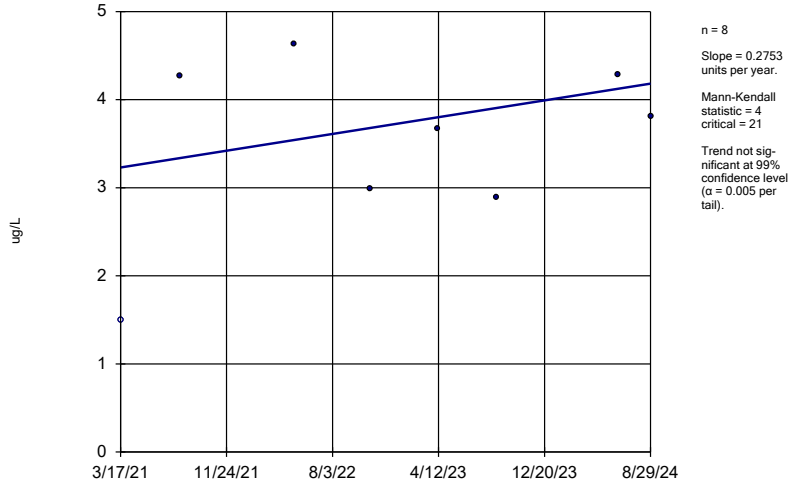
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2

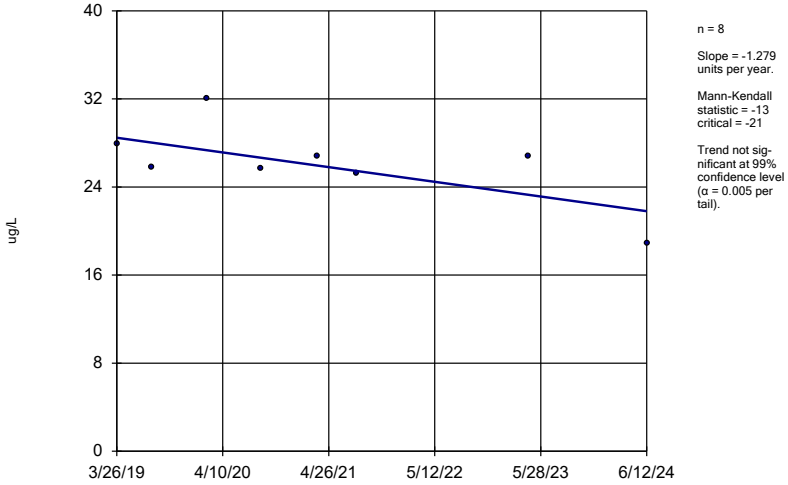


Constituent: Dichlorodifluoromethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-8



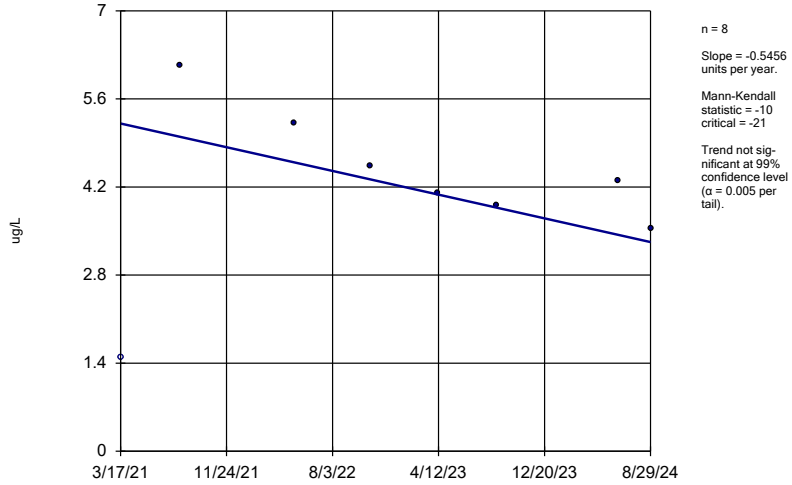
Constituent: Dichlorodifluoromethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



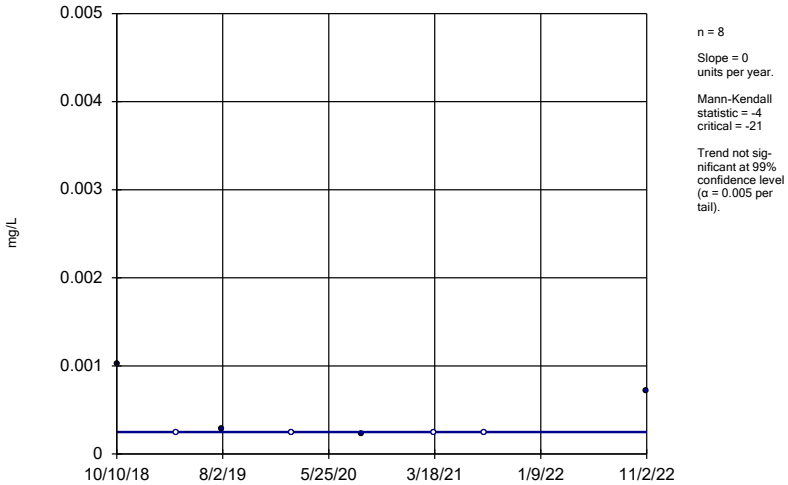
Constituent: Dichlorodifluoromethane Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



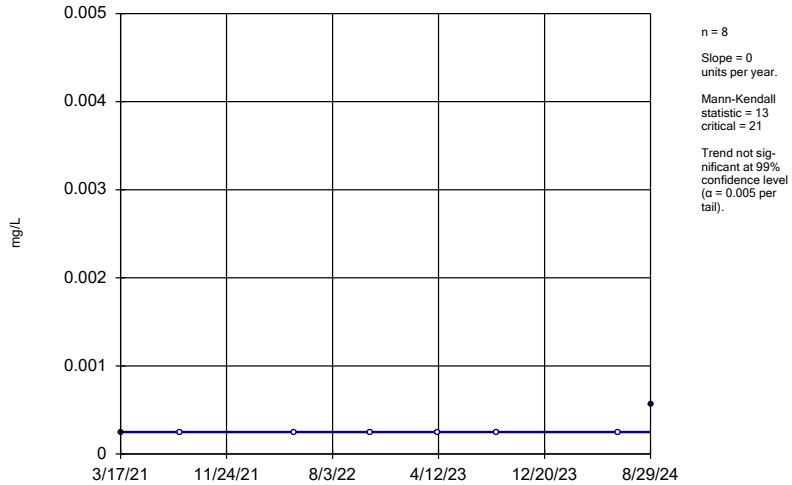
Constituent: Lead Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-5



Constituent: Lead Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

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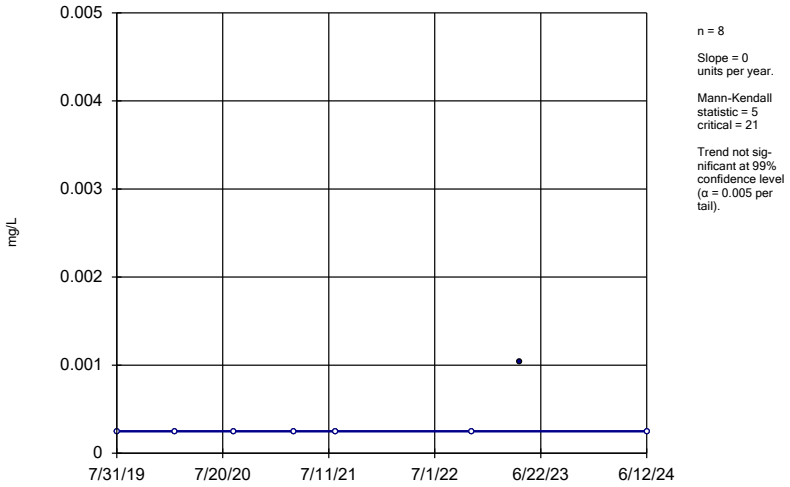
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



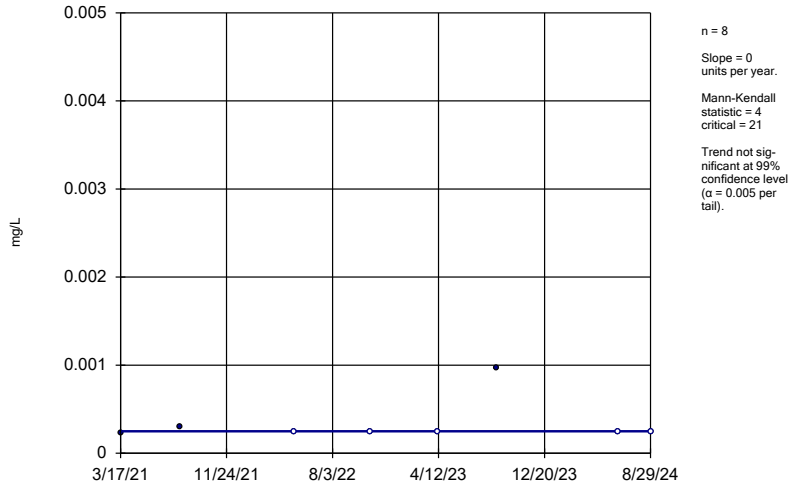
Constituent: Lead Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



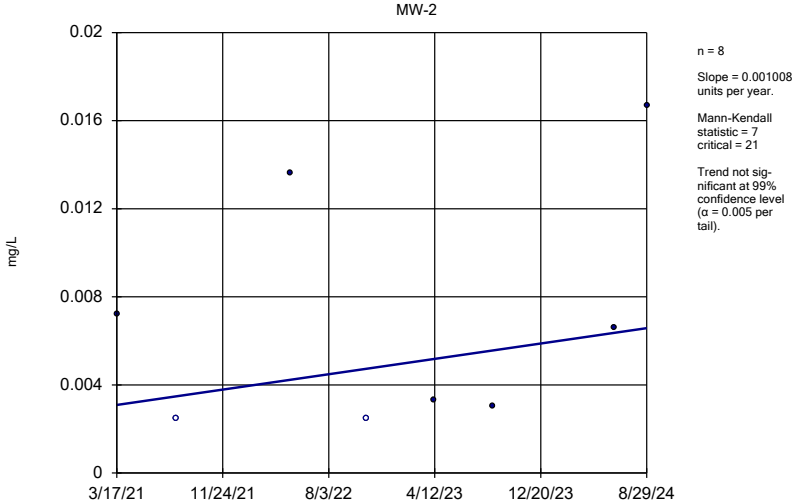
Constituent: Lead Analysis Run 1/3/2025 10:09 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2



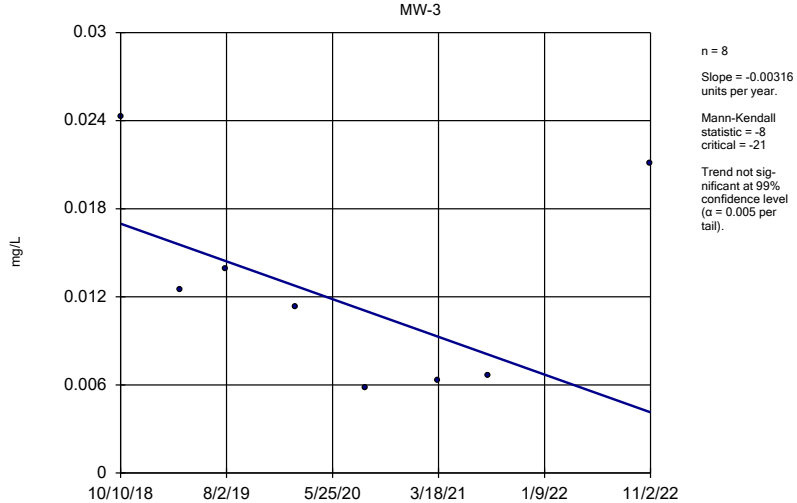
Constituent: Nickel Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3



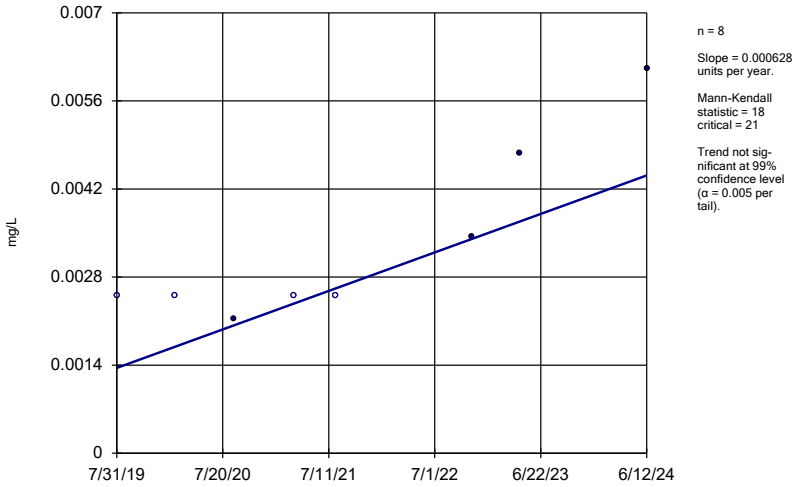
Constituent: Nickel Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



n = 8

Slope = 0.000628 units per year.

Mann-Kendall statistic = 18
critical = 21

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

Constituent: Nickel Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

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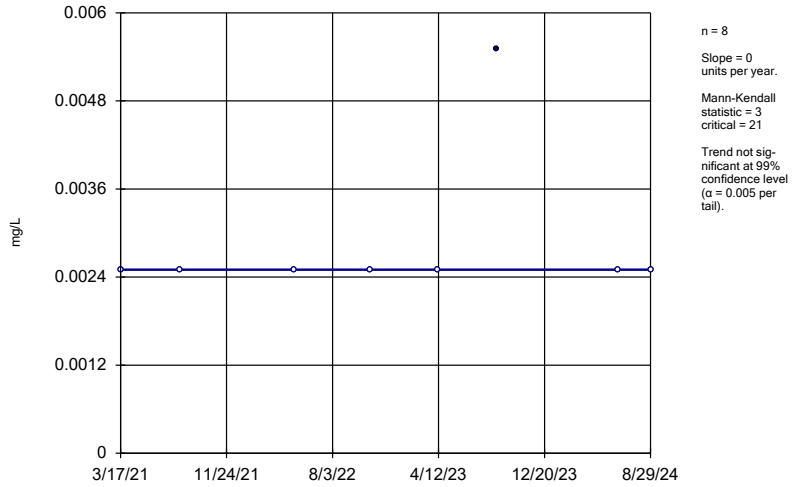
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 21

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

Constituent: Nickel Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

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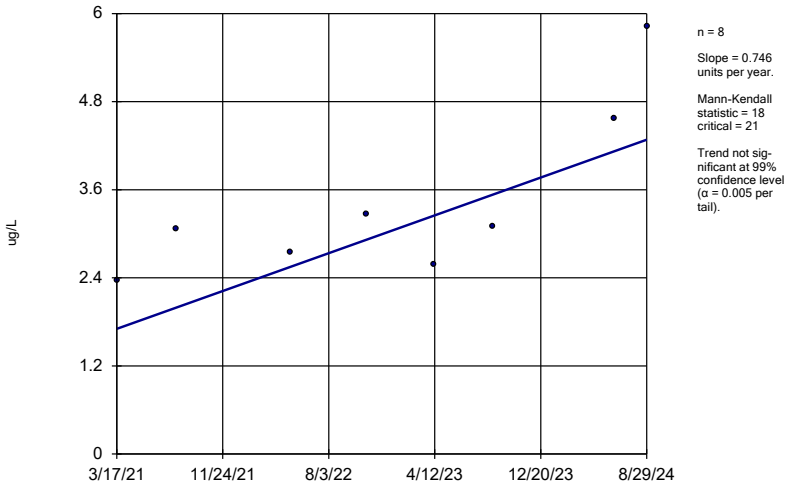
Sen's Slope Estimator

MW-2



n = 8

Slope = 0.746 units per year.

Mann-Kendall statistic = 18
critical = 21

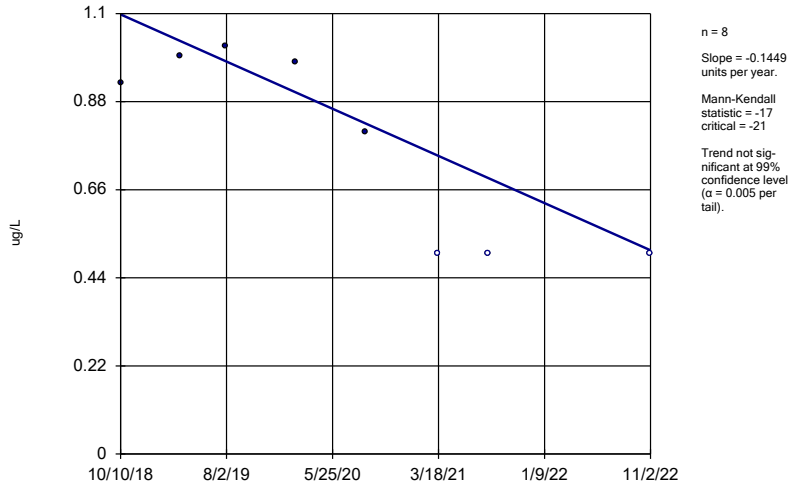
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Tetrachloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-3



n = 8

Slope = -0.1449 units per year.

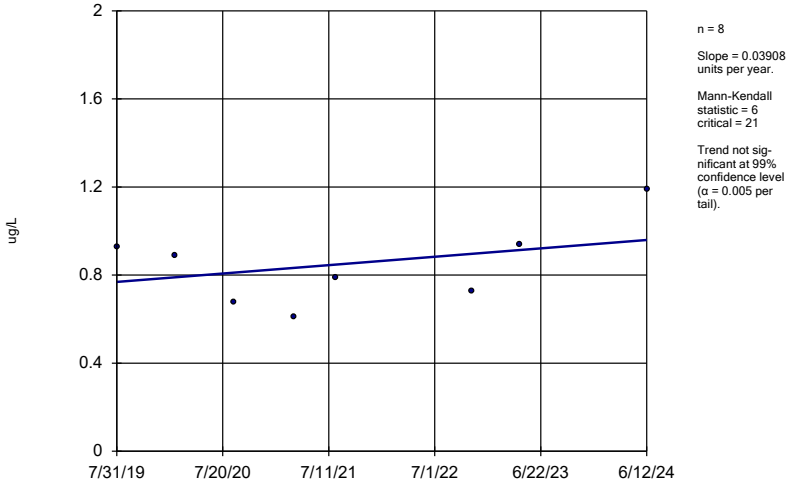
Mann-Kendall statistic = -17
critical = -21

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

Constituent: Tetrachloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-8



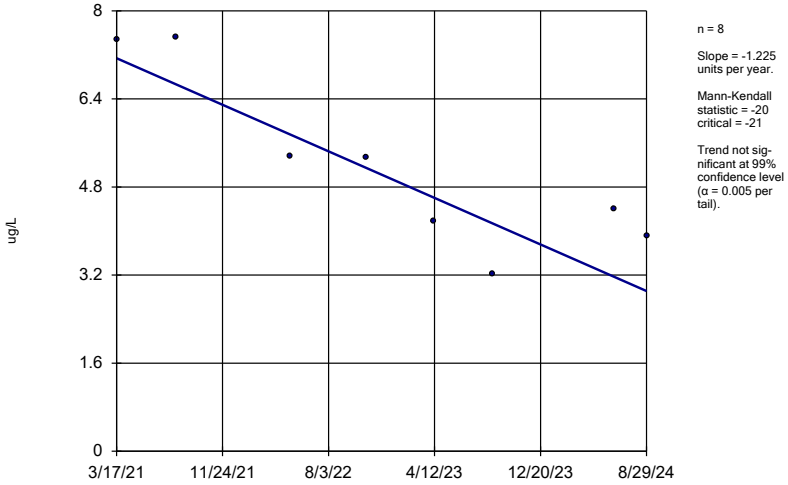
Constituent: Tetrachloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



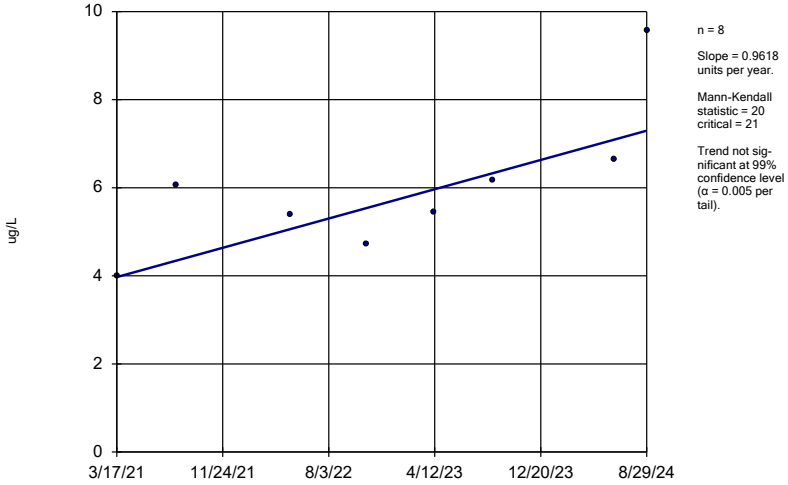
Constituent: Tetrachloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-2



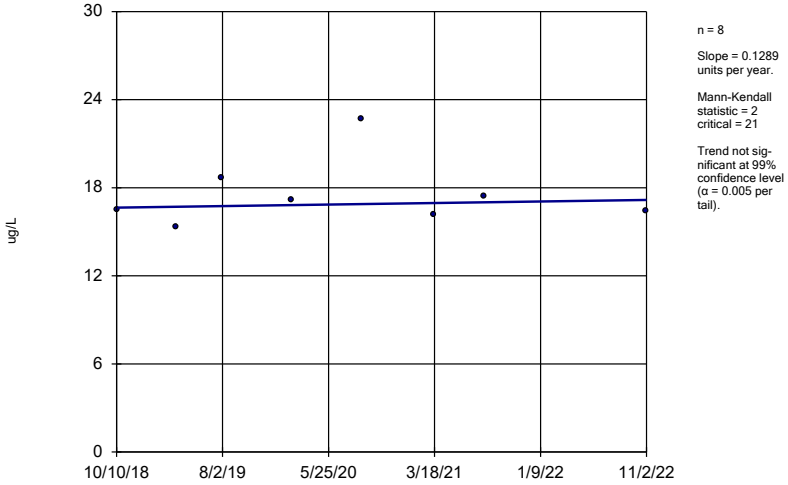
Constituent: Trichloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-3

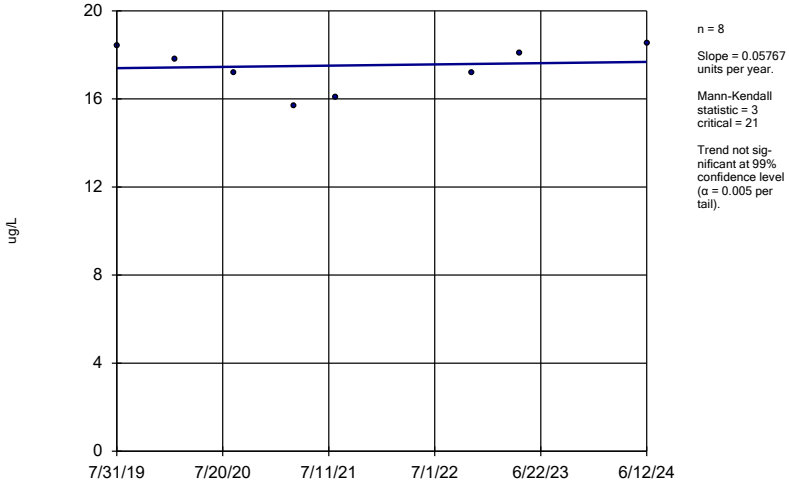


Constituent: Trichloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sen's Slope Estimator

MW-8



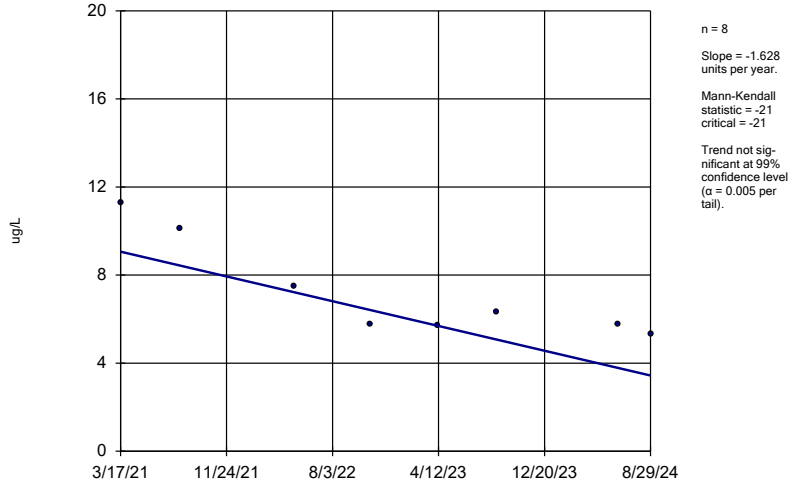
Constituent: Trichloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

PZ-2B



Constituent: Trichloroethene Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

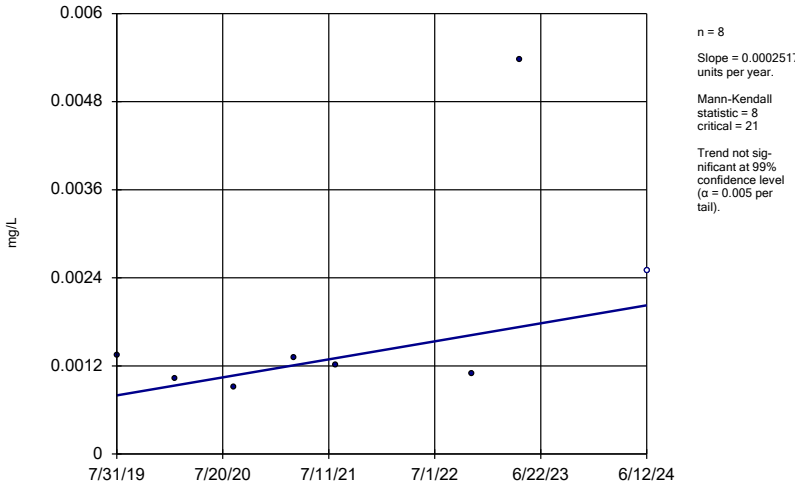
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-8



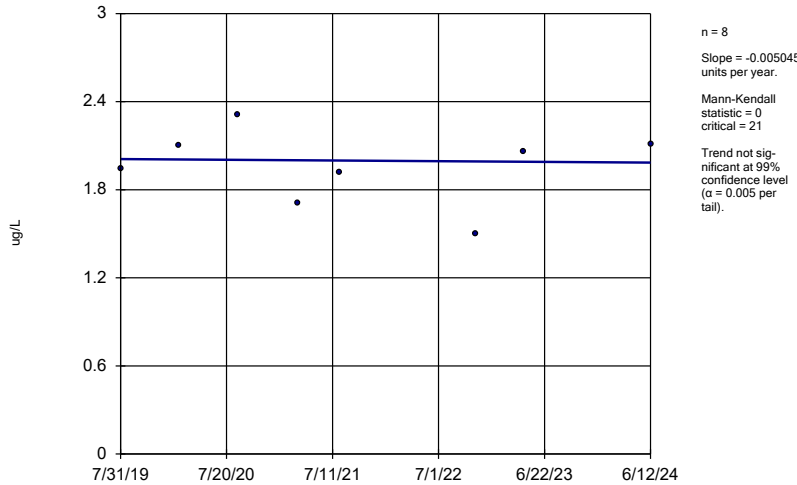
Constituent: Vanadium Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-8



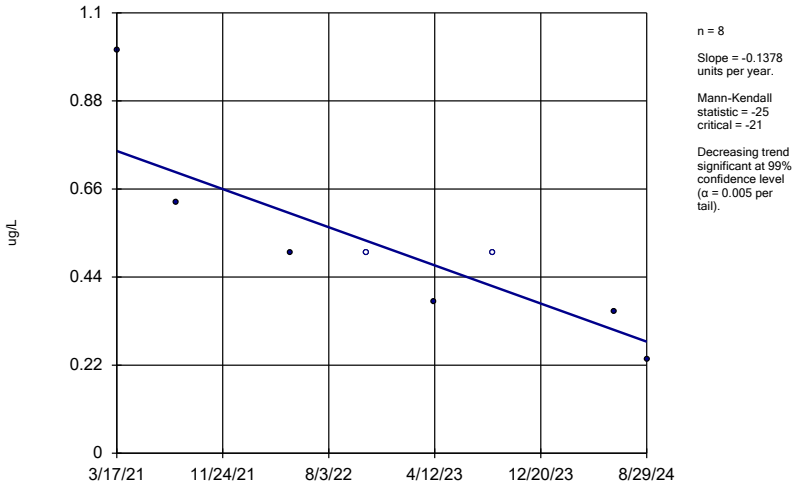
Constituent: Vinyl Chloride Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2B

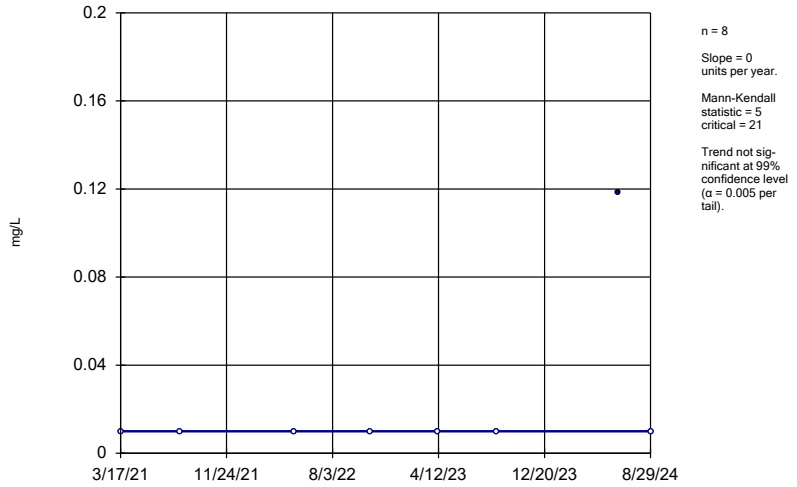


Constituent: Vinyl Chloride Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-2



Constituent: Zinc Analysis Run 1/3/2025 10:10 AM View: 2024 AWQR MK
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Confidence Interval Table and Graphs

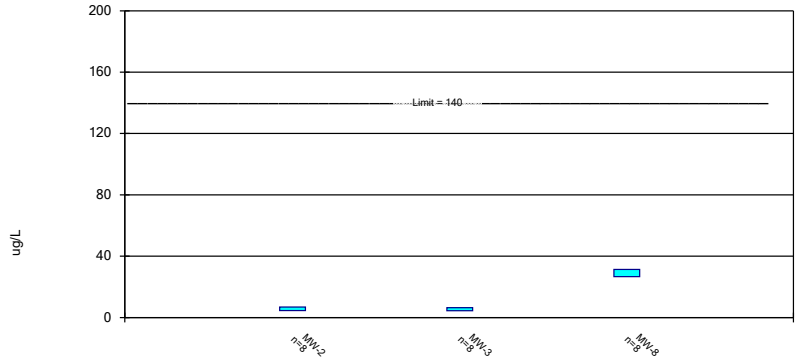
Confidence Interval

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit Printed 12/31/2024, 10:06 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-2	6.793	4.568	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MW-3	6.466	4.404	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MW-8	31.39	26.64	140	No	8	0	No	0.01	Param.
2,4-D [2C] (ug/L)	MW-8	5.4	0.535	70	No	8	25	No	0.004	NP (normality)
Acetone (ug/L)	MW-2	10.8	5	6300	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-3	0.0118	0.006276	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	PZ-2B	0.006145	0.005264	0.01	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-2	0.6041	0.3022	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-3	0.8296	0.6663	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-5	0.03014	0.02502	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-8	1.08	0.8757	2	No	8	0	No	0.01	Param.
Barium (mg/L)	PZ-2B	0.5899	0.4911	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-3	1.023	0.702	5	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-2	0.0008966	0.0001329	0.005	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-3	0.00025	0.00005	0.005	No	8	62.5	No	0.004	NP (NDs)
Cadmium (mg/L)	PZ-2B	0.000367	0.00005	0.005	No	8	62.5	No	0.004	NP (NDs)
Chloroethane (ug/L)	MW-3	6.857	3.008	2800	No	8	12.5	No	0.01	Param.
Chloroethane (ug/L)	MW-5	32.9	2	2800	No	8	87.5	No	0.004	NP (NDs)
Chloroethane (ug/L)	MW-8	3.183	1.581	2800	No	8	12.5	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-2	5.944	2.063	70	No	8	0	No	0.01	Param.
cis-1,2-Dichloroethene (ug/L)	MW-3	14.66	6.955	70	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-2	0.00154	0.000204	0.0021	No	8	62.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-3	0.007289	0.001839	0.0021	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-8	0.00416	0.0001185	0.0021	No	8	25	No	0.004	NP (normality)
Cobalt (mg/L)	PZ-2B	0.0008094	0.0005511	0.0021	No	8	0	No	0.01	Param.
Copper (mg/L)	MW-3	0.00306	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Copper (mg/L)	MW-8	0.003945	0.0025	1.3	No	8	87.5	No	0.004	NP (NDs)
Dichlorodifluoromethane (ug/L)	MW-2	4.583	2.427	1000	No	8	12.5	No	0.01	Param.
Dichlorodifluoromethane (ug/L)	MW-8	29.98	22.3	1000	No	8	0	No	0.01	Param.
Dichlorodifluoromethane (ug/L)	PZ-2B	5.58	2.726	1000	No	8	12.5	No	0.01	Param.
Lead (mg/L)	MW-3	0.00103	0.0002355	0.015	No	8	50	No	0.004	NP (normality)
Lead (mg/L)	MW-5	0.000567	0.000245	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-8	0.001035	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	PZ-2B	0.000974	0.0002305	0.015	No	8	62.5	No	0.004	NP (NDs)
Nickel (mg/L)	MW-2	0.01235	0.001864	0.1	No	8	25	No	0.01	Param.
Nickel (mg/L)	MW-3	0.02005	0.0054	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-8	0.005197	0.002371	0.1	No	8	50	No	0.01	Param.
Nickel (mg/L)	PZ-2B	0.0055	0.0025	0.1	No	8	87.5	No	0.004	NP (NDs)
Tetrachloroethene (ug/L)	MW-2	4.681	2.202	5	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-3	1.019	0.8561	5	No	8	37.5	No	0.01	Param.
Tetrachloroethene (ug/L)	MW-8	1.039	0.6487	5	No	8	0	No	0.01	Param.
Tetrachloroethene (ug/L)	PZ-2B	6.873	3.476	5	No	8	0	No	0.01	Param.
Trichloroethene (ug/L)	MW-2	7.774	4.225	5	No	8	0	No	0.01	Param.
Trichloroethene (ug/L)	**MW-3**	**19.97**	**15.11**	**5**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Trichloroethene (ug/L)	**MW-8**	**18.47**	**16.28**	**5**	**Yes**	**8**	**0**	**No**	**0.01**	**Param.**
Trichloroethene (ug/L)	PZ-2B	9.627	4.829	5	No	8	0	No	0.01	Param.
Vanadium (mg/L)	MW-8	0.005375	0.000911	0.035	No	8	12.5	No	0.004	NP (normality)
Vinyl Chloride (ug/L)	MW-8	2.225	1.687	2	No	8	0	No	0.01	Param.
Zinc (mg/L)	MW-2	0.1185	0.01	2	No	8	87.5	No	0.004	NP (NDs)

Parametric Confidence Interval

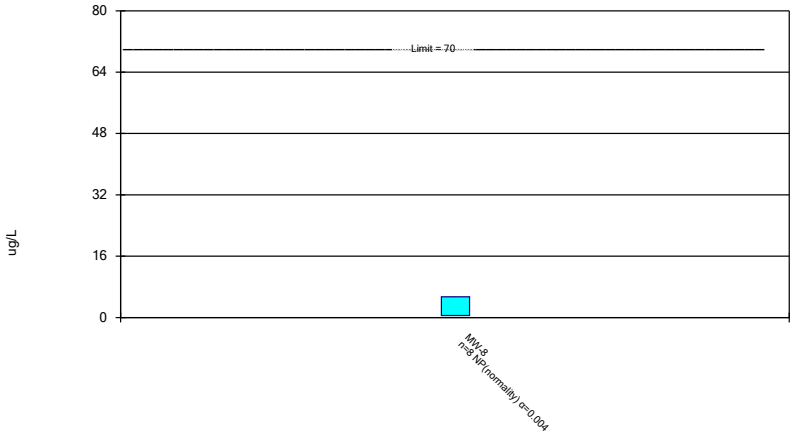
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: 1,1-Dichloroethane Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interv
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

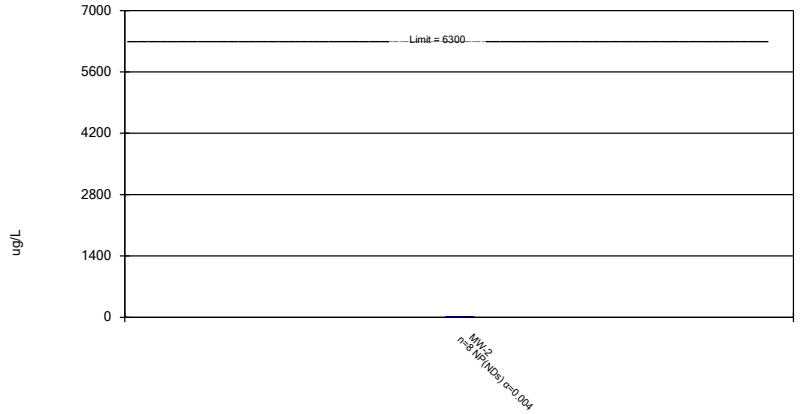
Compliance Limit is not exceeded.



Constituent: 2,4-D [2C] Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

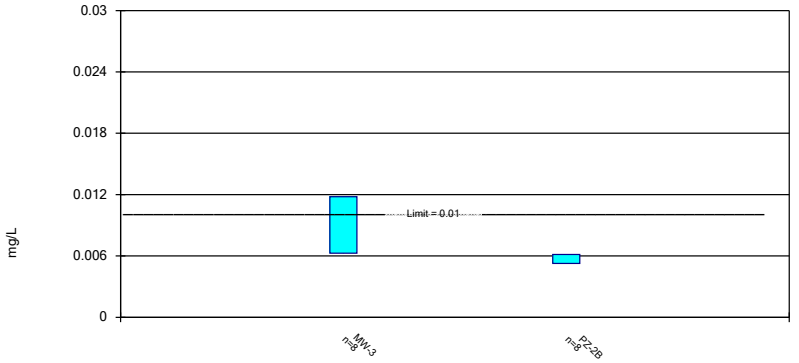
Compliance Limit is not exceeded.



Constituent: Acetone Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

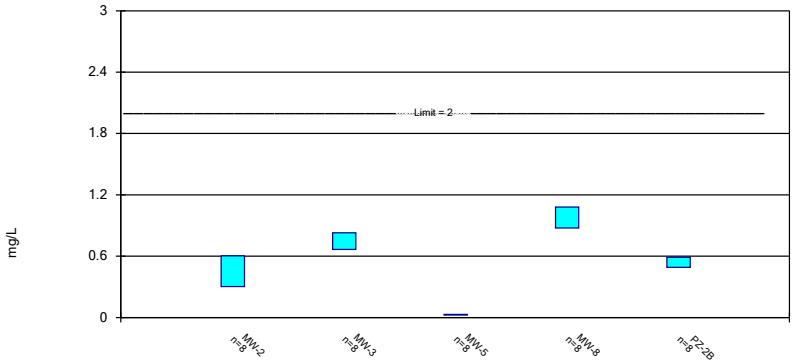
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

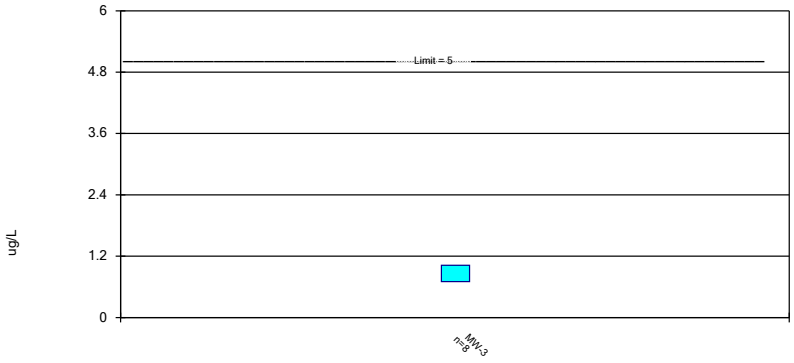
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

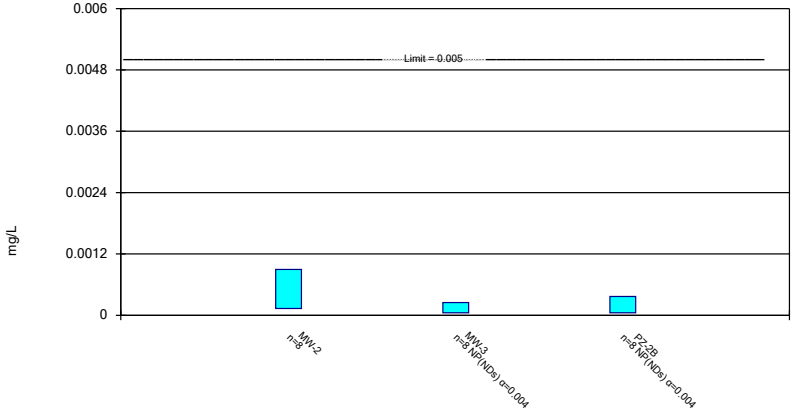
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Benzene Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric and Non-Parametric (NP) Confidence Interval

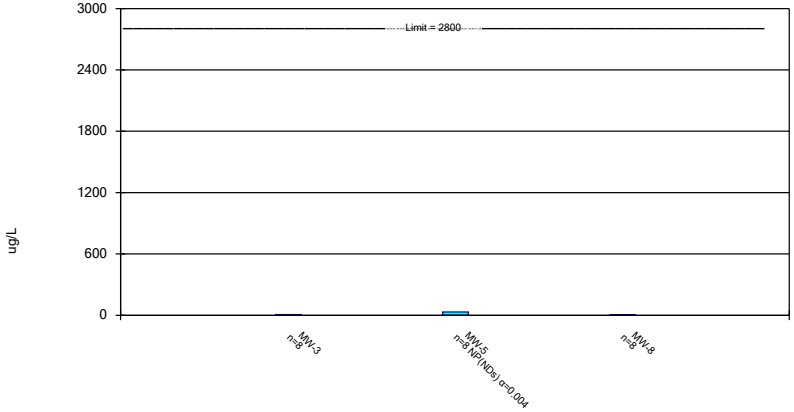
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric and Non-Parametric (NP) Confidence Interval

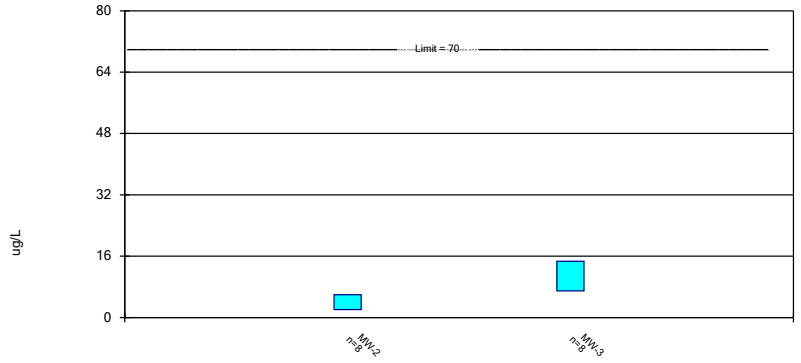
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chloroethane Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

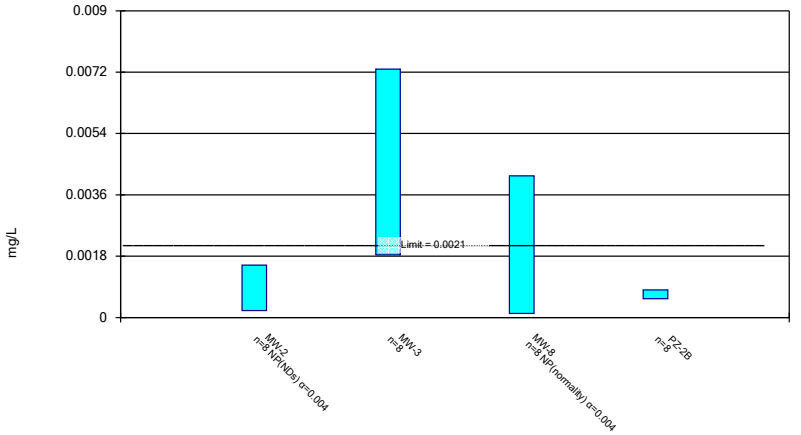
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: cis-1,2-Dichloroethene Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Int
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric and Non-Parametric (NP) Confidence Interval

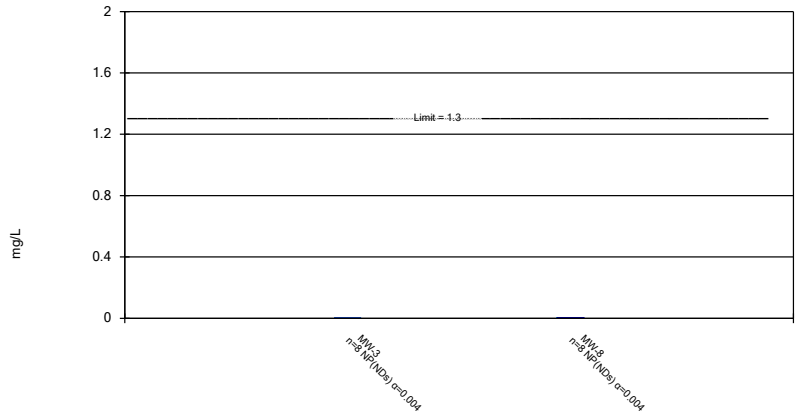
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Copper Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

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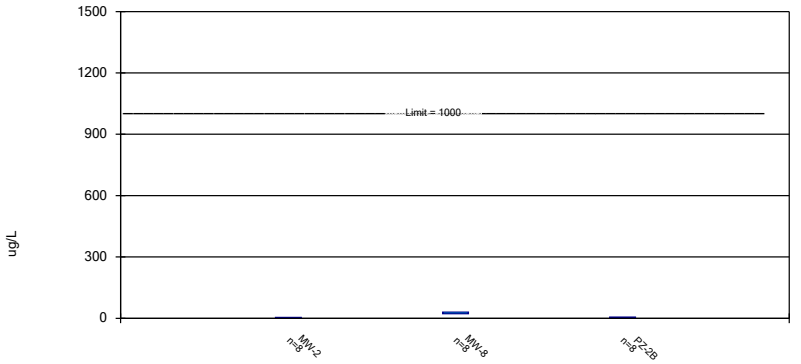
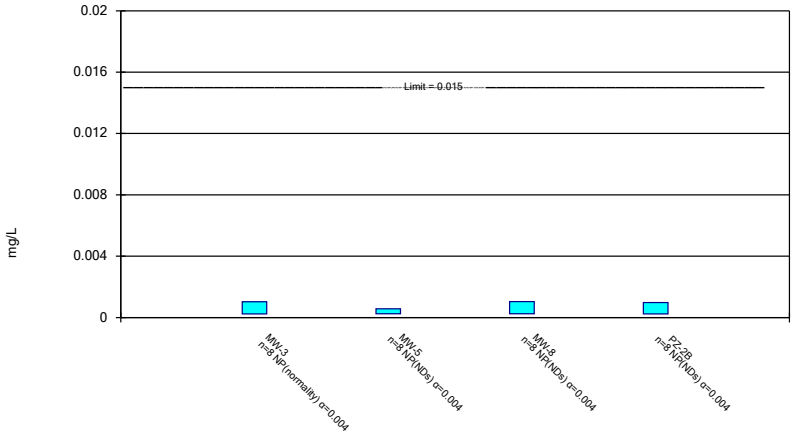


Constituent: Dichlorodifluoromethane Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence I
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

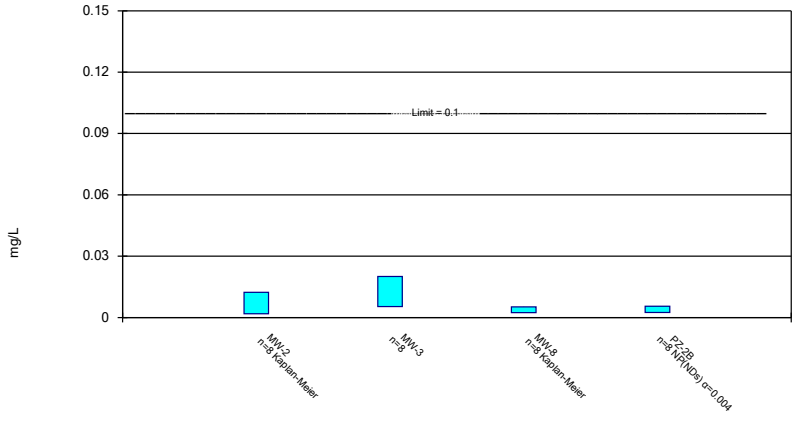
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric and Non-Parametric (NP) Confidence Interval

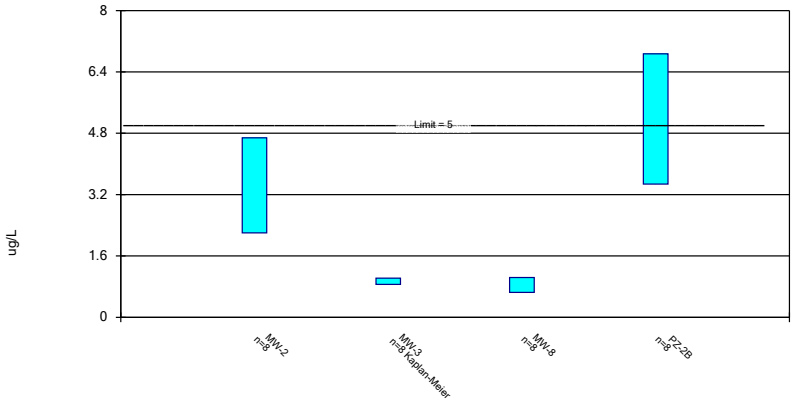
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Nickel Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

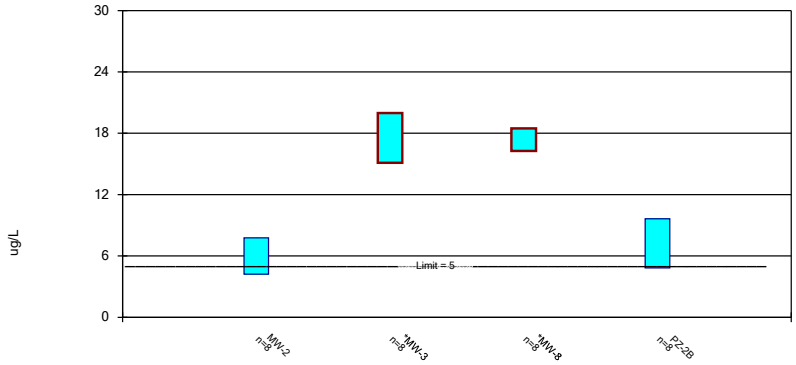
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Tetrachloroethene Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interva
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

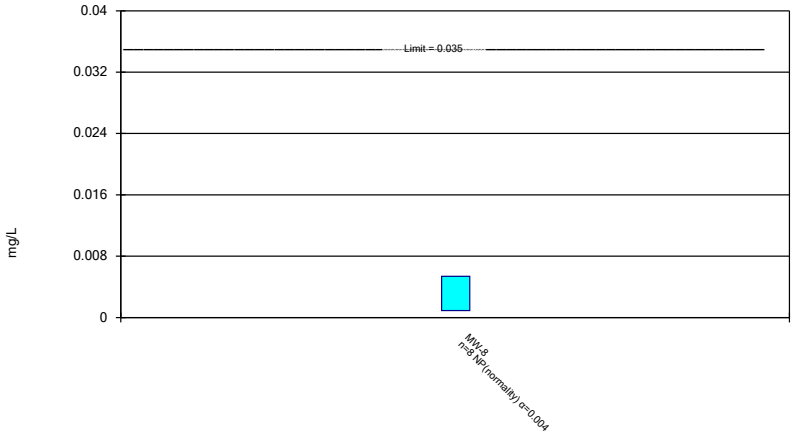
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Trichloroethene Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

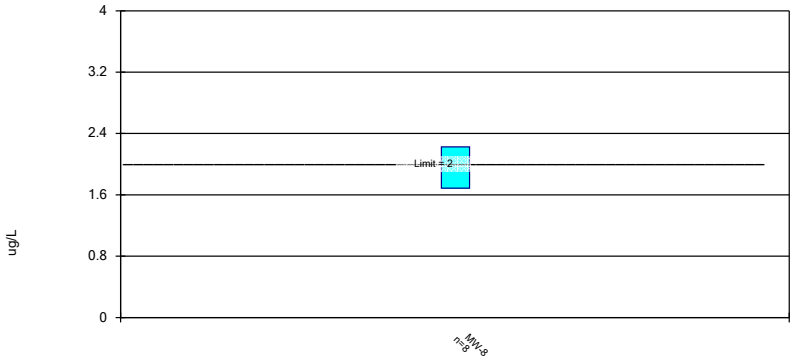
Compliance Limit is not exceeded.



Constituent: Vanadium Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Parametric Confidence Interval

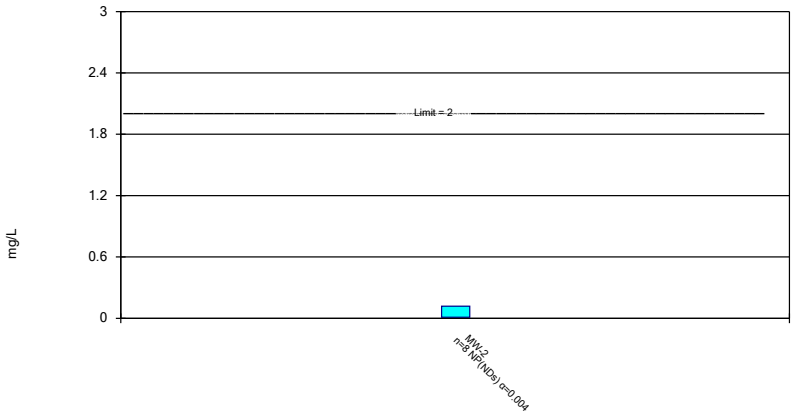
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Vinyl Chloride Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Zinc Analysis Run 12/31/2024 10:04 AM View: 2024 AWQR Confidence Interval
Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Theil-Sen Confidence Bands Summary Table and Graphs

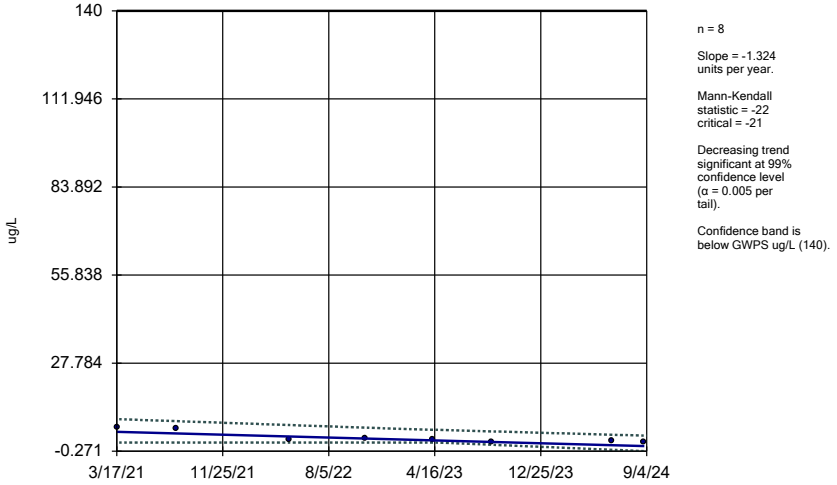
Trend Test

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit Printed 12/30/2024, 4:37 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	**PZ-2B**	**-1.324**	**-22**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Benzene (ug/L)	**MW-8**	**-0.06326**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**MW-8**	**0.3451**	**24**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	**PZ-2B**	**-0.6451**	**-24**	**-21**	**Yes**	**8**	**0**	**0.01**	**NP**
Vinyl Chloride (ug/L)	**PZ-2B**	**-0.1378**	**-25**	**-21**	**Yes**	**8**	**25**	**0.01**	**NP**

Sen's Slope and 99% Confidence Band

PZ-2B



n = 8

Slope = -1.324 units per year.

Mann-Kendall statistic = -22
critical = -21

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

Confidence band is below GWPS ug/L (140).

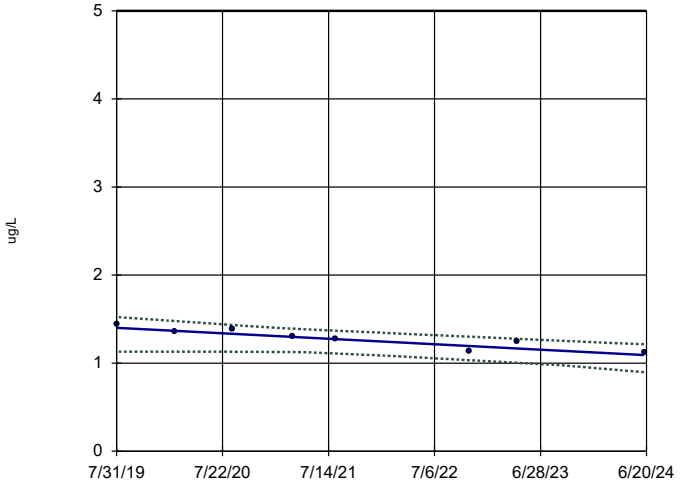
Constituent: 1,1-Dichloroethane Analysis Run 12/30/2024 4:36 PM View: 2024 AWQR Theil Sen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

MW-8



n = 8

Slope = -0.06326 units per year.

Mann-Kendall statistic = -24
critical = -21

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

Confidence band is below GWPS ug/L (5).

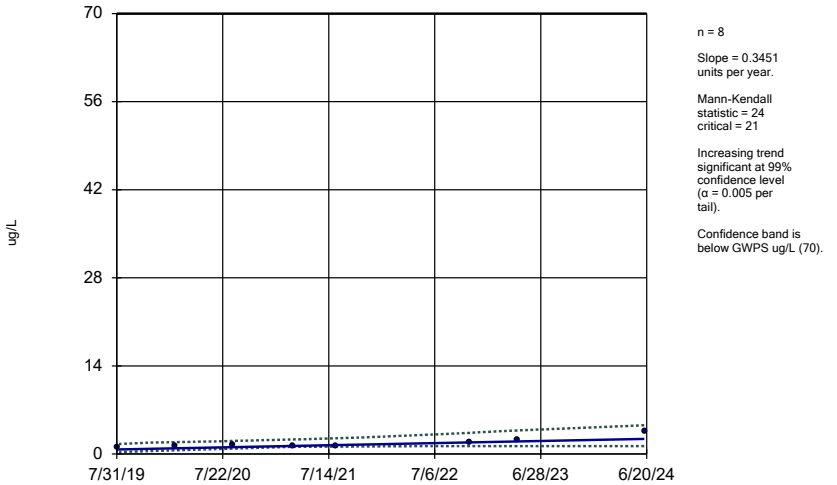
Constituent: Benzene Analysis Run 12/30/2024 4:36 PM View: 2024 AWQR Theil Sen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

MW-8



n = 8

Slope = 0.3451 units per year.

Mann-Kendall statistic = 24
critical = 21

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

Confidence band is below GWPS ug/L (70).

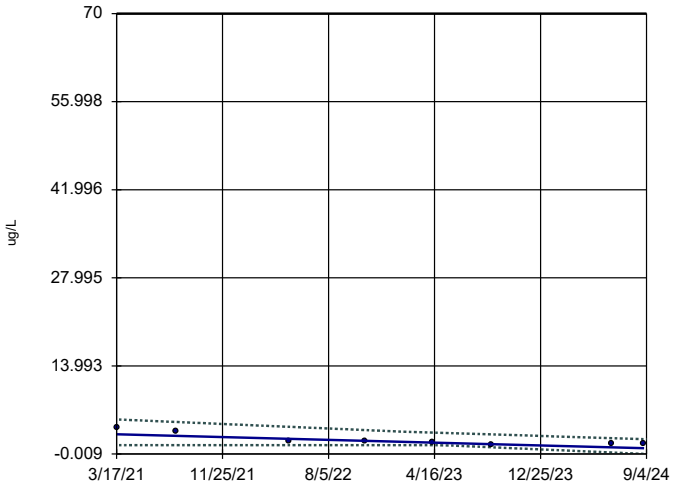
Constituent: cis-1,2-Dichloroethene Analysis Run 12/30/2024 4:36 PM View: 2024 AWQR Theil Sen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Sanitas™ v.10.0.24 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

PZ-2B



n = 8

Slope = -0.6451 units per year.

Mann-Kendall statistic = -24
critical = -21

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

Confidence band is below GWPS ug/L (70).

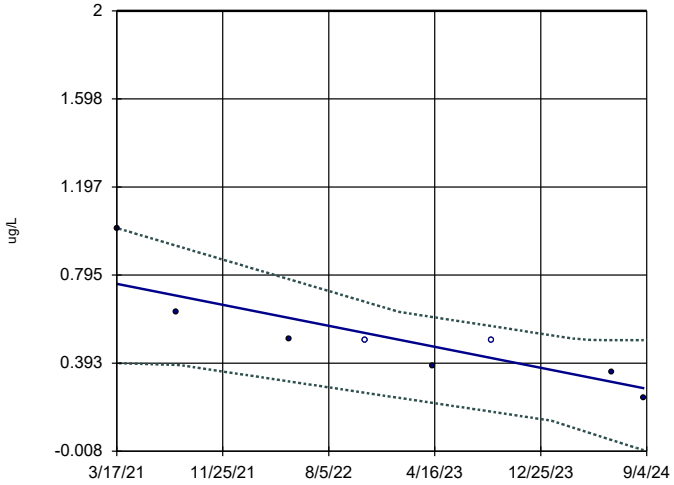
Constituent: cis-1,2-Dichloroethene Analysis Run 12/30/2024 4:36 PM View: 2024 AWQR Theil Sen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Hollow symbols indicate censored values.

Sen's Slope and 99% Confidence Band

PZ-2B



n = 8

Slope = -0.1378 units per year.

Mann-Kendall statistic = -25 critical = -21

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

Confidence band is below GWPS ug/L (2).

Constituent: Vinyl Chloride Analysis Run 12/30/2024 4:36 PM View: 2024 AWQR Theil Sen

Woodbury County SLF Client: SCS Engineers Data: Woodbury-2024-AWQR-MasterAM-edit

Appendix E

Leachate Control System Performance Evaluation Report

Table E1
Leachate Management Summary
2024 Leachate Control System Performance Evaluation Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Month	Leachate Level Measurements (ft)			Volume Recirculated (gal)	Discharged to POTW (gal)	Precipitation (in)
	LW-1	LW-2	LW-3			
January 2024	NM	NM	NM	0	0	1.73
February 2024	NM	NM	NM	0	0	0.43
March 2024	Dry (33.9)	Dry (39.4)	Dry (59.3)	0	0	2.83
April 2024	NM	NM	NM	0	0	4.28
May 2024	NM	NM	NM	0	0	5.75
June 2024	0.22 (39.86)	Dry (33.65)	Dry (42.20)	0	0	3.34
July 2024	NM	NM	NM	0	0	7.40
August 2024	0.04 (40.85)	Dry (34.70)	0.04 (42.22)	0	0	2.41
September 2024	NM	NM	NM	0	0	0.22
October 2024	NM	NM	NM	0	0	0.62
November 2024	NM	NM	NM	0	0	2.77
December 2024	0.5 (39.80)	Dry (33.60)	Dry (42.20)	0	0	0.49
			2024 Totals	0	0	32.27

Notes:

1) Measured total depths of the leachate piezometers are in parentheses. Leachate piezometers are likely broken or kinked and may not be providing accurate leachate head measurements. Installed depths of the piezometers are unknown due to a lack of historical records (Doc #88500).
2) A request to forego the installation of a replacement leachate piezometer was submitted to the DNR on May 7, 2018 (Doc #92312) and approved by the DNR in correspondence dated May 14, 2018 (Doc #92347).
3) Precipitation data obtained from https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php?year=2024 for Sioux City, Iowa.
4) Leachate measurements were completed by Steffen Engineering during the 1st quarter of 2024.

NM: Not Measured; Leachate measurements are only completed quarterly in accordance with the Closure Permit (Doc #20953).

Comments:

Reporting Period: January 2024 - December 2024.

Recommended Changes to Leachate Collection System: None.

Maintenance Performed on Leachate Collection System: None.

Last Date of Cleaning and Inspection: Cleaning and inspections were not performed during the reporting period as there is no leachate collection system at the Landfill.

Date for Next Cleaning and Inspection: Not applicable.

Volume of Leachate Recirculated: None.

Volume of Leachate Treated On-Site: None.

Volume of Leachate Treated Off-Site: None.

Leachate Quality Testing Results: None.

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Leachate Measurement Locations

Legend

- Leachate Measurement Location
- Monitoring Well
- Groundwater Piezometer
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

Figure 1

N E S W

0 130 260 520 Feet

Appendix F

Landfill Gas Annual Report

Table F1
Gas Monitoring Summary
2024 Gas Monitoring Report
Woodbury County Sanitary Landfill
Permit No. 97-SDP-02-75C

Monitoring Points										
Name	**Type**	**Description**	**3/11/2024**	**S (Y/N)**	**6/11/2024**	**S (Y/N)**	**8/29/2024**	**S (Y/N)**	**12/23/2024**	**S (Y/N)**
LFGW-1	Subsurface	North of the landfill	0%		0%		0%		0%	
LFGW-2	Subsurface	West of the landfill	>100%		>100%		>100%		20%	
LFGW-4	Subsurface	South of landfill	17%		5%		42%		0%	
LFGW-5	Subsurface	West of the landfill beyond the property boundary	0%		0%		0%		0%	
GV-4	Subsurface	Passive gas vent south of the landfill	>100%		26%		>100%		0%	
GV-5	Subsurface	Passive gas vent south of the landfill	12%		26%		0%		0%	
GV-6	Subsurface	Passive gas vent south of the landfill	0%		0%		0%		0%	
GV-7	Subsurface	Passive gas vent south of the landfill	>100%		51%		10%		0%	
GV-8	Subsurface	Passive gas vent south of the landfill	45%		NM		15%		0%	
GV-9	Subsurface	Passive gas vent south of the landfill	>100%		0%		10%		0%	
GV-10S	Subsurface	Passive gas vent southeast of the landfill	0%		0%		0%		0%	
GV-10W	Subsurface	Passive gas vent west of the landfill	>100%		21%		36%		0%	
GV-11	Subsurface	Passive gas vent west of the landfill	>100%		29%		7%		0%	
GV-12	Subsurface	Passive gas vent west of the landfill	>100%		23%		25%		0%	
GV-13	Subsurface	Passive gas vent west of the landfill	>100%		0%		>100%		0%	
GV-14	Subsurface	Passive gas vent west of the landfill	>100%		>100%		>100%		0%	
GV-15	Subsurface	Passive gas vent west of the landfill	17%		27%		13%		0%	
GV-16	Subsurface	Passive gas vent west of the landfill	>100%		31%		74%		0%	
GV-17	Subsurface	Passive gas vent southeast of the landfill	>100%		0%		90%		51%	
GV-18	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		0%	
GV-19	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		>100%	
GV-20	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		>100%	
GV-21	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		>100%	
GV-22	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		>100%	
GV-23	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		>100%	
GV-24	Subsurface	Passive gas vent southeast of the landfill	>100%		>100%		>100%		0%	
GV-25	Subsurface	Passive gas vent south of the landfill	>100%		>100%		>100%		24%	
GV-26	Subsurface	Passive gas vent south of the landfill	>100%		27%		35%		25%	
Scale House	Indoor	Northwest corner of the facility property, inside scale house	0%		0%		0%		0%	
Transfer Station	Indoor	Northwest corner of the facility property, inside transfer station building	0%		0%		0%		0%	
Building East of Scale House	Indoor	Northwest corner of the facility property, building east of scale house	0%		0%		0%		0%	

Notes:

S(Y/N) - Was screen submerged, yes or no or blank is non-applicable

NM - Indicates not measured; gas vent was not yet installed or inadvertently missed during sampling event.

Monitoring Point		Description	
#1	LFGW-1	Subsurface	North of the landfill
#2	LFGW-2	Subsurface	West of the landfill
#3	LFGW-4	Subsurface	South of landfill
#4	LFGW-5	Subsurface	West of landfill, beyond property boundary
#5	GV-4	Subsurface	Delineation vent for methane south of the landfill
#6	GV-5	Subsurface	Delineation vent for methane south of the landfill
#7	GV-6	Subsurface	Delineation vent for methane south of the landfill
#8	GV-7	Subsurface	Delineation vent for methane south of the landfill
#9	GV-8	Subsurface	Delineation vent for methane south of the landfill
#10	GV-9	Subsurface	Delineation vent for methane south of the landfill
#11	GV-10S	Subsurface	Delineation vent for methane southeast of the landfill
#12	GV-10W	Subsurface	Delineation vent for methane west of the landfill
#13	GV-11	Subsurface	Delineation vent for methane west of the landfill
#14	GV-12	Subsurface	Delineation vent for methane west of the landfill
#15	GV-13	Subsurface	Delineation vent for methane west of the landfill
#16	GV-14	Subsurface	Delineation vent for methane west of the landfill
#17	GV-15	Subsurface	Delineation vent for methane west of the landfill
#18	GV-16	Subsurface	Delineation vent for methane west of the landfill
#19	GV-17	Subsurface	Delineation vent for methane southeast of the landfill
#20	GV-18	Subsurface	Delineation vent for methane southeast of the landfill
#21	GV-19	Subsurface	Delineation vent for methane southeast of the landfill
#22	GV-20	Subsurface	Delineation vent for methane southeast of the landfill
#23	GV-21	Subsurface	Delineation vent for methane southeast of the landfill
#24	GV-22	Subsurface	Delineation vent for methane southeast of the landfill
#25	GV-23	Subsurface	Delineation vent for methane southeast of the landfill
#26	GV-24	Subsurface	Delineation vent for methane southeast of the landfill
#27	GV-25	Subsurface	Delineation vent for methane south of the landfill
#28	GV-26	Subsurface	Delineation vent for methane south of the landfill
#29	Scale House	Indoor	Northwest corner of the facility property, inside scalehouse
#30	Transfer Station	Indoor	Northwest corner of the facility property, inside transfer station building
#31	Building East of Scale House	Indoor	Northwest corner of the facility property, building east of scalehouse

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Methane Monitoring Network

Legend

- Methane Monitoring Location
- Monitoring Well
- Groundwater Piezometer
- Leachate Well
- Gas Monitoring Point
- Approximate Waste Boundary
- Interpolated Waste Boundary
- Located Waste Boundary
- Approximate Property Boundary
- Stream

Woodbury County Sanitary Landfill
Pierson, Iowa
Project No: 27223172.25
Drawing Date: January 2025

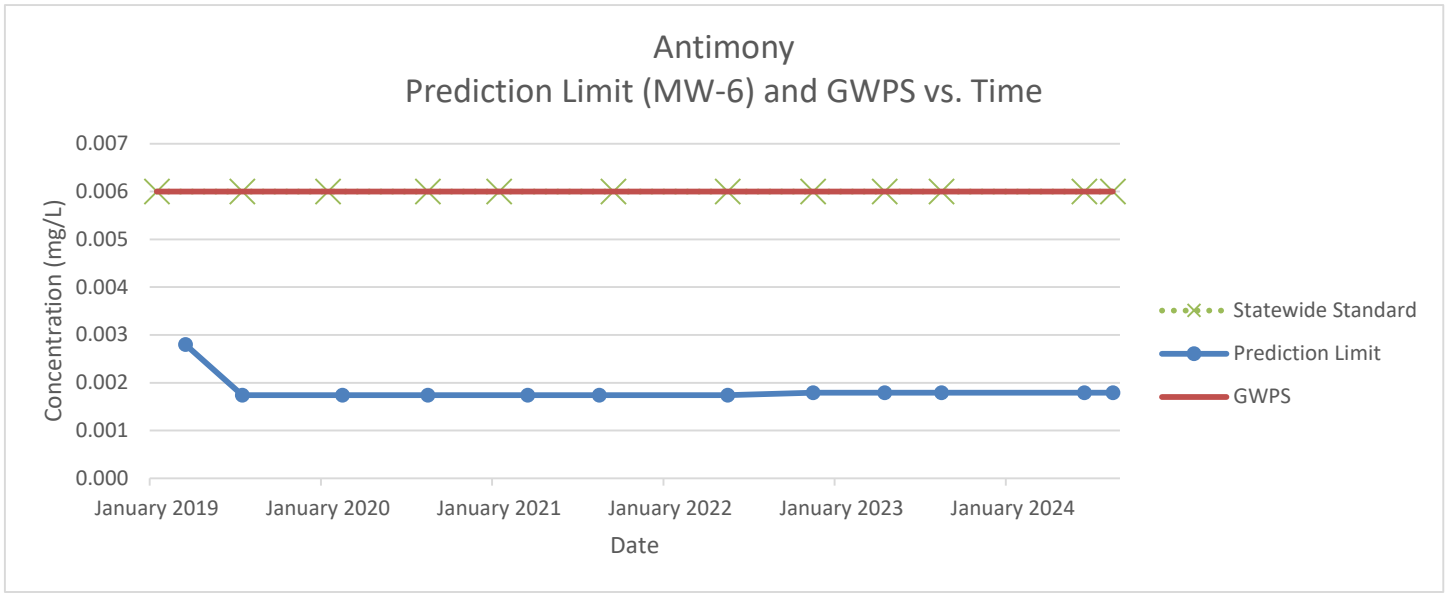
Figure 1

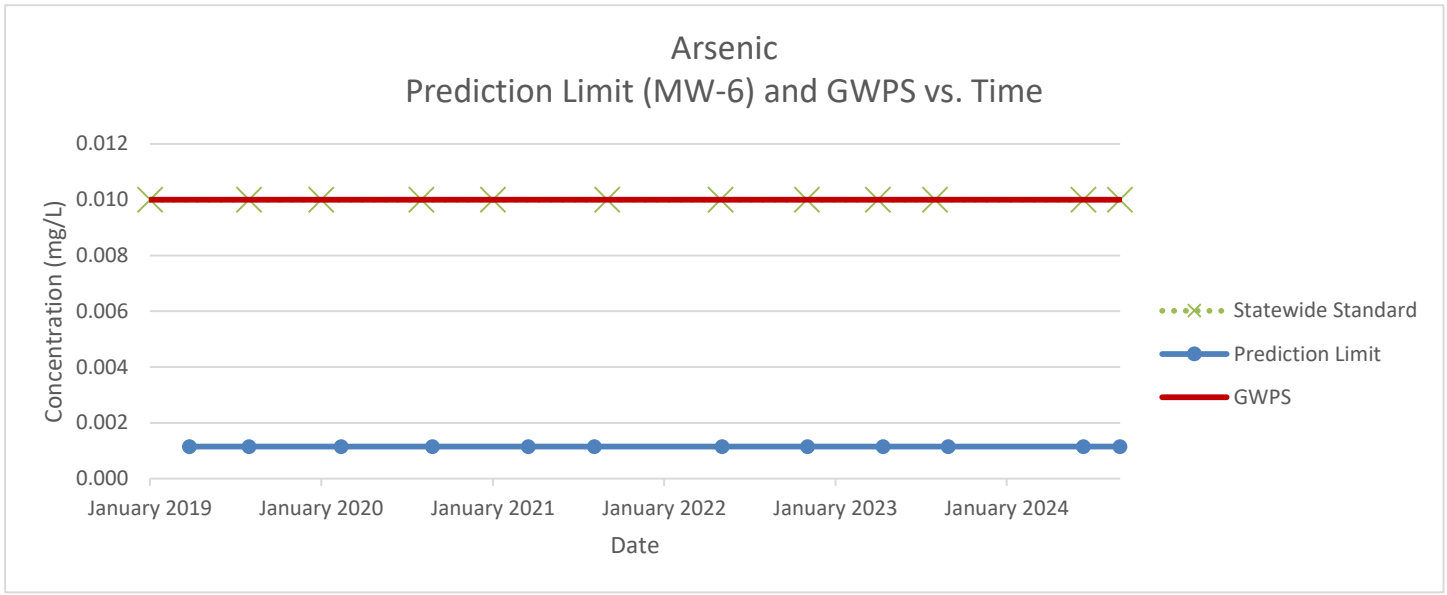
N E S W

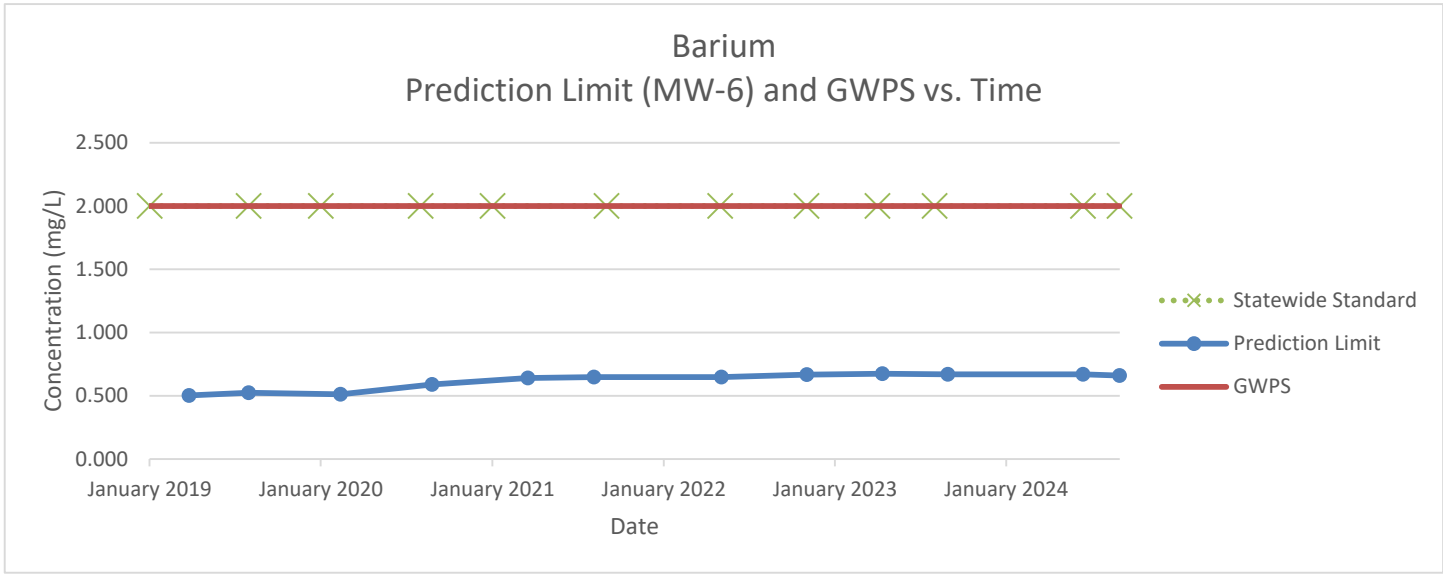
0 170 340 680 Feet

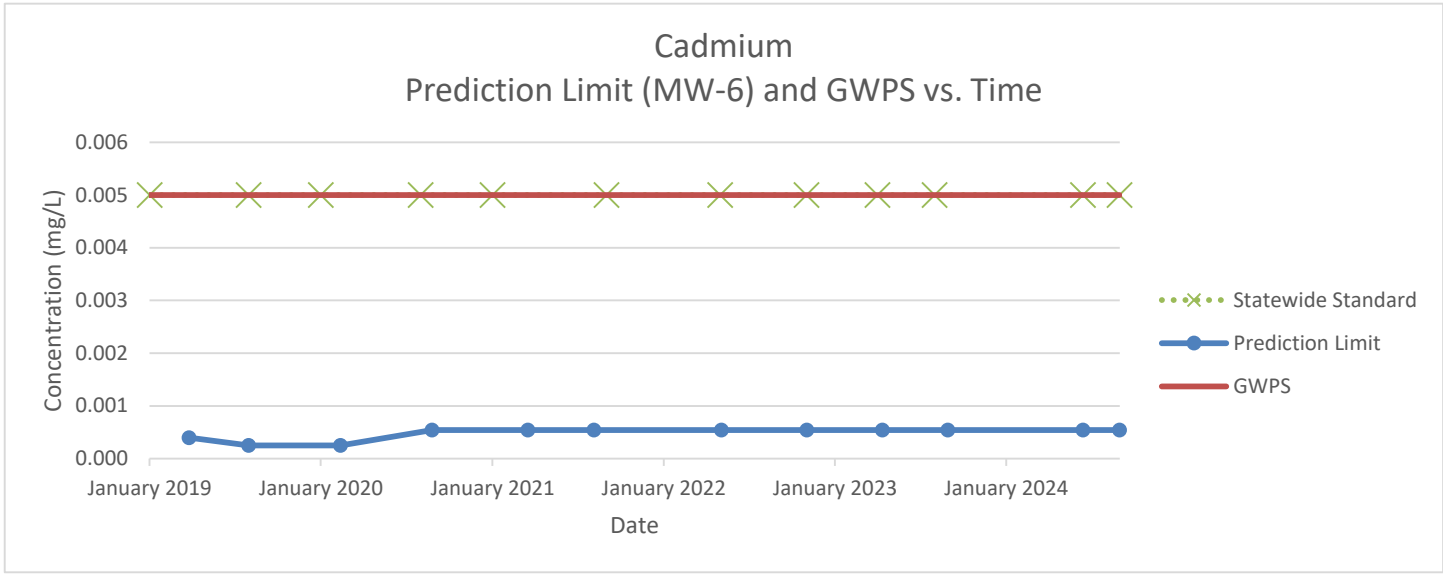
Appendix G

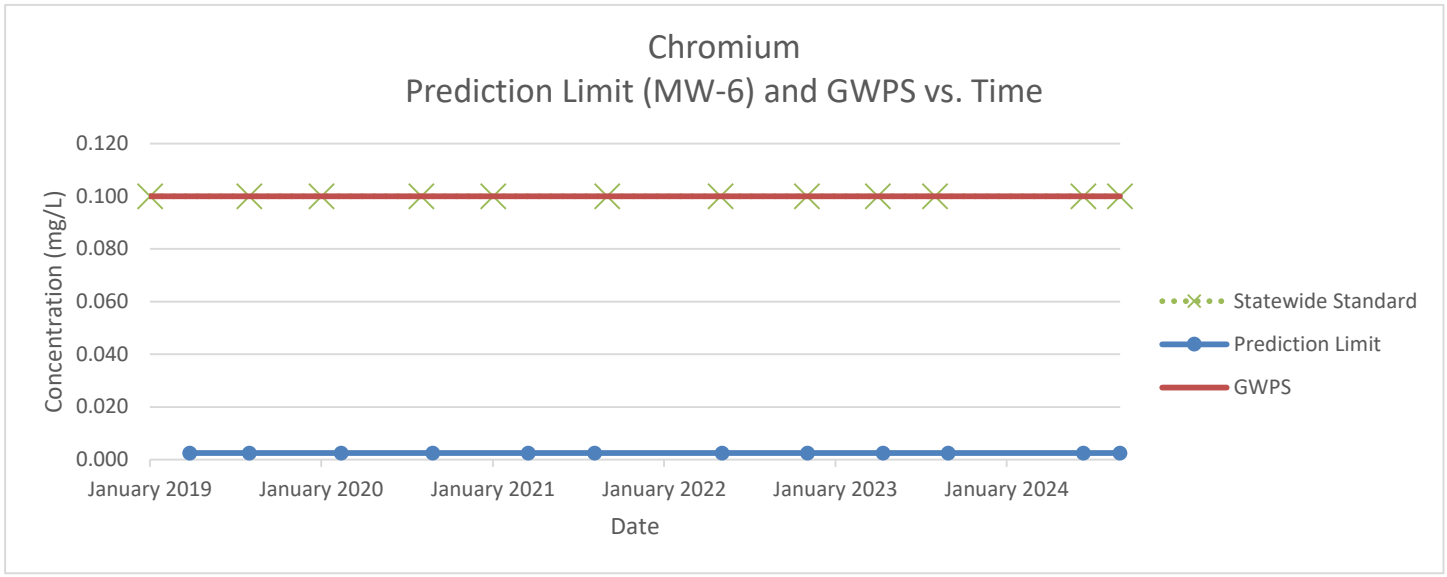
Standards History Graphs

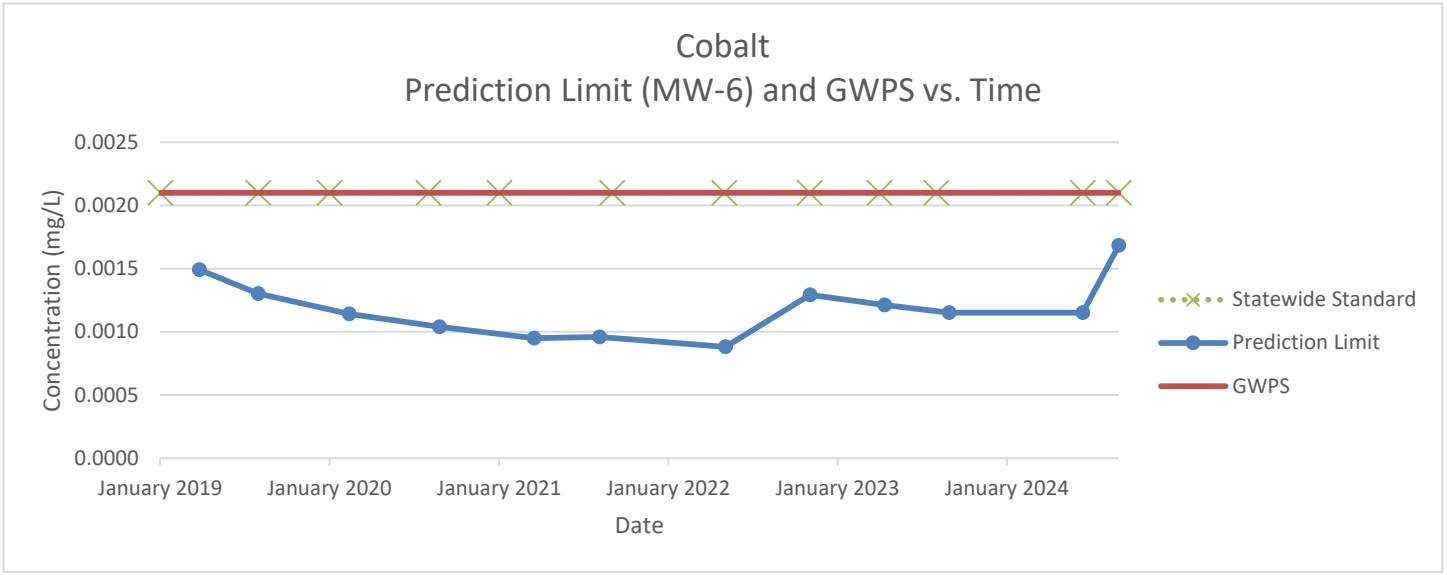

Antimony
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

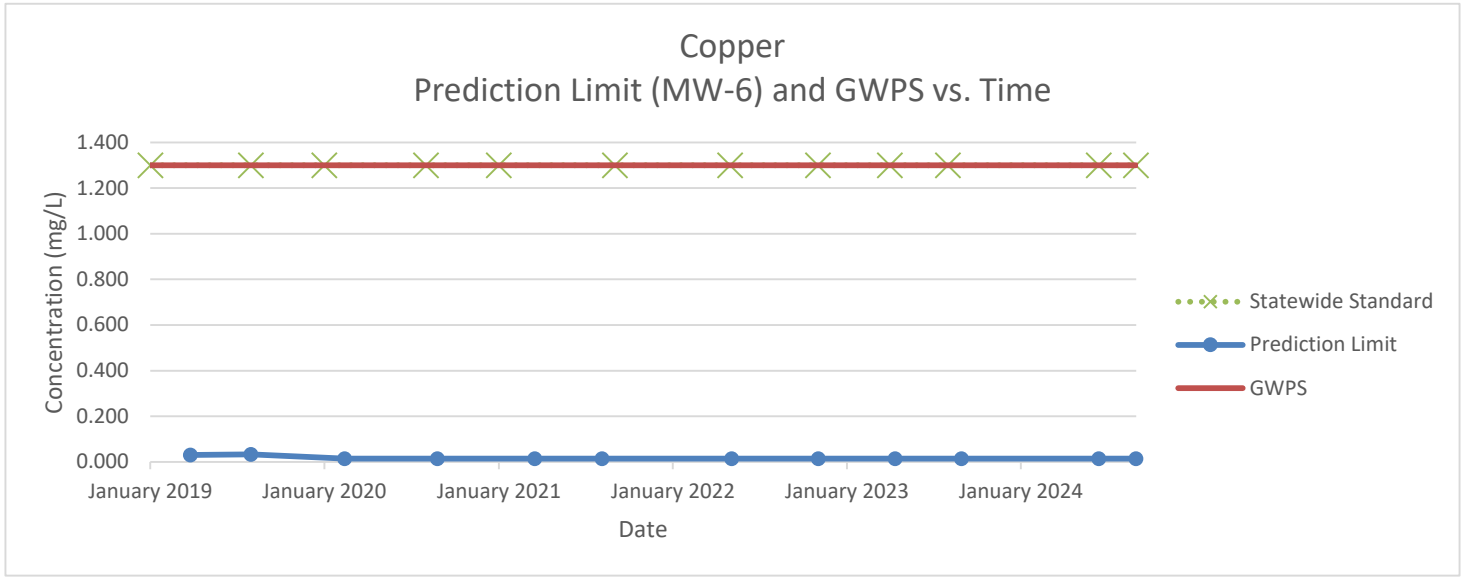

Arsenic
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.012
0.010
0.008
0.006
0.004
0.002
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

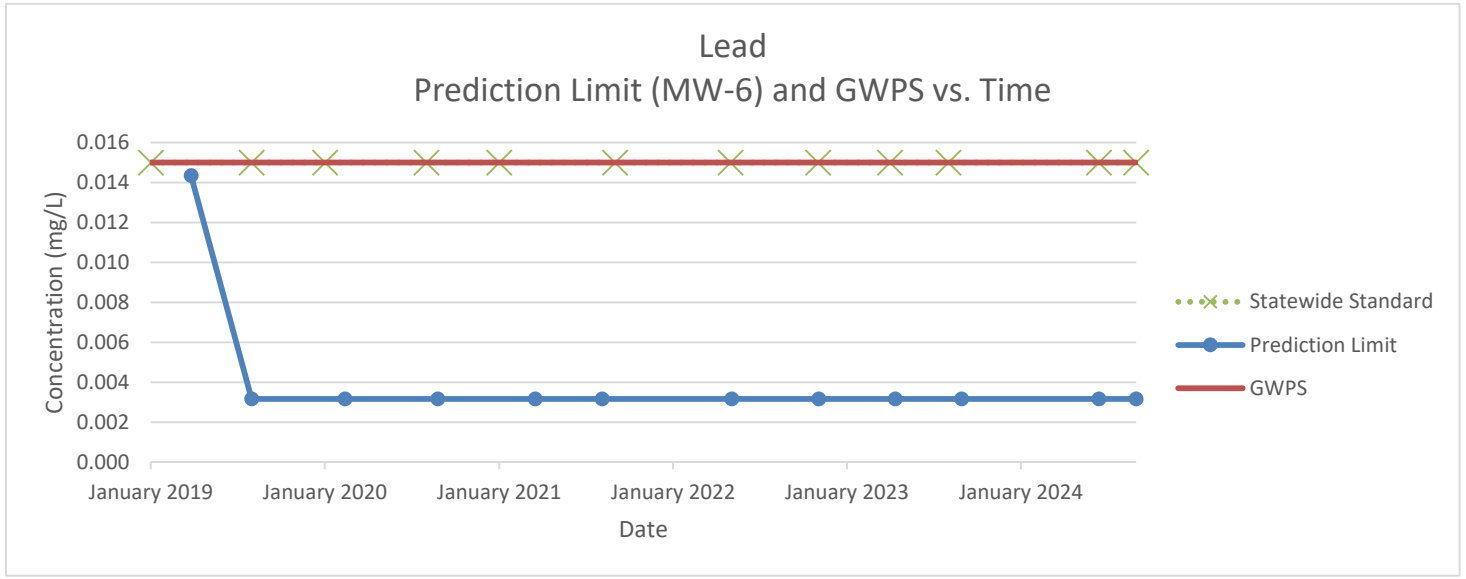

Barium
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

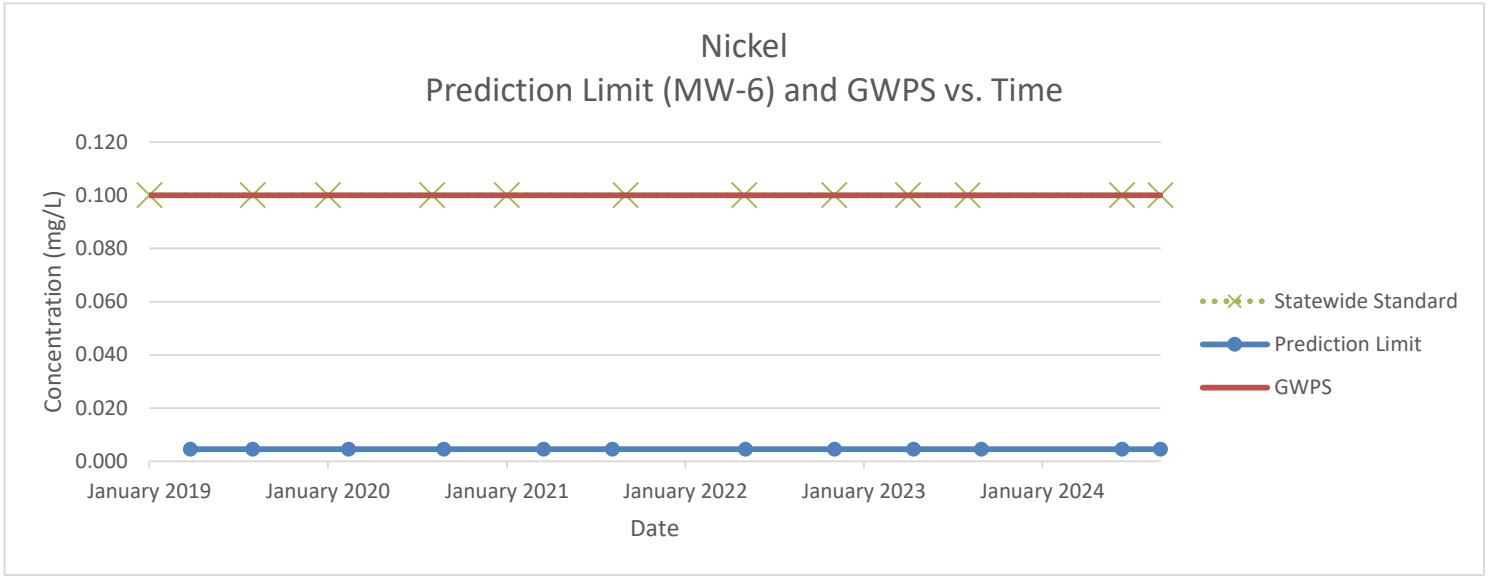

Cadmium
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.006
0.005
0.004
0.003
0.002
0.001
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

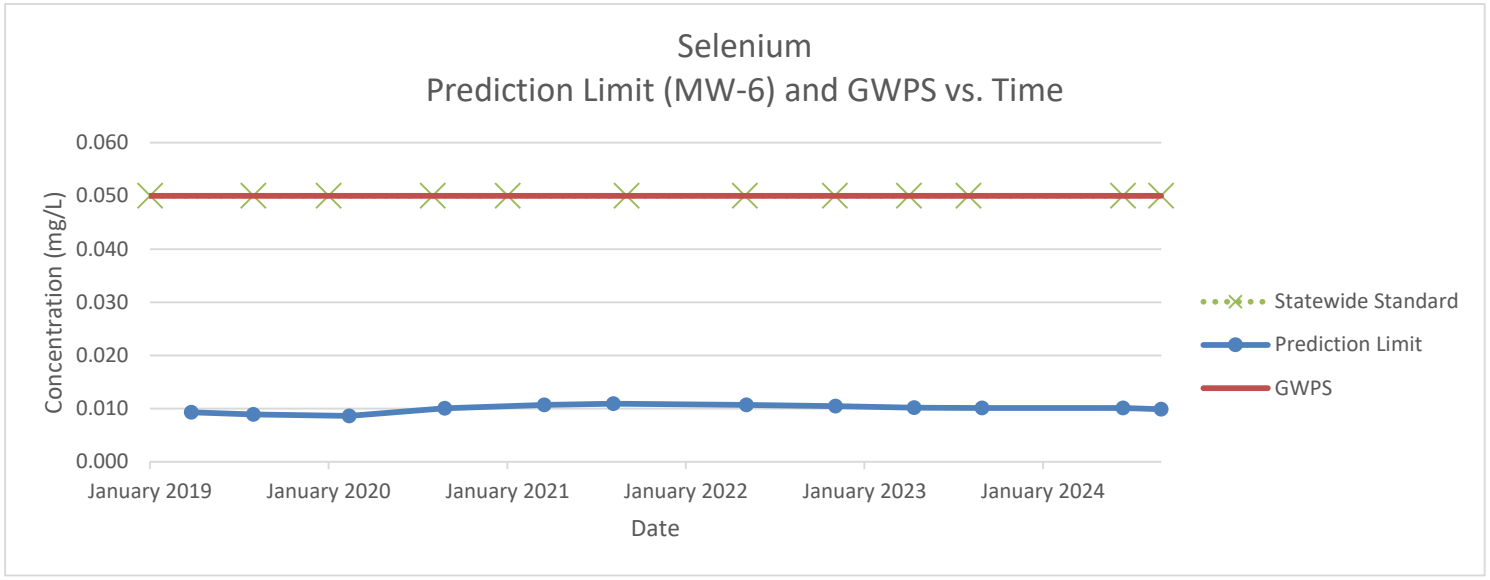

Chromium
Prediction Limit (MW-6) and GWPS vs. Time
0.120
0.100
0.080
0.060
0.040
0.020
0.000
Concentration (mg/L)
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

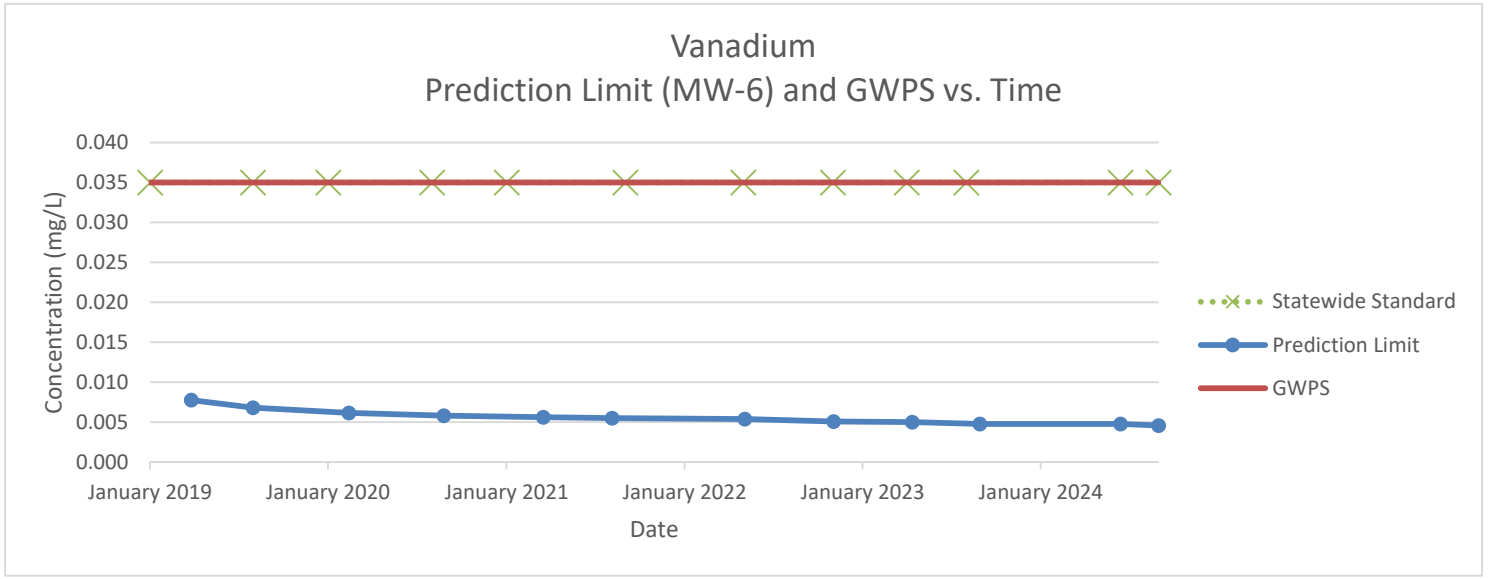

Cobalt
Prediction Limit (MW-6) and GWPS vs. Time
0.0025
0.0020
0.0015
0.0010
0.0005
0.0000
Concentration (mg/L)
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

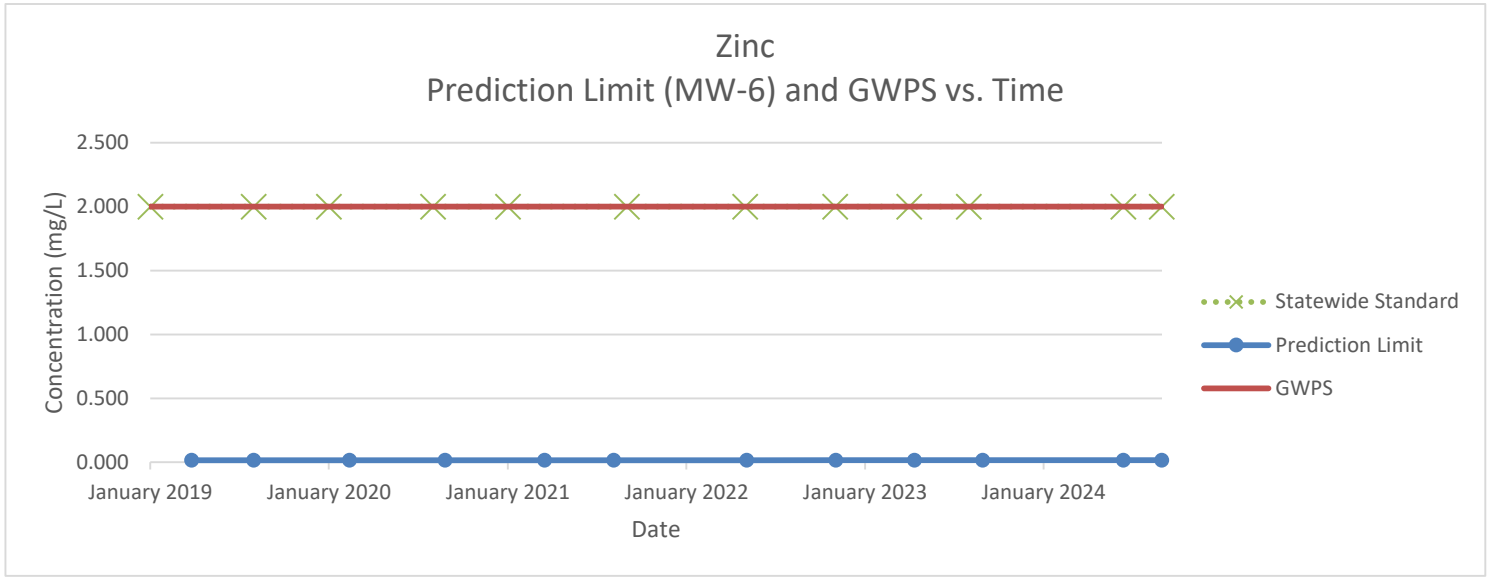

Copper
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS


Lead
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.016
0.014
0.012
0.010
0.008
0.006
0.004
0.002
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS


Nickel
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.120
0.100
0.080
0.060
0.040
0.020
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS


Selenium
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.060
0.050
0.040
0.030
0.020
0.010
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS


Vanadium
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS


Zinc
Prediction Limit (MW-6) and GWPS vs. Time
Concentration (mg/L)
2.500
2.000
1.500
1.000
0.500
0.000
January 2019
January 2020
January 2021
January 2022
January 2023
January 2024
Date
Statewide Standard
Prediction Limit
GWPS

Appendix H

Mann-Kendall Output

Monitoring Well	Constituent Name	Calculated Statistic		
		Decreasing Trend	Stable Trend	Increasing Trend
MW-2	1,1-Dichloroethane		0	
	Acetone		-5	
	Barium		6	
	Cadmium		-2	
	cis-1,2-Dichloroethene		10	
	Cobalt		-2	
	Dichlorodifluoromethane		4	
	Nickel		7	
	Tetrachloroethene			18
	Trichloroethene			20
	Zinc		5	
MW-3	1,1-Dichloroethane			16
	Arsenic		0	
	Barium		-8	
	Benzene			14
	Cadmium		-10	
	Chloroethane		4	
	cis-1,2-Dichloroethene			17
	Cobalt	-14		
	Copper		-7	
	Lead		-4	
	Nickel		-8	
	Tetrachloroethene	-17		
	Trichloroethene		2	
MW-5	Barium		-4	
	Chloroethane		-7	
	Lead			13
MW-8	1,1-Dichloroethane			18
	2,4-D [2C]		4	
	Barium		12	
	Benzene	-24		
	Chloroethane		4	
	cis-1,2-Dichloroethene			24
	Cobalt			15
	Copper		5	
	Dichlorodifluoromethane	-13		
	Lead		5	
	Nickel			18
	Tetrachloroethene		6	
	Trichloroethene		3	
	Vanadium		8	
	Vinyl Chloride		0	
PZ-2B	1,1-Dichloroethane	-22		
	Arsenic		4	
	Barium		0	
	Cadmium		8	
	cis-1,2-Dichloroethene	-24		
	Cobalt	-14		
	Dichlorodifluoromethane		-10	
	Lead		4	
	Nickel		3	
	Tetrachloroethene	-20		
	Trichloroethene	-21		
	Vinyl Chloride	-25		