SCS ENGINEERS

Transmittal

West Des Moines, IA

PROJECT:	Kossuth Co,FY24 Env Comp,IA 27223408.24	DATE:	3/12/2024
SUBJECT:	Kossuth County Sanitary Landfill - 55-SDP-01-75C - 2023 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report	TRANSMITTAL ID:	00001
PURPOSE:	For your approval	VIA:	Info Exchange

FROM

NAME	COMPANY	EMAIL	PHONE
Nathan Ohrt West Des Moines, IA	SCS Engineers	NOhrt@scsengineers.com	

TO

NAME	COMPANY	EMAIL	PHONE
Geoffrey Spain United States		geoffrey.spain@dnr.iowa.gov	

REMARKS:

Good morning Geoff-

SCS Engineers, on behalf of Kossuth County, is submitting the attached 2023 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report for the Kossuth County Sanitary Landfill. If you have any questions or comments regarding these reports, please contact me at the number below. Thank you.

Nathan Ohrt
Senior Project Professional
SCS Engineers
West Des Moines, Iowa
319-331-9613 (M)
nohrt@scsengineers.com

www.scsengineers.com

DESCRIPTION OF CONTENTS

QTY	DATED	TITLE	NOTES
1	3/12/2024	Kossuth County Sanitary Landfill - 55-SDP-01-75C - 2023 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report.pdf	

COPIES:

Transmittal

DATE: 3/12/2024
TRANSMITTAL ID: 00001

Jeff Phillips	(SCS Engineers)
Nathan Ohrt	(SCS Engineers)
Becky Jolly	
dmiller@kossuthcounty.iowa.gov	

March 12, 2024
File No. 27223408.24

Mr. Geoff Spain
Iowa Department of Natural Resources
Land Quality Bureau
Wallace State Office Building
502 East 9th Street
Des Moines, Iowa 50319

Subject: 2023 Annual Water Quality Report, Leachate Control System Performance Evaluation Report, and Landfill Gas Annual Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Dear Geoff:

SCS Engineers, on behalf of Kossuth County, has completed the required statistical evaluation for the closed Kossuth County Sanitary Landfill (Landfill) for the year 2023. Services were performed in general accordance with Iowa Administrative Code (IAC) 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan for the Landfill. Please find enclosed a copy of the 2023 Annual Water Quality Report.

Additionally, evaluations 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 2023 Leachate Control System Performance Evaluation Report and 2023 Landfill Gas Annual Report are included as appendices to the Annual Water Quality Report.

An extension to the submittal date for these reports to March 14, 2024 was approved in email correspondence dated March 4, 2024.

If you have any questions regarding these reports, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,

Nathan Ohrt
Senior Project Professional
SCS Engineers

Timothy C. Buelow, P.E.
Project Director
SCS Engineers

NPO/TCB

Copies: Mr. Doug Miller, P.E. – Kossuth County

2023 ANNUAL WATER QUALITY REPORT, LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT, AND LANDFILL GAS ANNUAL REPORT

FOR

KOSSUTH COUNTY SANITARY LANDFILL

BURT, IOWA

SOLID WASTE PERMIT NUMBER: 55-SDP-01-75C

SUBMITTAL DATE: MARCH 2024

PREPARED FOR:

KOSSUTH COUNTY

PREPARED BY:

SCS ENGINEERS

Certification

Prepared by: _____ Date: 3/12/2024

Typed: Nathan Ohrt

Reviewed by: _____ Date: 3/12/2024

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.

LICENSED PROFESSIONAL ENGINEER Timothy C. Buelow 14445 IOWA	I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa. _____ Date: 3/12/2024 Timothy C. Buelow, P.E. License No. 14445 My license renewal date is December 31, 2025. Pages or sheets covered by this seal: All except Appendix B-1.

This page intentionally left blank.

Executive Summary

ES.1 Period of Report Coverage

SCS Engineers (SCS), on behalf of Kossuth County, has completed the required statistical evaluation of groundwater data collected for the closed Kossuth County Sanitary Landfill (Landfill). The purpose of this Annual Water Quality Report (AWQR) is to document and statistically evaluate the groundwater sampling results for the year 2023. This AWQR was prepared in accordance with the requirements of Iowa Administrative Code (IAC) 567-113.10(5 and 6), the Landfill closure permit and applicable amendments, and current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP).

The previous consultant for Kossuth County prepared the laboratory analytical data, field sampling forms, and statistical evaluation for the May 22-23, 2023 sampling event submitted on June 28, 2023 (Doc #107107) and the laboratory analytical data and field sampling forms for the August 10, 2023, retesting sampling event submitted September 1, 2023 (Doc #107660).

ES.2 Report Priority

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

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

ES.3 Site Status and Applicable Rules

- Landfill Status: Closed.
- Types of waste accepted: None, landfill closed.
- Applicable IAC rules: The closure permit was issued on August 12, 2008 (Doc #28512) in accordance with the 2002 IAC Chapter 113. A variance request approved on December 9, 2013 (Doc #78926) replaced the requirements of IAC 567-113.2(5), 113.2(5)”d”, and 113.2(5)”e” with the requirements of 567-113.10. In addition, the December 9, 2013 variance approval replaced the requirements in IAC 567-113.21 (effective January 15, 2003) for the Monitoring Well Maintenance and Performance Reevaluation Plan with the requirements in the current IAC 567-113.10(2)”f”.

ES.4 Comments

- As approved in Permit Amendment #10, issued November 17, 2023 (Doc #108253), the groundwater and landfill gas monitoring programs were changed during this reporting period. The Request for Post-Closure Activities Modification (Doc #107915), dated October 12, 2023, modified the HMSP monitoring network and frequency of groundwater and landfill gas monitoring events. These changes are described in Section 6.0 of this report.
- Previously reported statistically significant levels (SSLs) above the groundwater protection standards (GWPS) for cis-1,2-dichloroethene and vinyl chloride for monitoring well MW-22B remained during this reporting period.

- Retesting sampling occurred in August 2023 for monitoring wells and constituents with indicated statistically significant increases (SSIs) above background in the 1st 2023 statistical evaluation. The retesting results did not confirm the indicated SSIs with the exception of acetone in monitoring well MW-18. As monitoring well MW-18 is an assessment monitoring well and acetone is part of the current sampling list for the monitoring well, no changes to the sampling requirements are necessary.
- SSIs above background were indicated in monitoring wells MW-18, MW-19, MW-20, MW-22B, MW-23, MW-28, and MWPz-16A. As assessment and corrective action monitoring wells do not require retesting, the indicated SSIs were not confirmed.

Table of Contents

Executive Summary ..... **i**
ES.1 Period of Report Coverage i
ES.2 Report Priority i
ES.3 Site Status and Applicable Rules i
ES.4 Comments i
Section 1.0 Acronyms/Abbreviations **1**
Section 2.0 Site Background **3**
2.1 Site Location 3
2.2 Facility 3
2.3 Geology and Hydrogeology of the Site 3
Section 3.0 Figures Discussion **5**
3.1 Figure 1 – Approved Monitoring Network 5
3.2 Figure 2 – Groundwater Contours 5
3.3 Figure 3 – Reporting Period Detection Summary 5
Section 4.0 Standards History Graphs **7**
Section 5.0 QA/QC Summary **9**
Section 6.0 Data Evaluation and Summary **11**
6.1 Data Evaluation 12
6.3 Landfill Gas Monitoring Summary 12
Section 7.0 Recommendations **15**
7.1 Site Impact on Groundwater 15
7.2 Proposed Monitoring 15
7.3 Proposed Monitoring Well Changes 15

Tables

TABLE 1	MONITORING PROGRAM SUMMARY
TABLE 2	MONITORING PROGRAM IMPLEMENTATION SCHEDULE
TABLE 3	MONITORING WELL MAINTENANCE AND PERFORMANCE RE-EVALUATION SCHEDULE
TABLE 4	MONITORING WELL PERFORMANCE AND MAINTENANCE SUMMARY
TABLE 5	BACKGROUND AND GWPS SUMMARY
TABLE 6	SUMMARY OF WELL/DETECTED CONSTITUENT PAIRS WITH NO PREVIOUS SSIS
TABLE 7	SUMMARY TABLE OF ONGOING AND NEWLY IDENTIFIED SSIS
TABLE 8	SUMMARY TABLE OF ONGOING AND NEWLY IDENTIFIED SSLS
TABLE 9	SUMMARY OF GROUNDWATER CHEMISTRY
TABLE 10	HISTORICAL SSIS AND SSLS
TABLE 11	CORRECTIVE ACTION TREND ANALYSIS
TABLE 12	GAS MONITORING SUMMARY

Figures

FIGURE 1	APPROVED MONITORING NETWORK
FIGURE 2	GROUNDWATER CONTOURS
FIGURE 3	REPORTING PERIOD DETECTION SUMMARY

Appendices

APPENDIX A	FIELD SAMPLING FORMS – NOVEMBER 2023
APPENDIX B-1	LABORATORY ANALYTICAL DATA SHEETS – NOVEMBER 2023
APPENDIX B-2	DATA VALIDATION DOCUMENTATION – NOVEMBER 2023
APPENDIX C	SUMMARY OF GROUNDWATER CHEMISTRY
APPENDIX D	STATISTICAL METHOD AND OUTPUT
APPENDIX E	2023 LEACHATE CONTROL SYSTEM PERFORMANCE EVALUATION REPORT
APPENDIX F	2023 LANDFILL GAS ANNUAL REPORT
APPENDIX G	STANDARDS HISTORY GRAPHS

Section 1.0

Acronyms/Abbreviations

ACM = Assessment of Corrective Measures
CAMP = Corrective Action Groundwater Monitoring Program
CCV = Continuing Calibration Verification
CL = Control Limit - Mean plus Two Standard Deviations
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
MDL = Method Detection Limit
N = Normal
NC = No Change
NM = Not Measured
NP = Non-Parametric
ORP = Oxidation-Reduction Potential
P = Parametric
PCA = Pre-Corrective Action Monitoring Program
PL = Prediction Limit
QA = Quality Assurance
QC = Quality Control
RL = Reporting Limit
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

This page intentionally left blank.

Section 2.0
Site Background

2.1 Site Location

The Kossuth County Sanitary Landfill (Landfill) property is depicted in Figure 1, Approved Monitoring Network. The Landfill is located 1.5 miles southeast of Burt, Iowa in a portion of the SE ¼ of Section 30, T79N, R28W, in Kossuth County, Iowa.

2.2 Facility

The Landfill began operation in 1975. The Landfill accepted municipal solid waste and construction and demolition waste from its service area. The Landfill was closed and the final cap was installed in 2008. Since closure, waste has been transferred to Central Disposal Systems, Inc. in Lake Mills, Iowa, for disposal. The Landfill closure permit was issued on August 12, 2008 (Doc #28512).

2.3 Geology and Hydrogeology of the Site

The geology and hydrogeology of the Landfill were summarized in the 2022 AWQR, dated January 9, 2022 (Doc #105522), prepared by MER Engineering, Inc.

> *The current HMSP for the Kossuth County Sanitary Landfill was approved on February 13, 1995. Soils at the landfill site are predominately glacial till. Borings indicate the surface layer is black clay loam to a depth of about 1 to 2 feet. Below this is a 14 to 25-foot layer of brown sandy clay loam. Below this is a gray clay loam. A well log from the Iowa Geological Survey for a location ½ mile southwest of the landfill shows Devonian Dolomite at a depth of 200 feet. Four other well logs within a three-mile radius of the landfill show bedrock at depths of about 100 to 200 feet. Further information on site geology is available in a 1974 report prepared by Otto Engineering.*
>
> *Groundwater levels and direction of groundwater flow are influenced by nearby waterways including the East Fork of the Des Moines River, a drainage ditch, and a small unnamed stream. The river is located to the east of the landfill property. The drainage ditch is located along the north and west sides of the property and is about 10-15 feet deep. The unnamed stream meanders across the south half of the landfill property and flows northwest to southeast. The stream is a tributary of the river and originates approximately one mile west of the landfill site near the City of Burt's wastewater treatment lagoon. Treated effluent from the City's lagoon is discharged to the stream. Additional information about the landfill is included in the facilities Operational Plan, Hydrologic Monitoring System Plan {HMSP), and Leachate Control Plan.*

This page intentionally left blank.

Section 3.0
Figures Discussion

The following figures are attached.

3.1 Figure 1 – Approved Monitoring Network

The Landfill property and HMSP monitoring network are depicted in Figure 1.

3.2 Figure 2 – Groundwater Contours

A groundwater contour map based on water levels measured by MER Engineering, Inc. during the May 2023 sampling event is included in Figure 2. Figure 2 indicates flow towards the creek transecting the Landfill, generally in a south-southwest direction north of the creek and a northeast direction south of the creek. This is similar to the general flow direction depicted in historical groundwater contour maps.

3.3 Figure 3 – Reporting Period Detection Summary

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

This page intentionally left blank.

Section 4.0
Standards History Graphs

Standards history graphs for the Appendix I metals are included in Appendix G.

The prediction limits were below the GWPS for the included graphs with the exception of arsenic and cobalt. The prediction limit for arsenic has been above the GWPS of 0.1 mg/L consistently since at least 2014. The cobalt prediction limit was above the GWPS of 0.0021 mg/L before 2017 and since 2022.

The prediction limits for arsenic and cobalt are based on indicated, but not confirmed, statistical outliers. Further review of background will be conducted in the 2024 reporting period. Confidence intervals were calculated compared to the statewide standard GWPS of 0.01 mg/L for arsenic and 0.0021 mg/L for cobalt. More information on prediction limits and GWPS is available in Table 5.

This page intentionally left blank.

Section 5.0
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 are performed on analytical results for laboratory quality control samples and a quality assurance assessment of the data is conducted as the data is generated. The QA review procedure provides documentation of the accuracy and precision of the analytical data and confirms that the analyses are sufficiently sensitive to detect constituents at levels below regulatory standards when technically feasible with the laboratory method utilized. SCS then conducts QA/QC data validation of the produced data, which includes a review of sample handling, analytical sensitivity, blanks, accuracy, and precision. A summary of the laboratory QA/QC and data validation for the November 2023 sampling event can be found in Appendix B-1, Laboratory Analytical Data Sheets, and Appendix B-2, Data Validation Documentation, respectively.

Laboratory QA/QC data for the May 22-23, 2023 sampling event was submitted on June 28, 2023 (Doc #107107) and the laboratory QA/QC data for the August 10, 2023 sampling event was submitted on September 1, 2023 (Doc #107660).

This page intentionally left blank.

Section 6.0
Data Evaluation and Summary

The Request for Post-Closure Activities Modification (Doc #107915), dated October 12, 2023, modified the HMSP monitoring network and frequency of groundwater and landfill gas monitoring events for the Landfill. Sampling was discontinued for selected monitoring wells and the surface water monitoring points, volatile organic compound (VOC) sampling was discontinued at monitoring wells without historical VOC detections, and sampling for some metal parameters was reduced in selected monitoring wells based on infrequency of detections and low concentrations. Sampling for monitoring wells was reduced to an annual frequency with the exception of corrective action monitoring wells MW-22B and MW-28 and detection monitoring well MW-26, located downgradient of the leachate storage lagoon. Monitoring requirements for monitoring wells MW-22B, MW-26, and MW-28 were unchanged. The modified monitoring network is summarized in the table below.

Monitoring Well	Monitoring Program	Semi-Annual	Annual	5 Years Appendix II	Next Appendix II Event
MW-27	Background		Metals list, TSS		
MW-12	Detection		Metals list, TSS, Appendix I VOCs		
MW-18	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028
MW-20	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028
MWPZ8-A	Background		Metals list, TSS		
MWPZ16-A	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028
MW-22B	Corrective Action	Appendix I, TSS	Appendix I, TSS	Appendix II, TSS	2028
MW-28	Corrective Action	Appendix I, TSS	Appendix I, TSS	*	
MW-23	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028
MW-25	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028
MW-26	Detection	Appendix I, TSS	Appendix I, TSS		
MWPZ8-B2	Background		Metals list, TSS		
MW-22A	Background		Metals list, TSS		
MW-19	Assessment		Metals list, TSS, Appendix I VOCs	Appendix II, TSS	2028

"Metals list" includes arsenic, barium, cadmium, cobalt, lead, nickel, selenium, and zinc.
TSS – Total Suspended Solids
* MW-28 was installed to track the effectiveness of the corrective action remedy and has not had a confirmed SSI, so Appendix II sampling is not applicable.

Laboratory analytical data, field sampling forms, and statistical evaluation for the May 22-23, 2023 sampling event were submitted on June 28, 2023 (Doc #107107) and laboratory analytical data and field sampling forms for the August 10, 2023 retesting sampling event were submitted September 1, 2023 (Doc #107660).

Detection and assessment/corrective action statistical evaluations in accordance with the requirements of IAC 567-113.10(5) and 113.10(6) were conducted for the groundwater analytical data collected during the November 2023 sampling event. The statistical evaluation for samples collected during the November 2023 sampling event is located in Appendix D (Statistical Method and Output) of this report.

6.1 Data Evaluation

The groundwater monitoring network for the Landfill consists of groundwater monitoring wells located along the downgradient perimeters of the waste boundaries. A map showing the measured concentrations by monitoring well during this reporting period is included as Figure 3, Reporting Period Detection Summary.

Site-wide maximum concentrations for metals and VOCs were almost entirely measured in corrective action monitoring well MW-22B and assessment monitoring wells MW-18 and MW-19, with vanadium in assessment monitoring well MW-20 being the only exception. VOCs were measured in monitoring wells MW-18, MW-19, MWPz-16A, and MW-22B. The one VOC measured in monitoring well MW-18 was acetone, which is a common laboratory contaminant (USEPA, 2014).

Constituents exceeding their corresponding GWPSs were SSL constituents cis-1,2-dichloroethene and vinyl chloride plus cobalt and thallium in corrective action monitoring well MW-22B, arsenic, cobalt, and 4,4-DDD in monitoring well MW-19, and thallium in monitoring wells MW-18 and MW-28.

Retesting sampling occurred in August 2023 for the following monitoring wells and constituents with indicated SSIs in the 1st 2023 statistical evaluation:

MW-18 – Thallium, vanadium, and acetone

MW-19 – 4,4-DDD

MW-20 – Vanadium

MW-22B – Thallium and acetone

MW-28 – Thallium

The retesting results did not confirm the indicated SSIs with the exception of acetone in monitoring well MW-18. As monitoring well MW-18 is an assessment monitoring well and acetone is part of the current sampling list for the monitoring well and is a common laboratory contaminant, no changes to the sampling requirements are recommended. Laboratory analytical data and field sampling forms for the August 10, 2023 retesting sampling event were submitted September 1, 2023 (Doc #107660).

SSLs for cis-1,2-dichloroethane and vinyl chloride remain in monitoring well MW-22B. The lower confidence limit for vinyl chloride was below the GWPS during the 2nd 2023 statistical evaluation.

6.3 Landfill Gas Monitoring Summary

Monitoring of the landfill gas migration was performed in March and May 2023 by MER Engineering and in September and November 2023 by SCS. No action level exceedances of methane were measured during this reporting period.

As stated in The Request for Post-Closure Activities Modification, dated October 12, 2023 (Doc #107915), the monitoring frequency was reduced from quarterly to semi-annually for the monitoring points SW-1, MW-12, MWPz-16A, MW-19, MW-25, MWPz-8A, MW-23, NE corner, SW-2, and NW corner. The facility structures and monitoring points North gas vent, South gas vent, and corrective action monitoring wells MW-22B and MW-28 will continue the quarterly sampling frequency.

A summary of gas monitoring results and monitoring locations are included in Appendix F, 2023 Landfill Gas Annual Report.

This page intentionally left blank.

Section 7.0
Recommendations

7.1 Site Impact on Groundwater

- GWPS exceedances for metals were limited, including cobalt and thallium in monitoring well MW-22B, arsenic and cobalt in monitoring well MW-19, and thallium in monitoring wells MW-18 and MW-28.
- VOCs are consistently detected at monitoring wells MWPz-16A, MW-19, and MW-22B.
- SSLs for cis-1,2-dichloroethane and vinyl chloride remain in monitoring well MW-22B. The lower confidence limit for vinyl chloride was below the GWPS during the 2nd 2023 statistical evaluation.

7.2 Proposed Monitoring

Monitoring is proposed to continue in 2024 as summarized in the attached Table 2.

7.3 Proposed Monitoring Well Changes

No monitoring well changes are proposed at this time.

Tables

Table 1
Monitoring Program Summary
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Monitoring Well	Formation[1]	Current Monitoring Program	Change for next sampling event	Constituents with SSIs during the 2023 Reporting Period	Constituents with SSLs	Total Number of Samples in Each Monitoring Program since January 1, 2018		
						Detection	Assessment	Corrective Action
HMSP Monitoring Wells								
MW-27	Till	Background	Annual	Not applicable	Not applicable	11		
MWPz-8A	Till	Background	Annual	Not applicable	Not applicable	6		
MWPz-8B2	Till	Background	Annual	Not applicable	Not applicable	8		
MW-22A	Till	Background	Annual	Not applicable	Not applicable	7		
MW-22B	Till	Corrective Action	No change	Thallium, Acetone, Benzene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Vinyl Chloride	Vinyl Chloride, cis-1,2-Dichloroethene			12
MW-23	Till	Assessment	Annual	Barium	None		11	
MW-24A	Till	Detection	Discontinued	#N/A		11		
MW-25	Till	Assessment	Annual	None	None		11	
MW-19	Till	Assessment	Annual	Arsenic, Barium, 1,1-Dichloroethane, 4,4`-DDD, Benzene	None		11	
MWPz-16A	Till	Assessment	Annual	1,1-Dichloroethane, cis-1,2-Dichloroethene	None		11	
MWPz-16B	Till	Detection	Discontinued	#N/A				
MW-12	Till	Detection	Annual	None		9		
MW-17	Till	Detection	Discontinued	#N/A		9		
MW-18	Till	Assessment	Annual	Selenium, Thallium, Acetone	None		9	
MW-26	Till	Detection	No change	None			12	
MW-21	Till	Detection	Discontinued	#N/A		11		
MW-20	Till	Assessment	Annual	None	None		11	
MW-28	Till	Corrective Action	No change	Thallium	None			12
SW-1	Surface Water - Stream	Background	Discontinued	#N/A		9		
SW-2	Surface Water - Stream	Detection	Discontinued	#N/A		9		

Notes:
(1) Obtained from 2022 Annual Water Quality Report (Doc #105522).
#N/A - Not analyzed as the monitoring well was removed from the HMSP monitoring network before the 2nd 2023 statistical evaluation. The 1st 2023 statistical evaluation for these monitoring wells was submitted on June 28, 2023 (Doc #107107).
SSI = Statistically Significant Increase above background.
SSL = Statistically Significant Level above a groundwater protection standard.

Table 2
Monitoring Program Implementation Schedule
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Monitoring Well	Recent Sampling Dates and Constituents			Upcoming Sampling Dates and Constituents		Full Appendix II Sample Dates	
	May 22-23, 2023 (1st 2023 Semi-Annual)	August 10, 2023 (Retest)	November 30, 2023 (2nd 2023 Semi-Annual)	1st 2024 Annual Event	2nd 2024 Annual Event	Previously Collected	Next Event
MW-27	Appendix I, TSS			Metals list, TSS		10/27/2009, 5/14/2013	
MWPz-8A	Not sampled (insufficient water)			Metals list, TSS		3/17/2009, 5/13/2013	
MWPz-8B2	Appendix I, TSS			Metals list, TSS			
MW-22A	Appendix I, TSS			Metals list, TSS		3/17/2009, 5/13/2013	
MW-22B	Appendix II, TSS	Thallium, TSS, Acetone	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	7/10/2009, 5/13/2013, 5/14/2018, 5/22/2023	2028
MW-23	Appendix II, TSS			Metals list, TSS, Appendix I VOCs		7/10/2009, 5/13/2013, 5/14/2018, 5/22/2023	2028
MW-24A	Appendix I, TSS			Removed from HMSP monitoring network		7/10/2009, 5/13/2013	
MW-25	Appendix I, TSS			Metals list, TSS, Appendix I VOCs		7/10/2009, 5/13/2013, 5/14/2018, 5/22/2023	2028
MW-19	Appendix II, TSS	4,4-DDD		Metal list, TSS, Appendix I VOCs		4/28/2010, 6/24/2014, 5/14/2018, 5/22/2023	2028
MWPz-16A	Appendix II, TSS			Metal list, TSS, Appendix I VOCs		3/17/2009, 5/13/2013, 5/14/2018, 5/22/2023	2028
MWPz-16B	Appendix I, TSS			Removed from HMSP monitoring network			
MW-12	Appendix I, TSS			Metal list, TSS, Appendix I VOCs		1/13/2011, 5/14/2013	
MW-17	Appendix I, TSS			Removed from HMSP monitoring network		7/10/2009, 5/13/2013	
MW-18	Appendix II, TSS	Thallium, Vanadium, TSS, Acetone		Metal list, TSS, Appendix I VOCs		1/13/2011, 5/14/2013, 5/14/2018, 5/23/2023	2028
MW-26	Appendix I, TSS		Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	3/17/2009, 5/13/2013	
MW-21	Appendix I, TSS			Removed from HMSP monitoring network		1/13/2011, 5/14/2013	
MW-20	Appendix II, TSS	Vanadium, TSS		Metal list, TSS, Appendix I VOCs		4/28/201, 5/14/2013, 5/14/2018	
MW-28	Appendix I, TSS	Thallium, TSS	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	5/23/2023	2028
SW-1	Appendix I, TSS			Removed from HMSP monitoring network		7/10/2009, 5/13/2013	
SW-2	Appendix I, TSS			Removed from HMSP monitoring network		7/10/2009, 5/13/2013	

Notes:
TSS - Total Suspended Solids.
"Metals list" includes arsenic, barium, cadmium, cobalt, lead, nickel, selenium, and zinc.

Table 3
Monitoring Well Maintenance and Performance Re-Evaluation Schedule
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Compliance with:	2021	2022	2023	2024	2025
567 IAC 113.10(2)"f"(1) high and low water levels	Completed		Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(2) changes in the hydrologic setting and flow paths	Completed		Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(3) well depths	Completed	Completed	Included	Scheduled	Scheduled
567 IAC 113.10(2)"f"(4) well recharge rates and chemistry (biennial)	Completed		Included		Scheduled
Waste separation from groundwater 113.6(2)i	NA	NA	NA	NA	NA

Comments: None.

NA - Not applicable. Waste/groundwater separation is not applicable to this facility.

Table 4
Monitoring Well Performance and Maintenance Summary
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth	Baseline Recharge (gpm)**	Recent Recharge (gpm)**	
					May 2023	November 2023	Discrepancy (ft)	Date	Date	% Change
MW-27	1133.69	1121.30	27.3	Groundwater Level (ft)	9.57		0.0			
				Groundwater Elevation (Ft MSL)	1124.12			0.011	0.067	509%
				Measured Well Depth (ft)	27.3			11/14/2013	5/3/2023	
				Submerged screen	Y					
MWPz-8A	1187.71	1171.20	21.5	Groundwater Level (ft)	19.71		0.0			
				Groundwater Elevation (Ft MSL)	1168.00			0.056	Not available (dry).	NA
				Measured Well Depth (ft)	21.5			5/1/2015	5/2/2023	
				Submerged screen	N					
MWPz-8B2	1186.93	1135.53	71.4	Groundwater Level (ft)	64.18		0.0			
				Groundwater Elevation (Ft MSL)	1122.75			0.009	0.019	111%
				Measured Well Depth (ft)	71.4			5/1/2015	5/2/2023	
				Submerged screen	N					
MW-22A	1180.01	1124.61	65.4	Groundwater Level (ft)	56.90		0.0			
				Groundwater Elevation (Ft MSL)	1123.11			0.032	0.084	163%
				Measured Well Depth (ft)	65.4			11/14/2013	5/2/2023	
				Submerged screen	N					
MW-22B	1180.24	1170.24	25.0	Groundwater Level (ft)	12.78	15.03	-0.5			
				Groundwater Elevation (Ft MSL)	1167.46	1165.21		0.002	0.001	-50%
				Measured Well Depth (ft)	25.0	25.5		11/14/2013	5/2/2023	
				Submerged screen	N	N				
MW-23	1173.03	1161.63	31.4	Groundwater Level (ft)	19.89		0.0			
				Groundwater Elevation (Ft MSL)	1153.14			0.0003	0.001	233%
				Measured Well Depth (ft)	31.4			11/14/2013	5/2/20223	
				Submerged screen	N					
MW-24A	1163.31	1141.71	26.6	Groundwater Level (ft)	9.25		0.0			
				Groundwater Elevation (Ft MSL)	1154.06			0.0001	0.00035	250%
				Measured Well Depth (ft)	26.6			11/14/2013	5/2/2023	
				Submerged screen	Y					
MW-25	1167.98	1157.98	25.0	Groundwater Level (ft)	7.02		0.0			
				Groundwater Elevation (Ft MSL)	1160.96			0.001	0.035	3400%
				Measured Well Depth (ft)	25.0			11/14/2013	5/2/2023	
				Submerged screen	Y					
MW-19	1165.95	1128.95	47.0	Groundwater Level (ft)	40.15		0.0			
				Groundwater Elevation (Ft MSL)	1125.80			0.0008	0.0004	-50%
				Measured Well Depth (ft)	47.0			5/1/2015	5/2/2023	
				Submerged screen	N					

Table 4
Monitoring Well Performance and Maintenance Summary
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Top of Casing	Top of Screen	Total Depth		Date of Measurements		Maximum Depth	Baseline Recharge (gpm)**	Recent Recharge (gpm)**	
					May 2023	November 2023	Discrepancy (ft)	Date	Date	% Change
MWPz-16A	1164.98	1141.02	26.5	Groundwater Level (ft)	9.73		0.0			
				Groundwater Elevation (Ft MSL)	1155.25			0.004	0.001	-75%
				Measured Well Depth (ft)	26.5			11/14/2013	5/2/2023	
				Submerged screen	Y					
MWPz-16B	1164.07	1132.17	41.9	Groundwater Level (ft)	32.49		0.0			
				Groundwater Elevation (Ft MSL)	1131.58			0.0001	0.0001	0%
				Measured Well Depth (ft)	41.9			11/14/2013	5/2/223	
				Submerged screen	N					
MW-12	1159.70	1119.39	43.3	Groundwater Level (ft)	NA*		NA			
				Groundwater Elevation (Ft MSL)	NA*			0.017	0.011	-35%
				Measured Well Depth (ft)	NA*			11/14/2013	5/2/2023	
				Submerged screen	NA*					
MW-17	1135.71	1127.21	18.5	Groundwater Level (ft)	10.02		0.0			
				Groundwater Elevation (Ft MSL)	1125.69			0.041	0.028	-32%
				Measured Well Depth (ft)	18.5			11/14/2013	5/2/2023	
				Submerged screen	N					
MW-18	1136.42	1126.62	19.8	Groundwater Level (ft)	13.08		0.0			
				Groundwater Elevation (Ft MSL)	1123.34			0.0002	0.046	22900%
				Measured Well Depth (ft)	19.8			11/14/2013	5/2/2023	
				Submerged screen	N					
MW-26	1138.72	1125.22	23.5	Groundwater Level (ft)	12.59	19.81	0.4			
				Groundwater Elevation (Ft MSL)	1126.13	1118.91		0.042	0.026	-38%
				Measured Well Depth (ft)	23.5	23.1		11/14/2013	5/3/2023	
				Submerged screen	Y					
MW-21	1129.56	1120.56	19.0	Groundwater Level (ft)	4.60		0.0			
				Groundwater Elevation (Ft MSL)	1124.96			0.130	0.024	-82%
				Measured Well Depth (ft)	19.0			11/14/2013	5/3/2023	
				Submerged screen	Y					
MW-20	1129.19	1119.59	19.6	Groundwater Level (ft)	6.48		0.0			
				Groundwater Elevation (Ft MSL)	1122.71			0.150	0.02	-87%
				Measured Well Depth (ft)	19.6			11/14/2013	5/3/2023	
				Submerged screen	Y					
MW-28	1185.00	1178.50	25.0	Groundwater Level (ft)	11.81	14.93	-1.5			
				Groundwater Elevation (Ft MSL)	1173.19	1170.07		0.094	0.034	-64%
				Measured Well Depth (ft)	26.5	24.6		11/9/2015	5/2/2023	
				Submerged screen	N					

* - Field sampling data for monitoring well MW-12 was unavailable.
** - Baseline and recent recharge data provided by MER Engineering.
Changes in recharge rates have not impacted the ability of the monitoring wells to consistently produce samples.

Table 5
Background and GWPS Summary
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Interwell Background/GWPS (MWPz-8A, MWPz-8B2, MW-22A, MW-27)

Constituent	Units	Samples	Detections	Min	Max	Mean	Background Level	Statistical Test	GWPS	Source
Inorganics										
Antimony (Sb)	mg/L	65	0	0.0005 (1/2 RL)	0.003 (1/2 RL)	0.00105	< 0.006	DQR	0.006	MCL
Arsenic (As)	mg/L	81	35	0.0005 (1/2 RL)	0.0436	0.00405	0.0436*	PL (NP)	0.01	MCL
Barium (Ba)	mg/L	81	81	0.029	0.744	0.12218	0.3747	PL (P)	2	MCL
Beryllium (Be)	mg/L	69	0	0.0005 (1/2 RL)	0.0005 (1/2 RL)	0.00050	< 0.001	DQR	0.004	MCL
Cadmium (Cd)	mg/L	81	26	0.00005 (1/2 RL)	0.00398	0.00038	0.00398	PL (NP)	0.005	MCL
Chromium (Cr)	mg/L	66	0	0.0025 (1/2 RL)	0.01 (1/2 RL)	0.00398	< 0.02	DQR	0.1	MCL
Cobalt (Co)	mg/L	65	11	0.00025 (1/2 RL)	0.01 (1/2 RL)	0.00131	0.01*	PL (NP)	0.0021	SWS
Copper (Cu)	mg/L	79	3	0.001 (1/2 RL)	0.0345	0.00534	0.0345	PL (NP)	1.3	MCL
Lead (Pb)	mg/L	76	8	0.00025 (1/2 RL)	0.00802	0.00098	0.00802	PL (NP)	0.015	MCL
Nickel (Ni)	mg/L	65	4	0.0025 (1/2 RL)	0.025 (1/2 RL)	0.00714	0.025	PL (NP)	0.1	SWS
Selenium (Se)	mg/L	71	5	0.0025 (1/2 RL)	0.00904	0.00277	0.00904	PL (NP)	0.05	MCL
Silver (Ag)	mg/L	65	0	0.0005 (1/2 RL)	0.01 (1/2 RL)	0.00225	< 0.02	DQR	0.1	SWS
Thallium (Tl)	mg/L	65	0	0.0005 (1/2 RL)	0.001 (1/2 RL)	0.00059	< 0.002	DQR	0.002	MCL
Vanadium (V)	mg/L	65	0	0.0025 (1/2 RL)	0.025 (1/2 RL)	0.00665	< 0.05	DQR	0.035	SWS
Zinc (Zn)	mg/L	81	17	0.005 (1/2 RL)	0.0836	0.01697	0.0836	PL (NP)	2	SWS

Notes:

1) The "Detections" column includes both quantified detections and J flag (estimated) concentrations.

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

3) * -The background standards for arsenic and cobalt are based on indicated, but not confirmed, statistical outliers. Confidence intervals were calculated compared to the statewide standard GWPS of 0.01 mg/L for arsenic and 0.0021 mg/L for cobalt.

4) Water quality results and effectiveness of the statistical data evaluation criteria: Statistical evaluations consist of prediction limits, the double quantification rule, and confidence intervals/confidence bands, as appropriate. Data from the background wells are not used for development of the confidence intervals or confidence bands.

5) Changes to the previous statistical method during reporting period: There were no changes to the statistical method during the 2023 reporting period.

6) Re-sampling strategy: Retesting is performed on a 1-of-2 scheme.

7) Justification for data exclusion: Confirmed outliers are excluded from statistical consideration and noted in the Summary of Groundwater Chemistry.

Acronyms/Abbreviations:

GWPS = Groundwater Protection Standard

RL = Reporting Limit — PL = Prediction Limit

DQR = Double Quantification Rule — NP = Non-Parametric

SSS = Site-Specific GWPS — P = Parametric

SWS = Statewide Standard — MCL = EPA Maximum Contaminant Level

Table 6
Summary of Well/Detected Constituent Pairs With No Previous SSIs
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Constituent	Units	Most Recent Result	Background Standard
MW-18	Selenium*	mg/L	0.00951	0.00904
	Thallium*	mg/L	<0.001	< 0.002
	Acetone	µg/L	12	<10
MW-19	4,4-DDD*	µg/L	<0.0604	<0.0604
MW-20	Vanadium*	mg/L	<0.005	< 0.05
MW-22B	Thallium*	mg/L	<0.001	< 0.002
	Acetone*	µg/L	<10	<10
MW-23	Barium	mg/L	0.389	0.3747
MW-28	Thallium*	mg/L	<0.001	< 0.002

* - Not confirmed by retesting.

Retesting not required for monitoring wells in the assessment or corrective action monitoring programs.

1) Problems with the current detection network: None.

2) Schedule to implement remedies: None.

3) Alternative constituent or sample frequency changes: None.

4) Significant changes to calculated prediction limits: None.

5) Resampling strategy: Retesting is performed on a 1-of-2 retesting scheme.

Table 7
Summary Table of Ongoing and Newly Identified SSIs
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Constituent	Units	Most Recent Result	Background Standard	Lower Confidence Limit	GWPS	Sample Dates		
							Initial Exceedance	Resample(s)	5th background sample
MW-18	Selenium*	mg/L	0.00951	0.00904	0.00405	0.05	5/22/2023	8/10/2023	11/10/2024
	Thallium*	mg/L	<0.001	< 0.002	0.0005	0.002	5/22/2023	8/10/2023	11/10/2014
	Acetone	µg/L	12	<10	5	6300	5/22/2023	8/10/2023	11/10/2014
MW-19	Arsenic	mg/L	0.0566	0.0436	0.008254	0.01	5/22/2023	NA	5/4/2015
	Barium	mg/L	0.912	0.3747	0.7367	2	5/22/2023	NA	5/4/2015
	1,1-Dichloroethane	µg/L	5.06	<1	3.39	140	5/14/2018	NA	5/5/2016
	Benzene	µg/L	0.785	<0.5	0.4578	5	11/15/2022	NA	5/5/2016
	4,4-DDD*	µg/L	<0.0604	<0.0604	0.016	0.73	5/22/2023	8/10/2023	8/10/2023
MW-20	Vanadium*	mg/L	<0.005	< 0.05	0.0025	0.035	5/22/2023	8/10/2023	11/10/2014
MW-22B	Thallium*	mg/L	<0.001	< 0.002	0.0005	0.002	5/22/2023	8/10/2023	11/10/2014
	Acetone*	µg/L	<10	<10	5	6300	5/22/2023	8/10/2023	11/10/2014
	Benzene	µg/L	3.42	<0.5	0.4917	5	7/10/2009	NA	10/26/2011
	cis-1,2-Dichloroethene	µg/L	129	<1	TS	70	7/10/2009	NA	10/26/2011
	trans-1,2-Dichloroethene	µg/L	1.76	<1	0.9456	100	7/10/2009	NA	10/26/2011
	Vinyl Chloride	µg/L	7.35	<1	1.99	2	7/10/2009	NA	10/26/2011
MW-23	Barium	mg/L	0.389	0.3747	0.212	2	5/22/2023	NA	10/26/2011
MW-28	Thallium*	mg/L	<0.001	< 0.002	0.0005	0.002	5/22/2023	8/10/2023	11/7/2017
MWPz-16A	1,1-Dichloroethane	µg/L	2.14	<1	1.413	140	3/17/2009	NA	10/26/2011
	cis-1,2-Dichloroethene	µg/L	3.28	<1	2.454	70	3/17/2009	NA	10/26/2011

Notes:

1) Shaded rows denote constituent/well pair with SSI indicated in 2023 that was not indicated in 2022. Unshaded rows denote constituent/well pairs with SSIs indicated during both the 2022 and 2023 reporting periods.

* - Not confirmed by retesting.

Retesting not required for monitoring wells in the assessment or corrective action monitoring programs.

TS - Theil-Sen. Confidence limits are not calculated when a statistically significant trend is present.

NA- Not applicable. Indicated SSIs are not confirmed for monitoring wells in the assessment or corrective action monitoring programs.

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: None.

5) Property owner notifications: Not applicable.

Table 8
Summary Table of Ongoing and Newly Identified SSLs
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Constituent	Units	Most Recent Result	Upper Confidence Limit	GWPS	Initial Exceedance	Upper Confidence Limit Below GWPS		
							1st Year	2nd Year	3rd Year
MW-22B	cis-1,2-Dichloroethene	µg/L	129	TS	70	2009	NA	NA	NA
	Vinyl Chloride	µg/L	<1	5.149	2	2009	NA	NA	NA

Notes:

1) The SSLs in monitoring well MW-22B were previously reported.

TS - Theil-Sen. Confidence limits are not calculated when a statistically significant trend is present.

2) NA indicates Not Applicable. 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 any portion of the confidence band, as appropriate, being below the GWPS.

Table 9
Summary of Groundwater Chemistry
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

The Summary of Groundwater Chemistry is located in Appendix C.

Table 10
Historical SSI and SSL
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

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
MW-18	Selenium*												NS
	Thallium*												NS
	Acetone												NS
MW-19	Arsenic												NS
	Barium												NS
	Cobalt												NS
	Lead												NS
	Nickel												NS
	1,1-Dichloroethane												NS
	Acetone												NS
	Benzene												NS
	Carbon Disulfide												NS
	4,4-DDD*												NS
MW-20	Selenium												NS
	Vanadium*												NS
MW-22B	Cobalt												
	Nickel												
	Thallium*												
	Acetone*												
	Benzene												
	cis-1,2-Dichlorothene												
	trans-1,2-Dichloroethene												
	Vinyl Chloride												
MW-23	Barium												NS
MW-28	Thallium*												
MWPz-16A	1,1-Dichloroethane												NS
	cis-1,2-Dichlorothene												NS

Notes:

* - Not confirmed by the August 2023 retesting.

NS - Not sampled. Well is sampled annually.

1) A detection of an organic compound or sulfide is considered an SSI for the purposes of this table.

2) Indicated SSIs for wells in the assessment and corrective action monitoring programs are not confirmed as retesting is not performed for wells in these monitoring programs.

Table 11
Corrective Action Trend Analysis
2023 Annual Water Quality Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Well	Current SSL	Trend	Calculated S	Critical S	Total N	Projected Date to Completion
MW-22B	cis-1,2-Dichloroethene	Increasing	22	21	8	NA
	Vinyl Chloride	Increasing	6	21	8	NA

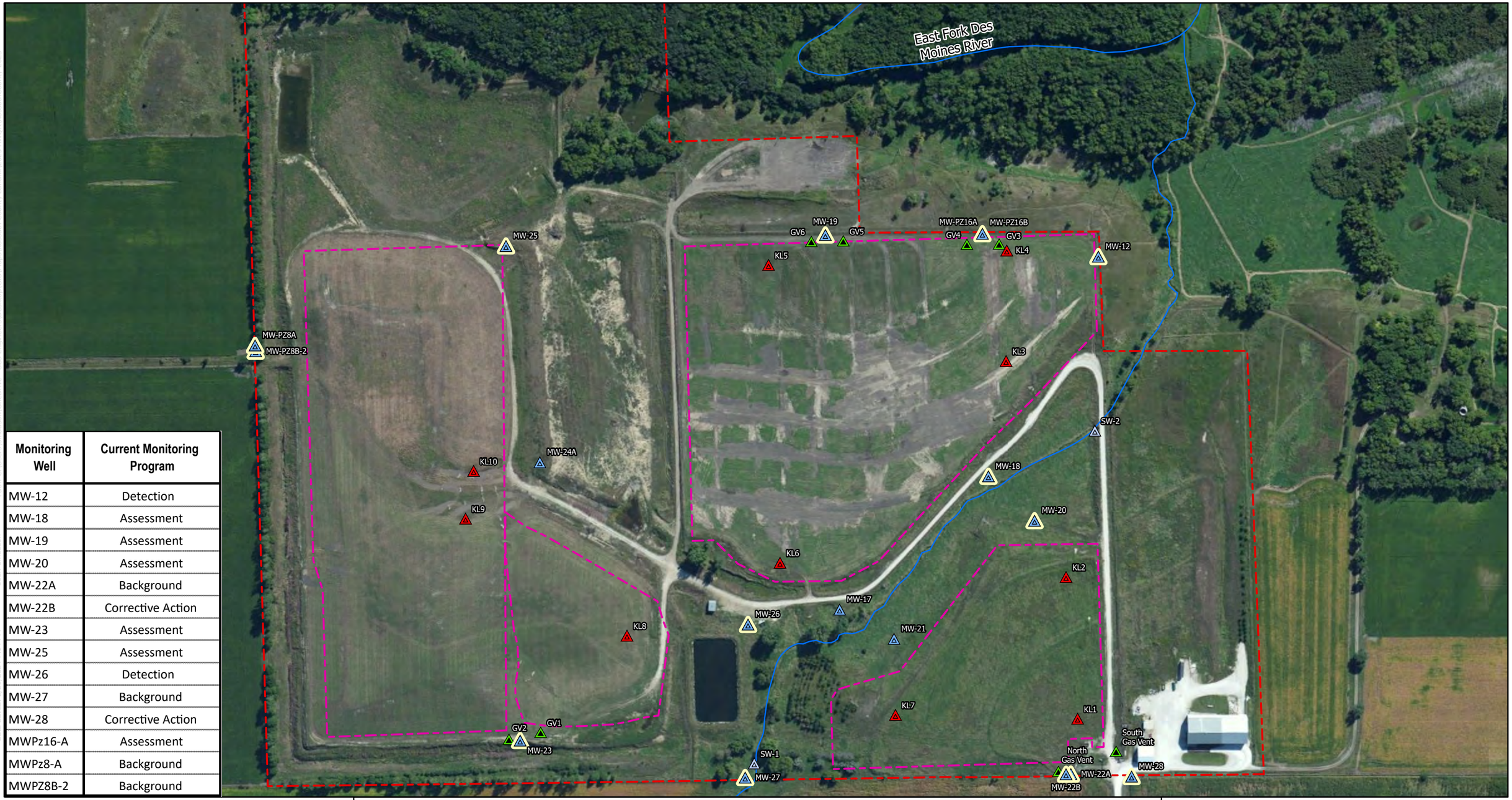
Notes:

N: Number of Samples

S: Mann-Kendall Statistic

NA: Not Applicable; a completion date cannot be calculated with an increasing trend.

Figures



Monitoring Well	Current Monitoring Program
MW-12	Detection
MW-18	Assessment
MW-19	Assessment
MW-20	Assessment
MW-22A	Background
MW-22B	Corrective Action
MW-23	Assessment
MW-25	Assessment
MW-26	Detection
MW-27	Background
MW-28	Corrective Action
MWPz16-A	Assessment
MWPz8-A	Background
MWPZ8B-2	Background

SCS ENGINEERS
environmental consultants and contractors

Approved Monitoring Network

Legend

- HMSP Monitoring Well
- Monitoring Well
- Surface Monitoring Point
- Gas Vent
- Leachate Piezometer
- Waterway
- Approximate Property Boundary
- Approximate Waste Boundary

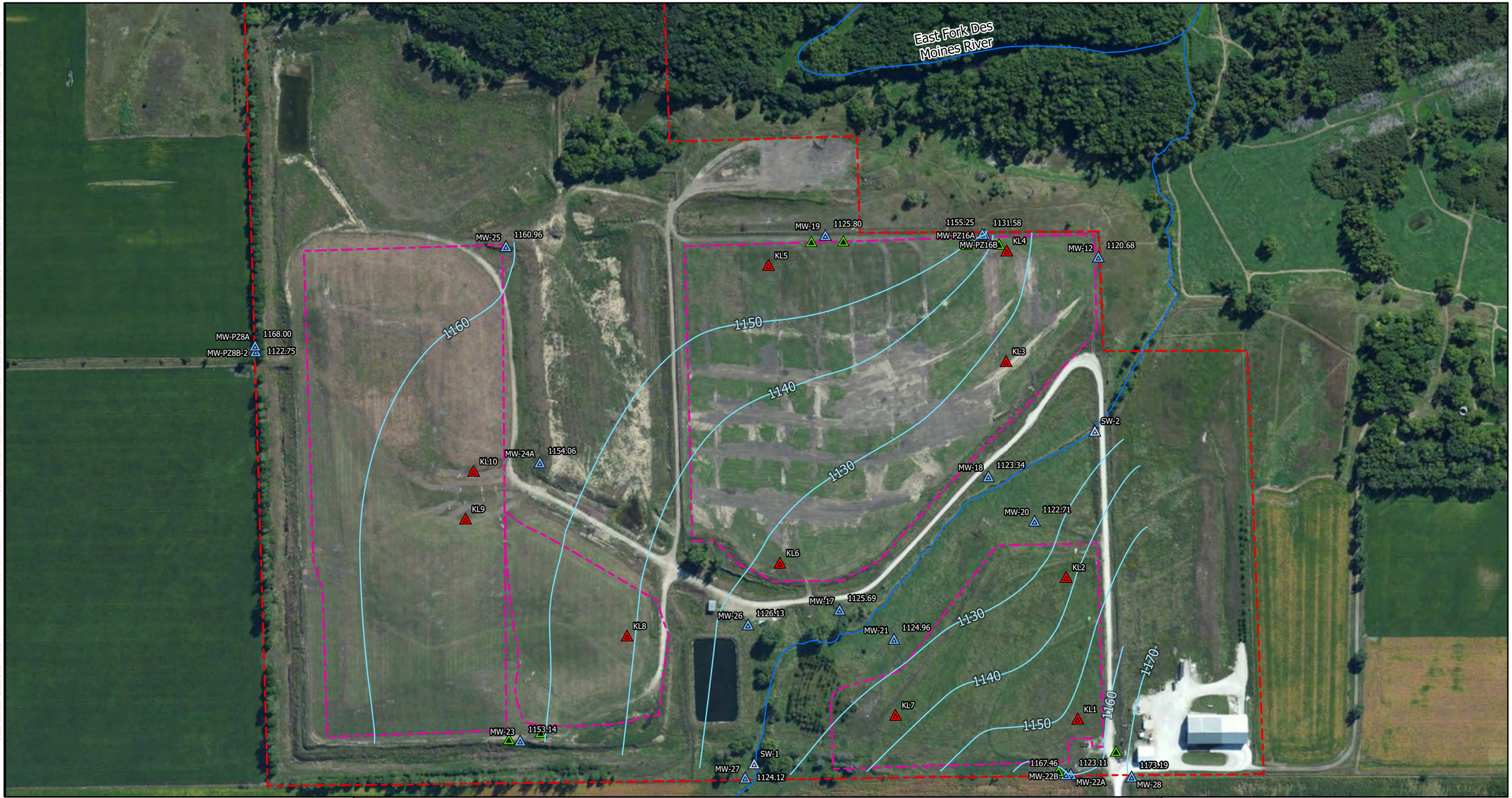
Kossuth County Sanitary Landfill
Burt, IA
Project No: 27223408.24
Drawing Date: January 2024

Figure 1

E N S W

0 320 640 1,280 Feet

Path: C:\Users\bmadison\OneDrive - SCS Engineers\Desktop\GIS\Maps\KossuthCounty\Landfill\2023 AWOR\KossuthCounty-2023-
User: bmadison
Date Saved: 2/21/2024 7:14 PM
Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS



Groundwater Contours

Legend

- Approximate Groundwater Contour Based on Field Measurment Taken May 22, 2023
- Monitoring Well
- Surface Monitoring Point
- Gas Vent
- Leachate Piezometer
- Waterway
- Approximate Property Boundary
- Approximate Waste Boundary

Kossuth County Sanitary Landfill
Burt, IA
Project No: 27223408.24
Drawing Date: January 2024

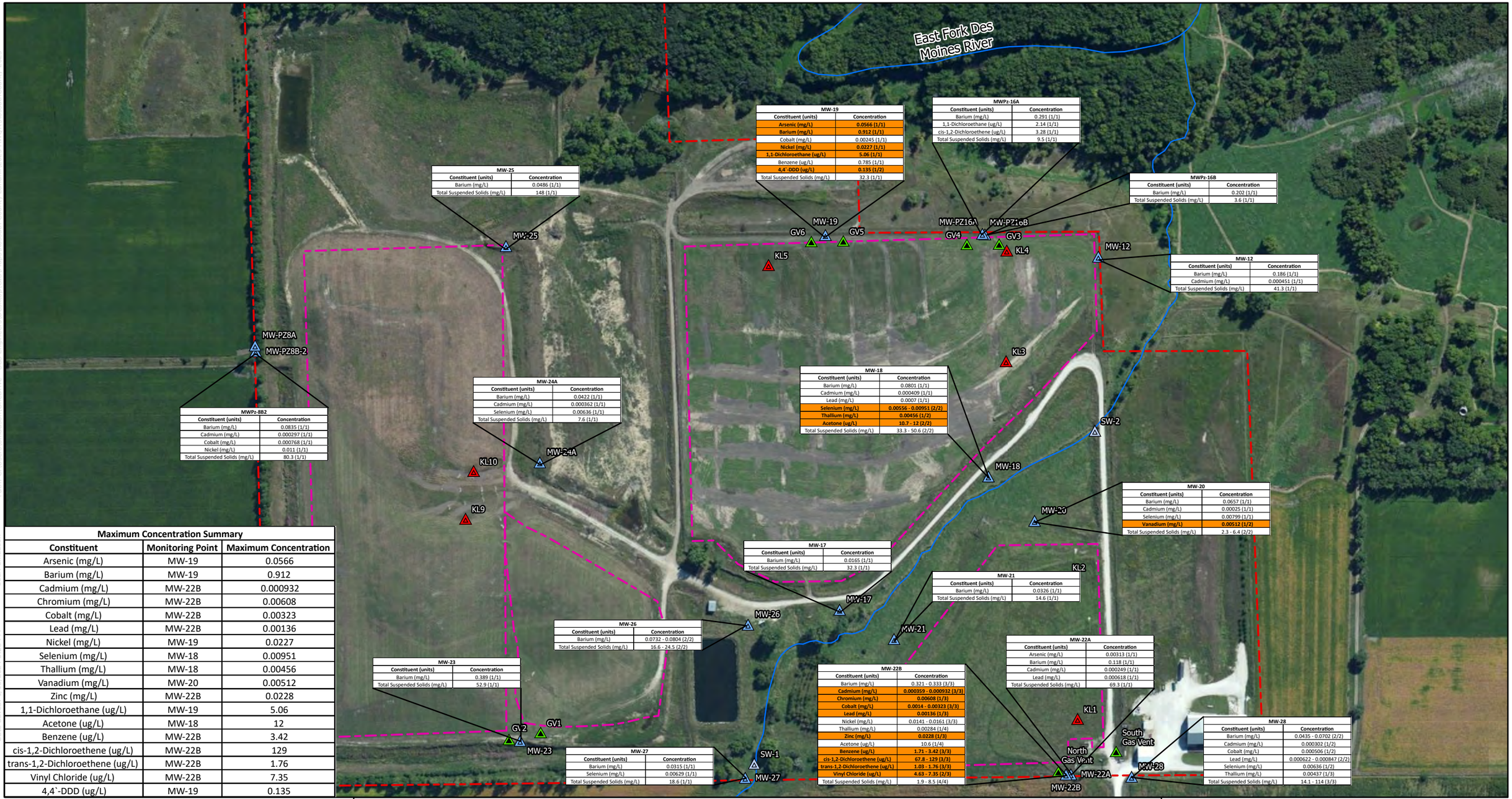
Figure 2

N S E W

0 320 640 1,280 Feet

SCS ENGINEERS
environmental consultants and contractors

Path: C:\Users\bmadison\OneDrive - SCS Engineers\Desktop\GIS\Maps\KossuthCounty Landfill\2023 AWOR\KossuthCounty-2023-
User: bmadison
Date Saved: 2/26/2024 4:11 PM
Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS



MW-19	
Constituent (units)	Concentration
Arsenic (mg/L)	0.0566 (1/1)
Barium (mg/L)	0.912 (1/1)
Cobalt (mg/L)	0.00245 (1/1)
Nickel (mg/L)	0.0227 (1/1)
1,1-Dichloroethane (ug/L)	5.06 (1/1)
Benzene (ug/L)	0.785 (1/1)
4,4`-DDD (ug/L)	0.135 (1/2)
Total Suspended Solids (mg/L)	32.3 (1/1)

MWPz-16A	
Constituent (units)	Concentration
Barium (mg/L)	0.291 (1/1)
1,1-Dichloroethane (ug/L)	2.14 (1/1)
cis-1,2-Dichloroethene (ug/L)	3.28 (1/1)
Total Suspended Solids (mg/L)	9.5 (1/1)

MW-25	
Constituent (units)	Concentration
Barium (mg/L)	0.0486 (1/1)
Total Suspended Solids (mg/L)	148 (1/1)

MWPz-16B	
Constituent (units)	Concentration
Barium (mg/L)	0.202 (1/1)
Total Suspended Solids (mg/L)	3.6 (1/1)

MW-12	
Constituent (units)	Concentration
Barium (mg/L)	0.186 (1/1)
Cadmium (mg/L)	0.000451 (1/1)
Total Suspended Solids (mg/L)	41.3 (1/1)

MWPz-8B2	
Constituent (units)	Concentration
Barium (mg/L)	0.0835 (1/1)
Cadmium (mg/L)	0.000297 (1/1)
Cobalt (mg/L)	0.000768 (1/1)
Nickel (mg/L)	0.011 (1/1)
Total Suspended Solids (mg/L)	80.3 (1/1)

MW-24A	
Constituent (units)	Concentration
Barium (mg/L)	0.0422 (1/1)
Cadmium (mg/L)	0.000362 (1/1)
Selenium (mg/L)	0.00636 (1/1)
Total Suspended Solids (mg/L)	7.6 (1/1)

MW-18	
Constituent (units)	Concentration
Barium (mg/L)	0.0801 (1/1)
Cadmium (mg/L)	0.000409 (1/1)
Lead (mg/L)	0.0007 (1/1)
Selenium (mg/L)	0.00556 - 0.00951 (2/2)
Thallium (mg/L)	0.00456 (1/2)
Acetone (ug/L)	10.7 - 12 (2/2)
Total Suspended Solids (mg/L)	33.3 - 50.6 (2/2)

MW-20	
Constituent (units)	Concentration
Barium (mg/L)	0.0657 (1/1)
Cadmium (mg/L)	0.00025 (1/1)
Selenium (mg/L)	0.00799 (1/1)
Vanadium (mg/L)	0.00512 (1/2)
Total Suspended Solids (mg/L)	2.3 - 6.4 (2/2)

MW-17	
Constituent (units)	Concentration
Barium (mg/L)	0.0165 (1/1)
Total Suspended Solids (mg/L)	32.3 (1/1)

MW-21	
Constituent (units)	Concentration
Barium (mg/L)	0.0326 (1/1)
Total Suspended Solids (mg/L)	14.6 (1/1)

MW-26	
Constituent (units)	Concentration
Barium (mg/L)	0.0732 - 0.0804 (2/2)
Total Suspended Solids (mg/L)	16.6 - 24.5 (2/2)

MW-22A	
Constituent (units)	Concentration
Arsenic (mg/L)	0.00313 (1/1)
Barium (mg/L)	0.118 (1/1)
Cadmium (mg/L)	0.000249 (1/1)
Lead (mg/L)	0.000618 (1/1)
Total Suspended Solids (mg/L)	69.3 (1/1)

MW-23	
Constituent (units)	Concentration
Barium (mg/L)	0.389 (1/1)
Total Suspended Solids (mg/L)	52.9 (1/1)

MW-22B	
Constituent (units)	Concentration
Barium (mg/L)	0.321 - 0.333 (3/3)
Cadmium (mg/L)	0.000359 - 0.000932 (3/3)
Chromium (mg/L)	0.00608 (1/3)
Cobalt (mg/L)	0.0014 - 0.00323 (3/3)
Lead (mg/L)	0.00136 (1/3)
Nickel (mg/L)	0.0141 - 0.0161 (3/3)
Thallium (mg/L)	0.00284 (1/4)
Zinc (mg/L)	0.0228 (1/3)
Acetone (ug/L)	10.6 (1/4)
Benzene (ug/L)	1.71 - 3.42 (3/3)
cis-1,2-Dichloroethene (ug/L)	67.8 - 129 (3/3)
trans-1,2-Dichloroethene (ug/L)	1.03 - 1.76 (3/3)
Vinyl Chloride (ug/L)	4.63 - 7.35 (2/3)
Total Suspended Solids (mg/L)	1.9 - 8.5 (4/4)

MW-28	
Constituent (units)	Concentration
Barium (mg/L)	0.0435 - 0.0702 (2/2)
Cadmium (mg/L)	0.000302 (1/2)
Cobalt (mg/L)	0.000506 (1/2)
Lead (mg/L)	0.000622 - 0.000847 (2/2)
Selenium (mg/L)	0.00636 (1/2)
Thallium (mg/L)	0.00437 (1/3)
Total Suspended Solids (mg/L)	14.1 - 114 (3/3)

MW-27	
Constituent (units)	Concentration
Barium (mg/L)	0.0315 (1/1)
Selenium (mg/L)	0.00629 (1/1)
Total Suspended Solids (mg/L)	18.6 (1/1)

Maximum Concentration Summary

Constituent	Monitoring Point	Maximum Concentration
Arsenic (mg/L)	MW-19	0.0566
Barium (mg/L)	MW-19	0.912
Cadmium (mg/L)	MW-22B	0.000932
Chromium (mg/L)	MW-22B	0.00608
Cobalt (mg/L)	MW-22B	0.00323
Lead (mg/L)	MW-22B	0.00136
Nickel (mg/L)	MW-19	0.0227
Selenium (mg/L)	MW-18	0.00951
Thallium (mg/L)	MW-18	0.00456
Vanadium (mg/L)	MW-20	0.00512
Zinc (mg/L)	MW-22B	0.0228
1,1-Dichloroethane (ug/L)	MW-19	5.06
Acetone (ug/L)	MW-18	12
Benzene (ug/L)	MW-22B	3.42
cis-1,2-Dichloroethene (ug/L)	MW-22B	129
trans-1,2-Dichloroethene (ug/L)	MW-22B	1.76
Vinyl Chloride (ug/L)	MW-22B	7.35
4,4`-DDD (ug/L)	MW-19	0.135

SCS ENGINEERS
environmental consultants and contractors

Reporting Period Detection Summary

Legend

- Monitoring Well
- Surface Monitoring Point
- Gas Vent
- Leachate Piezometer
- Waterway
- Approximate Property Boundary
- Approximate Waste Boundary

Kossuth County Sanitary Landfill
Burt, IA
Project No: 27223408.24
Drawing Date: January 2024

Figure 3

E N S W

0 320 640 1,280 Feet

Path: C:\Users\bmadison\OneDrive - SCS Engineers\Desktop\GIS\Maps\KossuthCounty-2023-
User: bmadison
Date Saved: 1/18/2024 5:28 PM
Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, Esri, CGIAR, USGS, Sources: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

Appendix A
Field Sampling Forms
November 2023

FORM FOR GROUNDWATER SAMPLING

Project:	**Kossuth County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-22B**	Date:	**11/30/2023**
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):	25.5
Initial Static Water Level (feet):	15.03
Initial Groundwater Elevation (ft-amsl):	1165.21
Equipment Used:	Dedicated Tubing – Peristaltic Pump

C. WELL PURGING

FIELD PARAMETERS [stabilization criteria] RECORD EVERY 3 MINUTES

Time	**Temperature (°C) 10%**	Dissolved Oxygen (mg/L)	**Specific Conductivity (µS/cm) +/- 10%**	**pH (S.U.) +/- 0.1**	ORP (mV)	Turbidity (FNU)	
12:49 PM	Purging start time.						
12:52 PM	10.4	NM	911.0	6.65	NM	NM	
12:55 PM	10.8	NM	912.0	6.21	NM	NM	
12:58 PM	11.1	NM	915.0	6.22	NM	NM	
1:01 PM	11.1	NM	913.6	6.22	NM	NM	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color- Clear Odor-None NM - Not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Kossuth County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-26**	Date:	**11/30/2023**
Gradient: Down		Sampler:	Konner Roth

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

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)	
Measured Well Total Depth (feet):	23.1
Initial Static Water Level (feet):	19.81
Initial Groundwater Elevation (ft-amsl):	1118.91
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)	
1:35 PM	Purging start time.						
1:38 PM	9.9	NM	557.0	6.22	NM	NM	
1:41 PM	9.9	NM	571.0	6.24	NM	NM	
1:44 PM	9.9	NM	563.0	6.21	NM	NM	
1:47 PM	9.9	NM	558.0	6.21	NM	NM	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color- Clear Odor-None NM - Not measured.

FORM FOR GROUNDWATER SAMPLING

Project:	**Kossuth County Sanitary Landfill**		
Monitoring Well/Piezometer ID:	**MW-28**	Date:	**11/30/2023**
Gradient: Down		Sampler:	Konner Roth

A. MW/PIEZOMETER CONDITIONS

Well/Piezometer Capped?	Yes	
Litter/Standing Water?	No	

B. GROUNDWATER ELEVATION MEASUREMENT (+/- 0.01 foot, MSL)

Measured Well Total Depth (feet):	24.6
Initial Static Water Level (feet):	14.93
Initial Groundwater Elevation (ft-amsl):	1170.07
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)	
12:13 PM	Purging start time.						
12:16 PM	9.9	NM	568.0	6.49	NM	NM	
12:19 PM	9.9	NM	571.0	6.51	NM	NM	
12:22 PM	10.0	NM	563.0	6.62	NM	NM	
12:25 PM	9.9	NM	558.0	6.67	NM	NM	
	Parameters stabilized, sample collected.						

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

D. WELL MAINTENANCE

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

Additional Comments:	Color- Clear Odor-None NM - Not measured.

Appendix B-1

Laboratory Analytical Data Sheets

November 2023

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/12/2023 10:02:52 AM

JOB DESCRIPTION

Kossuth County Landfill

JOB NUMBER

310-270699-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Eurofins Cedar Falls

Job Notes

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

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

Authorization

Generated
12/12/2023 10:02:52 AM

Authorized for release by
Meredith Liechti, Service Center Manager
meredith.liechti@et.eurofinsus.com
(319)277-2401

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Definitions 17
Surrogate Summary 18
QC Sample Results 19
QC Association 31
Chronicle 33
Certification Summary 34
Method Summary 35
Chain of Custody 36
Receipt Checklists 38

Job ID: 310-270699-1

Laboratory: Eurofins Cedar Falls

Narrative

Job Narrative
310-270699-1

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 12/1/2023 5:00 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 0.6°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 310-407861 recovered above the upper control limit for Carbon tetrachloride (26.7%D), Bromochloromethane (23.2%D), trans-1,3-Dichloropropene (27.1%D), 1,1,1-Trichloroethane (22.9%D), Trichloroethene (26.7%D) and 1,2-Dichloropropane (20.6%D. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-407861/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-407861 recovered above the upper control limit for Vinyl chloride (25.9%D) and Freon 11 (28.1%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-407861/4).

Method 8260D: The method requirement for no headspace was not met. The following volatile sample were analyzed with headspace in the sample container: Trip Blanks (310-270699-5).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-407867 recovered above the upper control limit for Carbon tetrachloride (22.0%D), Bromochloromethane (20.8%D), 1,1,1-Trichloroethane (20.1%D) and Trichloroethene (24.3%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-407867/3).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-407867 recovered above the upper control limit for Chloroethane (24.3%D) and Trichlorofluoromethane (26.4%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-407867/4).

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-407867 recovered above the upper control limit for Vinyl chloride (26.4%D). The LCS associated with this CCV passes CCV criteria for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 310-407867/4).

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: Kossuth County Landfill

Job ID: 310-270699-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-270699-1	MW-22B	Water	11/30/23 13:22	12/01/23 17:00
310-270699-2	MW-26	Water	11/30/23 13:58	12/01/23 17:00
310-270699-3	MW-28	Water	11/30/23 12:35	12/01/23 17:00
310-270699-4	MW-D	Water	11/30/23 13:22	12/01/23 17:00
310-270699-5	Trip Blanks	Water	11/30/23 00:00	12/01/23 17:00

Detection Summary

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-22B — Lab Sample ID: 310-270699-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.42	F1	0.500		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	129		1.00		ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	1.76	F1	1.00		ug/L	1		8260D	Total/NA
Barium	0.321		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000746		0.000200		mg/L	1		6020B	Total/NA
Cobalt	0.00323		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0141		0.00500		mg/L	1		6020B	Total/NA
Zinc	0.0228		0.0200		mg/L	1		6020B	Total/NA
Total Suspended Solids	7.5		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-26 — Lab Sample ID: 310-270699-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0804		0.00200		mg/L	1		6020B	Total/NA
Total Suspended Solids	16.6		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-28 — Lab Sample ID: 310-270699-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.0702		0.00200		mg/L	1		6020B	Total/NA
Cobalt	0.000506		0.000500		mg/L	1		6020B	Total/NA
Lead	0.000622		0.000500		mg/L	1		6020B	Total/NA
Total Suspended Solids	114		3.0		mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-D — Lab Sample ID: 310-270699-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.40		0.500		ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	125		1.00		ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	1.22		1.00		ug/L	1		8260D	Total/NA
Vinyl chloride	7.35		1.00		ug/L	1		8260D	Total/NA
Barium	0.323		0.00200		mg/L	1		6020B	Total/NA
Cadmium	0.000359		0.000200		mg/L	1		6020B	Total/NA
Chromium	0.00608		0.00500		mg/L	1		6020B	Total/NA
Cobalt	0.00297		0.000500		mg/L	1		6020B	Total/NA
Nickel	0.0141		0.00500		mg/L	1		6020B	Total/NA
Total Suspended Solids	6.3		1.9		mg/L	1		I-3765-85	Total/NA

Client Sample ID: Trip Blanks — Lab Sample ID: 310-270699-5

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-22B

Date Collected: 11/30/23 13:22
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/06/23 00:46	1
Acrylonitrile	<5.00		5.00		ug/L			12/06/23 00:46	1
Benzene	**3.42**	**F1**	0.500		ug/L			12/06/23 00:46	1
Bromochloromethane	<5.00	F1	5.00		ug/L			12/06/23 00:46	1
Bromodichloromethane	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
Bromoform	<5.00		5.00		ug/L			12/06/23 00:46	1
Bromomethane	<4.00		4.00		ug/L			12/06/23 00:46	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/06/23 00:46	1
Carbon disulfide	<1.00		1.00		ug/L			12/06/23 00:46	1
Carbon tetrachloride	<2.00	F1	2.00		ug/L			12/06/23 00:46	1
Chlorobenzene	<1.00		1.00		ug/L			12/06/23 00:46	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/06/23 00:46	1
Chloroethane	<4.00		4.00		ug/L			12/06/23 00:46	1
Chloroform	<3.00	F1	3.00		ug/L			12/06/23 00:46	1
Chloromethane	<3.00		3.00		ug/L			12/06/23 00:46	1
cis-1,2-Dichloroethene	**129**		1.00		ug/L			12/06/23 00:46	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/06/23 00:46	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/06/23 00:46	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/06/23 00:46	1
Dibromomethane	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 00:46	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 00:46	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/06/23 00:46	1
1,2-Dichloroethane	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/06/23 00:46	1
1,2-Dichloropropane	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
Ethylbenzene	<1.00		1.00		ug/L			12/06/23 00:46	1
2-Hexanone	<10.0		10.0		ug/L			12/06/23 00:46	1
Iodomethane	<10.0		10.0		ug/L			12/06/23 00:46	1
Methylene Chloride	<5.00		5.00		ug/L			12/06/23 00:46	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/06/23 00:46	1
Styrene	<1.00		1.00		ug/L			12/06/23 00:46	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 00:46	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 00:46	1
Tetrachloroethene	<1.00		1.00		ug/L			12/06/23 00:46	1
Toluene	<1.00		1.00		ug/L			12/06/23 00:46	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/06/23 00:46	1
trans-1,2-Dichloroethene	**1.76**	**F1**	1.00		ug/L			12/06/23 00:46	1
trans-1,3-Dichloropropene	<5.00	F1	5.00		ug/L			12/06/23 00:46	1
1,1,1-Trichloroethane	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/06/23 00:46	1
Trichloroethene	<1.00	F1	1.00		ug/L			12/06/23 00:46	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/06/23 00:46	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/06/23 00:46	1
Vinyl acetate	<10.0		10.0		ug/L			12/06/23 00:46	1
Vinyl chloride	<1.00		1.00		ug/L			12/06/23 00:46	1
Xylenes, Total	<3.00		3.00		ug/L			12/06/23 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/06/23 00:46*	*1*

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-22B

Date Collected: 11/30/23 13:22
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-1

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*120*		*80 - 128*		*12/06/23 00:46*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/06/23 00:46*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:13	1
Arsenic	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:13	1
Barium	**0.321**		0.00200		mg/L		12/05/23 09:10	12/05/23 20:13	1
Beryllium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:13	1
Cadmium	**0.000746**		0.000200		mg/L		12/05/23 09:10	12/05/23 20:13	1
Chromium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Cobalt	**0.00323**		0.000500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Copper	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Lead	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Nickel	**0.0141**		0.00500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Selenium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Silver	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:13	1
Thallium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:13	1
Vanadium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:13	1
Zinc	**0.0228**		0.0200		mg/L		12/05/23 09:10	12/05/23 20:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**7.5**		1.9		mg/L			12/05/23 08:24	1

Client Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-26

Date Collected: 11/30/23 13:58
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/05/23 15:17	1
Acrylonitrile	<5.00		5.00		ug/L			12/05/23 15:17	1
Benzene	<0.500		0.500		ug/L			12/05/23 15:17	1
Bromochloromethane	<5.00		5.00		ug/L			12/05/23 15:17	1
Bromodichloromethane	<1.00		1.00		ug/L			12/05/23 15:17	1
Bromoform	<5.00		5.00		ug/L			12/05/23 15:17	1
Bromomethane	<4.00		4.00		ug/L			12/05/23 15:17	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/05/23 15:17	1
Carbon disulfide	<1.00		1.00		ug/L			12/05/23 15:17	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/05/23 15:17	1
Chlorobenzene	<1.00		1.00		ug/L			12/05/23 15:17	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/05/23 15:17	1
Chloroethane	<4.00		4.00		ug/L			12/05/23 15:17	1
Chloroform	<3.00		3.00		ug/L			12/05/23 15:17	1
Chloromethane	<3.00		3.00		ug/L			12/05/23 15:17	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 15:17	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 15:17	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/05/23 15:17	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/05/23 15:17	1
Dibromomethane	<1.00		1.00		ug/L			12/05/23 15:17	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 15:17	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 15:17	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/05/23 15:17	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/05/23 15:17	1
Ethylbenzene	<1.00		1.00		ug/L			12/05/23 15:17	1
2-Hexanone	<10.0		10.0		ug/L			12/05/23 15:17	1
Iodomethane	<10.0		10.0		ug/L			12/05/23 15:17	1
Methylene Chloride	<5.00		5.00		ug/L			12/05/23 15:17	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/05/23 15:17	1
Styrene	<1.00		1.00		ug/L			12/05/23 15:17	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
Tetrachloroethene	<1.00		1.00		ug/L			12/05/23 15:17	1
Toluene	<1.00		1.00		ug/L			12/05/23 15:17	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/05/23 15:17	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 15:17	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 15:17	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/05/23 15:17	1
Trichloroethene	<1.00		1.00		ug/L			12/05/23 15:17	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/05/23 15:17	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/05/23 15:17	1
Vinyl acetate	<10.0		10.0		ug/L			12/05/23 15:17	1
Vinyl chloride	<1.00		1.00		ug/L			12/05/23 15:17	1
Xylenes, Total	<3.00		3.00		ug/L			12/05/23 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/05/23 15:17*	*1*

Client Sample ID: MW-26

Date Collected: 11/30/23 13:58
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-2

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*122*		*80 - 128*		*12/05/23 15:17*	*1*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/05/23 15:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:16	1
Arsenic	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:16	1
Barium	**0.0804**		0.00200		mg/L		12/05/23 09:10	12/05/23 20:16	1
Beryllium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:16	1
Cadmium	<0.000200		0.000200		mg/L		12/05/23 09:10	12/05/23 20:16	1
Chromium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Cobalt	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Copper	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Lead	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Nickel	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Selenium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Silver	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:16	1
Thallium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:16	1
Vanadium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:16	1
Zinc	<0.0200		0.0200		mg/L		12/05/23 09:10	12/05/23 20:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**16.6**		1.9		mg/L			12/05/23 08:24	1

Client Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-28

Date Collected: 11/30/23 12:35
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/08/23 15:14	1
Acrylonitrile	<5.00		5.00		ug/L			12/08/23 15:14	1
Benzene	<0.500		0.500		ug/L			12/08/23 15:14	1
Bromochloromethane	<5.00		5.00		ug/L			12/08/23 15:14	1
Bromodichloromethane	<1.00		1.00		ug/L			12/08/23 15:14	1
Bromoform	<5.00		5.00		ug/L			12/08/23 15:14	1
Bromomethane	<4.00		4.00		ug/L			12/08/23 15:14	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/08/23 15:14	1
Carbon disulfide	<1.00		1.00		ug/L			12/08/23 15:14	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/08/23 15:14	1
Chlorobenzene	<1.00		1.00		ug/L			12/08/23 15:14	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/08/23 15:14	1
Chloroethane	<4.00		4.00		ug/L			12/08/23 15:14	1
Chloroform	<3.00		3.00		ug/L			12/08/23 15:14	1
Chloromethane	<3.00		3.00		ug/L			12/08/23 15:14	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/08/23 15:14	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/08/23 15:14	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/08/23 15:14	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/08/23 15:14	1
Dibromomethane	<1.00		1.00		ug/L			12/08/23 15:14	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/08/23 15:14	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/08/23 15:14	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/08/23 15:14	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/08/23 15:14	1
Ethylbenzene	<1.00		1.00		ug/L			12/08/23 15:14	1
2-Hexanone	<10.0		10.0		ug/L			12/08/23 15:14	1
Iodomethane	<10.0		10.0		ug/L			12/08/23 15:14	1
Methylene Chloride	<5.00		5.00		ug/L			12/08/23 15:14	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/08/23 15:14	1
Styrene	<1.00		1.00		ug/L			12/08/23 15:14	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
Tetrachloroethene	<1.00		1.00		ug/L			12/08/23 15:14	1
Toluene	<1.00		1.00		ug/L			12/08/23 15:14	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/08/23 15:14	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/08/23 15:14	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/08/23 15:14	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/08/23 15:14	1
Trichloroethene	<1.00		1.00		ug/L			12/08/23 15:14	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/08/23 15:14	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/08/23 15:14	1
Vinyl acetate	<10.0		10.0		ug/L			12/08/23 15:14	1
Vinyl chloride	<1.00		1.00		ug/L			12/08/23 15:14	1
Xylenes, Total	<3.00		3.00		ug/L			12/08/23 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*12/08/23 15:14*	*1*

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-28

Date Collected: 11/30/23 12:35
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*112*		*80 - 128*		*12/08/23 15:14*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/08/23 15:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:19	1
Arsenic	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:19	1
Barium	**0.0702**		0.00200		mg/L		12/05/23 09:10	12/05/23 20:19	1
Beryllium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:19	1
Cadmium	<0.000200		0.000200		mg/L		12/05/23 09:10	12/05/23 20:19	1
Chromium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Cobalt	**0.000506**		0.000500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Copper	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Lead	**0.000622**		0.000500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Nickel	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Selenium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Silver	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:19	1
Thallium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:19	1
Vanadium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:19	1
Zinc	<0.0200		0.0200		mg/L		12/05/23 09:10	12/05/23 20:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**114**		3.0		mg/L			12/05/23 08:24	1

Client Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-D

Date Collected: 11/30/23 13:22
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/06/23 01:08	1
Acrylonitrile	<5.00		5.00		ug/L			12/06/23 01:08	1
Benzene	**3.40**		0.500		ug/L			12/06/23 01:08	1
Bromochloromethane	<5.00		5.00		ug/L			12/06/23 01:08	1
Bromodichloromethane	<1.00		1.00		ug/L			12/06/23 01:08	1
Bromoform	<5.00		5.00		ug/L			12/06/23 01:08	1
Bromomethane	<4.00		4.00		ug/L			12/06/23 01:08	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/06/23 01:08	1
Carbon disulfide	<1.00		1.00		ug/L			12/06/23 01:08	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/06/23 01:08	1
Chlorobenzene	<1.00		1.00		ug/L			12/06/23 01:08	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/06/23 01:08	1
Chloroethane	<4.00		4.00		ug/L			12/06/23 01:08	1
Chloroform	<3.00		3.00		ug/L			12/06/23 01:08	1
Chloromethane	<3.00		3.00		ug/L			12/06/23 01:08	1
cis-1,2-Dichloroethene	**125**		1.00		ug/L			12/06/23 01:08	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/06/23 01:08	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/06/23 01:08	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/06/23 01:08	1
Dibromomethane	<1.00		1.00		ug/L			12/06/23 01:08	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 01:08	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 01:08	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/06/23 01:08	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/06/23 01:08	1
Ethylbenzene	<1.00		1.00		ug/L			12/06/23 01:08	1
2-Hexanone	<10.0		10.0		ug/L			12/06/23 01:08	1
Iodomethane	<10.0		10.0		ug/L			12/06/23 01:08	1
Methylene Chloride	<5.00		5.00		ug/L			12/06/23 01:08	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/06/23 01:08	1
Styrene	<1.00		1.00		ug/L			12/06/23 01:08	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
Tetrachloroethene	<1.00		1.00		ug/L			12/06/23 01:08	1
Toluene	<1.00		1.00		ug/L			12/06/23 01:08	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/06/23 01:08	1
trans-1,2-Dichloroethene	**1.22**		1.00		ug/L			12/06/23 01:08	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/06/23 01:08	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/06/23 01:08	1
Trichloroethene	<1.00		1.00		ug/L			12/06/23 01:08	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/06/23 01:08	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/06/23 01:08	1
Vinyl acetate	<10.0		10.0		ug/L			12/06/23 01:08	1
Vinyl chloride	**7.35**		1.00		ug/L			12/06/23 01:08	1
Xylenes, Total	<3.00		3.00		ug/L			12/06/23 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/06/23 01:08*	*1*

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-D

Date Collected: 11/30/23 13:22
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-4

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*80 - 128*		*12/06/23 01:08*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/06/23 01:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:22	1
Arsenic	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 20:22	1
Barium	**0.323**		0.00200		mg/L		12/05/23 09:10	12/05/23 20:22	1
Beryllium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:22	1
Cadmium	**0.000359**		0.000200		mg/L		12/05/23 09:10	12/05/23 20:22	1
Chromium	**0.00608**		0.00500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Cobalt	**0.00297**		0.000500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Copper	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Lead	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Nickel	**0.0141**		0.00500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Selenium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Silver	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:22	1
Thallium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 20:22	1
Vanadium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 20:22	1
Zinc	<0.0200		0.0200		mg/L		12/05/23 09:10	12/05/23 20:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	**6.3**		1.9		mg/L			12/05/23 08:24	1

Client Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: Trip Blanks

Date Collected: 11/30/23 00:00
Date Received: 12/01/23 17:00

Lab Sample ID: 310-270699-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/06/23 01:31	1
Acrylonitrile	<5.00		5.00		ug/L			12/06/23 01:31	1
Benzene	<0.500		0.500		ug/L			12/06/23 01:31	1
Bromochloromethane	<5.00		5.00		ug/L			12/06/23 01:31	1
Bromodichloromethane	<1.00		1.00		ug/L			12/06/23 01:31	1
Bromoform	<5.00		5.00		ug/L			12/06/23 01:31	1
Bromomethane	<4.00		4.00		ug/L			12/06/23 01:31	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/06/23 01:31	1
Carbon disulfide	<1.00		1.00		ug/L			12/06/23 01:31	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/06/23 01:31	1
Chlorobenzene	<1.00		1.00		ug/L			12/06/23 01:31	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/06/23 01:31	1
Chloroethane	<4.00		4.00		ug/L			12/06/23 01:31	1
Chloroform	<3.00		3.00		ug/L			12/06/23 01:31	1
Chloromethane	<3.00		3.00		ug/L			12/06/23 01:31	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/06/23 01:31	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/06/23 01:31	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/06/23 01:31	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/06/23 01:31	1
Dibromomethane	<1.00		1.00		ug/L			12/06/23 01:31	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 01:31	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/06/23 01:31	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/06/23 01:31	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/06/23 01:31	1
Ethylbenzene	<1.00		1.00		ug/L			12/06/23 01:31	1
2-Hexanone	<10.0		10.0		ug/L			12/06/23 01:31	1
Iodomethane	<10.0		10.0		ug/L			12/06/23 01:31	1
Methylene Chloride	<5.00		5.00		ug/L			12/06/23 01:31	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/06/23 01:31	1
Styrene	<1.00		1.00		ug/L			12/06/23 01:31	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
Tetrachloroethene	<1.00		1.00		ug/L			12/06/23 01:31	1
Toluene	<1.00		1.00		ug/L			12/06/23 01:31	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/06/23 01:31	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/06/23 01:31	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/06/23 01:31	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/06/23 01:31	1
Trichloroethene	<1.00		1.00		ug/L			12/06/23 01:31	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/06/23 01:31	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/06/23 01:31	1
Vinyl acetate	<10.0		10.0		ug/L			12/06/23 01:31	1
Vinyl chloride	<1.00		1.00		ug/L			12/06/23 01:31	1
Xylenes, Total	<3.00		3.00		ug/L			12/06/23 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*12/06/23 01:31*	*1*

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: Trip Blanks

Lab Sample ID: 310-270699-5

Date Collected: 11/30/23 00:00
Matrix: Water
Date Received: 12/01/23 17:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	121		80 - 128		12/06/23 01:31	1
Toluene-d8 (Surr)	89		80 - 120		12/06/23 01:31	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

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: Kossuth County Landfill

Job ID: 310-270699-1

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)	(80-128)	(80-120)
310-270699-1	MW-22B	102	120	89
310-270699-1 MS	MW-22B	108	104	91
310-270699-1 MSD	MW-22B	103	104	90
310-270699-2	MW-26	100	122	89
310-270699-3	MW-28	101	112	99
310-270699-4	MW-D	100	117	88
310-270699-5	Trip Blanks	99	121	89
LCS 310-407861/6	Lab Control Sample	101	106	92
LCS 310-407861/7	Lab Control Sample	99	123	89
LCS 310-407867/6	Lab Control Sample	102	109	90
LCS 310-407867/7	Lab Control Sample	102	124	90
LCS 310-408273/6	Lab Control Sample	100	99	100
LCS 310-408273/7	Lab Control Sample	102	110	99
MB 310-407861/5	Method Blank	103	120	87
MB 310-407867/5	Method Blank	103	120	88
MB 310-408273/5	Method Blank	102	111	98

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 310-407861/5
Matrix: Water
Analysis Batch: 407861

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/05/23 11:29	1
Acrylonitrile	<5.00		5.00		ug/L			12/05/23 11:29	1
Benzene	<0.500		0.500		ug/L			12/05/23 11:29	1
Bromochloromethane	<5.00		5.00		ug/L			12/05/23 11:29	1
Bromodichloromethane	<1.00		1.00		ug/L			12/05/23 11:29	1
Bromoform	<5.00		5.00		ug/L			12/05/23 11:29	1
Bromomethane	<4.00		4.00		ug/L			12/05/23 11:29	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/05/23 11:29	1
Carbon disulfide	<1.00		1.00		ug/L			12/05/23 11:29	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/05/23 11:29	1
Chlorobenzene	<1.00		1.00		ug/L			12/05/23 11:29	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/05/23 11:29	1
Chloroethane	<4.00		4.00		ug/L			12/05/23 11:29	1
Chloroform	<3.00		3.00		ug/L			12/05/23 11:29	1
Chloromethane	<3.00		3.00		ug/L			12/05/23 11:29	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 11:29	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 11:29	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/05/23 11:29	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/05/23 11:29	1
Dibromomethane	<1.00		1.00		ug/L			12/05/23 11:29	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 11:29	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 11:29	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/05/23 11:29	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/05/23 11:29	1
Ethylbenzene	<1.00		1.00		ug/L			12/05/23 11:29	1
2-Hexanone	<10.0		10.0		ug/L			12/05/23 11:29	1
Iodomethane	<10.0		10.0		ug/L			12/05/23 11:29	1
Methylene Chloride	<5.00		5.00		ug/L			12/05/23 11:29	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/05/23 11:29	1
Styrene	<1.00		1.00		ug/L			12/05/23 11:29	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
Tetrachloroethene	<1.00		1.00		ug/L			12/05/23 11:29	1
Toluene	<1.00		1.00		ug/L			12/05/23 11:29	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/05/23 11:29	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 11:29	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 11:29	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/05/23 11:29	1
Trichloroethene	<1.00		1.00		ug/L			12/05/23 11:29	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/05/23 11:29	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/05/23 11:29	1
Vinyl acetate	<10.0		10.0		ug/L			12/05/23 11:29	1
Vinyl chloride	<1.00		1.00		ug/L			12/05/23 11:29	1
Xylenes, Total	<3.00		3.00		ug/L			12/05/23 11:29	1

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

Lab Sample ID: MB 310-407861/5
Matrix: Water
Analysis Batch: 407861

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		12/05/23 11:29	1
Dibromofluoromethane (Surr)	120		80 - 128		12/05/23 11:29	1
Toluene-d8 (Surr)	87		80 - 120		12/05/23 11:29	1

Lab Sample ID: LCS 310-407861/6
Matrix: Water
Analysis Batch: 407861

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	38.91		ug/L		97	50 - 150
Acrylonitrile	200	213.2		ug/L		107	50 - 150
Benzene	20.0	22.96		ug/L		115	73 - 122
Bromochloromethane	20.0	24.84		ug/L		124	68 - 132
Bromodichloromethane	20.0	23.13		ug/L		116	72 - 121
Bromoform	20.0	20.12		ug/L		101	55 - 129
2-Butanone (MEK)	40.0	44.72		ug/L		112	50 - 150
Carbon disulfide	20.0	20.27		ug/L		101	58 - 131
Carbon tetrachloride	20.0	25.02		ug/L		125	67 - 132
Chlorobenzene	20.0	18.78		ug/L		94	69 - 121
Chlorodibromomethane	20.0	20.01		ug/L		100	69 - 122
Chloroform	20.0	21.52		ug/L		108	72 - 120
cis-1,2-Dichloroethene	20.0	22.42		ug/L		112	74 - 120
cis-1,3-Dichloropropene	20.0	20.02		ug/L		100	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	17.38		ug/L		87	50 - 150
1,2-Dibromoethane (EDB)	20.0	20.56		ug/L		103	73 - 125
Dibromomethane	20.0	23.57		ug/L		118	72 - 123
1,2-Dichlorobenzene	20.0	17.09		ug/L		85	68 - 120
1,4-Dichlorobenzene	20.0	17.13		ug/L		86	67 - 120
1,1-Dichloroethane	20.0	20.85		ug/L		104	71 - 123
1,2-Dichloroethane	20.0	22.30		ug/L		111	70 - 124
1,1-Dichloroethene	20.0	22.06		ug/L		110	61 - 129
1,2-Dichloropropane	20.0	23.19		ug/L		116	73 - 121
Ethylbenzene	20.0	18.40		ug/L		92	69 - 122
2-Hexanone	40.0	35.51		ug/L		89	60 - 132
Iodomethane	20.0	21.72		ug/L		109	10 - 150
Methylene Chloride	20.0	22.38		ug/L		112	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	35.12		ug/L		88	62 - 130
Styrene	20.0	18.52		ug/L		93	67 - 125
1,1,1,2-Tetrachloroethane	20.0	19.77		ug/L		99	68 - 123
1,1,2,2-Tetrachloroethane	20.0	18.73		ug/L		94	64 - 124
Tetrachloroethene	20.0	20.48		ug/L		102	69 - 131
Toluene	20.0	19.15		ug/L		96	72 - 121
trans-1,4-Dichloro-2-butene	20.0	18.28		ug/L		91	48 - 150
trans-1,2-Dichloroethene	20.0	23.09		ug/L		115	68 - 125
trans-1,3-Dichloropropene	20.0	22.80		ug/L		114	68 - 124
1,1,1-Trichloroethane	20.0	24.24		ug/L		121	71 - 128
1,1,2-Trichloroethane	20.0	18.75		ug/L		94	70 - 124
Trichloroethene	20.0	24.87		ug/L		124	73 - 126

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

Lab Sample ID: LCS 310-407861/6
Matrix: Water
Analysis Batch: 407861

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	20.0	18.91		ug/L		95	64 - 125
Vinyl acetate	40.0	51.98		ug/L		130	50 - 150
Xylenes, Total	40.0	36.52		ug/L		91	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*80 - 128*
Toluene-d8 (Surr)	*92*		*80 - 120*

Lab Sample ID: LCS 310-407861/7
Matrix: Water
Analysis Batch: 407861

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	22.08		ug/L		110	24 - 150
Chloroethane	20.0	24.00		ug/L		120	51 - 137
Chloromethane	20.0	21.83		ug/L		109	37 - 150
Trichlorofluoromethane	20.0	24.45		ug/L		122	56 - 144
Vinyl chloride	20.0	24.55		ug/L		123	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*123*		*80 - 128*
Toluene-d8 (Surr)	*89*		*80 - 120*

Lab Sample ID: MB 310-407867/5
Matrix: Water
Analysis Batch: 407867

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/05/23 22:29	1
Acrylonitrile	<5.00		5.00		ug/L			12/05/23 22:29	1
Benzene	<0.500		0.500		ug/L			12/05/23 22:29	1
Bromochloromethane	<5.00		5.00		ug/L			12/05/23 22:29	1
Bromodichloromethane	<1.00		1.00		ug/L			12/05/23 22:29	1
Bromoform	<5.00		5.00		ug/L			12/05/23 22:29	1
Bromomethane	<4.00		4.00		ug/L			12/05/23 22:29	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/05/23 22:29	1
Carbon disulfide	<1.00		1.00		ug/L			12/05/23 22:29	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/05/23 22:29	1
Chlorobenzene	<1.00		1.00		ug/L			12/05/23 22:29	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/05/23 22:29	1
Chloroethane	<4.00		4.00		ug/L			12/05/23 22:29	1
Chloroform	<3.00		3.00		ug/L			12/05/23 22:29	1
Chloromethane	<3.00		3.00		ug/L			12/05/23 22:29	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 22:29	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 22:29	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/05/23 22:29	1

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

Lab Sample ID: MB 310-407867/5
Matrix: Water
Analysis Batch: 407867

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/05/23 22:29	1
Dibromomethane	<1.00		1.00		ug/L			12/05/23 22:29	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 22:29	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/05/23 22:29	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/05/23 22:29	1
1,2-Dichloropropane	<1.00		1.00		ug/L			12/05/23 22:29	1
Ethylbenzene	<1.00		1.00		ug/L			12/05/23 22:29	1
2-Hexanone	<10.0		10.0		ug/L			12/05/23 22:29	1
Iodomethane	<10.0		10.0		ug/L			12/05/23 22:29	1
Methylene Chloride	<5.00		5.00		ug/L			12/05/23 22:29	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/05/23 22:29	1
Styrene	<1.00		1.00		ug/L			12/05/23 22:29	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
Tetrachloroethene	<1.00		1.00		ug/L			12/05/23 22:29	1
Toluene	<1.00		1.00		ug/L			12/05/23 22:29	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/05/23 22:29	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/05/23 22:29	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/05/23 22:29	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/05/23 22:29	1
Trichloroethene	<1.00		1.00		ug/L			12/05/23 22:29	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/05/23 22:29	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/05/23 22:29	1
Vinyl acetate	<10.0		10.0		ug/L			12/05/23 22:29	1
Vinyl chloride	<1.00		1.00		ug/L			12/05/23 22:29	1
Xylenes, Total	<3.00		3.00		ug/L			12/05/23 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*12/05/23 22:29*	*1*
Dibromofluoromethane (Surr)	*120*		*80 - 128*		*12/05/23 22:29*	*1*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/05/23 22:29*	*1*

Lab Sample ID: LCS 310-407867/6
Matrix: Water
Analysis Batch: 407867

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	37.32		ug/L		93	50 - 150
Acrylonitrile	200	212.4		ug/L		106	50 - 150
Benzene	20.0	22.95		ug/L		115	73 - 122
Bromochloromethane	20.0	25.08		ug/L		125	68 - 132
Bromodichloromethane	20.0	23.59		ug/L		118	72 - 121
Bromoform	20.0	19.25		ug/L		96	55 - 129
2-Butanone (MEK)	40.0	42.13		ug/L		105	50 - 150
Carbon disulfide	20.0	20.12		ug/L		101	58 - 131

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

Lab Sample ID: LCS 310-407867/6
Matrix: Water
Analysis Batch: 407867

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Carbon tetrachloride	20.0	24.64		ug/L		123	67 - 132
Chlorobenzene	20.0	18.08		ug/L		90	69 - 121
Chlorodibromomethane	20.0	19.38		ug/L		97	69 - 122
Chloroform	20.0	22.00		ug/L		110	72 - 120
cis-1,2-Dichloroethene	20.0	22.35		ug/L		112	74 - 120
cis-1,3-Dichloropropene	20.0	18.99		ug/L		95	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	16.80		ug/L		84	50 - 150
1,2-Dibromoethane (EDB)	20.0	19.39		ug/L		97	73 - 125
Dibromomethane	20.0	23.47		ug/L		117	72 - 123
1,2-Dichlorobenzene	20.0	17.14		ug/L		86	68 - 120
1,4-Dichlorobenzene	20.0	16.86		ug/L		84	67 - 120
1,1-Dichloroethane	20.0	20.71		ug/L		104	71 - 123
1,2-Dichloroethane	20.0	22.17		ug/L		111	70 - 124
1,1-Dichloroethene	20.0	21.93		ug/L		110	61 - 129
1,2-Dichloropropane	20.0	23.33		ug/L		117	73 - 121
Ethylbenzene	20.0	17.90		ug/L		90	69 - 122
2-Hexanone	40.0	31.57		ug/L		79	60 - 132
Iodomethane	20.0	21.64		ug/L		108	10 - 150
Methylene Chloride	20.0	23.00		ug/L		115	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	33.53		ug/L		84	62 - 130
Styrene	20.0	18.14		ug/L		91	67 - 125
1,1,1,2-Tetrachloroethane	20.0	18.80		ug/L		94	68 - 123
1,1,2,2-Tetrachloroethane	20.0	17.36		ug/L		87	64 - 124
Tetrachloroethene	20.0	19.09		ug/L		95	69 - 131
Toluene	20.0	18.13		ug/L		91	72 - 121
trans-1,4-Dichloro-2-butene	20.0	16.10		ug/L		80	48 - 150
trans-1,2-Dichloroethene	20.0	23.24		ug/L		116	68 - 125
trans-1,3-Dichloropropene	20.0	21.87		ug/L		109	68 - 124
1,1,1-Trichloroethane	20.0	24.28		ug/L		121	71 - 128
1,1,2-Trichloroethane	20.0	18.07		ug/L		90	70 - 124
Trichloroethene	20.0	24.32		ug/L		122	73 - 126
1,2,3-Trichloropropane	20.0	18.26		ug/L		91	64 - 125
Vinyl acetate	40.0	45.27		ug/L		113	50 - 150
Xylenes, Total	40.0	35.44		ug/L		89	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*109*		*80 - 128*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: LCS 310-407867/7
Matrix: Water
Analysis Batch: 407867

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	22.06		ug/L		110	24 - 150
Chloroethane	20.0	23.76		ug/L		119	51 - 137
Chloromethane	20.0	21.27		ug/L		106	37 - 150

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

Lab Sample ID: LCS 310-407867/7
Matrix: Water
Analysis Batch: 407867

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichlorofluoromethane	20.0	23.97		ug/L		120	56 - 144
Vinyl chloride	20.0	24.09		ug/L		120	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*124*		*80 - 128*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: 310-270699-1 MS
Matrix: Water
Analysis Batch: 407867

Client Sample ID: MW-22B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	<10.0		32.0	36.09		ug/L		101	35 - 150
Acrylonitrile	<5.00		160	209.7		ug/L		131	50 - 150
Benzene	3.42	F1	16.0	25.32	F1	ug/L		137	47 - 130
Bromochloromethane	<5.00	F1	16.0	24.39	F1	ug/L		152	54 - 132
Bromodichloromethane	<1.00	F1	16.0	23.16	F1	ug/L		145	58 - 130
Bromoform	<5.00		16.0	18.48		ug/L		115	42 - 130
2-Butanone (MEK)	<10.0		32.0	41.43		ug/L		129	47 - 150
Carbon disulfide	<1.00		16.0	20.80		ug/L		130	39 - 131
Carbon tetrachloride	<2.00	F1	16.0	23.06	F1	ug/L		144	45 - 132
Chlorobenzene	<1.00		16.0	18.10		ug/L		113	54 - 130
Chlorodibromomethane	<5.00		16.0	19.04		ug/L		119	53 - 130
Chloroform	<3.00	F1	16.0	21.24	F1	ug/L		133	55 - 130
cis-1,2-Dichloroethene	129		16.0	123.4	4	ug/L		-34	52 - 130
cis-1,3-Dichloropropene	<5.00		16.0	17.87		ug/L		112	55 - 130
1,2-Dibromo-3-Chloropropane	<5.00		16.0	15.90		ug/L		99	45 - 150
1,2-Dibromoethane (EDB)	<1.00		16.0	19.06		ug/L		119	59 - 130
Dibromomethane	<1.00	F1	16.0	23.57	F1	ug/L		147	61 - 130
1,2-Dichlorobenzene	<1.00		16.0	16.98		ug/L		106	53 - 130
1,4-Dichlorobenzene	<1.00		16.0	16.64		ug/L		104	53 - 130
1,1-Dichloroethane	<1.00		16.0	20.54		ug/L		126	53 - 130
1,2-Dichloroethane	<1.00	F1	16.0	22.31	F1	ug/L		139	57 - 130
1,1-Dichloroethene	<2.00		16.0	20.63		ug/L		129	39 - 130
1,2-Dichloropropane	<1.00	F1	16.0	23.67	F1	ug/L		146	60 - 130
Ethylbenzene	<1.00		16.0	17.29		ug/L		108	48 - 130
2-Hexanone	<10.0		32.0	30.83		ug/L		96	45 - 132
Iodomethane	<10.0		16.0	19.21		ug/L		120	10 - 150
Methylene Chloride	<5.00		16.0	22.55		ug/L		141	50 - 150
4-Methyl-2-pentanone (MIBK)	<10.0		32.0	33.01		ug/L		103	46 - 132
Styrene	<1.00		16.0	18.08		ug/L		113	46 - 130
1,1,1,2-Tetrachloroethane	<1.00		16.0	17.96		ug/L		112	52 - 130
1,1,2,2-Tetrachloroethane	<1.00		16.0	16.78		ug/L		105	51 - 130
Tetrachloroethene	<1.00		16.0	18.66		ug/L		117	42 - 131
Toluene	<1.00		16.0	17.61		ug/L		110	48 - 130
trans-1,4-Dichloro-2-butene	<10.0		16.0	15.11		ug/L		94	33 - 150
trans-1,2-Dichloroethene	1.76	F1	16.0	23.24	F1	ug/L		134	54 - 130

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

Lab Sample ID: 310-270699-1 MS
Matrix: Water
Analysis Batch: 407867

Client Sample ID: MW-22B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
trans-1,3-Dichloropropene	<5.00	F1	16.0	21.59	F1	ug/L		135	51 - 130
1,1,1-Trichloroethane	<1.00	F1	16.0	23.07	F1	ug/L		144	49 - 130
1,1,2-Trichloroethane	<1.00		16.0	17.81		ug/L		111	56 - 130
Trichloroethene	<1.00	F1	16.0	24.13	F1	ug/L		151	55 - 130
1,2,3-Trichloropropane	<1.00		16.0	17.92		ug/L		112	50 - 130
Vinyl acetate	<10.0		32.0	42.20		ug/L		132	34 - 150
Xylenes, Total	<3.00		32.0	34.95		ug/L		109	44 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 128*
Toluene-d8 (Surr)	*91*		*80 - 120*

Lab Sample ID: 310-270699-1 MSD
Matrix: Water
Analysis Batch: 407867

Client Sample ID: MW-22B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	<10.0		32.0	35.17		ug/L		98	35 - 150	3	26
Acrylonitrile	<5.00		160	209.9		ug/L		131	50 - 150	0	21
Benzene	3.42	F1	16.0	24.75	F1	ug/L		133	47 - 130	2	20
Bromochloromethane	<5.00	F1	16.0	24.06	F1	ug/L		150	54 - 132	1	20
Bromodichloromethane	<1.00	F1	16.0	22.61	F1	ug/L		141	58 - 130	2	20
Bromoform	<5.00		16.0	18.97		ug/L		119	42 - 130	3	20
2-Butanone (MEK)	<10.0		32.0	42.57		ug/L		133	47 - 150	3	20
Carbon disulfide	<1.00		16.0	19.36		ug/L		121	39 - 131	7	32
Carbon tetrachloride	<2.00	F1	16.0	22.79	F1	ug/L		142	45 - 132	1	20
Chlorobenzene	<1.00		16.0	18.05		ug/L		113	54 - 130	0	20
Chlorodibromomethane	<5.00		16.0	18.78		ug/L		117	53 - 130	1	20
Chloroform	<3.00	F1	16.0	20.77		ug/L		130	55 - 130	2	20
cis-1,2-Dichloroethene	129		16.0	119.4	4	ug/L		-60	52 - 130	3	20
cis-1,3-Dichloropropene	<5.00		16.0	17.90		ug/L		112	55 - 130	0	20
1,2-Dibromo-3-Chloropropane	<5.00		16.0	17.06		ug/L		107	45 - 150	7	20
1,2-Dibromoethane (EDB)	<1.00		16.0	19.24		ug/L		120	59 - 130	1	20
Dibromomethane	<1.00	F1	16.0	23.15	F1	ug/L		145	61 - 130	2	20
1,2-Dichlorobenzene	<1.00		16.0	17.01		ug/L		106	53 - 130	0	20
1,4-Dichlorobenzene	<1.00		16.0	17.04		ug/L		107	53 - 130	2	20
1,1-Dichloroethane	<1.00		16.0	19.95		ug/L		122	53 - 130	3	20
1,2-Dichloroethane	<1.00	F1	16.0	21.80	F1	ug/L		136	57 - 130	2	21
1,1-Dichloroethene	<2.00		16.0	20.28		ug/L		127	39 - 130	2	28
1,2-Dichloropropane	<1.00	F1	16.0	23.31	F1	ug/L		143	60 - 130	2	31
Ethylbenzene	<1.00		16.0	17.42		ug/L		109	48 - 130	1	20
2-Hexanone	<10.0		32.0	31.98		ug/L		100	45 - 132	4	20
Iodomethane	<10.0		16.0	20.99		ug/L		131	10 - 150	9	35
Methylene Chloride	<5.00		16.0	22.28		ug/L		139	50 - 150	1	24
4-Methyl-2-pentanone (MIBK)	<10.0		32.0	33.91		ug/L		106	46 - 132	3	20
Styrene	<1.00		16.0	17.91		ug/L		112	46 - 130	1	20
1,1,1,2-Tetrachloroethane	<1.00		16.0	18.19		ug/L		114	52 - 130	1	20

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

Lab Sample ID: 310-270699-1 MSD
Matrix: Water
Analysis Batch: 407867

Client Sample ID: MW-22B
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2,2-Tetrachloroethane	<1.00		16.0	17.65		ug/L		110	51 - 130	5	20
Tetrachloroethene	<1.00		16.0	18.57		ug/L		116	42 - 131	0	20
Toluene	<1.00		16.0	17.29		ug/L		108	48 - 130	2	20
trans-1,4-Dichloro-2-butene	<10.0		16.0	16.09		ug/L		101	33 - 150	6	20
trans-1,2-Dichloroethene	1.76	F1	16.0	22.78	F1	ug/L		131	54 - 130	2	24
trans-1,3-Dichloropropene	<5.00	F1	16.0	21.50	F1	ug/L		134	51 - 130	0	20
1,1,1-Trichloroethane	<1.00	F1	16.0	22.67	F1	ug/L		142	49 - 130	2	20
1,1,2-Trichloroethane	<1.00		16.0	17.63		ug/L		110	56 - 130	1	20
Trichloroethene	<1.00	F1	16.0	23.12	F1	ug/L		145	55 - 130	4	20
1,2,3-Trichloropropane	<1.00		16.0	17.93		ug/L		112	50 - 130	0	20
Vinyl acetate	<10.0		32.0	44.39		ug/L		139	34 - 150	5	27
Xylenes, Total	<3.00		32.0	35.01		ug/L		109	44 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*104*		*80 - 128*
Toluene-d8 (Surr)	*90*		*80 - 120*

Lab Sample ID: MB 310-408273/5
Matrix: Water
Analysis Batch: 408273

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			12/08/23 12:57	1
Acrylonitrile	<5.00		5.00		ug/L			12/08/23 12:57	1
Benzene	<0.500		0.500		ug/L			12/08/23 12:57	1
Bromochloromethane	<5.00		5.00		ug/L			12/08/23 12:57	1
Bromodichloromethane	<1.00		1.00		ug/L			12/08/23 12:57	1
Bromoform	<5.00		5.00		ug/L			12/08/23 12:57	1
Bromomethane	<4.00		4.00		ug/L			12/08/23 12:57	1
2-Butanone (MEK)	<10.0		10.0		ug/L			12/08/23 12:57	1
Carbon disulfide	<1.00		1.00		ug/L			12/08/23 12:57	1
Carbon tetrachloride	<2.00		2.00		ug/L			12/08/23 12:57	1
Chlorobenzene	<1.00		1.00		ug/L			12/08/23 12:57	1
Chlorodibromomethane	<5.00		5.00		ug/L			12/08/23 12:57	1
Chloroethane	<4.00		4.00		ug/L			12/08/23 12:57	1
Chloroform	<3.00		3.00		ug/L			12/08/23 12:57	1
Chloromethane	<3.00		3.00		ug/L			12/08/23 12:57	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			12/08/23 12:57	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			12/08/23 12:57	1
1,2-Dibromo-3-Chloropropane	<5.00		5.00		ug/L			12/08/23 12:57	1
1,2-Dibromoethane (EDB)	<1.00		1.00		ug/L			12/08/23 12:57	1
Dibromomethane	<1.00		1.00		ug/L			12/08/23 12:57	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			12/08/23 12:57	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			12/08/23 12:57	1
1,1-Dichloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
1,2-Dichloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
1,1-Dichloroethene	<2.00		2.00		ug/L			12/08/23 12:57	1

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

Lab Sample ID: MB 310-408273/5
Matrix: Water
Analysis Batch: 408273

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	<1.00		1.00		ug/L			12/08/23 12:57	1
Ethylbenzene	<1.00		1.00		ug/L			12/08/23 12:57	1
2-Hexanone	<10.0		10.0		ug/L			12/08/23 12:57	1
Iodomethane	<10.0		10.0		ug/L			12/08/23 12:57	1
Methylene Chloride	<5.00		5.00		ug/L			12/08/23 12:57	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			12/08/23 12:57	1
Styrene	<1.00		1.00		ug/L			12/08/23 12:57	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
Tetrachloroethene	<1.00		1.00		ug/L			12/08/23 12:57	1
Toluene	<1.00		1.00		ug/L			12/08/23 12:57	1
trans-1,4-Dichloro-2-butene	<10.0		10.0		ug/L			12/08/23 12:57	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			12/08/23 12:57	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			12/08/23 12:57	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			12/08/23 12:57	1
Trichloroethene	<1.00		1.00		ug/L			12/08/23 12:57	1
Trichlorofluoromethane	<4.00		4.00		ug/L			12/08/23 12:57	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			12/08/23 12:57	1
Vinyl acetate	<10.0		10.0		ug/L			12/08/23 12:57	1
Vinyl chloride	<1.00		1.00		ug/L			12/08/23 12:57	1
Xylenes, Total	<3.00		3.00		ug/L			12/08/23 12:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*12/08/23 12:57*	*1*
Dibromofluoromethane (Surr)	*111*		*80 - 128*		*12/08/23 12:57*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*12/08/23 12:57*	*1*

Lab Sample ID: LCS 310-408273/6
Matrix: Water
Analysis Batch: 408273

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	40.0	39.34		ug/L		98	50 - 150
Acrylonitrile	200	207.3		ug/L		104	50 - 150
Benzene	20.0	21.76		ug/L		109	73 - 122
Bromochloromethane	20.0	21.36		ug/L		107	68 - 132
Bromodichloromethane	20.0	21.23		ug/L		106	72 - 121
Bromoform	20.0	19.70		ug/L		99	55 - 129
2-Butanone (MEK)	40.0	41.61		ug/L		104	50 - 150
Carbon disulfide	20.0	21.77		ug/L		109	58 - 131
Carbon tetrachloride	20.0	24.51		ug/L		123	67 - 132
Chlorobenzene	20.0	20.55		ug/L		103	69 - 121
Chlorodibromomethane	20.0	20.31		ug/L		102	69 - 122
Chloroform	20.0	19.79		ug/L		99	72 - 120
cis-1,2-Dichloroethene	20.0	20.20		ug/L		101	74 - 120
cis-1,3-Dichloropropene	20.0	22.12		ug/L		111	71 - 126
1,2-Dibromo-3-Chloropropane	20.0	18.46		ug/L		92	50 - 150

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

Lab Sample ID: LCS 310-408273/6
Matrix: Water
Analysis Batch: 408273

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	20.0	20.72		ug/L		104	73 - 125
Dibromomethane	20.0	20.56		ug/L		103	72 - 123
1,2-Dichlorobenzene	20.0	19.95		ug/L		100	68 - 120
1,4-Dichlorobenzene	20.0	20.09		ug/L		100	67 - 120
1,1-Dichloroethane	20.0	20.69		ug/L		103	71 - 123
1,2-Dichloroethane	20.0	20.63		ug/L		103	70 - 124
1,1-Dichloroethene	20.0	21.70		ug/L		109	61 - 129
1,2-Dichloropropane	20.0	22.29		ug/L		111	73 - 121
Ethylbenzene	20.0	20.93		ug/L		105	69 - 122
2-Hexanone	40.0	40.62		ug/L		102	60 - 132
Iodomethane	20.0	19.88		ug/L		99	10 - 150
Methylene Chloride	20.0	20.33		ug/L		102	50 - 150
4-Methyl-2-pentanone (MIBK)	40.0	40.47		ug/L		101	62 - 130
Styrene	20.0	20.28		ug/L		101	67 - 125
1,1,1,2-Tetrachloroethane	20.0	20.64		ug/L		103	68 - 123
1,1,2,2-Tetrachloroethane	20.0	19.65		ug/L		98	64 - 124
Tetrachloroethene	20.0	22.87		ug/L		114	69 - 131
Toluene	20.0	21.34		ug/L		107	72 - 121
trans-1,4-Dichloro-2-butene	20.0	18.75		ug/L		94	48 - 150
trans-1,2-Dichloroethene	20.0	21.42		ug/L		107	68 - 125
trans-1,3-Dichloropropene	20.0	21.18		ug/L		106	68 - 124
1,1,1-Trichloroethane	20.0	23.70		ug/L		118	71 - 128
1,1,2-Trichloroethane	20.0	21.11		ug/L		106	70 - 124
Trichloroethene	20.0	23.27		ug/L		116	73 - 126
1,2,3-Trichloropropane	20.0	18.78		ug/L		94	64 - 125
Vinyl acetate	40.0	43.97		ug/L		110	50 - 150
Xylenes, Total	40.0	41.20		ug/L		103	68 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 128*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCS 310-408273/7
Matrix: Water
Analysis Batch: 408273

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	18.11		ug/L		91	24 - 150
Chloroethane	20.0	21.33		ug/L		107	51 - 137
Chloromethane	20.0	19.48		ug/L		97	37 - 150
Trichlorofluoromethane	20.0	23.78		ug/L		119	56 - 144
Vinyl chloride	20.0	21.29		ug/L		106	57 - 136

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*110*		*80 - 128*
Toluene-d8 (Surr)	*99*		*80 - 120*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-407782/1-A
Matrix: Water
Analysis Batch: 407969

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 407782

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 18:59	1
Arsenic	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 18:59	1
Barium	<0.00200		0.00200		mg/L		12/05/23 09:10	12/05/23 18:59	1
Beryllium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 18:59	1
Cadmium	<0.000200		0.000200		mg/L		12/05/23 09:10	12/05/23 18:59	1
Chromium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Cobalt	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Copper	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Lead	<0.000500		0.000500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Nickel	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Selenium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Silver	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 18:59	1
Thallium	<0.00100		0.00100		mg/L		12/05/23 09:10	12/05/23 18:59	1
Vanadium	<0.00500		0.00500		mg/L		12/05/23 09:10	12/05/23 18:59	1
Zinc	<0.0200		0.0200		mg/L		12/05/23 09:10	12/05/23 18:59	1

Lab Sample ID: LCS 310-407782/2-A
Matrix: Water
Analysis Batch: 407969

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 407782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2059		mg/L		103	80 - 120
Arsenic	0.200	0.1958		mg/L		98	80 - 120
Barium	0.100	0.09606		mg/L		96	80 - 120
Beryllium	0.100	0.09371		mg/L		94	80 - 120
Cadmium	0.100	0.09321		mg/L		93	80 - 120
Chromium	0.100	0.09388		mg/L		94	80 - 120
Cobalt	0.100	0.09596		mg/L		96	80 - 120
Copper	0.200	0.1879		mg/L		94	80 - 120
Lead	0.200	0.1930		mg/L		97	80 - 120
Nickel	0.200	0.1948		mg/L		97	80 - 120
Selenium	0.400	0.3570		mg/L		89	80 - 120
Silver	0.100	0.09871		mg/L		99	80 - 120
Vanadium	0.100	0.09309		mg/L		93	80 - 120
Zinc	0.200	0.1806		mg/L		90	80 - 120

Lab Sample ID: LCS 310-407782/2-A
Matrix: Water
Analysis Batch: 408022

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 407782

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.200	0.1743		mg/L		87	80 - 120

QC Sample Results

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

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

Lab Sample ID: MB 310-407830/1
Matrix: Water
Analysis Batch: 407830

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	<5.0		5.0		mg/L			12/05/23 08:24	1

Lab Sample ID: LCS 310-407830/2
Matrix: Water
Analysis Batch: 407830

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	104.0		mg/L		104	75 - 116

QC Association Summary

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

GC/MS VOA

Analysis Batch: 407861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-2	MW-26	Total/NA	Water	8260D	
MB 310-407861/5	Method Blank	Total/NA	Water	8260D	
LCS 310-407861/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-407861/7	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 407867

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-1	MW-22B	Total/NA	Water	8260D	
310-270699-4	MW-D	Total/NA	Water	8260D	
310-270699-5	Trip Blanks	Total/NA	Water	8260D	
MB 310-407867/5	Method Blank	Total/NA	Water	8260D	
LCS 310-407867/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-407867/7	Lab Control Sample	Total/NA	Water	8260D	
310-270699-1 MS	MW-22B	Total/NA	Water	8260D	
310-270699-1 MSD	MW-22B	Total/NA	Water	8260D	

Analysis Batch: 408273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-3	MW-28	Total/NA	Water	8260D	
MB 310-408273/5	Method Blank	Total/NA	Water	8260D	
LCS 310-408273/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-408273/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 407782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-1	MW-22B	Total/NA	Water	3005A	
310-270699-2	MW-26	Total/NA	Water	3005A	
310-270699-3	MW-28	Total/NA	Water	3005A	
310-270699-4	MW-D	Total/NA	Water	3005A	
MB 310-407782/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-407782/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 407969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-1	MW-22B	Total/NA	Water	6020B	407782
310-270699-2	MW-26	Total/NA	Water	6020B	407782
310-270699-3	MW-28	Total/NA	Water	6020B	407782
310-270699-4	MW-D	Total/NA	Water	6020B	407782
MB 310-407782/1-A	Method Blank	Total/NA	Water	6020B	407782
LCS 310-407782/2-A	Lab Control Sample	Total/NA	Water	6020B	407782

Analysis Batch: 408022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-407782/2-A	Lab Control Sample	Total/NA	Water	6020B	407782

General Chemistry

Analysis Batch: 407830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-1	MW-22B	Total/NA	Water	I-3765-85	

General Chemistry (Continued)

Analysis Batch: 407830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-270699-2	MW-26	Total/NA	Water	I-3765-85	
310-270699-3	MW-28	Total/NA	Water	I-3765-85	
310-270699-4	MW-D	Total/NA	Water	I-3765-85	
MB 310-407830/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-407830/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Client Sample ID: MW-22B
Lab Sample ID: 310-270699-1
Date Collected: 11/30/23 13:22
Matrix: Water
Date Received: 12/01/23 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	407867	FE5V	EET CF	12/06/23 00:46
Total/NA	Prep	3005A			407782	KCK5	EET CF	12/05/23 09:10
Total/NA	Analysis	6020B		1	407969	A6US	EET CF	12/05/23 20:13
Total/NA	Analysis	I-3765-85		1	407830	HE7K	EET CF	12/05/23 08:24

Client Sample ID: MW-26
Lab Sample ID: 310-270699-2
Date Collected: 11/30/23 13:58
Matrix: Water
Date Received: 12/01/23 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	407861	FE5V	EET CF	12/05/23 15:17
Total/NA	Prep	3005A			407782	KCK5	EET CF	12/05/23 09:10
Total/NA	Analysis	6020B		1	407969	A6US	EET CF	12/05/23 20:16
Total/NA	Analysis	I-3765-85		1	407830	HE7K	EET CF	12/05/23 08:24

Client Sample ID: MW-28
Lab Sample ID: 310-270699-3
Date Collected: 11/30/23 12:35
Matrix: Water
Date Received: 12/01/23 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	408273	FE5V	EET CF	12/08/23 15:14
Total/NA	Prep	3005A			407782	KCK5	EET CF	12/05/23 09:10
Total/NA	Analysis	6020B		1	407969	A6US	EET CF	12/05/23 20:19
Total/NA	Analysis	I-3765-85		1	407830	HE7K	EET CF	12/05/23 08:24

Client Sample ID: MW-D
Lab Sample ID: 310-270699-4
Date Collected: 11/30/23 13:22
Matrix: Water
Date Received: 12/01/23 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	407867	FE5V	EET CF	12/06/23 01:08
Total/NA	Prep	3005A			407782	KCK5	EET CF	12/05/23 09:10
Total/NA	Analysis	6020B		1	407969	A6US	EET CF	12/05/23 20:22
Total/NA	Analysis	I-3765-85		1	407830	HE7K	EET CF	12/05/23 08:24

Client Sample ID: Trip Blanks
Lab Sample ID: 310-270699-5
Date Collected: 11/30/23 00:00
Matrix: Water
Date Received: 12/01/23 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	407867	FE5V	EET CF	12/06/23 01:31

Laboratory References:

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

Accreditation/Certification Summary

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

Laboratory: Eurofins Cedar Falls

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

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-23 *

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

Method Summary

Client: SCS Engineers
Project/Site: Kossuth County Landfill

Job ID: 310-270699-1

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

eurofins | Environment Testing America

310-270699 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 12-1-23 | TIME 1700 | 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 # _____ 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 X | 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): 0.6 | Corrected Temp (°C): 0.6

• **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

TestAmerica

704 Enterprise Drive
Cedar Falls, Iowa 50613

319 277 2401 (phone)
515 792 7989 (fax)

SAMPLER: Konner Roth
SITE NAME: Kossuth County Sanitary Landfill
ADDRESS:
CITY/STATE/ZIP:
TELEPHONE NUMBER: Fax:
SAMPLED BY (PRINT NAME): Konner Roth
SIGNATURE: Konner Roth

REPORT TO:
NAME: Nathan Ohrt
COMPANY NAME: SCS Engineers
PROJECT NAME: Kossuth County 2nd 2023 HMSP
PROJECT NUMBER: 27223408.24
ADDRESS: 1690 All State Court, Suite 100
CITY/STATE/ZIP: West Des Moines, IA 50265

								Preservative								Matrix						Analyze For														
Sample ID	# of Containers Ordered	Date Sampled	Time Sampled	# of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass (Yellow & White Label)	None (Black & White Label)	Trip Blank	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Trip Blank	Appendix I	Total Suspended Solids		Trip Blank												Fax Results
MW 22B	5	11-30-23	1322	5				X								X						X	X													
MW-26	5	11-30-23	1358	5				X								X						X	X													
MW-28	5	11-30-23	1235	5				X								X						X	X													
MW-D	5	11-30-23	1322	5				X								X						X	X													
Trip Blanks																					X				X											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Relinquished by:	Date:	Time:
Konner Roth	12-1-23	1400						

Shipped Via. Comments: Shipped Via.

Received for lab by:	Date:	Time:	Temperature Upon Receipt:
Mc	12-1-23	1700	

Laboratory Comments: (1) For Appendix I and II analysis, report to the reporting limits, not the detection limits. Make sure that the reporting limits are below the EPA's MCLs.
(2) For analysis other than Appendix and II, report to the detection limits. Please make sure that the detection limits are below the EPA's MCLs.
(3) In the "Result" column for all EDD files, when non-detect, please report "<" the reporting limits or the detection limits instead of indicating with "ND"

Login Sample Receipt Checklist

Client: SCS Engineers

Job Number: 310-270699-1

Login Number: 270699

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Costello, Mackenzie K

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 Documentation
November 2023

Completed by: Nathan Ohrt
Sample Date: 11/30/2023
Lab Report Date: 12/12/2023
Site Name: Kossuth County Sanitary Landfill
Project Type: HMSP
Lab Report Number: 310-270669

	OK	NO	N/A	NOTES
Sample Collection and Sample Handling				
Chain of Custody	X			
Temperature	X			
Preservation	X			
Condition		X		Sample Trip Blank was analyzed with headspace in the sampling container.
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		The CCV recovered above the upper control limit for multiple parameters; the samples associated with the CCV were non-detect for the affected analytes or the associated LCS passed using CCV criteria so the data was reported.
LCS/LCSD	X			
MS/MSD	X			
Surrogates (organics only)				
Precision				
QA/QC Sample RPDs	X			
Field Duplicates	X			Sample MW-22B and duplicate sample MW-D had <50% RPD for analyzed parameters with the exceptions of vinyl chloride (not detected in MW-22B), cadmium (70%), chromium (not detected in MW-22B), and zinc (not detected in MW-D).

Appendix C
Summary of Groundwater Chemistry

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Antimony, mg/L (CAS NO - 7440-36-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	< 0.006	N/A	< 0.006	N/A	N/A	N/A
	7/10/2009	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	< 0.006	< 0.006	< 0.006	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.006	< 0.006
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.006	N/A	< 0.006	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.006	< 0.006	N/A	N/A	N/A	N/A	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.006	N/A	< 0.006	< 0.006	N/A	N/A	N/A	N/A	N/A	< 0.006	< 0.006	N/A	N/A	N/A	N/A	N/A	< 0.006	< 0.006
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.006	< 0.006	< 0.006	N/A	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	N/A	N/A	N/A	< 0.006	< 0.006	< 0.006	< 0.006
	5/21/2014	< 0.006	< 0.006	< 0.006	N/A	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	N/A	< 0.006	< 0.006	< 0.006	N/A	N/A	N/A	< 0.006	< 0.006	< 0.006	< 0.006
	6/24/2014	N/A	N/A	N/A	< 0.006	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.006	< 0.006	< 0.006	N/A	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	N/A	N/A	N/A	< 0.006	< 0.006	< 0.006	< 0.006
	5/4/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/10/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/16/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2017	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/14/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00369	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	7/17/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00106	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	2/5/2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/15/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/27/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/18/2020	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/13/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	11/23/2021	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	5/23/2022	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	11/15/2022	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002	< 0.002	N/A	N/A
	5/22/2023	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, mg/L (CAS NO - 7440-38-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.00282	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.00189	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/10/2009	N/A	0.0121	N/A	N/A	N/A	N/A	N/A	0.00904	0.022	0.0105	0.00446	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00173	0.00224
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0031	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	0.00116	N/A	N/A	N/A	N/A	0.00136	0.00206	0.00128	0.00409	< 0.001	N/A	N/A	N/A	0.00163	N/A	N/A	N/A	0.00154	0.00152
	4/28/2010	N/A	< 0.012	N/A	N/A	< 0.001	N/A	0.00276	< 0.001	0.0011	< 0.002	< 0.001	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001
	7/28/2010	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	0.00146	0.00174	< 0.001	< 0.001	N/A	0.00182	N/A	< 0.001	N/A	N/A	N/A	0.00323	0.00275
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00189	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00196	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.001	N/A	< 0.001	N/A	N/A	0.00171	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	0.00686	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	< 0.001	N/A	N/A	N/A	< 0.001	0.00661	< 0.001	< 0.001	< 0.001	< 0.001	N/A	0.00126	N/A	< 0.001	N/A	N/A	N/A	0.0092	0.00705
	1/11/2012	N/A	< 0.003	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003	< 0.002	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	< 0.005	N/A	< 0.003	N/A	< 0.001	< 0.001	< 0.001	< 0.003	< 0.002	< 0.002	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	0.00124	0.00112
	5/13/2013	< 0.001	< 0.001	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.001	N/A	0.00134	0.00106	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	0.00118	0.00112
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.001	< 0.003	0.00408	N/A	< 0.001	< 0.001	0.00101	< 0.002	< 0.002	< 0.001	< 0.002	< 0.001	0.001	N/A	N/A	N/A	< 0.002	< 0.001	0.0027	0.00189
	5/21/2014	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	0.00516	0.00513
	6/24/2014	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	0.00111	0.00109
	5/4/2015	< 0.002	< 0.002	< 0.002	0.00272	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	11/10/2015	< 0.002	< 0.002	0.00232	0.00409	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00226	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00718	0.00456
	5/5/2016	< 0.002	< 0.002	< 0.002	0.00777	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0249	< 0.002	< 0.002	< 0.002	< 0.002
	11/7/2016	< 0.002	< 0.002	< 0.002	0.00471	< 0.002	< 0.002	0.00243	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00211	< 0.002	< 0.002	0.0386	< 0.002	< 0.002	< 0.002	< 0.002
	5/16/2017	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0379	< 0.002	< 0.002	< 0.002	< 0.002
	11/7/2017	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00238	< 0.002	N/A	0.0238	< 0.002	< 0.002	< 0.002	< 0.002
	5/14/2018	< 0.002	< 0.002	< 0.002	0.0031	< 0.002	< 0.002	< 0.002	< 0.002	0.00537	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0425	< 0.002	< 0.002	< 0.002	< 0.002
	11/7/2018	< 0.002	< 0.002	< 0.002	0.0092	0.00204	< 0.002	0.00254	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00206	< 0.002	< 0.002	0.00975	< 0.002	< 0.002	< 0.002	< 0.002
	5/15/2019	< 0.002	< 0.002	< 0.002	0.017	< 0.002	< 0.002	0.003	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0238	< 0.002	< 0.002	< 0.002	< 0.002
	11/19/2019	< 0.002	< 0.002	0.00292	0.00358	0.00208	< 0.002	0.00209	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0028	< 0.002	< 0.002	0.0203	< 0.002	< 0.002	0.00238	0.00228
	5/27/2020	< 0.002	< 0.002	< 0.002	0.0177	0.00229	< 0.002	0.0036	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00233	< 0.002	< 0.002	0.0436	< 0.002	< 0.002	< 0.002	0.00203
	11/18/2020	N/A	N/A	N/A	0.0271	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00285	< 0.002	N/A	N/A	< 0.002	< 0.002	N/A	N/A
	5/13/2021	< 0.002	< 0.002	< 0.002	0.00977	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	< 0.002	< 0.002	0.00478	0.00473
	11/23/2021	< 0.002	< 0.002	0.00209	0.0376	< 0.002	0.00231	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	0.00213	0.00214
	5/23/2022	< 0.002	< 0.002	< 0.002	0.0361	< 0.002	< 0.002	0.00377	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00202	< 0.002
	11/15/2022	N/A	N/A	N/A	0.0694	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00252	< 0.002	N/A	N/A	< 0.002	< 0.002	N/A	N/A
	5/22/2023	< 0.002	< 0.002	< 0.002	0.0566	< 0.002	< 0.002	0.00313	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	0.00247	0.00244
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	< 0.002	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Barium, mg/L (CAS NO - 7440-39-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.333	N/A	N/A	N/A	N/A	0.119	N/A	N/A	0.151	N/A	0.313	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.166	N/A	N/A	N/A	N/A	0.113	N/A	N/A	0.114	N/A	0.273	N/A	N/A	N/A
	7/10/2009	N/A	0.0454	N/A	N/A	N/A	N/A	N/A	0.369	0.999	0.066	0.262	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.104	0.104
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.134	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	0.0304	N/A	N/A	N/A	N/A	0.18	0.333	0.526	0.0828	0.0915	0.108	N/A	N/A	0.149	N/A	0.282	N/A	0.0896	0.0903
	4/28/2010	N/A	0.0207	N/A	N/A	0.0735	N/A	0.124	0.289	0.492	0.0491	0.134	0.0652	0.0439	N/A	0.0934	N/A	0.26	N/A	0.0543	0.0557
	7/28/2010	N/A	0.0342	N/A	N/A	0.0941	N/A	N/A	0.229	0.559	0.0512	0.0995	N/A	0.0519	N/A	N/A	N/A	N/A	N/A	0.0923	0.0916
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0793	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	0.134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.075	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	0.397	N/A	0.091	N/A	N/A	0.153	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	0.183	N/A	0.185	0.452	N/A	0.0666	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	0.208	N/A	0.108	0.394	N/A	0.0728	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	0.21	0.0373	0.0983	N/A	0.128	0.136	0.744	0.357	0.473	0.0691	0.158	0.121	0.0519	N/A	0.288	N/A	0.306	N/A	0.11	0.0939
	1/11/2012	0.383	0.0341	0.101	N/A	0.109	0.069	0.217	0.442	0.474	0.0522	0.145	0.103	0.11	N/A	N/A	N/A	0.313	N/A	N/A	N/A
	5/9/2012	0.187	0.0239	0.0975	0.411	0.112	0.0629	0.219	0.426	0.496	0.0485	0.102	0.0894	0.09	N/A	N/A	N/A	0.296	N/A	0.0705	0.0694
	5/13/2013	0.209	0.0264	N/A	N/A	N/A	N/A	0.155	0.338	0.323	0.0685	0.0743	N/A	N/A	N/A	N/A	N/A	0.313	N/A	N/A	N/A
	5/14/2013	N/A	N/A	0.0769	N/A	0.0578	0.0451	N/A	N/A	N/A	N/A	N/A	0.131	0.0342	N/A	N/A	N/A	N/A	N/A	0.0635	0.0638
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.093	N/A	N/A	N/A	N/A	N/A
	11/19/2013	0.292	0.0182	0.0959	N/A	0.0533	0.0534	0.265	0.365	0.374	0.0916	0.0739	0.102	0.0562	N/A	N/A	N/A	0.296	0.227	0.0852	0.077
	5/21/2014	0.212	< 0.03	0.0704	N/A	0.0667	0.0627	0.209	0.372	0.442	N/A	0.0836	0.0961	0.0503	N/A	N/A	N/A	0.31	0.232	0.0785	0.0778
	6/24/2014	N/A	N/A	N/A	0.321	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	0.19	0.0178	0.101	N/A	0.0588	0.0605	0.175	0.351	0.421	0.0684	0.0819	0.0847	0.0482	N/A	N/A	N/A	0.296	0.205	0.0782	0.0752
	5/4/2015	0.199	0.017	0.101	0.388	0.0776	0.0687	0.127	0.348	0.409	0.0611	0.0747	0.0786	0.0378	N/A	0.0908	N/A	0.291	0.205	0.0734	0.0718
	11/10/2015	0.212	0.0199	0.103	0.419	0.0626	0.0656	0.24	0.275	0.397	0.0671	0.0924	0.104	0.0542	0.0547	0.103	0.534	0.31	0.221	0.0798	0.101
	5/5/2016	0.204	0.0168	0.0901	0.382	0.102	0.067	0.211	0.334	0.48	0.0259	0.085	0.0716	0.0371	0.0507	0.103	0.139	0.293	0.19	0.0814	0.0805
	11/7/2016	0.227	0.0233	0.0904	0.399	0.116	0.0733	0.143	0.278	0.581	0.0347	0.0981	0.0899	0.0518	0.0502	0.109	0.125	0.309	0.207	0.0965	0.0985
	5/16/2017	0.231	0.0189	0.0871	0.403	0.112	0.0673	0.135	0.313	0.556	0.0325	0.116	0.0697	0.0389	0.0661	0.114	0.12	0.284	0.196	0.0816	0.0783
	11/7/2017	0.179	0.0214	0.0875	N/A	0.089	0.0659	0.173	0.319	0.475	0.0313	0.117	0.0985	0.0493	0.0476	N/A	0.164	0.319	0.23	0.0872	0.0884
	5/14/2018	0.219	0.0218	0.0762	0.495	0.0853	0.0428	0.136	0.335	0.429	0.029	0.0769	0.0716	0.0314	0.0549	0.0876	0.787	0.288	0.204	0.0918	0.0969
	11/7/2018	0.211	0.0238	0.12	0.595	0.126	0.0538	0.126	0.272	0.476	0.0326	0.0951	0.0938	0.0429	0.0556	0.114	0.101	0.273	0.192	0.0785	0.081
	5/15/2019	0.222	0.0188	0.0968	0.797	0.0828	0.0673	0.121	0.293	0.405	0.0261	0.0861	0.0787	0.029	0.0585	0.104	0.0994	0.3	0.18	0.0783	0.0792
	7/16/2019	N/A	N/A	N/A	0.611	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/19/2019	0.179	0.0208	0.0851	0.657	0.103	0.06	0.122	0.248	0.403	0.0395	0.11	0.0927	0.0389	0.0518	0.0995	0.0943	0.293	0.163	0.0708	0.0694
	5/27/2020	0.212	0.0139	0.0931	0.787	0.141	0.0703	0.116	0.316	0.212	0.0258	0.1	0.0816	0.0352	0.0468	0.0932	0.0984	0.306	0.195	0.0892	0.096
	11/18/2020	N/A	N/A	N/A	0.905	0.0929	0.0507	N/A	0.317	0.393	0.0379	0.0936	0.0919	0.0462	0.0451	N/A	N/A	0.314	0.21	N/A	N/A
	5/13/2021	0.191	0.0221	0.0596	0.77	0.0787	0.0483	N/A	0.31	0.393	0.0273	0.0929	0.0974	0.037	0.0524	N/A	N/A	0.322	0.204	0.0707	0.0715
	11/23/2021	0.19	0.027	0.089	0.859	0.0929	0.0513	N/A	0.33	0.39	0.0468	0.11	0.119	0.0694	0.0493	N/A	0.0534	0.304	0.209	0.0779	0.0772
	5/23/2022	0.209	0.0157	0.0711	0.87	0.0759	0.0556	0.147	0.425	0.506	0.0485	0.0744	0.0867	0.038	0.0614	0.0978	0.0994	0.326	0.23	0.0693	0.0676
	8/3/2022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.39	0.385	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/15/2022	N/A	N/A	N/A	0.962	0.0638	0.049	N/A	0.326	0.389	0.0475	0.0835	0.0947	0.0508	0.046	N/A	N/A	0.31	0.206	N/A	N/A
	5/22/2023	0.186	0.0169	0.0801	0.912	0.0657	0.0326	0.118	0.333	0.389	0.0422	0.0486	0.0732	0.0315	0.0435	N/A	0.0835	0.291	0.202	0.0677	0.0673
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.323	N/A	N/A	N/A	0.0804	N/A	0.0702	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.321	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, mg/L (CAS NO - 7440-41-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A
	7/10/2009	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	0.00112	< 0.001	0.00101	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.001	N/A	< 0.001	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.001	< 0.001	N/A	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.001	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	< 0.001
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	5/21/2014	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	6/24/2014	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	5/4/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/10/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/16/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2017	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/14/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00242	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/15/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/27/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/18/2020	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/13/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/23/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/23/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Beryllium, mg/L (CAS NO - 7440-41-7)	11/15/2022	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/22/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, mg/L (CAS NO - 7440-43-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.000963	N/A	N/A	N/A	N/A	0.000506	N/A	N/A	< 0.0005	N/A	< 0.0005	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/10/2009	N/A	0.000715	N/A	N/A	N/A	N/A	N/A	0.000638	0.00234	0.00165	0.000581	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00188	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005	0.00112	0.000616	0.00175	< 0.0005	< 0.0005	N/A	N/A	0.00107	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A	< 0.0005	0.000509	0.000598	0.000568	< 0.0005	< 0.0005	0.000893	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	0.000515	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	0.000991	N/A	< 0.0005	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	< 0.0005	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	0.000787	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	0.000744	0.001	N/A	N/A	N/A	N/A	0.00547	0.000604	0.000837	0.0012	0.000527	< 0.0005	< 0.0005	N/A	0.00131	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	0.00249	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/11/2012	0.00121	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005	0.000526	0.000505	< 0.0005	< 0.0005	< 0.0005	0.00111	N/A	N/A	N/A	0.000513	N/A	N/A	N/A
	5/13/2013	0.000775	< 0.0005	N/A	N/A	N/A	N/A	< 0.0005	0.00102	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	0.000504	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005	N/A	N/A	N/A	N/A	N/A	< 0.0005	< 0.0005
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A
	11/19/2013	0.00161	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	0.000636	0.000803	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/21/2014	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	6/24/2014	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000852	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/4/2015	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000512	< 0.0005	0.000874	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/10/2015	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/5/2016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000533	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/16/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000649	< 0.0005	< 0.0005	0.000549	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2017	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/14/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00102	0.000548	0.00088	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00231	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000605	< 0.0005	0.00058	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/15/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/19/2019	0.000139	0.000108	0.000113	0.000643	0.000156	0.000125	0.000232	0.000493	0.000103	0.000401	0.000444	< 0.0001	0.00215	0.000211	0.000147	0.000271	0.000162	0.000137	< 0.0001	< 0.0001
	5/27/2020	0.000394	< 0.0001	0.000129	0.000251	0.000303	0.000312	0.000257	0.0013	0.000551	0.000785	0.000682	0.000125	0.000182	0.000346	0.000192	0.000162	0.000211	0.000285	< 0.0001	< 0.0001
	11/18/2020	N/A	N/A	N/A	0.00075	< 0.0001	< 0.0001	N/A	0.000597	0.000136	0.000376	0.000188	< 0.0001	0.0001	0.000182	N/A	N/A	0.000116	0.000115	N/A	N/A
	5/13/2021	< 0.0001	0.000144	< 0.0001	< 0.0001	0.000128	0.000118	N/A	0.000714	0.000244	0.000274	0.000306	< 0.0001	0.000598	0.000113	N/A	N/A	0.000128	< 0.0001	0.000105	0.000111
	11/23/2021	< 0.0001	< 0.0001	< 0.0001	0.00103	0.000108	0.000146	N/A	0.000273	< 0.0001	0.000458	0.000164	< 0.0001	< 0.0001	0.000205	N/A	0.00024	0.000636	0.000124	< 0.0001	< 0.0001
	5/23/2022	0.000173	< 0.0001	< 0.0001	0.000163	0.000115	0.000217	0.000158	0.000502	0.000167	0.000294	0.000217	< 0.0001	0.000118	0.000134	0.000134	0.000334	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	11/15/2022	N/A	N/A	N/A	< 0.0001	< 0.0001	< 0.0001	N/A	0.000704	0.000125	0.00108	0.000248	< 0.0001	0.00013	0.000172	N/A	N/A	0.000266	< 0.0001	N/A	N/A
	5/22/2023	0.000451	< 0.0002	0.000409	< 0.0002	0.00025	< 0.0002	0.000249	0.000932	< 0.0002	0.000362	< 0.0002	< 0.0002	< 0.0002	0.000302	N/A	0.000297	< 0.0002	< 0.0002	< 0.0002	< 0.0002
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000359	N/A	N/A	N/A	< 0.0002	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.000746	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, mg/L (CAS NO - 7440-47-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A
	7/10/2009	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.02	N/A	< 0.02	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.02	< 0.02	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.02	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/21/2014	< 0.02	< 0.06	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	6/24/2014	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/4/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/10/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/5/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/16/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2017	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/14/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0585	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/15/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0194
	11/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/27/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/18/2020	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/13/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/23/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/23/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/15/2022	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Chromium, mg/L (CAS NO - 7440-47-3)	5/22/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00608	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt, mg/L (CAS NO - 7440-48-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A
	7/10/2009	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.02	N/A	< 0.02	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.007	< 0.007	N/A	N/A	N/A	N/A	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	N/A	N/A	N/A	N/A	N/A	< 0.007	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.007	N/A	< 0.007	< 0.007	N/A	N/A	N/A	N/A	N/A	< 0.007	< 0.007	N/A	N/A	N/A	N/A	N/A	< 0.007	< 0.007
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.007	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.007	< 0.007	< 0.007	N/A	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	N/A	N/A	N/A	< 0.007	< 0.007	< 0.007	< 0.007
	5/21/2014	< 0.007	< 0.021	< 0.007	N/A	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	N/A	< 0.007	< 0.007	< 0.007	N/A	N/A	N/A	< 0.007	< 0.007	< 0.007	< 0.007
	6/24/2014	N/A	N/A	N/A	< 0.007	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.007	< 0.007	< 0.007	N/A	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	N/A	N/A	N/A	< 0.007	< 0.007	< 0.007	< 0.007
	5/4/2015	< 0.0005	< 0.0005	< 0.0005	0.0014	< 0.0005	< 0.0005	< 0.0005	0.00193	0.00167	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/10/2015	< 0.0005	< 0.0005	< 0.0005	0.00638	< 0.0005	< 0.0005	0.000825	0.000883	0.00171	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00211	< 0.0005	< 0.0005	< 0.0005
	5/5/2016	< 0.0005	< 0.0005	< 0.0005	0.00124	< 0.0005	< 0.0005	< 0.0005	0.00145	0.00578	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000777	0.000656	< 0.0005	< 0.0005	< 0.0005
	11/7/2016	< 0.0005	< 0.0005	< 0.0005	0.00106	< 0.0005	< 0.0005	0.000635	0.0011	0.00484	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/16/2017	< 0.0005	< 0.0005	< 0.0005	0.000647	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00438	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2017	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	0.000775	0.00265	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	0.00126	< 0.0005	0.000561	< 0.0005	< 0.0005
	5/14/2018	< 0.0005	< 0.0005	< 0.0005	0.000632	< 0.0005	< 0.0005	< 0.0005	0.00145	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0328	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2018	< 0.0005	< 0.0005	< 0.0005	0.00148	< 0.0005	< 0.0005	< 0.0005	0.00143	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00111	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	2/5/2019	N/A	N/A	N/A	0.00122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/15/2019	< 0.0005	< 0.0005	< 0.0005	0.00113	< 0.0005	< 0.0005	< 0.0005	0.000729	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000619	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/19/2019	< 0.0005	< 0.0005	< 0.0005	0.0012	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000769	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/27/2020	< 0.0005	< 0.0005	< 0.0005	0.0031	< 0.0005	< 0.0005	< 0.0005	0.0011	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000654
	11/18/2020	N/A	N/A	N/A	0.00428	< 0.0005	< 0.0005	N/A	0.00146	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	N/A	N/A
	2/2/2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00183	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2021	< 0.0005	< 0.0005	< 0.0005	0.00155	< 0.0005	< 0.0005	N/A	0.000608	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	0.000502
	11/23/2021	< 0.0005	< 0.0005	< 0.0005	0.00272	< 0.0005	< 0.0005	N/A	0.00413	< 0.0005	< 0.0005	0.000607	< 0.0005	< 0.0005	< 0.0005	N/A	0.00313	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	1/31/2022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0065	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/23/2022	< 0.0005	< 0.0005	< 0.0005	0.00195	< 0.0005	< 0.0005	0.00112	0.00347	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00208	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/15/2022	N/A	N/A	N/A	0.00267	< 0.0005	< 0.0005	N/A	0.00104	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	N/A	N/A
	5/22/2023	< 0.0005	< 0.0005	< 0.0005	0.00245	< 0.0005	< 0.0005	< 0.0005	0.0014	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	0.000768	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00297	N/A	N/A	N/A	< 0.0005	N/A	0.000506	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00323	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, mg/L (CAS NO - 7440-50-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A
	7/10/2009	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	0.0223	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	1/13/2011	0.0219	N/A	< 0.02	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	< 0.02	N/A	N/A	0.0247	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	0.0443	N/A	N/A	0.209	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	< 0.02	N/A	N/A	N/A	N/A	N/A	0.0345	N/A	0.0224	N/A	N/A	N/A	< 0.02	N/A	0.0239	N/A	N/A	N/A	N/A	N/A
	1/11/2012	0.0246	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	< 0.02	N/A	N/A	< 0.02	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.02	< 0.02	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.02	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/21/2014	< 0.02	< 0.06	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	6/24/2014	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/4/2015	0.00357	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00218	< 0.002	< 0.002	< 0.002	N/A	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	11/10/2015	< 0.002	< 0.002	0.00211	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.00257	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
	5/5/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/16/2017	< 0.005	< 0.005	0.00563	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2017	< 0.005	0.00807	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/14/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0857	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/15/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/27/2020	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/18/2020	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/13/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/23/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/23/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/15/2022	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/22/2023	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Lead, mg/L (CAS NO - 7439-92-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.00754	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	< 0.004	N/A	< 0.004	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/10/2009	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	< 0.004	< 0.004	< 0.004	0.00528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	< 0.004
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.004	N/A	< 0.004	N/A	N/A	N/A	0.00451	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	< 0.004	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.004	N/A	< 0.004	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	0.00802	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.004	< 0.004	N/A	N/A	N/A	N/A	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.004	N/A	< 0.004	< 0.004	N/A	N/A	N/A	N/A	N/A	< 0.004	< 0.004	N/A	N/A	N/A	N/A	N/A	< 0.004	< 0.004
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.004	< 0.004	< 0.004	N/A	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	N/A	N/A	N/A	< 0.004	< 0.004	< 0.004	< 0.004
	5/21/2014	< 0.004	< 0.004	< 0.004	N/A	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	N/A	< 0.004	< 0.004	< 0.004	N/A	N/A	N/A	< 0.004	< 0.004	< 0.004	< 0.004
	6/24/2014	N/A	N/A	N/A	< 0.004	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.004	< 0.004	< 0.004	N/A	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	N/A	N/A	N/A	< 0.004	< 0.004	< 0.004	< 0.004
	5/4/2015	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000519	< 0.0005	0.000535	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/10/2015	0.000523	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00057	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/5/2016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.00174	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/7/2016	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000934	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000502	< 0.0005	0.00063	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/16/2017	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000596	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000674	< 0.0005	< 0.0005	0.000805	< 0.0005
	11/7/2017	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	0.000685	< 0.0005	< 0.0005
	5/14/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0338	< 0.0005	< 0.0005	0.000923	0.000678
	11/7/2018	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/15/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000763	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/19/2019	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000947	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/27/2020	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000732	0.00127
	11/18/2020	N/A	N/A	N/A	0.000638	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	N/A	N/A
	5/13/2021	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	0.000792	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/23/2021	< 0.0005	< 0.0005	< 0.0005	0.000502	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	0.00194	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	5/23/2022	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/15/2022	N/A	N/A	N/A	< 0.0005	< 0.0005	< 0.0005	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	N/A	N/A	< 0.0005	< 0.0005	N/A	N/A
	5/22/2023	< 0.0005	< 0.0005	0.0007	< 0.0005	< 0.0005	< 0.0005	0.000618	0.00136	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.000847	N/A	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	< 0.0005	N/A	0.000622	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, mg/L (CAS NO - 7439-97-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	< 0.0002	N/A	< 0.0002	N/A	N/A	N/A
	7/10/2009	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.0002	N/A	< 0.0002	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.0002	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	< 0.0002
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	< 0.0002	< 0.0002	N/A	< 0.0002	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0002	< 0.0002	< 0.0002	N/A	N/A	< 0.0002	< 0.0002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0002	N/A	N/A	N/A
Nickel, mg/L (CAS NO - 7440-02-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	< 0.05	N/A	< 0.05	N/A	N/A	N/A
	7/10/2009	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.05	N/A	< 0.05	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.05	< 0.05	N/A	N/A	N/A	N/A	< 0.05	0.0644	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.05	N/A	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	5/21/2014	< 0.05	< 0.15	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	6/24/2014	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	5/4/2015	0.00688	< 0.005	< 0.005	0.0154	< 0.005	< 0.005	< 0.005	0.0186	0.0159	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	N/A	0.0065	< 0.005	< 0.005	< 0.005
	11/10/2015	< 0.005	< 0.005	< 0.005	0.0297	< 0.005	< 0.005	0.0073	0.0115	0.0199	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00626	< 0.005	< 0.005	< 0.005
	5/5/2016	0.00536	< 0.005	< 0.005	0.0104	< 0.005	< 0.005	< 0.005	0.0177	0.0281	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00519	< 0.005	< 0.005	< 0.005
	11/7/2016	< 0.005	< 0.005	< 0.005	0.00948	< 0.005	< 0.005	< 0.005	0.0197	0.0249	< 0.005	< 0.005	0.00529	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/16/2017	0.00506	< 0.005	< 0.005	0.0113	< 0.005	< 0.005	< 0.005	0.0147	0.0324	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2017	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	0.0125	0.0229	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/14/2018	< 0.005	< 0.005	< 0.005	0.0147	< 0.005	< 0.005	< 0.005	0.0239	0.00977	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2018	0.00595	< 0.005	< 0.005	0.019	< 0.005	< 0.005	< 0.005	0.0134	0.0157	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/15/2019	0.00624	< 0.005	< 0.005	0.0198	< 0.005	< 0.005	< 0.005	0.0184	0.00724	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/19/2019	< 0.005	< 0.005	< 0.005	0.0207	< 0.005	< 0.005	< 0.005	0.0186	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/27/2020	< 0.005	< 0.005	< 0.005	0.0164	< 0.005	< 0.005	< 0.005	0.0177	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/18/2020	N/A	N/A	N/A	0.0264	< 0.005	< 0.005	N/A	0.0156	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Nickel, mg/L (CAS NO - 7440-02-0)	5/13/2021	< 0.005	< 0.005	< 0.005	0.0198	< 0.005	< 0.005	N/A	0.0122	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/23/2021	< 0.005	< 0.005	< 0.005	0.0245	< 0.005	< 0.005	N/A	0.0142	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	0.0126	0.0052	< 0.005	< 0.005	< 0.005
	1/31/2022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/23/2022	< 0.005	< 0.005	< 0.005	0.0204	< 0.005	< 0.005	< 0.005	0.0248	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.0109	< 0.005	< 0.005	< 0.005	< 0.005
	11/15/2022	N/A	N/A	N/A	0.0216	< 0.005	< 0.005	N/A	0.0167	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	0.00506	< 0.005	N/A	N/A
	5/22/2023	< 0.005	< 0.005	< 0.005	0.0227	< 0.005	< 0.005	< 0.005	0.0161	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	0.011	< 0.005	< 0.005	< 0.005	< 0.005
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0141	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0141	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, mg/L (CAS NO - 7782-49-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A
	7/10/2009	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	0.00611	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.005	N/A	< 0.005	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.005	< 0.005	N/A	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A
	5/14/2013	N/A	N/A	0.00805	N/A	0.00531	< 0.005	N/A	N/A	N/A	N/A	N/A	0.00591	0.00568	N/A	N/A	N/A	N/A	N/A	< 0.005	< 0.005
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.005	< 0.005	< 0.005	N/A	0.011	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	5/21/2014	< 0.005	< 0.005	< 0.005	N/A	0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	0.00523	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	6/24/2014	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.005	< 0.005	< 0.005	N/A	0.0136	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	2/11/2015	N/A	N/A	N/A	N/A	0.00731	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/4/2015	< 0.005	< 0.005	0.00738	< 0.005	0.00515	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	6/29/2015	N/A	N/A	0.00703	N/A	0.00947	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2015	< 0.005	< 0.005	< 0.005	< 0.005	0.0074	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00571	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	1/5/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/5/2016	< 0.005	< 0.005	< 0.005	< 0.005	0.00932	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00614	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	6/29/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00689	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/16/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00551	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2017	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00506	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/14/2018	< 0.005	< 0.005	< 0.005	< 0.005	0.00522	< 0.005	< 0.005	< 0.005	0.00526	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/15/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00552	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/27/2020	< 0.005	< 0.005	0.00794	< 0.005	0.0072	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00536	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	7/22/2020	N/A	N/A	0.00672	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/18/2020	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/13/2021	< 0.005	< 0.005	0.00533	< 0.005	0.00724	0.0169	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00904	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	7/21/2021	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/23/2021	< 0.005	< 0.005	0.00662	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/23/2022	< 0.005	< 0.005	0.00565	< 0.005	0.0108	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00507	0.00526	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/3/2022	N/A	N/A	N/A	N/A	0.0142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/15/2022	N/A	N/A	N/A	< 0.005	0.00682	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/22/2023	< 0.005	< 0.005	0.00951	< 0.005	0.00799	< 0.005	< 0.005	< 0.005	< 0.005	0.00636	< 0.005	< 0.005	0.00629	0.00636	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/10/2023	N/A	N/A	0.00556	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver, mg/L (CAS NO - 7440-22-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A
	7/10/2009	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.02	N/A	< 0.02	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.02	< 0.02	N/A	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.02	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	< 0.02	< 0.02
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/21/2014	< 0.02	< 0.06	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	6/24/2014	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/4/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/10/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/16/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2017	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/14/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/15/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Silver, mg/L (CAS NO - 7440-22-4)	5/27/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/18/2020	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/13/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/23/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/23/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.00134**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.00134**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/3/2022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	11/15/2022	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/22/2023	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thallium, mg/L (CAS NO - 7440-28-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	< 0.002	N/A	< 0.002	N/A	N/A	N/A
	7/10/2009	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.002
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.002	N/A	< 0.002	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.002	< 0.002	N/A	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.002	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.002	N/A	N/A	N/A	N/A	N/A	< 0.002	< 0.002
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	5/21/2014	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	6/24/2014	N/A	N/A	N/A	< 0.002	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.002	< 0.002	< 0.002	N/A	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	N/A	N/A	N/A	< 0.002	< 0.002	< 0.002	< 0.002
	5/4/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/10/2015	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/5/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/16/2017	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2017	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/14/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/7/2018	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/15/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/2019	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/27/2020	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/18/2020	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	**0.00196**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	2/2/2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2/2/2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	< 0.001	< 0.001
	11/23/2021	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	5/23/2022	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/15/2022	N/A	N/A	N/A	< 0.001	< 0.001	< 0.001	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	N/A	N/A	< 0.001	< 0.001	N/A	N/A
	5/22/2023	< 0.001	< 0.001	**0.00456**	< 0.001	< 0.001	< 0.001	< 0.001	**0.00284**	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	**0.00437**	N/A	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	8/10/2023	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	< 0.001	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.001	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tin, mg/L (CAS NO - 7440-31-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	< 0.1	N/A	< 0.1	N/A	N/A	N/A
	7/10/2009	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	< 0.1	< 0.1	< 0.1	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.1	< 0.1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.1	N/A	< 0.1	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.1	< 0.1	N/A	N/A	N/A	N/A	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	N/A	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.1	N/A	< 0.1	< 0.1	N/A	N/A	N/A	N/A	N/A	< 0.1	< 0.1	N/A	N/A	N/A	N/A	N/A	< 0.1	< 0.1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A
Vanadium, mg/L (CAS NO - 7440-62-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	< 0.05	N/A	< 0.05	N/A	N/A	N/A
	7/10/2009	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.05	N/A	< 0.05	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.05	< 0.05	N/A	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.05	N/A	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05	N/A	N/A	N/A	N/A	N/A	< 0.05	< 0.05
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	5/21/2014	< 0.05	< 0.15	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	6/24/2014	N/A	N/A	N/A	< 0.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.05	< 0.05	< 0.05	N/A	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	N/A	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05
	5/4/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/10/2015	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/5/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2016	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	5/16/2017	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2017	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Vanadium, mg/L (CAS NO - 7440-62-2)	5/14/2018	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.124	< 0.005	< 0.005	< 0.005	< 0.005
	11/7/2018	< 0.005	< 0.005	< 0.005	< 0.005	0.00589	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	2/5/2019	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/15/2019	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/19/2019	< 0.005	< 0.005	< 0.005	< 0.005	0.00503	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	1/30/2020	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/27/2020	< 0.005	< 0.005	< 0.005	< 0.005	0.00636	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00591
	7/22/2020	N/A	N/A	N/A	N/A	0.00564	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/18/2020	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/13/2021	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	< 0.005	< 0.005
	11/23/2021	< 0.005	< 0.005	0.00505	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	1/31/2022	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/23/2022	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	11/15/2022	N/A	N/A	N/A	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	N/A	< 0.005	< 0.005	N/A	N/A
	5/22/2023	< 0.005	< 0.005	< 0.005	< 0.005	0.00512	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	N/A	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	8/10/2023	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	< 0.005	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, mg/L (CAS NO - 7440-66-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	0.075	N/A	N/A	N/A	N/A	0.0605	N/A	N/A	0.0535	N/A	0.0516	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	0.0719	N/A	N/A	0.0354	N/A	0.0482	N/A	N/A	N/A
	7/10/2009	N/A	0.126	N/A	N/A	N/A	N/A	N/A	0.0915	0.239	0.0729	0.098	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0457	0.0425
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0733	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	0.148	N/A	N/A	N/A	N/A	0.0293	0.411	0.119	0.0887	0.031	0.0729	N/A	N/A	0.0671	N/A	0.0489	N/A	0.0927	0.039
	4/28/2010	N/A	0.0653	N/A	N/A	< 0.02	N/A	< 0.02	0.0314	0.0533	< 0.02	0.0297	< 0.02	0.0514	N/A	< 0.02	N/A	0.0309	N/A	< 0.02	< 0.02
	7/28/2010	N/A	0.106	N/A	N/A	N/A	N/A	N/A	0.0427	0.0586	0.0237	0.0266	N/A	< 0.02	N/A	0.0348	N/A	N/A	N/A	0.0234	0.0202
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0555	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	0.121	N/A	0.032	N/A	N/A	0.0493	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	< 0.02	N/A	0.0363	< 0.02	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	< 0.02	N/A	< 0.02	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	< 0.02	< 0.02	< 0.02	N/A	N/A	0.0337	0.0836	0.0381	0.0296	< 0.02	0.0502	< 0.02	< 0.02	N/A	0.0215	N/A	< 0.02	N/A	< 0.02	< 0.02
	1/11/2012	0.0244	< 0.02	< 0.02	N/A	N/A	< 0.02	< 0.02	0.0235	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A
	5/9/2012	< 0.02	< 0.02	0.0584	N/A	N/A	< 0.02	< 0.02	0.0558	0.0281	0.0221	< 0.02	< 0.02	0.0234	N/A	N/A	N/A	0.0219	N/A	< 0.02	< 0.02
	5/13/2013	0.0637	0.0748	N/A	N/A	N/A	N/A	0.0345	0.0934	0.0734	0.023	0.0264	N/A	N/A	N/A	N/A	N/A	0.0685	N/A	N/A	N/A
	5/14/2013	N/A	N/A	0.0369	N/A	< 0.02	< 0.02	N/A	N/A	N/A	N/A	N/A	0.0572	0.0369	N/A	N/A	N/A	N/A	N/A	0.0438	0.0258
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0495	N/A	N/A	N/A	N/A	N/A
	11/19/2013	0.18	0.218	0.0916	N/A	0.123	0.0868	0.184	0.138	0.132	0.115	0.127	0.131	0.076	N/A	N/A	N/A	0.151	0.116	0.0965	0.0593
	5/21/2014	< 0.02	< 0.08	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.04	N/A	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.04	< 0.02	< 0.02	< 0.02
	6/24/2014	N/A	N/A	N/A	< 0.06	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	5/4/2015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0373	0.0109	< 0.01	< 0.01	< 0.01	< 0.01	N/A	< 0.01	N/A	< 0.01	< 0.01	< 0.01	< 0.01
	11/10/2015	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0146	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	5/5/2016	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.083	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	11/7/2016	0.0111	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.0102	0.0104	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	5/16/2017	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0893	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	7/19/2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2017	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/14/2018	< 0.02	< 0.02	< 0.02	< 0.02	0.0224	< 0.02	< 0.02	0.0333	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.28	< 0.02	< 0.02	< 0.02	< 0.02
	11/7/2018	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/15/2019	< 0.02	< 0.02	< 0.02	0.0265	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.0443	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	11/19/2019	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/27/2020	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	11/18/2020	N/A	N/A	N/A	0.0299	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A
	5/13/2021	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	< 0.02	< 0.02	< 0.02	< 0.02
	11/23/2021	< 0.02	< 0.02	< 0.02	0.0318	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	5/23/2022	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	11/15/2022	N/A	N/A	N/A	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	N/A	< 0.02	< 0.02	N/A	N/A
	5/22/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	N/A	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.02	N/A	N/A	N/A	< 0.02	N/A	< 0.02	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0228	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Suspended Solids, mg/L (CAS NO - TSS)	11/10/2014	71	9.5	142	N/A	24.8	86.3	190	5	292	10.5	199	5.1	24	N/A	N/A	N/A	10.9	920	< 3	10.7
	2/11/2015	N/A	N/A	N/A	N/A	90	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/4/2015	101	32.6	66.6	44	10.6	11.6	101	12.4	124	14.4	297	45.3	11	N/A	21.1	N/A	15.5	366	7.6	8.2
	6/29/2015	N/A	N/A	146	67	50.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2015	157	16.6	74.9	208	20.1	142	114	6.1	75.3	8.3	834	67.1	132	321	2690	157	8.4	N/A	13.4	9.9
	1/5/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	70.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/5/2016	16.1	7.9	45.6	15	2.9	9.3	159	10.6	30.8	3.4	11.9	3.1	2.8	33	19.8	122	6.5	94.6	22.8	25
	6/29/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	83.9	N/A	47	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2016	22.5	20.5	32.6	31	4.6	6	174	6.4	121	2.9	215	10.9	4	44.7	58.7	168	5.4	14.1	8.3	10.8
	5/16/2017	42	28.2	54.4	25	2.1	13.1	135	4.4	127	12	319	6.5	< 1.9	47.5	35	836	10.4	89.7	79	7.7
	7/19/2017	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	58.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2017	123	7.6	11	N/A	12.4	196	91.3	4.9	50.7	1.9	476	8.7	26.5	24.5	N/A	329	4.2	234	6.1	3.4
	5/14/2018	9.1	47.3	22	32	< 1.9	6	24.1	4.4	44.7	3.3	7	4.8	2.6	25.6	13	13400	5.3	7.1	14.4	18.1
	7/17/2018	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	135	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2018	55.4	28.3	55	12.7	2.6	10.3	35.8	1.9	143	< 1.9	275	15.8	3.6	7.5	17.1	920	5.9	5.6	7.4	7.8
	2/5/2019	N/A	N/A	N/A	38	5	N/A	N/A	N/A	154	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Total Metals Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Total Suspended Solids, mg/L (CAS NO - TSS)	5/15/2019	27.9	35.2	150	38	< 1.9	9.1	14.4	7.2	116	9.1	47.6	5.3	< 1.9	4.9	21.1	836	9.8	< 1.9	6.5	6.6
	7/16/2019	N/A	N/A	N/A	17.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/19/2019	115	111	99.3	12.3	3.4	87.7	93.5	2.6	44.1	5.9	262	48	< 1.9	29	106	420	7.6	3.6	6.4	3.5
	1/30/2020	N/A	N/A	N/A	N/A	< 1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/27/2020	5.7	5	23.9	21.3	< 1.9	3.4	6.1	2.1	19.8	5.9	6.9	3.8	< 1.9	2.1	6.9	45.5	13.1	2.4	31.4	46
	7/22/2020	N/A	N/A	23.4	N/A	< 1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/18/2020	N/A	N/A	N/A	68	6.5	24.3	N/A	8.6	13.3	4.9	28.8	100	29.5	65.4	N/A	N/A	28.4	48.3	N/A	N/A
	2/2/2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2/2/2021	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2021	216	16.3	30.9	77	7.5	93	N/A	3.3	40.2	< 1.9	51.6	39.6	18.8	44.4	N/A	N/A	39.6	14.4	< 5	11.1
	7/21/2021	N/A	N/A	N/A	N/A	N/A	141	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/23/2021	120	11.8	106	70	12.5	23	N/A	5.3	19.4	9	1750	40	253	23.4	N/A	38	3.8	16.1	21	5.4
	1/31/2022	N/A	N/A	19.7	N/A	N/A	N/A	N/A	5.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/23/2022	118	22	141	34.5	4	45.3	52.1	12.1	150	3.4	714	25.4	10.3	20.9	50.3	35.3	5.5	2.8	6.4	2.1
	8/3/2022	N/A	N/A	N/A	N/A	13.5	N/A	N/A	6.4	59.8	N/A	N/A	N/A	N/A	8.3	N/A	N/A	N/A	N/A	N/A	N/A
	11/15/2022	N/A	N/A	N/A	67	23.1	37	N/A	2	48.3	13.1	7.9	232	14.3	82.8	N/A	N/A	15.3	20	N/A	N/A
	5/22/2023	41.3	32.3	50.6	32.3	2.3	14.6	69.3	8.5	52.9	7.6	148	24.5	18.6	20.9	N/A	80.3	9.5	3.6	8.5	7.6
	8/10/2023	N/A	N/A	33.3	N/A	6.4	N/A	N/A	1.9	N/A	N/A	N/A	N/A	N/A	14.1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.3	N/A	N/A	N/A	16.6	N/A	114	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

Denotes Detection.
Denotes Confirmed Outlier. Statistically Excluded.

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

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,1,1,2-Tetrachloroethane, ug/L (CAS NO - 630-20-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane, ug/L (CAS NO - 71-55-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,1,2,2-Tetrachloroethane, ug/L (CAS NO - 79-34-5)	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane, ug/L (CAS NO - 79-00-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	**3.04**	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.47**	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	**2.15**	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	**1.88**	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	**2.49**	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.7**	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.63**	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	**2.56**	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	**2.33**	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	**2.1**	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	**1.85**	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	**1.89**	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.9**	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.21**	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.37**	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.72**	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,1-Dichloroethane, ug/L (CAS NO - 75-34-3)	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**1.96**	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	**3.17**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.44**	< 1	< 1	< 1
	7/17/2018	N/A	N/A	N/A	**2.82**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2018	< 1	< 1	< 1	**2.89**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.17**	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	**4.08**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.15**	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	**4.08**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.87**	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	**3.36**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.57**	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	**3.49**	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**1.42**	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	**3.93**	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**1.78**	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	**3.57**	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**1.51**	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	**3.94**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.58**	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	**4.34**	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**1.49**	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	**5.06**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**2.14**	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethene, ug/L (CAS NO - 75-35-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	5/21/2014	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	5/4/2015	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	N/A	< 2	< 2	< 2	< 2
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2016	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/16/2017	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2017	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	5/14/2018	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2018	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/15/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/19/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/27/2020	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/18/2020	N/A	N/A	N/A	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A
	5/13/2021	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	< 2	< 2
	11/23/2021	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	5/23/2022	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/15/2022	N/A	N/A	N/A	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A
	5/22/2023	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,2,3-Trichloropropane, ug/L (CAS NO - 96-18-4)	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromo-3-Chloropropane, ug/L (CAS NO - 96-12-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromoethane [EDB], ug/L (CAS NO - 106-93-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,2-Dichlorobenzene, ug/L (CAS NO - 95-50-1)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane, ug/L (CAS NO - 107-06-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	**1.42**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	2/11/2015	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	6/29/2015	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,2-Dichloropropane, ug/L (CAS NO - 78-87-5)	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene, ug/L (CAS NO - 106-46-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Butanone, ug/L (CAS NO - 78-93-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
2-Butanone, ug/L (CAS NO - 78-93-3)	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Hexanone, ug/L (CAS NO - 591-78-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Methyl-2-Pentanone, ug/L (CAS NO - 108-10-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acetone, ug/L (CAS NO - 67-64-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**10.8**	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	**43.8**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Acetone, ug/L (CAS NO - 67-64-1)	7/20/2011	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	**11.8**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	7/17/2018	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	**26.7**	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	7/16/2019	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	**35.8**	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	2/2/2021	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2/2/2021	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2021	< 10	< 10	< 10	**10.2**	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	**12.5**	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	**10.2**	**22.2**
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	**10.7**	< 10	< 10	< 10	< 10	**10.6**	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	8/10/2023	N/A	N/A	**12**	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrylonitrile, ug/L (CAS NO - 107-13-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene, ug/L (CAS NO - 71-43-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	< 0.5	N/A	< 0.5	N/A	N/A	N/A
	7/10/2009	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	**1.06**	< 0.5	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	< 0.5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.38**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	**0.93**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.08**	N/A	N/A	N/A	N/A	< 0.5	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.5	N/A	< 0.5	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Benzene, ug/L (CAS NO - 71-43-2)	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.87**	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**0.71**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.5	< 0.5	N/A	N/A	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.5	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A	< 0.5	< 0.5	N/A	N/A	N/A	N/A	N/A	< 0.5	< 0.5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	5/21/2014	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	N/A	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	6/24/2014	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	**1.52**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	5/4/2015	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**0.632**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**2.09**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	6/29/2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.25**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2016	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.39**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/16/2017	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.06**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/7/2017	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	**1**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/14/2018	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/7/2018	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.04**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/15/2019	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 0.5	< 0.5	< 0.5	**0.56**	< 0.5	< 0.5	< 0.5	**0.621**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/18/2020	N/A	N/A	N/A	**0.57**	< 0.5	< 0.5	N/A	**1.08**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A
	5/13/2021	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	< 0.5	< 0.5	< 0.5	< 0.5
	11/23/2021	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	**1.83**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	5/23/2022	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**2.13**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/15/2022	N/A	N/A	N/A	**0.907**	< 0.5	< 0.5	N/A	**1.24**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	N/A	< 0.5	< 0.5	N/A	N/A
	5/22/2023	< 0.5	< 0.5	< 0.5	**0.785**	< 0.5	< 0.5	< 0.5	**1.71**	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	N/A	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3.4**	N/A	N/A	N/A	< 0.5	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3.42**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromochloromethane, ug/L (CAS NO - 74-97-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Bromodichloromethane, ug/L (CAS NO - 75-27-4)	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform, ug/L (CAS NO - 75-25-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromomethane, ug/L (CAS NO - 74-83-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A
	7/10/2009	N/A	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 4	< 4	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 4	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/21/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	6/24/2014	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/4/2015	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	N/A	< 4	< 4	< 4	< 4
	11/10/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/5/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/16/2017	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2017	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/14/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/15/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/19/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/27/2020	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/18/2020	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Bromomethane, ug/L (CAS NO - 74-83-9)	5/13/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	< 4	< 4
	11/23/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/23/2022	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/15/2022	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A
	5/22/2023	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Disulfide, ug/L (CAS NO - 75-15-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	**2.9**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.66**	< 1	< 1	< 1	< 1	< 1	< 1
	7/19/2017	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	**4.76**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	2/5/2019	N/A	N/A	N/A	**5.13**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/15/2019	< 1	< 1	< 1	**1.74**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride, ug/L (CAS NO - 56-23-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	5/21/2014	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	5/4/2015	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	N/A	< 2	< 2	< 2	< 2
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2016	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/16/2017	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2017	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	5/14/2018	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/7/2018	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/15/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/19/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/27/2020	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/18/2020	N/A	N/A	N/A	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A
	5/13/2021	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	< 2	< 2
	11/23/2021	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	5/23/2022	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	11/15/2022	N/A	N/A	N/A	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A
	5/22/2023	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Chlorobenzene, ug/L (CAS NO - 108-90-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorodibromomethane, ug/L (CAS NO - 124-48-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroethane, ug/L (CAS NO - 75-00-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A
	7/10/2009	N/A	< 4	N/A	N/A	N/A	N/A	N/A	**4.34**	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**5.94**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	**5.14**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**7.79**	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**6.54**	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Chloroethane, ug/L (CAS NO - 75-00-3)	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 4	< 4	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 4	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/21/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	6/24/2014	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/4/2015	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	N/A	< 4	< 4	< 4	< 4
	11/10/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/5/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/16/2017	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2017	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/14/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/15/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/19/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/27/2020	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/18/2020	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A
	5/13/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	< 4	< 4
	11/23/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/23/2022	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/15/2022	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A
	5/22/2023	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform, ug/L (CAS NO - 67-66-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/15/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/19/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/27/2020	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/18/2020	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/13/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	< 3	< 3
	11/23/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	5/23/2022	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/15/2022	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/22/2023	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloromethane, ug/L (CAS NO - 74-87-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A
	7/10/2009	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	< 3
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 3	N/A	< 3	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 3	< 3	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 3	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	5/21/2014	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	6/24/2014	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	5/4/2015	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	N/A	< 3	< 3	< 3	< 3
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2016	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Chloromethane, ug/L (CAS NO - 74-87-3)	5/16/2017	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2017	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	5/14/2018	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2018	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/15/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/19/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/27/2020	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/18/2020	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/13/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	< 3	< 3
	11/23/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	5/23/2022	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/15/2022	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/22/2023	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene, ug/L (CAS NO - 156-59-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	**4.35**	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.16**	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	**118**	< 1	< 1	< 1	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**199**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	**115**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	**2.55**	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**190**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	**2.24**	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/13/2011	**1.61**	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	**2.09**	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/20/2011	**2.63**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	**2.22**	N/A	N/A	N/A	N/A	N/A	N/A	**159**	N/A	N/A	N/A	N/A	< 1	N/A	< 1	N/A	**4.08**	N/A	N/A	N/A
	1/11/2012	**1.35**	N/A	N/A	N/A	N/A	N/A	N/A	**91.4**	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**3.67**	N/A	N/A	N/A
	5/9/2012	**3.6**	N/A	N/A	N/A	N/A	N/A	N/A	**67.5**	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	**4.56**	N/A	N/A	N/A
	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**44.2**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	**1.88**	< 1	N/A	N/A	N/A	N/A	< 1	**10.8**	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	**3.92**	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**29**	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	**4.45**	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**24.5**	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	**4.03**	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**151**	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	**4.72**	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**66.6**	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	**3.11**	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**25.3**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.88**	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**9.11**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3.71**	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**13.2**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3.82**	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**10.9**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**3.08**	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**99.5**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**3.06**	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**24.8**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**4.03**	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**70.3**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.68**	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**27.5**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.93**	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**33.5**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.89**	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**43.3**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.51**	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	**44.5**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**3.32**	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	**37.3**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**2.97**	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	**54.9**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**2.54**	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**54.4**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.47**	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	**55.1**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	**2.59**	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**67.8**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	**3.28**	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**125**	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**129**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
cis-1,3-Dichloropropene, ug/L (CAS NO - 10061-01-5)	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene, ug/L (CAS NO - 100-41-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iodomethane, ug/L (CAS NO - 74-88-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 50	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Methylene Bromide, ug/L (CAS NO - 74-95-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methylene Chloride, ug/L (CAS NO - 75-09-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Styrene, ug/L (CAS NO - 100-42-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Styrene, ug/L (CAS NO - 100-42-5)	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene, ug/L (CAS NO - 127-18-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	1.15	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene, ug/L (CAS NO - 108-88-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Toluene, ug/L (CAS NO - 108-88-3)	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,2-Dichloroethene, ug/L (CAS NO - 156-60-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	**1.45**	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.58**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	**1.33**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.83**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.72**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.07**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**1.46**	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**1.18**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	**1.35**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	1/31/2022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.25**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.03**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.22**	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.76**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/21/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	< 5	< 5	< 5	< 5
	5/4/2015	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	N/A	< 5	< 5	< 5	< 5
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2016	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/16/2017	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2017	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/14/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/7/2018	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
trans-1,3-Dichloropropene, ug/L (CAS NO - 10061-02-6)	5/15/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/19/2019	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	5/27/2020	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/18/2020	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/13/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	< 5	< 5
	11/23/2021	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	5/23/2022	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
	11/15/2022	N/A	N/A	N/A	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A
	5/22/2023	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	N/A	< 5	< 5	< 5	< 5	< 5
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
trans-1,4-Dichloro-2-Butene, ug/L (CAS NO - 110-57-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/21/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethene, ug/L (CAS NO - 79-01-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Trichlorofluoromethane, ug/L (CAS NO - 75-69-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A
	7/10/2009	N/A	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 4	< 4	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 4	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/21/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	6/24/2014	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	< 4	< 4	< 4	< 4
	5/4/2015	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	N/A	< 4	< 4	< 4	< 4
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2016	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/16/2017	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2017	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/14/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/7/2018	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/15/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/19/2019	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	5/27/2020	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/18/2020	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A
	5/13/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	< 4	< 4
	11/23/2021	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	5/23/2022	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4
	11/15/2022	N/A	N/A	N/A	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A
	5/22/2023	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	< 4	N/A	< 4	< 4	< 4	< 4	< 4
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Acetate, ug/L (CAS NO - 108-05-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	5/21/2014	< 2	< 2	< 2	N/A	< 2	< 2	< 2	< 2	< 2	N/A	< 2	< 2	< 2	N/A	N/A	N/A	< 2	< 2	< 2	< 2
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	< 10	< 10	< 10	< 10
	5/4/2015	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	N/A	< 10	< 10	< 10	< 10
	11/10/2015	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/5/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2016	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/16/2017	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2017	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/14/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/7/2018	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/15/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/19/2019	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	5/27/2020	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/18/2020	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/13/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	< 10	< 10
	11/23/2021	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	5/23/2022	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
	11/15/2022	N/A	N/A	N/A	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A
	5/22/2023	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	N/A	< 10	< 10	< 10	< 10	< 10
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	**2.32**	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/28/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3.15**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	**2.76**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**3.44**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	10/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**2.29**	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.08**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.09**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Appendix I VOC Constituents	Sample Date	MW-12 DNG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Vinyl Chloride, ug/L (CAS NO - 75-01-4)	11/6/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/21/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**2.47**	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	< 1	< 1	< 1	< 1
	5/4/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.59**	< 1	< 1	< 1	< 1	< 1	N/A	< 1	N/A	< 1	< 1	< 1	< 1
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2016	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/16/2017	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2017	< 1	< 1	< 1	N/A	< 1	< 1	< 1	**2.91**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/14/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/7/2018	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**1.33**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/15/2019	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/19/2019	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
	5/27/2020	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**2.55**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/18/2020	N/A	N/A	N/A	< 1	< 1	< 1	N/A	**2.01**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/13/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	**1.38**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	< 1	< 1
	11/23/2021	< 1	< 1	< 1	< 1	< 1	< 1	N/A	**5.43**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	5/23/2022	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**5.17**	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	11/15/2022	N/A	N/A	N/A	< 1	< 1	< 1	N/A	**3.46**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A
	5/22/2023	< 1	< 1	< 1	< 1	< 1	< 1	< 1	**4.63**	< 1	< 1	< 1	< 1	< 1	< 1	N/A	< 1	< 1	< 1	< 1	< 1
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**7.35**	N/A	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes, total, ug/L (CAS NO - 1330-20-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A
	7/10/2009	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	< 3
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 3	N/A	< 3	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 3	< 3	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 3	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/19/2013	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	5/21/2014	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	6/24/2014	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	< 3	< 3	< 3	< 3
	5/4/2015	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	N/A	< 3	< 3	< 3	< 3
	11/10/2015	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
	5/5/2016	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2016	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/16/2017	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2017	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	5/14/2018	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/7/2018	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/15/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/19/2019	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	5/27/2020	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/18/2020	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/13/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	< 3	< 3
	11/23/2021	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	5/23/2022	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
	11/15/2022	N/A	N/A	N/A	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A
	5/22/2023	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	N/A	< 3	< 3	< 3	< 3	< 3
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A
	11/30/2023	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
M&P-Xylene, ug/L (CAS NO - 179601-23-1)	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
O-Xylene, ug/L (CAS NO - 95-47-6)	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A

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

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

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

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,1-Dichloropropene, ug/L (CAS NO - 563-58-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene, ug/L (CAS NO - 95-94-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
1,2,4-Trichlorobenzene, ug/L (CAS NO - 120-82-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
1,3,5-Trinitrobenzene, ug/L (CAS NO - 99-35-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
1,3-Dichlorobenzene, ug/L (CAS NO - 541-73-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
1,3-Dichloropropane, ug/L (CAS NO - 142-28-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
1,3-Dinitrobenzene, ug/L (CAS NO - 99-65-0)	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
1,4-Naphthoquinone, ug/L (CAS NO - 130-15-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
1,4-Phenylenediamine, ug/L (CAS NO - 106-50-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
1-Naphthylamine, ug/L (CAS NO - 134-32-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,2-Dichloropropane, ug/L (CAS NO - 594-20-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	< 4	N/A	N/A	< 4	N/A	< 4	N/A	N/A	N/A
	7/10/2009	N/A	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 4	< 4	N/A	N/A	N/A	N/A	< 4	< 4	< 4	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 4	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	< 4	< 4
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	< 4	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 4	< 4	< 4	N/A	N/A	< 4	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A
2,3,4,6-Tetrachlorophenol, ug/L (CAS NO - 58-90-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 0.2	N/A	< 0.2	N/A	N/A	N/A
	7/10/2009	N/A	< 0.2	N/A	N/A	N/A	N/A	N/A	< 0.2	< 0.27	< 0.2	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	< 0.2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.5	N/A	< 0.5	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1.02	< 1.02	N/A	N/A	N/A	N/A	< 1.02	< 1.02	< 1.03	< 1.03	< 1.04	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1.02	N/A	< 1.02	< 1.01	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.01

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
2,4,5-T [2C], ug/L (CAS NO - 93-76-5)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1.01	< 1.02	< 1.01	N/A	N/A	< 1	< 1.01	N/A	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.957	< 0.975	< 0.957	N/A	N/A	< 0.962	< 0.958	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.958	N/A	N/A	N/A
2,4,5-TP [Silvex] [2C], ug/L (CAS NO - 93-72-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 0.2	N/A	< 0.2	N/A	N/A	N/A
	7/10/2009	N/A	< 0.2	N/A	N/A	N/A	N/A	N/A	< 0.2	< 0.27	< 0.2	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	< 0.2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.5	N/A	< 0.5	N/A	N/A	< 0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1.02	< 1.02	N/A	N/A	N/A	N/A	< 1.02	< 1.02	< 1.03	< 1.03	< 1.04	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1.02	N/A	< 1.02	< 1.01	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.01
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1.01	< 1.02	< 1.01	N/A	N/A	< 1	< 1.01	N/A	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.957	< 0.975	< 0.957	N/A	N/A	< 0.962	< 0.958	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.958	N/A	N/A	N/A
2,4,5-Trichlorophenol, ug/L (CAS NO - 95-95-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,4,6-Trichlorophenol, ug/L (CAS NO - 88-06-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,4-D [2C], ug/L (CAS NO - 94-75-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.99	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 0.99	N/A	< 0.99	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1.4	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1.02	< 1.02	N/A	N/A	N/A	N/A	< 1.02	< 1.02	< 1.03	< 1.03	< 1.04	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1.02	N/A	< 1.02	< 1.01	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	< 1.01
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.03	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1.01	< 1.02	< 1.01	N/A	N/A	< 1	< 1.01	N/A	< 1.02	N/A	N/A	N/A	N/A	N/A	< 1.01	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.957	< 0.975	< 0.957	N/A	N/A	< 0.962	< 0.958	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.958	N/A	N/A	N/A
2,4-Dichlorophenol, ug/L (CAS NO - 120-83-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,4-Dimethylphenol, ug/L (CAS NO - 105-67-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
2,4-Dinitrophenol, ug/L (CAS NO - 51-28-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	< 20	N/A	N/A	< 20	N/A	< 20	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 20	N/A	< 20	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 20	< 20	N/A	N/A	N/A	N/A	< 20.2	< 20.2	< 20	< 20	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 20	N/A	< 20	< 20	N/A	N/A	N/A	N/A	N/A	< 20.2	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 20.2	< 20.2	< 20.2	N/A	N/A	< 20.2	< 20.2	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 75.5	< 85.1	< 75.5	N/A	N/A	< 75.5	< 75.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 74.1	N/A	N/A	N/A
2,4-Dinitrotoluene, ug/L (CAS NO - 121-14-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,6-Dichlorophenol, ug/L (CAS NO - 87-65-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2,6-Dinitrotoluene, ug/L (CAS NO - 606-20-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Acetylaminofluorene, ug/L (CAS NO - 53-96-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Chloronaphthalene, ug/L (CAS NO - 91-58-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
2-Chlorophenol, ug/L (CAS NO - 95-57-8)	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Methylnaphthalene, ug/L (CAS NO - 91-57-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Methylphenol, ug/L (CAS NO - 95-48-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Naphthylamine, ug/L (CAS NO - 91-59-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Nitroaniline, ug/L (CAS NO - 88-74-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
2-Nitrophenol, ug/L (CAS NO - 88-75-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 85	N/A	N/A	N/A	N/A	< 85	N/A	N/A	< 85	N/A	< 85	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 50	< 50	N/A	N/A	N/A	N/A	< 50.5	< 50.5	< 50	< 50	< 50.5	N/A	N/A	N/A	N/A	N/A	< 50	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 50	N/A	< 50	< 50	N/A	N/A	N/A	N/A	N/A	< 50.5	< 50	N/A	N/A	N/A	N/A	N/A	< 50	< 50

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
3,3-Dichlorobenzidine, ug/L (CAS NO - 91-94-1)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 50	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 50	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
3,3-Dimethylbenzidine, ug/L (CAS NO - 119-93-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	< 20	N/A	N/A	< 20	N/A	< 20	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
3/4-Methylphenol, ug/L (CAS NO - T-34MP)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
3-Chloropropene, ug/L (CAS NO - 107-05-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
3-Methylcholanthrene, ug/L (CAS NO - 56-49-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
3-Nitroaniline, ug/L (CAS NO - 99-09-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4,4`-DDD, ug/L (CAS NO - 72-54-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
4,4`-DDD, ug/L (CAS NO - 72-54-8)	5/22/2023	N/A	N/A	< 0.0604	0.135	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
	8/10/2023	N/A	N/A	N/A	< 0.0604	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4`-DDE, ug/L (CAS NO - 72-55-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
4,4`-DDT, ug/L (CAS NO - 50-29-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
4,6-Dinitro-2-methylphenol, ug/L (CAS NO - 534-52-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Aminobiphenyl, ug/L (CAS NO - 92-67-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	< 20	N/A	N/A	< 20	N/A	< 20	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Bromophenyl phenyl ether, ug/L (CAS NO - 101-55-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Chloro-3-methylphenol, ug/L (CAS NO - 59-50-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
4-Chloroaniline, ug/L (CAS NO - 106-47-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Chlorophenyl phenyl ether, ug/L (CAS NO - 7005-72-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Nitroaniline, ug/L (CAS NO - 100-01-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
4-Nitrophenol, ug/L (CAS NO - 100-02-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
5-Nitro-o-toluidine, ug/L (CAS NO - 99-55-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
7,12-Dimethylbenz [a] anthracene, ug/L (CAS NO - 57-97-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Acenaphthene, ug/L (CAS NO - 83-32-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Acenaphthene, ug/L (CAS NO - 83-32-9)	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Acenaphthylene, ug/L (CAS NO - 208-96-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Acetonitrile, ug/L (CAS NO - 75-05-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	< 10000	N/A	< 10000	N/A	N/A	N/A
	7/10/2009	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10000	N/A	< 10000	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10000	< 10000	N/A	N/A	N/A	N/A	< 10000	< 10000	< 10000	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10000	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10000	< 10000	< 10000	N/A	N/A	< 10000	< 10000	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10000	< 10000	< 10000	N/A	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
Acetophenone, ug/L (CAS NO - 98-86-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Acrolein, ug/L (CAS NO - 107-02-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
Aldrin, ug/L (CAS NO - 309-00-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Anthracene, ug/L (CAS NO - 120-12-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Anthracene, ug/L (CAS NO - 120-12-7)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzo [a] anthracene, ug/L (CAS NO - 56-55-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzo [a] pyrene, ug/L (CAS NO - 50-32-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzo [b] fluoranthene, ug/L (CAS NO - 205-99-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzo [g,h,i] perylene, ug/L (CAS NO - 191-24-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzo [k] fluoranthene, ug/L (CAS NO - 207-08-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Benzyl alcohol, ug/L (CAS NO - 100-51-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Alpha-BHC, ug/L (CAS NO - 319-84-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Beta-BHC, ug/L (CAS NO - 319-85-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Delta-BHC, ug/L (CAS NO - 319-86-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Gamma-BHC [Lindane], ug/L (CAS NO - 58-89-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Bis[2-chloroethoxy]methane, ug/L (CAS NO - 111-91-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Bis[2-chloroethyl]ether, ug/L (CAS NO - 111-44-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Bis[2-chloroisopropyl]ether, ug/L (CAS NO - 108-60-1)	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Bis[2-ethylhexyl]phthalate, ug/L (CAS NO - 117-81-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 6.06	< 6.06	< 6.06	N/A	N/A	< 6.06	< 6.06	N/A	< 6.06	N/A	N/A	N/A	N/A	N/A	< 6.06	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 22.6	< 25.5	< 22.6	N/A	N/A	< 22.6	< 22.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 22.2	N/A	N/A	N/A
Butyl benzyl phthalate, ug/L (CAS NO - 85-68-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Chlordane, ug/L (CAS NO - 57-74-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2.02	< 20.2	< 2.02	N/A	N/A	< 2.02	< 2.02	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1.89	< 1.85	< 1.85	N/A	N/A	< 1.85	< 1.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.85	N/A	N/A	N/A
Chlorobenzilate, ug/L (CAS NO - 510-15-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Chloroprene, ug/L (CAS NO - 126-99-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1	< 1	< 1	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
Chrysene, ug/L (CAS NO - 218-01-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Chrysene, ug/L (CAS NO - 218-01-9)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Cyanide, ug/L (CAS NO - 57-12-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	**13.1**	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
Diallate [cis or trans], ug/L (CAS NO - 2303-16-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dibenz [a,h] anthracene, ug/L (CAS NO - 53-70-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dibenzofuran, ug/L (CAS NO - 132-64-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dichlorodifluoromethane, ug/L (CAS NO - 75-71-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	< 3	N/A	N/A	< 3	N/A	**3.51**	N/A	N/A	N/A
	5/4/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	7/10/2009	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	< 3
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A
	7/28/2010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A
	1/13/2011	< 3	N/A	< 3	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	10/26/2011	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	< 3	N/A	N/A	N/A
	1/11/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/9/2012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/13/2013	< 3	< 3	N/A	N/A	N/A	N/A	< 3	< 3	< 3	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 3	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	< 3	< 3
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A
	11/19/2013	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/21/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	11/10/2014	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	< 3	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 3	< 3	< 3	N/A	N/A	< 3	< 3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 3	N/A	N/A	N/A
Dieldrin, ug/L (CAS NO - 60-57-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Dieldrin, ug/L (CAS NO - 60-57-1)	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Diethyl phthalate, ug/L (CAS NO - 84-66-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dimethoate, ug/L (CAS NO - 60-51-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dimethyl phthalate, ug/L (CAS NO - 131-11-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Dimethylaminoazobenzene, ug/L (CAS NO - 60-11-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Di-n-butyl phthalate, ug/L (CAS NO - 84-74-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 20	< 20	N/A	N/A	N/A	N/A	< 20.2	< 20.2	< 20	< 20	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 20	N/A	< 20	< 20	N/A	N/A	N/A	N/A	N/A	< 20.2	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Di-n-octyl phthalate, ug/L (CAS NO - 117-84-0)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 20.2	< 20.2	< 20.2	N/A	N/A	< 20.2	< 20.2	N/A	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20.2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 75.5	< 85.1	< 75.5	N/A	N/A	< 75.5	< 75.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 74.1	N/A	N/A	N/A
Dinoseb, ug/L (CAS NO - 88-85-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Diphenylamine, ug/L (CAS NO - 122-39-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Disulfoton, ug/L (CAS NO - 298-04-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 70	N/A	N/A	N/A	N/A	< 70	N/A	N/A	< 70	N/A	< 70	N/A	N/A	N/A
	7/10/2009	N/A	< 70	N/A	N/A	N/A	N/A	N/A	< 70	< 70	< 70	< 70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 70	< 70
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Endosulfan I, ug/L (CAS NO - 959-98-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Endosulfan II, ug/L (CAS NO - 33213-65-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Endosulfan sulfate, ug/L (CAS NO - 1031-07-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Endrin, ug/L (CAS NO - 72-20-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Endrin aldehyde, ug/L (CAS NO - 7421-93-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Ethyl Methacrylate, ug/L (CAS NO - 97-63-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
Ethyl Methanesulfonate, ug/L (CAS NO - 62-50-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Famphur, ug/L (CAS NO - 52-85-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	< 20	N/A	N/A	< 20	N/A	< 20	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 20	N/A	< 20	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 20	< 20	N/A	N/A	N/A	N/A	< 20.2	< 20.2	< 20	< 20	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 20	N/A	< 20	< 20	N/A	N/A	N/A	N/A	N/A	< 20.2	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Fluoranthene, ug/L (CAS NO - 206-44-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Fluorene, ug/L (CAS NO - 86-73-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Fluorene, ug/L (CAS NO - 86-73-7)	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Heptachlor, ug/L (CAS NO - 76-44-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Heptachlor Epoxide, ug/L (CAS NO - 1024-57-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Hexachlorobenzene, ug/L (CAS NO - 118-74-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Hexachlorobutadiene, ug/L (CAS NO - 87-68-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Hexachlorocyclopentadiene, ug/L (CAS NO - 77-47-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 20	< 20	N/A	N/A	N/A	N/A	< 20.2	< 20.2	< 20	< 20	< 20.2	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 20	N/A	< 20	< 20	N/A	N/A	N/A	N/A	N/A	< 20.2	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Hexachloroethane, ug/L (CAS NO - 67-72-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Hexachloroethane, ug/L (CAS NO - 67-72-1)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Hexachloropropene, ug/L (CAS NO - 1888-71-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Indeno [1,2,3-cd] pyrene, ug/L (CAS NO - 193-39-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Isobutanol, ug/L (CAS NO - 78-83-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	< 10000	N/A	< 10000	N/A	N/A	N/A
	7/10/2009	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10000	N/A	< 10000	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10000	< 10000	N/A	N/A	N/A	N/A	< 10000	< 10000	< 10000	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10000	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	< 10000
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10000	< 10000	< 10000	N/A	N/A	< 10000	< 10000	N/A	< 10000	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10000	< 10000	< 10000	N/A	N/A	< 10000	< 10000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10000	N/A	N/A	N/A
Isodrin, ug/L (CAS NO - 465-73-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Isophorone, ug/L (CAS NO - 78-59-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Isosafrole, ug/L (CAS NO - 120-58-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Kepone, ug/L (CAS NO - 143-50-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Methacrylonitrile, ug/L (CAS NO - 126-98-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	< 1	N/A	N/A	< 1	N/A	< 1	N/A	N/A	N/A
	7/10/2009	N/A	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1	N/A	< 1	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1	< 1	N/A	N/A	N/A	N/A	< 1	< 1	< 1	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1	N/A	N/A	N/A	N/A	N/A	< 1	< 1
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
Methapyrilene, ug/L (CAS NO - 91-80-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Methoxychlor, ug/L (CAS NO - 72-43-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	< 0.032	N/A	< 0.032	N/A	N/A	N/A
	7/10/2009	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.032	N/A	< 0.032	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.032	< 0.032	N/A	N/A	N/A	N/A	< 0.032	< 0.032	< 0.032	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.032	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032	N/A	N/A	N/A	N/A	N/A	< 0.032	< 0.032
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.0323	< 0.323	< 0.0323	N/A	N/A	< 0.0323	< 0.0323	N/A	< 0.0323	N/A	N/A	N/A	N/A	N/A	< 0.0323	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.0604	< 0.0593	< 0.0593	N/A	N/A	< 0.0593	< 0.0593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.0593	N/A	N/A	N/A
Methyl Methacrylate, ug/L (CAS NO - 80-62-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 4	N/A	< 4	N/A	N/A	< 4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 2	< 2	< 2	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
Methyl Methanesulfonate, ug/L (CAS NO - 66-27-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Naphthalene, ug/L (CAS NO - 91-20-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	< 5	N/A	N/A	< 5	N/A	< 5	N/A	N/A	N/A
	7/10/2009	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Naphthalene, ug/L (CAS NO - 91-20-3)	1/13/2011	< 5	N/A	< 5	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 5	< 5	N/A	N/A	N/A	N/A	< 5	< 5	< 5	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 5	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	< 5	< 5
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	< 5	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 5	< 5	< 5	N/A	N/A	< 5	< 5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 5	N/A	N/A	N/A
Nitrobenzene, ug/L (CAS NO - 98-95-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosodiethylamine, ug/L (CAS NO - 55-18-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosodimethylamine, ug/L (CAS NO - 62-75-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosodi-n-butylamine, ug/L (CAS NO - 924-16-3)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosodi-n-propylamine, ug/L (CAS NO - 621-64-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
N-Nitrosodiphenylamine, ug/L (CAS NO - 86-30-6)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosomethylethylamine, ug/L (CAS NO - 10595-95-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosopiperidine, ug/L (CAS NO - 100-75-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
N-Nitrosopyrrolidine, ug/L (CAS NO - 930-55-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
O,O,O-Triethyl Phosphorothioate, ug/L (CAS NO - 126-68-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 30	N/A	N/A	N/A	N/A	< 30	N/A	N/A	< 30	N/A	< 30	N/A	N/A	N/A
	7/10/2009	N/A	< 30	N/A	N/A	N/A	N/A	N/A	< 30	< 30	< 30	< 30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 30	< 30
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
O-Toluidine, ug/L (CAS NO - 95-53-4)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Parathion-Ethyl, ug/L (CAS NO - 56-38-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Parathion-Methyl, ug/L (CAS NO - 298-00-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
PCB-1016, ug/L (CAS NO - 12674-11-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1221, ug/L (CAS NO - 11104-28-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1232, ug/L (CAS NO - 11141-16-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1242, ug/L (CAS NO - 53469-21-9)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1248, ug/L (CAS NO - 12672-29-6)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1254, ug/L (CAS NO - 11097-69-1)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
PCB-1254, ug/L (CAS NO - 11097-69-1)	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
PCB-1260, ug/L (CAS NO - 11096-82-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	< 0.8	N/A	< 0.8	N/A	N/A	N/A
	7/10/2009	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 0.8	N/A	< 0.8	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 0.8	< 0.8	N/A	N/A	N/A	N/A	< 0.8	< 0.8	< 0.808	< 0.808	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 0.808	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8	N/A	N/A	N/A	N/A	N/A	< 0.8	< 0.8
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 0.808	< 0.816	< 0.808	N/A	N/A	< 0.825	< 0.833	N/A	< 0.816	N/A	N/A	N/A	N/A	N/A	< 0.816	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 0.755	< 0.741	< 0.741	N/A	N/A	< 0.741	< 0.741	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 0.741	N/A	N/A	N/A
Pentachlorobenzene, ug/L (CAS NO - 608-93-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Pentachloronitrobenzene, ug/L (CAS NO - 82-68-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Pentachlorophenol [2C], ug/L (CAS NO - 87-86-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Phenacetin, ug/L (CAS NO - 62-44-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Phenanthrene, ug/L (CAS NO - 85-01-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Phenanthrene, ug/L (CAS NO - 85-01-8)	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Phenol, ug/L (CAS NO - 108-95-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 20	N/A	N/A	N/A	N/A	< 20	N/A	N/A	< 20	N/A	< 20	N/A	N/A	N/A
	7/10/2009	N/A	< 20	N/A	N/A	N/A	N/A	N/A	< 20	< 20	< 20	< 20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 20	< 20
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Phorate, ug/L (CAS NO - 298-02-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 60	N/A	N/A	N/A	N/A	< 60	N/A	N/A	< 60	N/A	< 60	N/A	N/A	N/A
	7/10/2009	N/A	< 60	N/A	N/A	N/A	N/A	N/A	< 60	< 60	< 60	< 60	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 60	< 60
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Pronamide, ug/L (CAS NO - 23950-58-5)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Propionitrile, ug/L (CAS NO - 107-12-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 10	< 10	< 10	N/A	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
Pyrene, ug/L (CAS NO - 129-00-0)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Safrole, ug/L (CAS NO - 94-59-7)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A

SCS ENGINEERS

Summary of Groundwater Chemistry

Kossuth County Sanitary Landfill - 55-SDP-01-75C

Other Constituents	Sample Date	MW-12 UPG	MW-17 DNG	MW-18 DNG	MW-19 DNG	MW-20 DNG	MW-21 DNG	MW-22A UPG	MW-22B DNG	MW-23 DNG	MW-24A DNG	MW-25 DNG	MW-26 DNG	MW-27 UPG	MW-28 DNG	MWPz-8A UPG	MWPz-8B2 UPG	MWPz-16A DNG	MWPz-16B DNG	SW-1 UPG	SW-2 DNG
Sulfide, ug/L (CAS NO - 18496-25-8)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 5000	N/A	N/A	N/A	N/A	< 5000	N/A	N/A	< 5000	N/A	< 5000	N/A	N/A	N/A
	7/10/2009	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	< 1000	< 1000	< 1000	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1000	< 1000
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 1000	N/A	< 1000	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 1000	< 1000	N/A	N/A	N/A	N/A	< 1000	< 1000	< 1000	< 1000	< 1000	N/A	N/A	N/A	N/A	N/A	< 1000	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 1000	N/A	< 1000	< 1000	N/A	N/A	N/A	N/A	N/A	< 1000	< 1000	N/A	N/A	N/A	N/A	N/A	< 1000	< 1000
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	**6080**	**3760**	< 1000	N/A	N/A	**1200**	**1250**	N/A	< 1000	N/A	N/A	N/A	N/A	N/A	**4420**	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1000	< 1000	< 1000	N/A	N/A	< 1000	< 1000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1000	N/A	N/A	N/A
Thionazin, ug/L (CAS NO - 297-97-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	< 10	N/A	N/A	< 10	N/A	< 10	N/A	N/A	N/A
	7/10/2009	N/A	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10	< 10	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 10	N/A	< 10	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 10	< 10	N/A	N/A	N/A	N/A	< 10.1	< 10.1	< 10	< 10	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 10	N/A	< 10	< 10	N/A	N/A	N/A	N/A	N/A	< 10.1	< 10	N/A	N/A	N/A	N/A	N/A	< 10	< 10
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 10.1	< 10.1	< 10.1	N/A	N/A	< 10.1	< 10.1	N/A	< 10.1	N/A	N/A	N/A	N/A	N/A	< 10.1	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 37.7	< 42.6	< 37.7	N/A	N/A	< 37.7	< 37.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 37	N/A	N/A	N/A
Toxaphene, ug/L (CAS NO - 8001-35-2)	3/17/2009	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	< 2	N/A	N/A	< 2	N/A	< 2	N/A	N/A	N/A
	7/10/2009	N/A	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	10/27/2009	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2010	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	1/13/2011	< 2	N/A	< 2	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	4/28/2011	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/13/2013	< 2	< 2	N/A	N/A	N/A	N/A	< 2	< 2	< 2	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A
	5/14/2013	N/A	N/A	< 2	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2	N/A	N/A	N/A	N/A	N/A	< 2	< 2
	7/23/2013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A
	6/24/2014	N/A	N/A	N/A	< 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	5/14/2018	N/A	N/A	< 2.02	< 20.2	< 2.02	N/A	N/A	< 2.02	< 2.02	N/A	< 2.02	N/A	N/A	N/A	N/A	N/A	< 2.02	N/A	N/A	N/A
	5/22/2023	N/A	N/A	< 1.89	< 1.85	< 1.85	N/A	N/A	< 1.85	< 1.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	< 1.85	N/A	N/A	N/A

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

Denotes Detection.

Denotes Confirmed Outlier. Statistically Excluded.

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

Appendix 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 Kossuth County Sanitary Landfill (Landfill).

Diagnostic and Exploratory Evaluations and Tests of Assumptions

The detection and assessment/corrective action monitoring statistical programs include diagnostic and exploratory evaluations and statistical tests of assumptions, as appropriate, including the following:

- Time Series Plots
- Shapiro-Wilk test for normality
- Ohio Environmental Protection Agency (EPA) Method for identification of outliers
- Mann-Kendall/Sen's Slope trend test

Management of Non-Detect Data

Non-detect values in the dataset are managed using simple substitution or the Kaplan-Meier estimator. If less than 15% of the data are non-detects, simple substitution is used, where non-detect values are assigned a concentration of one-half (½) of the practical quantification limit (PQL). If greater than 15% but less than 50% of the data are non-detects, the Kaplan-Meier estimator is used to define the distribution for the dataset. If non-detects comprise greater than 50% of the available data, non-parametric statistical methods are used.

Management of Outliers

Background datasets are evaluated for outliers using the Ohio EPA Method as included in the Sanitas™ statistical software program and described below, which includes the use of Dixon's, Rosner's, and Tukey's outlier tests, as appropriate based on the diagnostic tests, for the datasets that contain less than 75% of the measured concentrations below the PQL. Outliers are not confirmed unless a physical cause or explanation for the outlier is determined.

Management of Data (ND data < 75%)

If less than 75% of the background dataset is below the PQL, outliers are statistically evaluated using the following guidelines.

- A parametric dataset with $n < 20$ is evaluated with the Dixon's outlier test.
- A parametric dataset with $n \geq 20$ is evaluated with the Rosner's outlier test.
- A non-parametric dataset is evaluated with the Tukey's outlier test.

In accordance with the Ohio EPA Method, if a statistically significant outlier is not found using the above tests, but the highest value data point exceeds the second highest data point by an order of magnitude, the highest point is considered an outlier.

Management of Data (ND data ≥ 75%)

If greater than or equal to 75% of the background dataset is less than the PQL, outliers are statistically evaluated using the following guidelines.

- Single detection ≥ the PQL:
  - If ≥ 50% of the background dataset has detections ≥ the method detection limit (MDL), any value ≥ two times the PQL of background is considered an outlier.
  - If < 50% of the background dataset has detections ≥ the MDL, any value ≥ the PQL of background is considered an outlier.
- Two or more detections ≥ the PQL:
  - If ≥ 50% of the background dataset has detections ≥ the MDL, any value ≥ three times the PQL of background is considered an outlier.
  - If < 50% of the background dataset has detections ≥ the MDL, any value ≥ two times the PQL of background is considered an outlier.

Confirmed outliers, if any, are shown in the Summary of Groundwater Chemistry included in the Annual Water Quality Report.

Detection Monitoring Statistical Program

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 methods for the determination of statistically significant increases (SSIs) over background for inorganic constituents with historical detections in background. Prediction limits are established using the process below. Data from the most recent sampling event is compared to the prediction limits for the determination of SSIs.

Interwell Prediction Limits with Retesting

- If the dataset has a normal distribution (or can be transformed to a normal distribution using Ladder of Powers), parametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If the dataset does not have a normal distribution (and cannot be transformed to a normal distribution using Ladder of Powers) or has greater than 50% non-detects, nonparametric interwell prediction limits are calculated if at least five datasets have been collected from the background monitoring point(s).
- If an SSI above the prediction limit is indicated, retesting samples using the 1-of-2 retesting scheme are collected prior to the next regularly scheduled sampling event with temporal sample spacing consideration to provide samples with greater independence. If the retesting result is above the prediction limit, the SSI is confirmed, and the monitoring point is placed into the assessment monitoring program. If the retesting sample concentration is below the prediction limit, the SSI is not confirmed, and the monitoring point continues in the detection monitoring program.

Double Quantification Rule

The quasi-statistical "double quantification" rule is used for constituents not detected in the associated background data set. If a constituent is detected in the compliance dataset that has not been historically detected in the background dataset, that constituent must be retested before the next regularly scheduled sampling event. If the retesting results confirm the original detection with a quantifiable detection, the SSI is confirmed, and the monitoring point must be placed into the assessment monitoring program.

Assessment Monitoring/Corrective Action Statistical Program

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/corrective action monitoring statistical evaluations are performed using the most recent eight samples or all samples if less than eight samples are

available. The confidence intervals or confidence bands used for the assessment/corrective action monitoring statistical evaluation are established using the process below. Transformation of the distribution is not considered.

Confidence Intervals or Confidence Bands

- A parametric confidence interval around a normal mean is calculated if the dataset has a normal distribution and no statistically significant trend is present.
- A non-parametric confidence interval around a median is calculated if the dataset does not have a normal distribution and no statistically significant trend is present.
- Non-parametric confidence bands around a Theil-Sen trend line are calculated if the dataset has a statistically significant trend.

If the lower confidence limit or any part of the lower confidence band, as appropriate, exceeds the GWPS, then the monitoring point is declared out of compliance, and an assessment of corrective measures (ACM) is required. An ACM dated July 17, 2014 (Doc #80880) and an addendum dated December 23, 2014 (Doc #82187) were approved in correspondence dated April 22, 2015 (Doc #83119).

Statistical Software Output

The 1st 2023 statistical evaluation was submitted on June 28, 2023 (Doc #107107) as prepared by MER Engineering Inc..

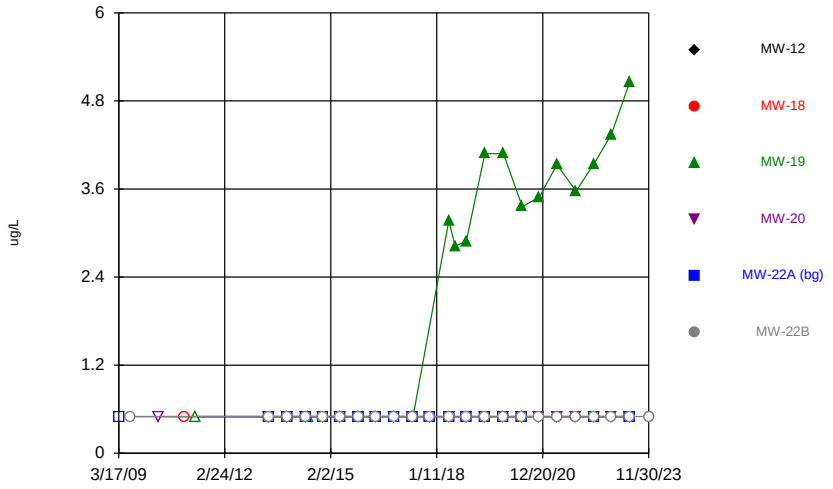
Sanitas™ statistical software was used to prepare the 2nd 2023 statistical evaluation. Statistical output including summary tables and graphs are attached.

Attachment A

Time Series Plots

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

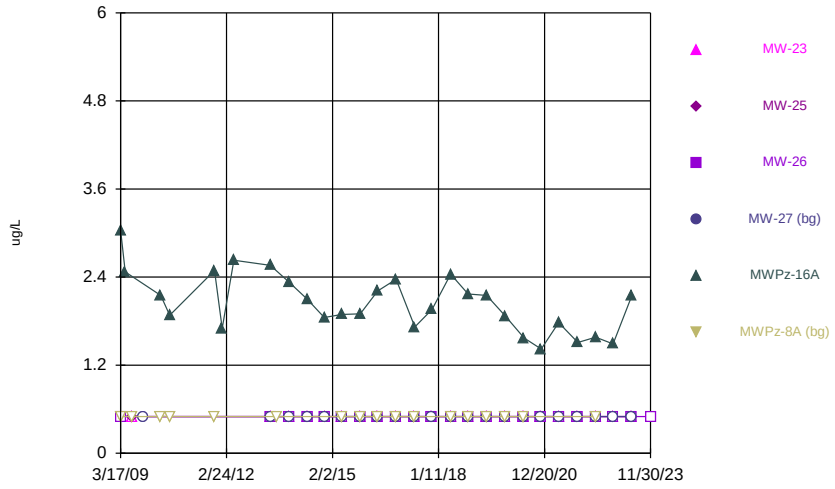
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

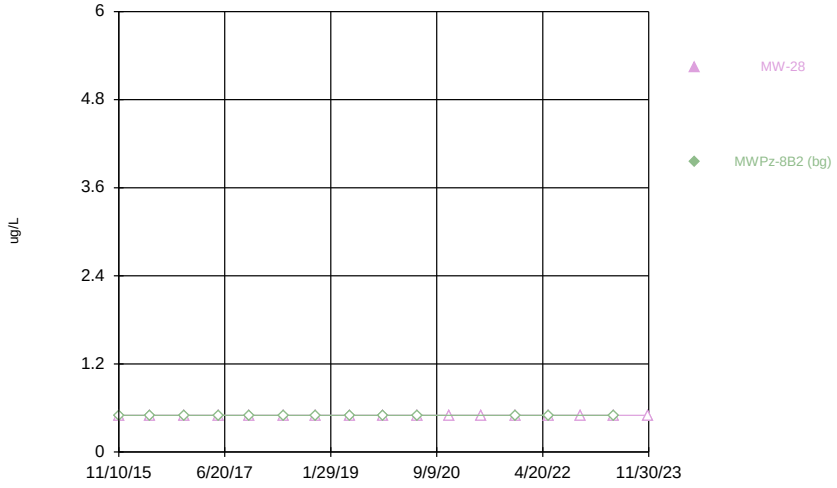
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

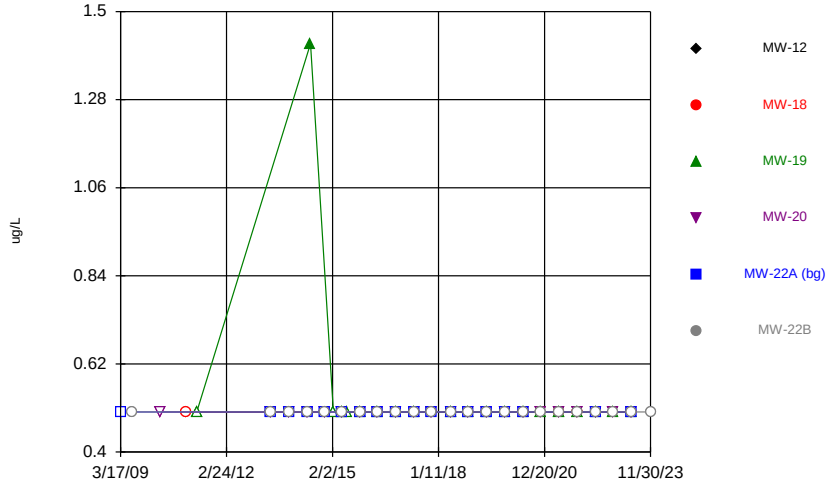
Time Series



Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

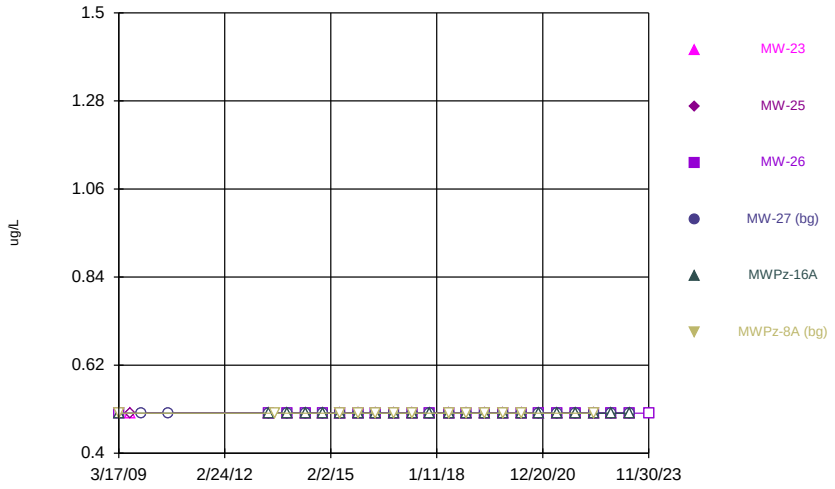
Time Series



Constituent: 1,2-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

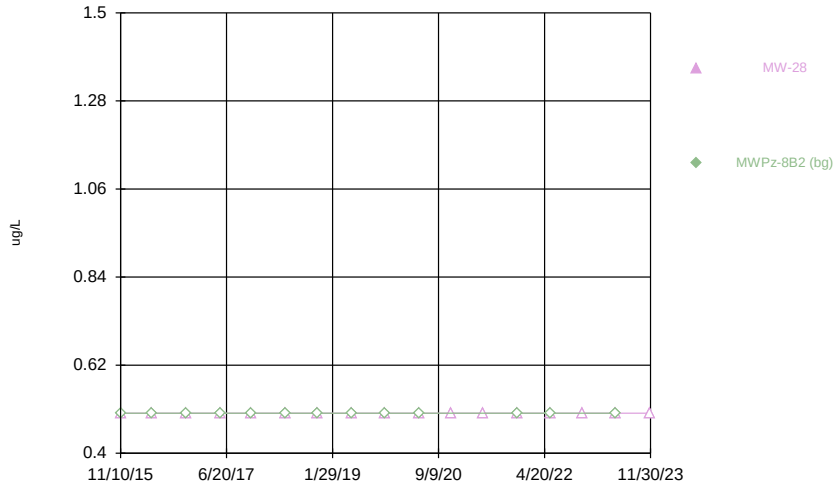
Time Series



Constituent: 1,2-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

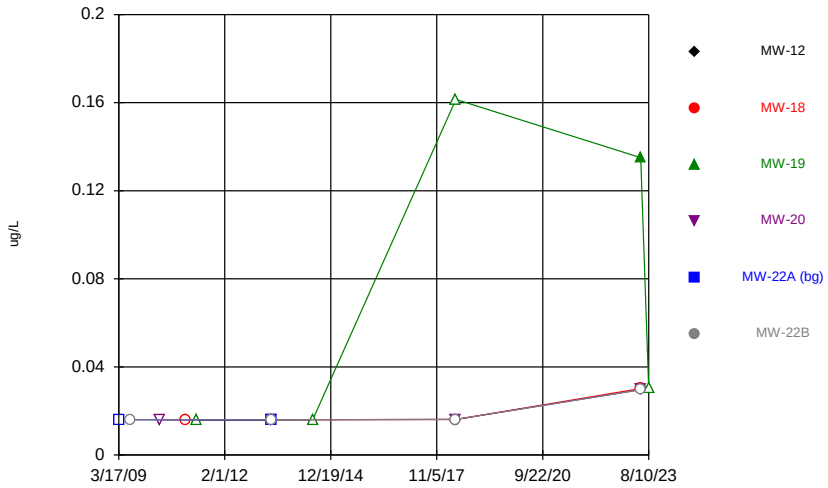
Time Series



Constituent: 1,2-Dichloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

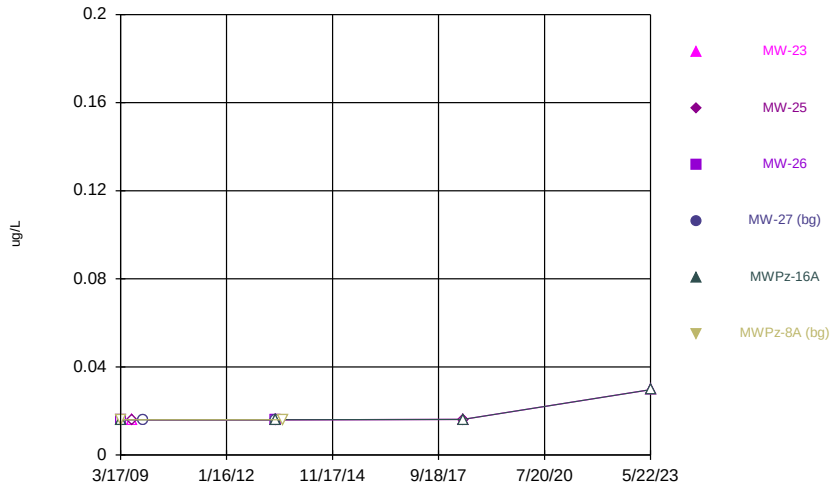
Time Series



Constituent: 4,4`-DDD Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

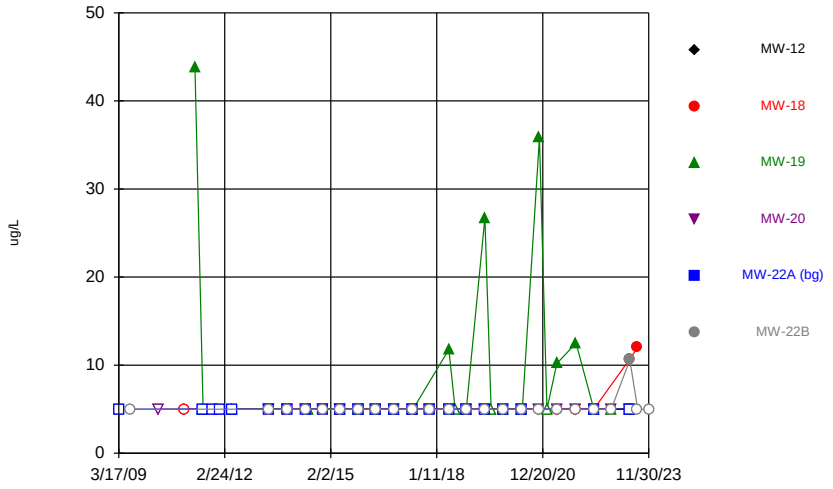
Time Series



Constituent: 4,4`-DDD Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

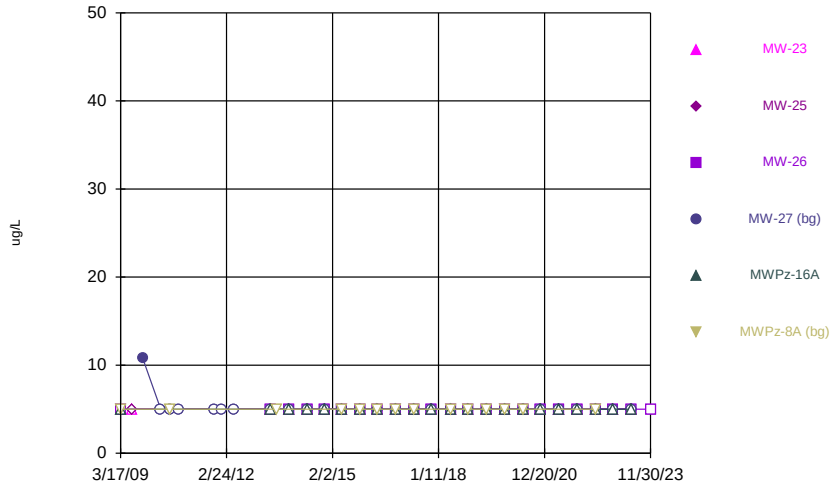
Time Series



Constituent: Acetone Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

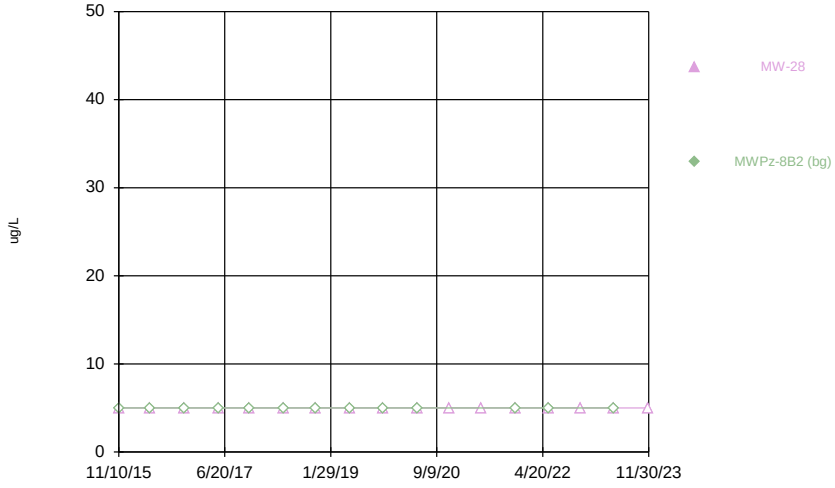
Time Series



Constituent: Acetone Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

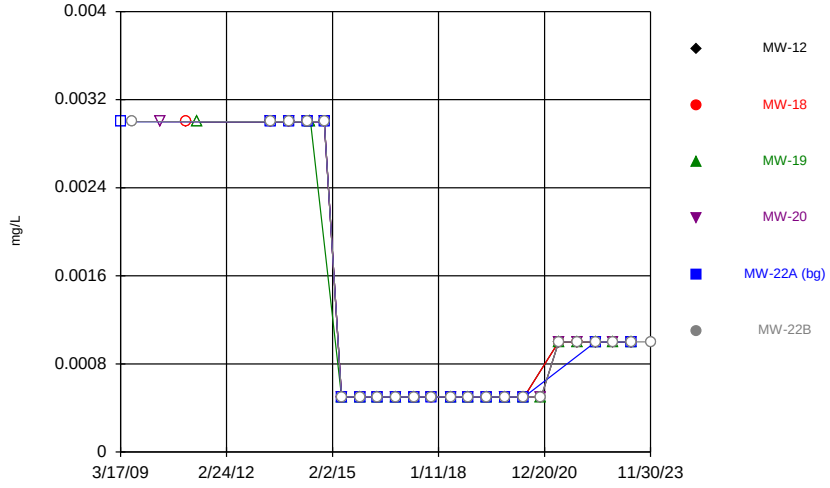
Time Series



Constituent: Acetone Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

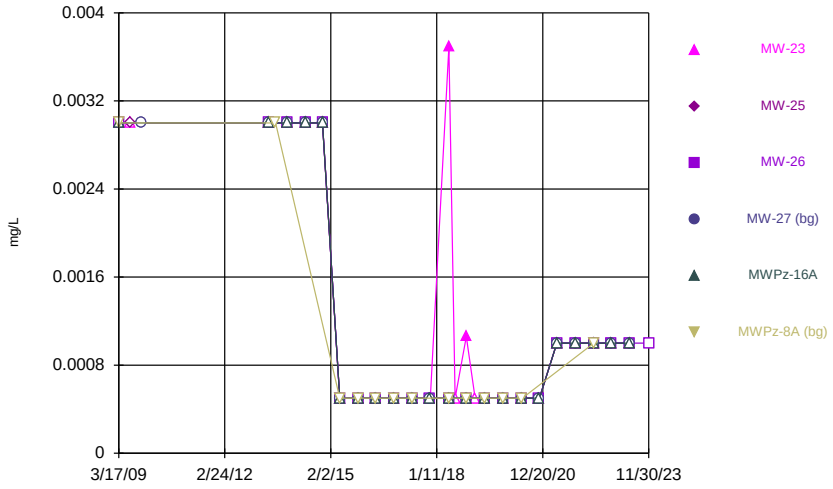
Time Series



Constituent: Antimony Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

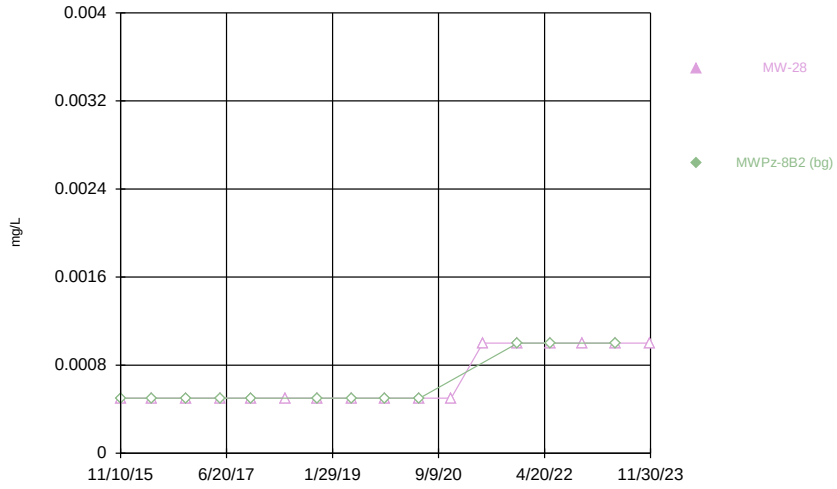
Time Series



Constituent: Antimony Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

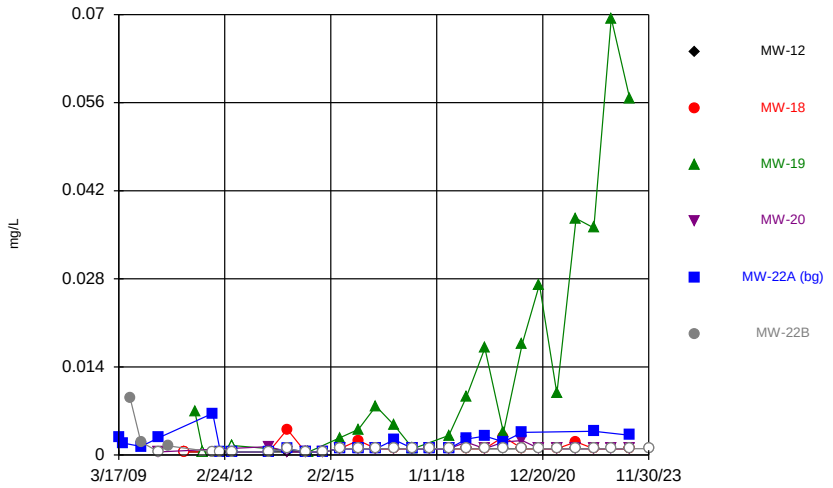
Time Series



Constituent: Antimony Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

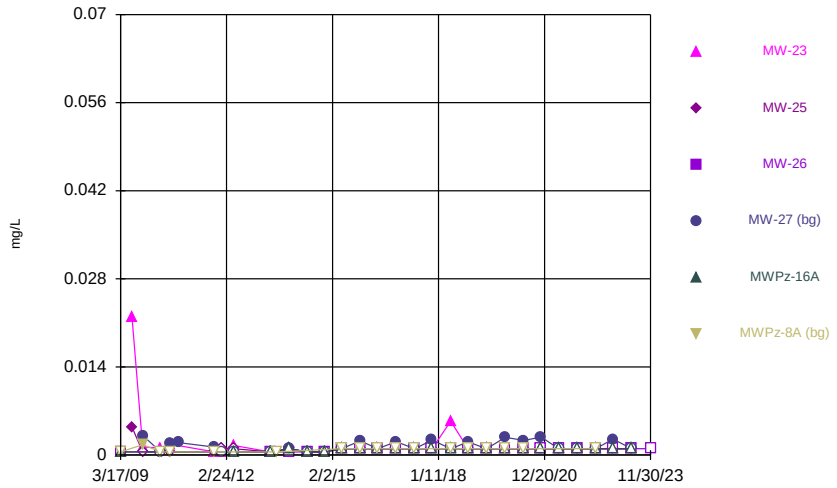
Time Series



Constituent: Arsenic Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

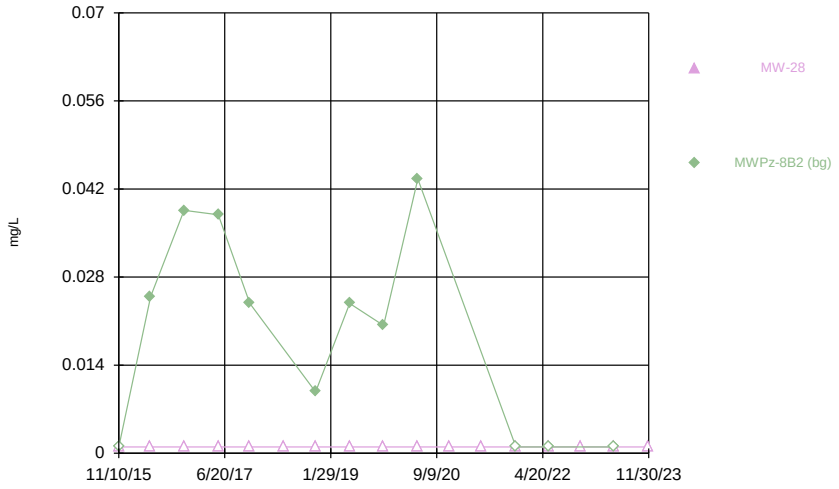
Time Series



Constituent: Arsenic Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

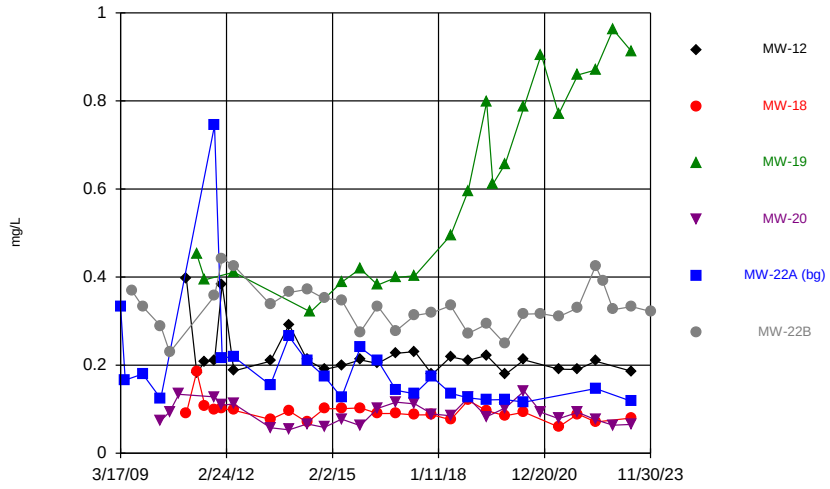
Time Series



Constituent: Arsenic Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

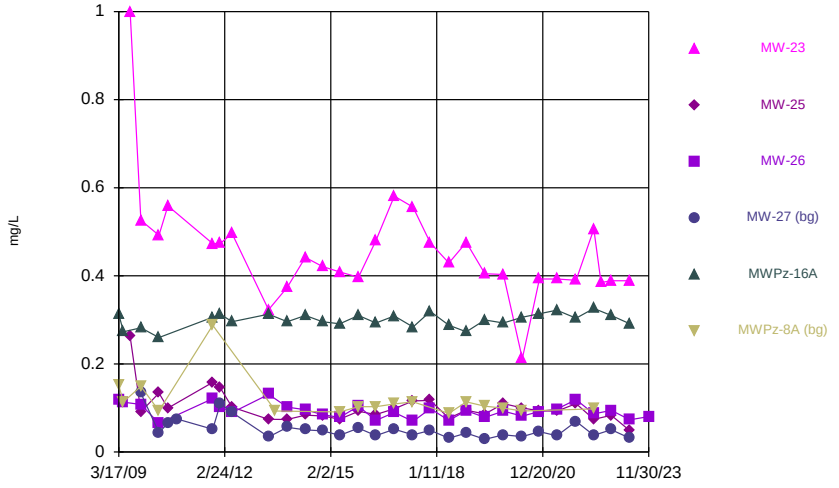
Time Series



Constituent: Barium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

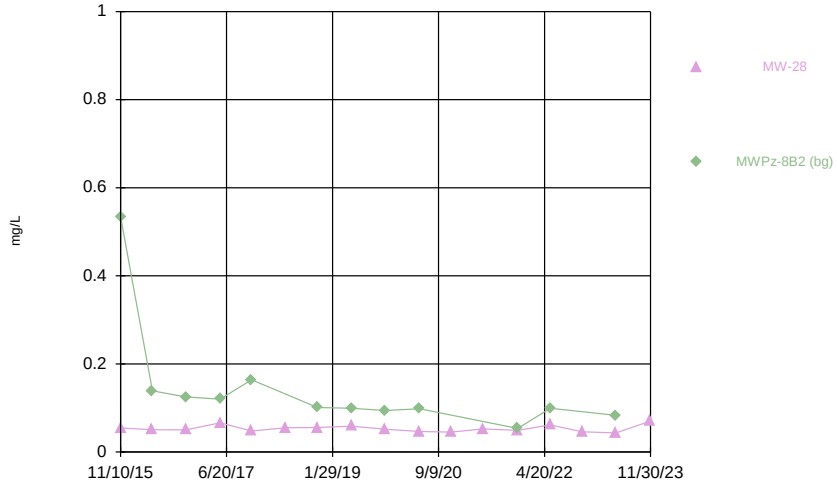
Time Series



Constituent: Barium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

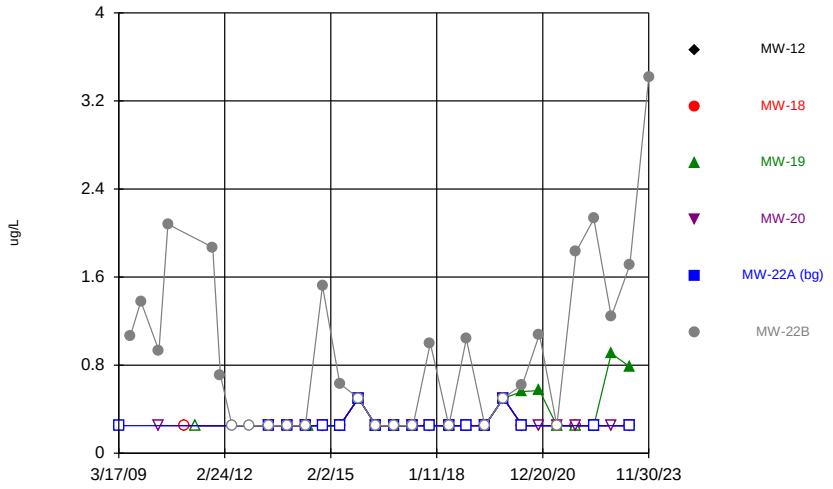
Time Series



Constituent: Barium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

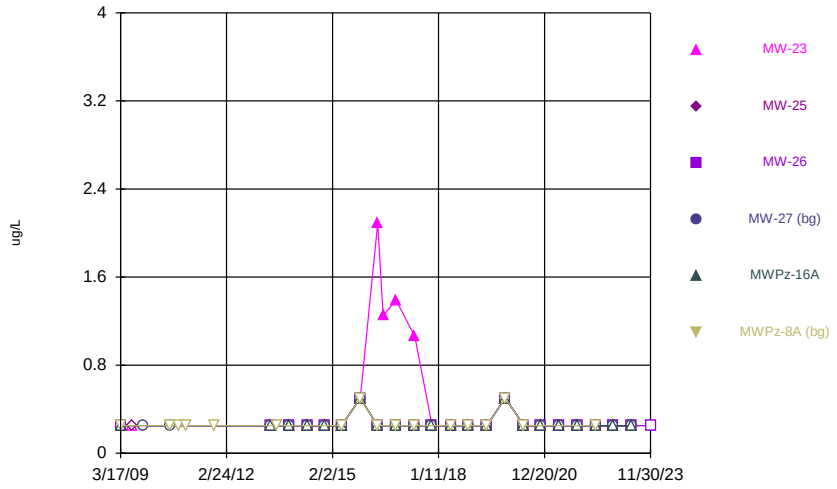
Time Series



Constituent: Benzene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

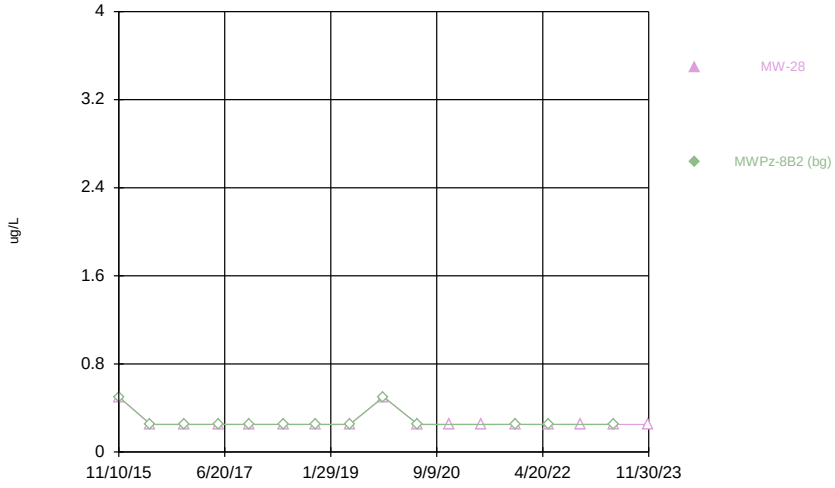
Time Series



Constituent: Benzene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

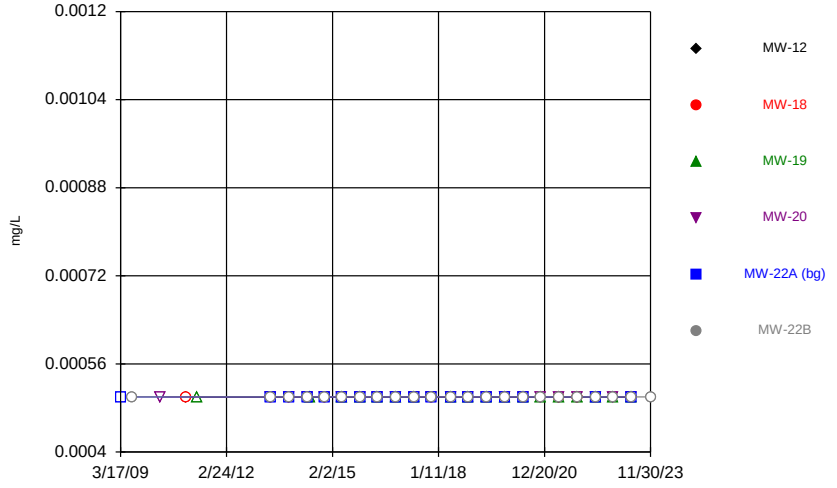
Time Series



Constituent: Benzene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

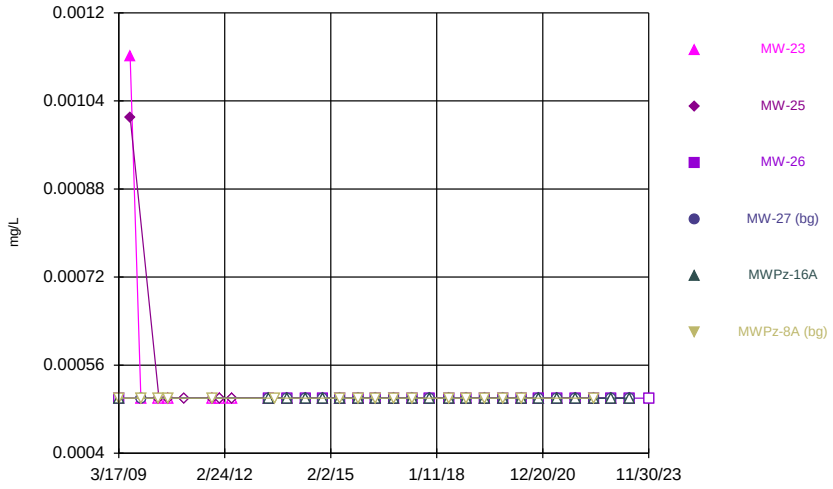
Time Series



Constituent: Beryllium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

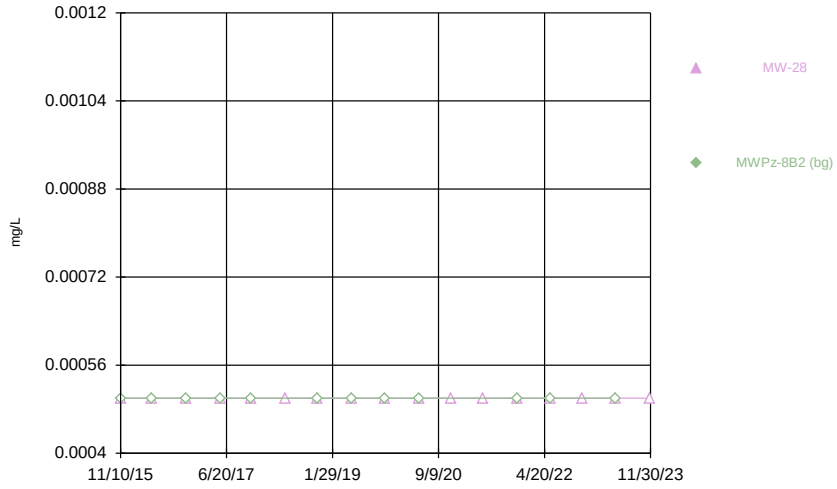
Time Series



Constituent: Beryllium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

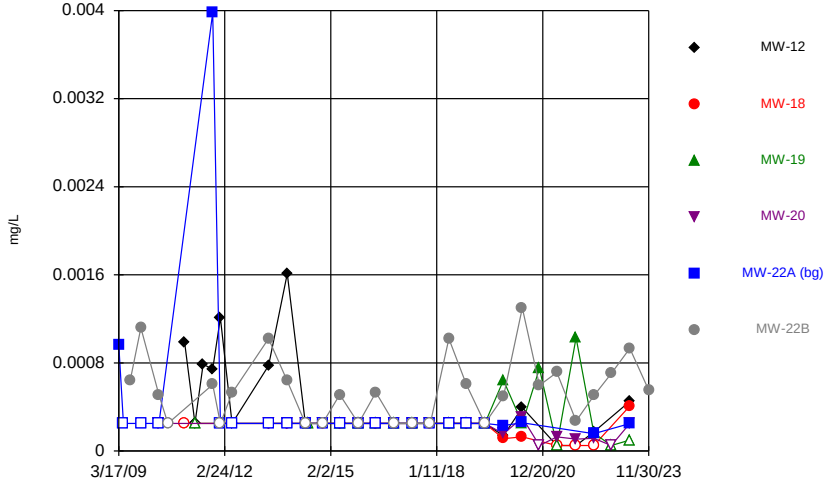
Time Series



Constituent: Beryllium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

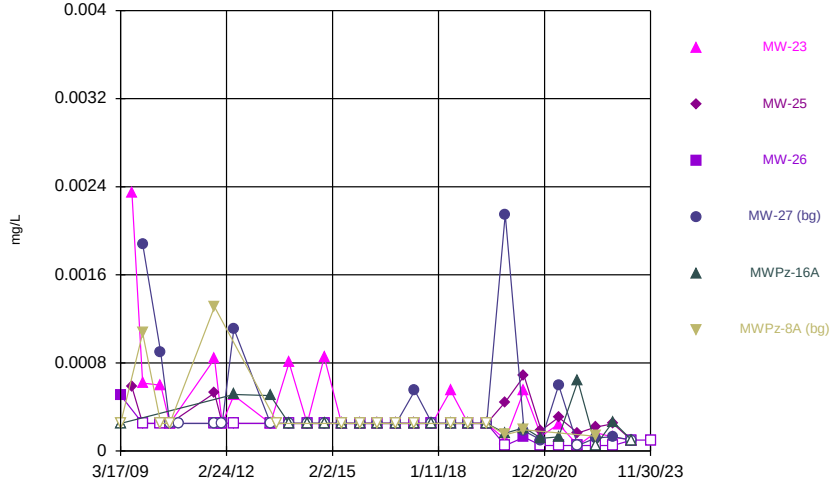
Time Series



Constituent: Cadmium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

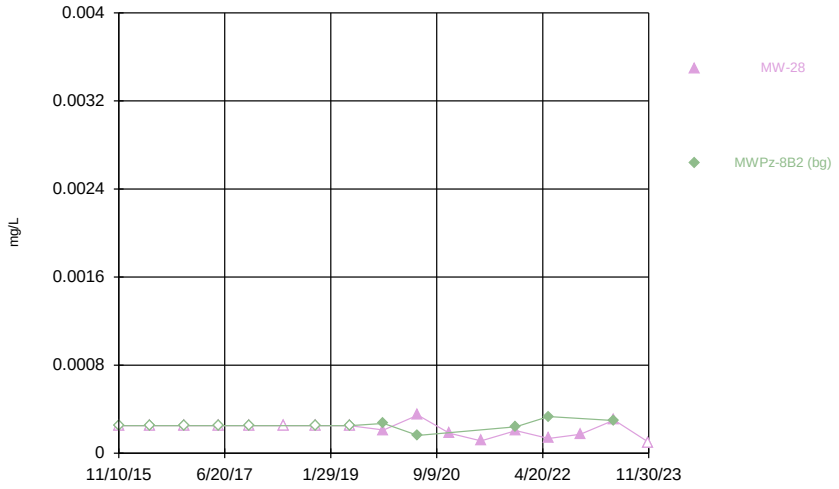
Time Series



Constituent: Cadmium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

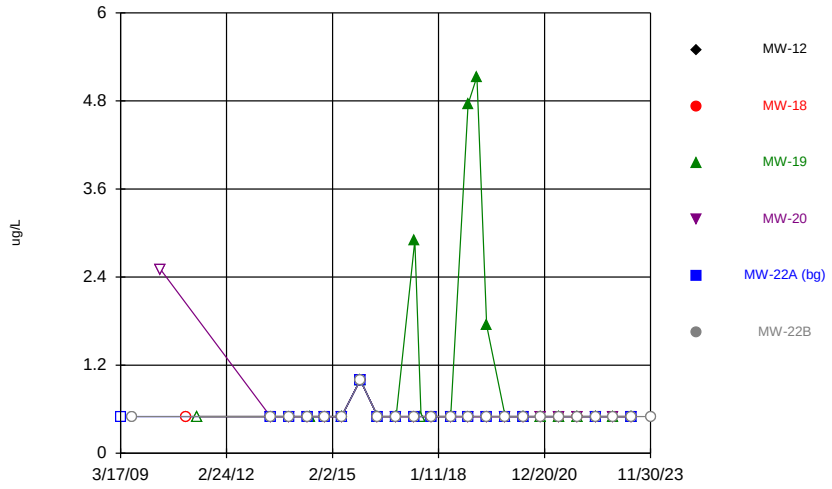
Time Series



Constituent: Cadmium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

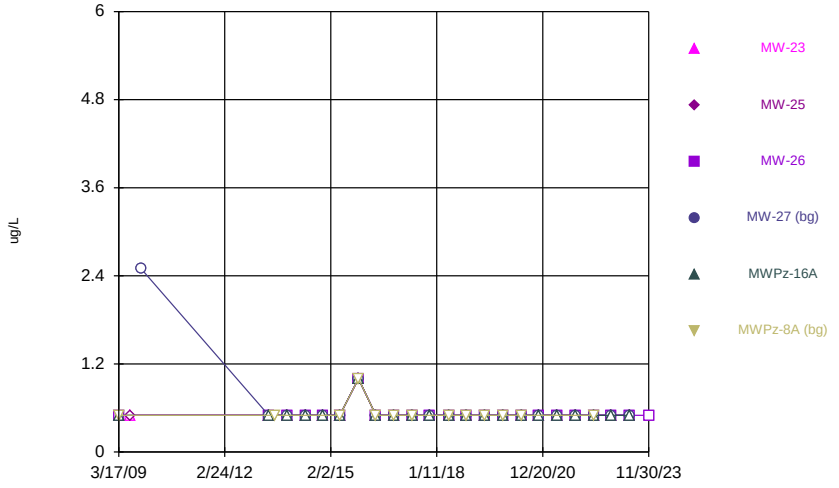
Time Series



Constituent: Carbon Disulfide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

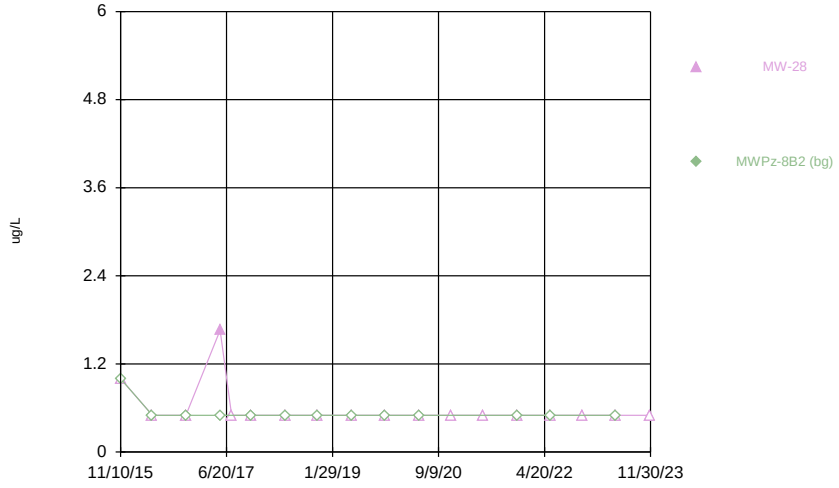
Time Series



Constituent: Carbon Disulfide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

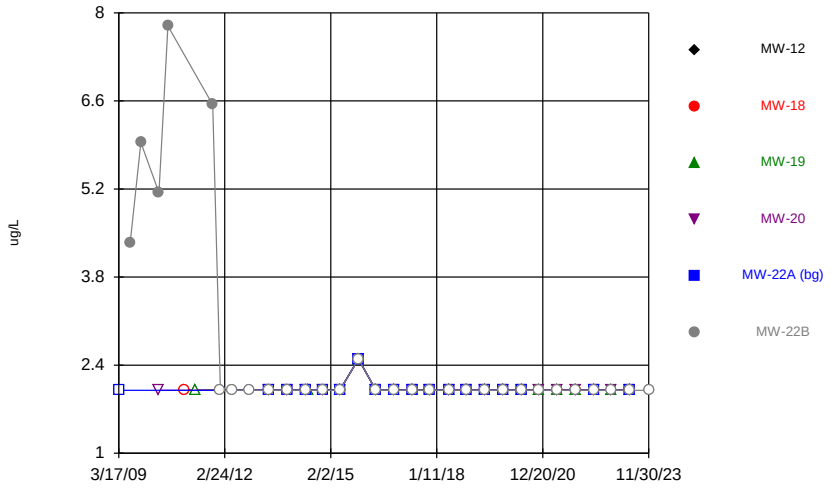
Time Series



Constituent: Carbon Disulfide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

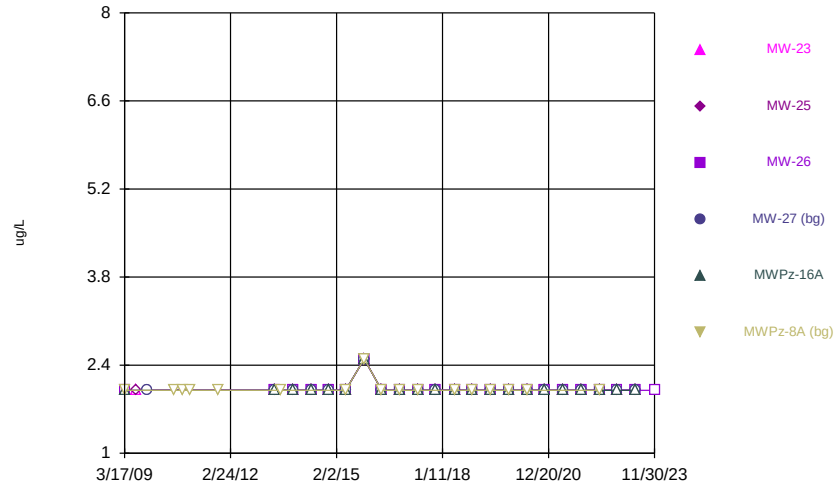
Time Series



Constituent: Chloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

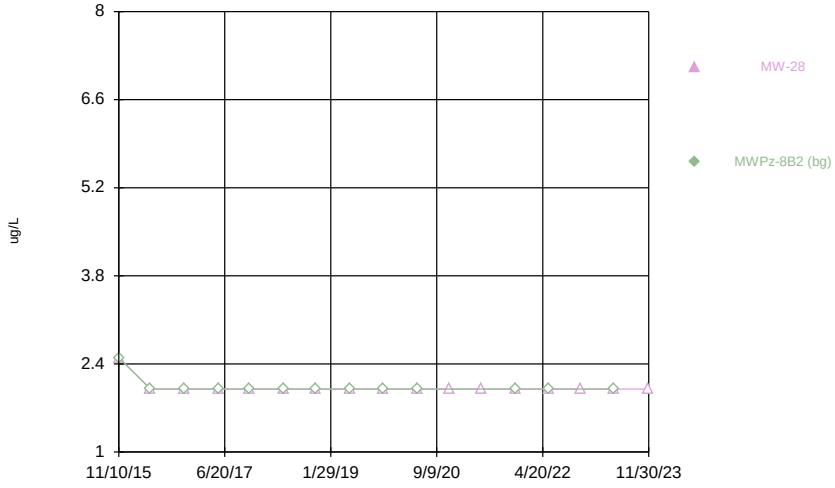
Time Series



Constituent: Chloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

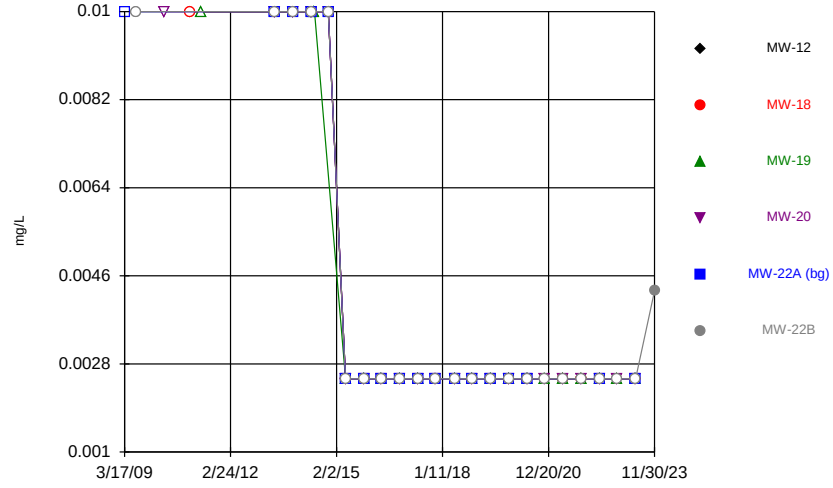
Time Series



Constituent: Chloroethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

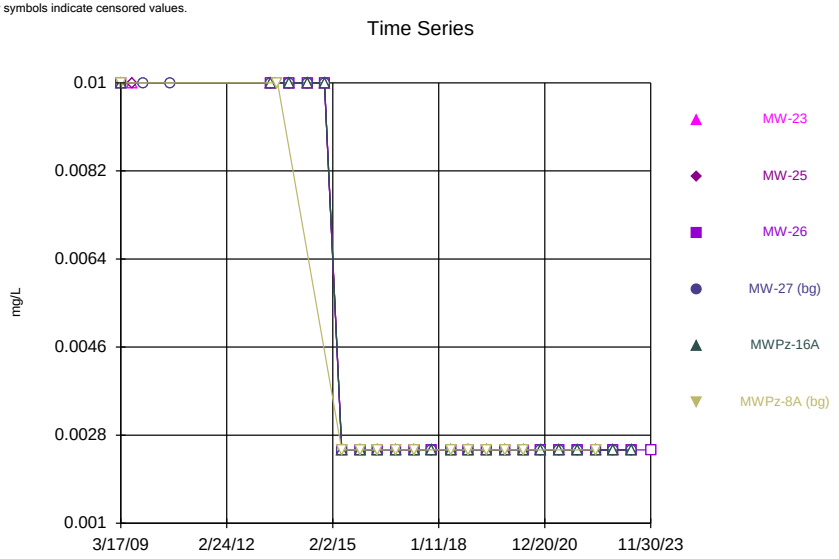
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



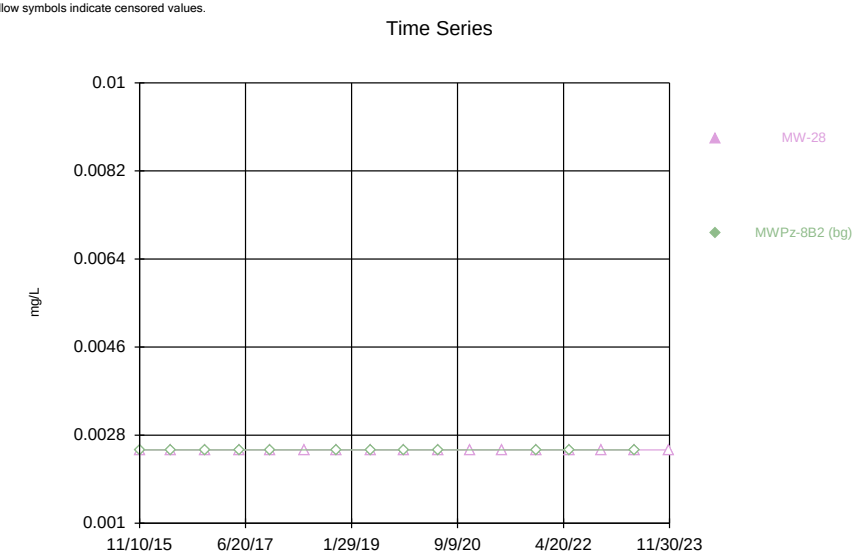
Constituent: Chromium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



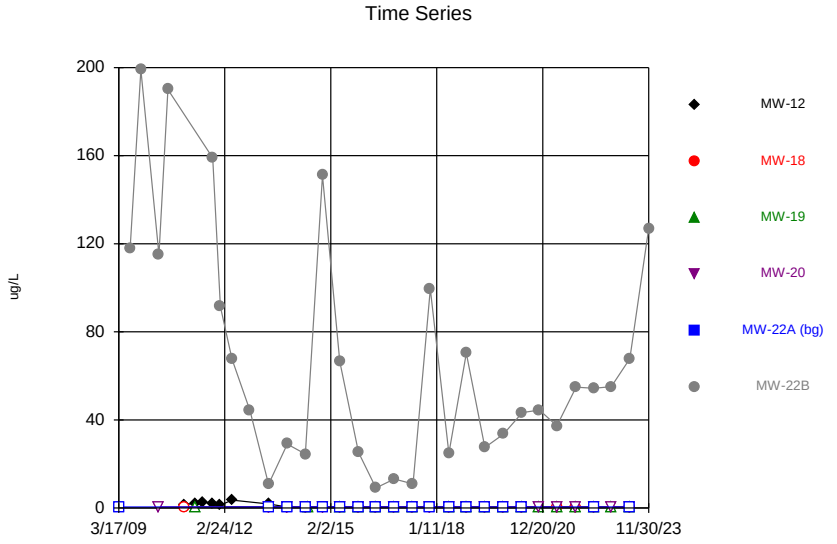
Constituent: Chromium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



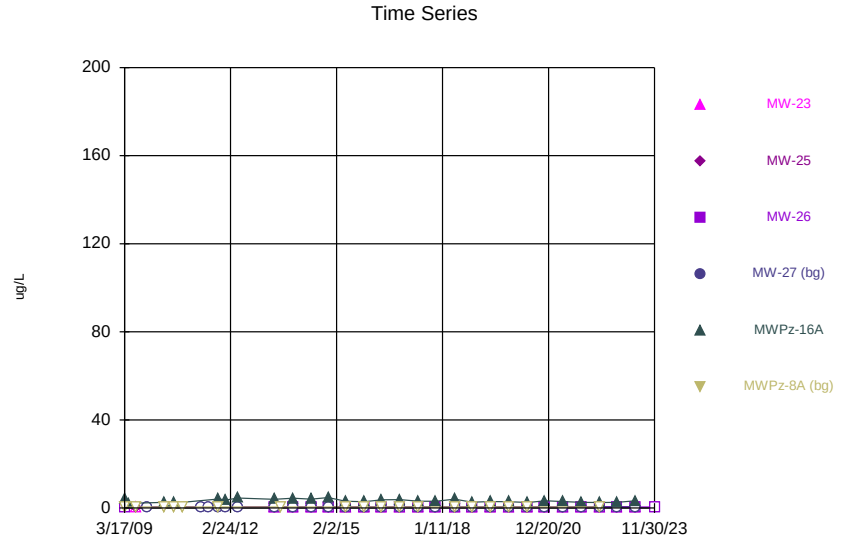
Constituent: Chromium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

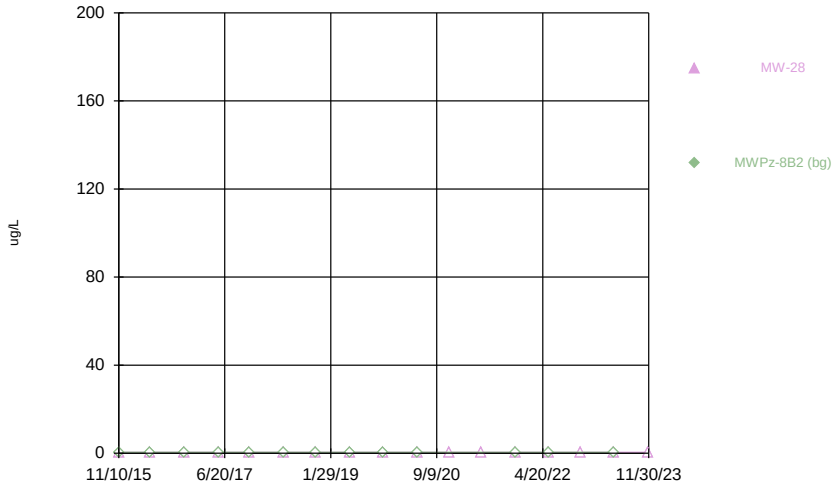
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

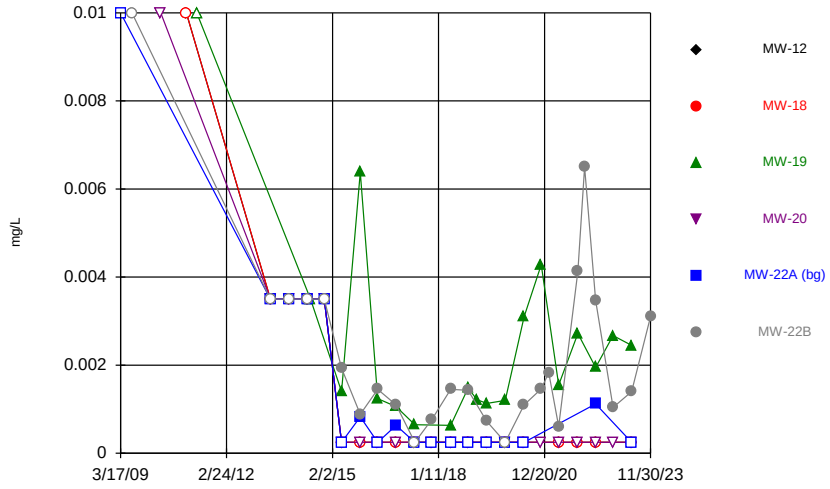
Time Series



Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

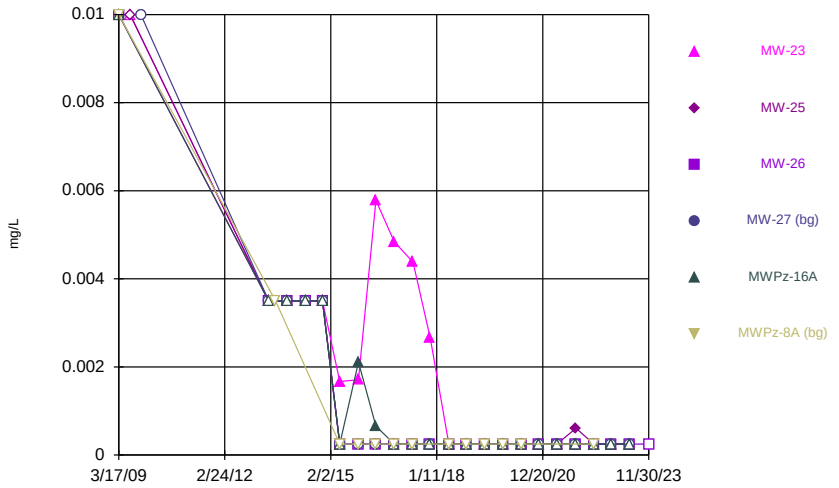
Time Series



Constituent: Cobalt Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

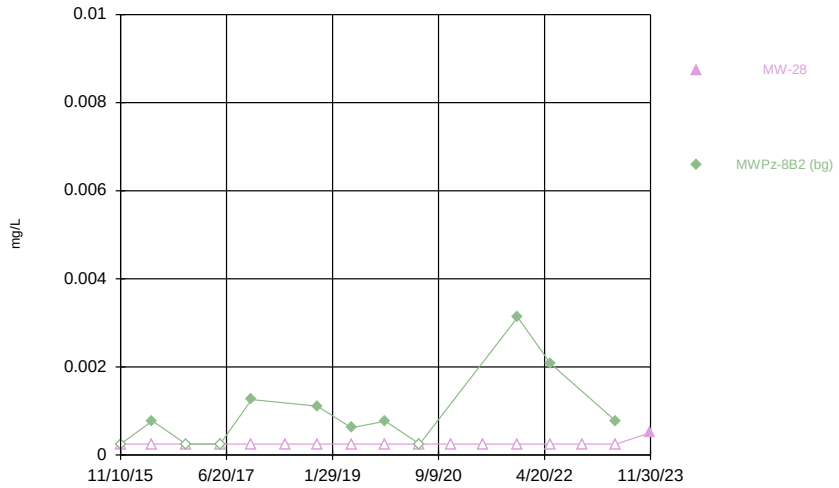
Time Series



Constituent: Cobalt Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

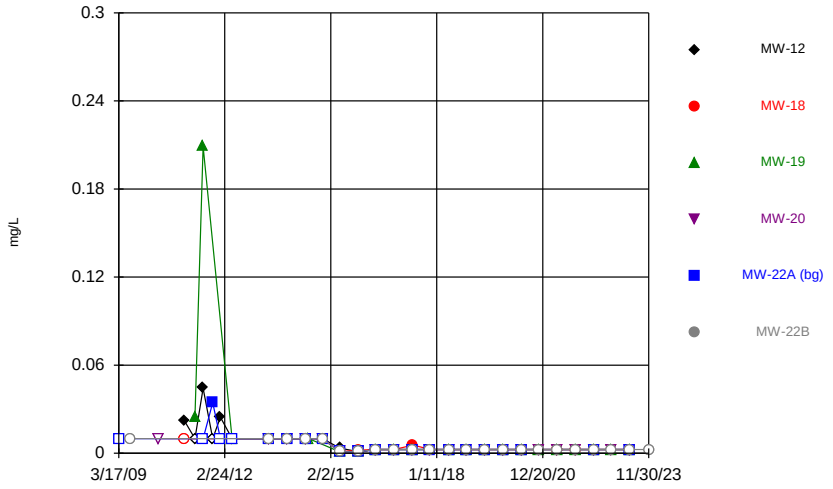
Time Series



Constituent: Cobalt Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

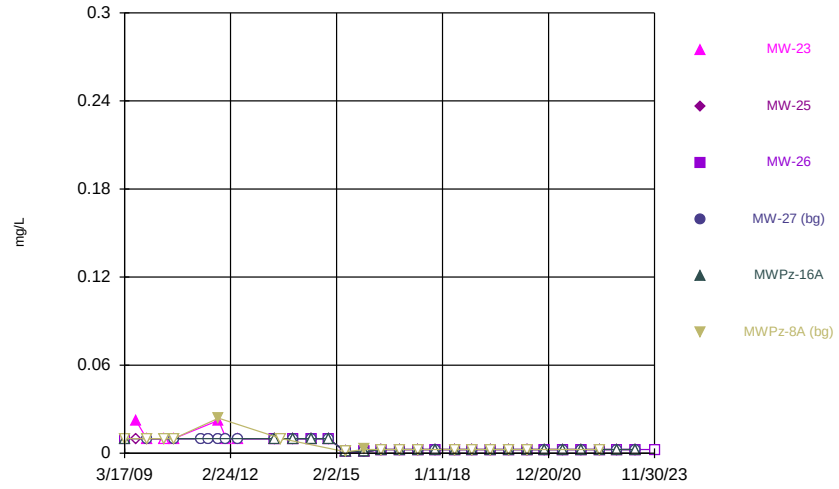
Time Series



Constituent: Copper Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

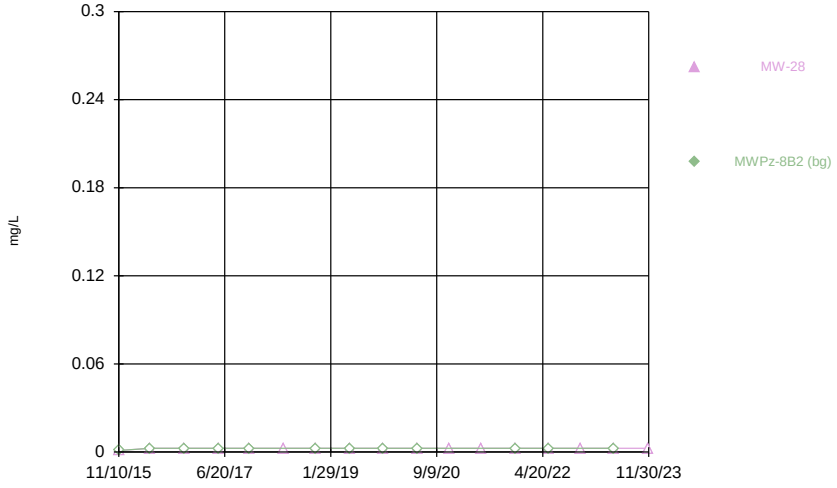
Time Series



Constituent: Copper Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

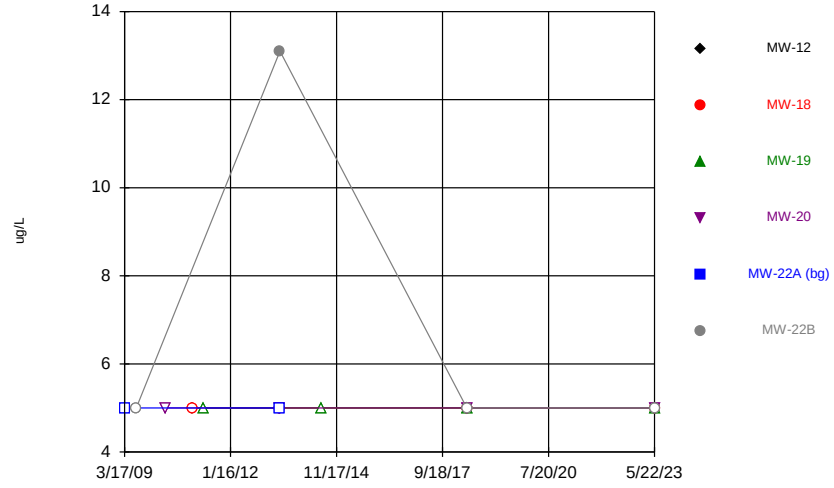
Time Series



Constituent: Copper Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

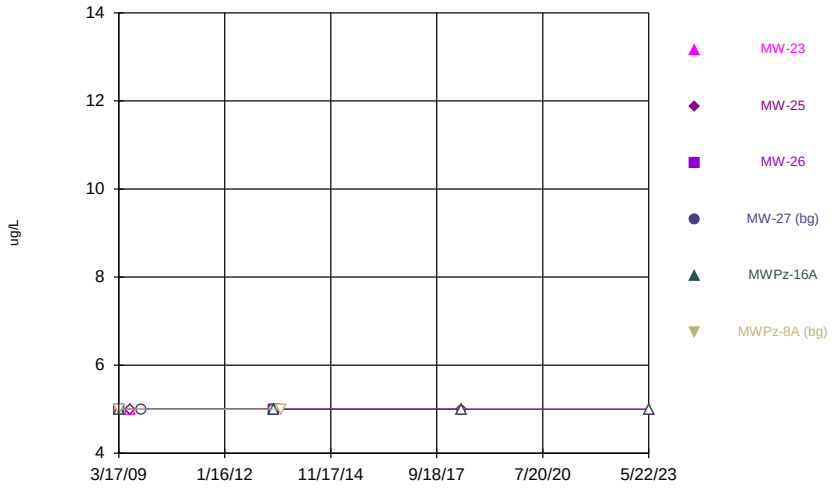
Time Series



Constituent: Cyanide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

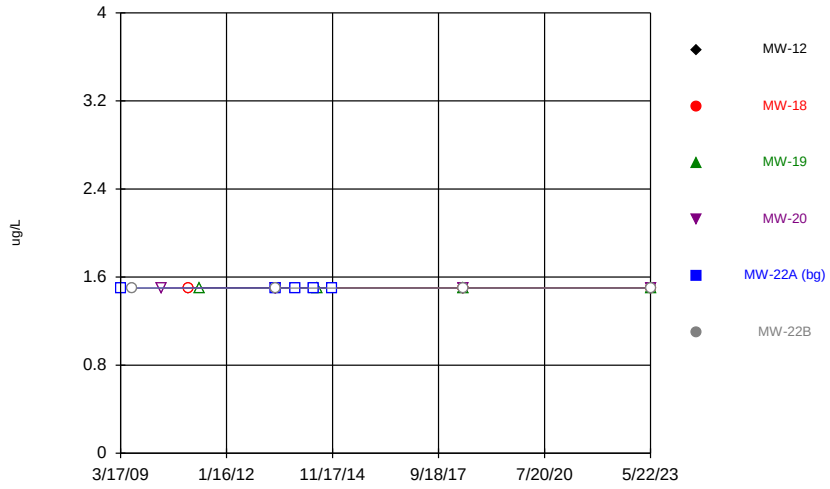
Time Series



Constituent: Cyanide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

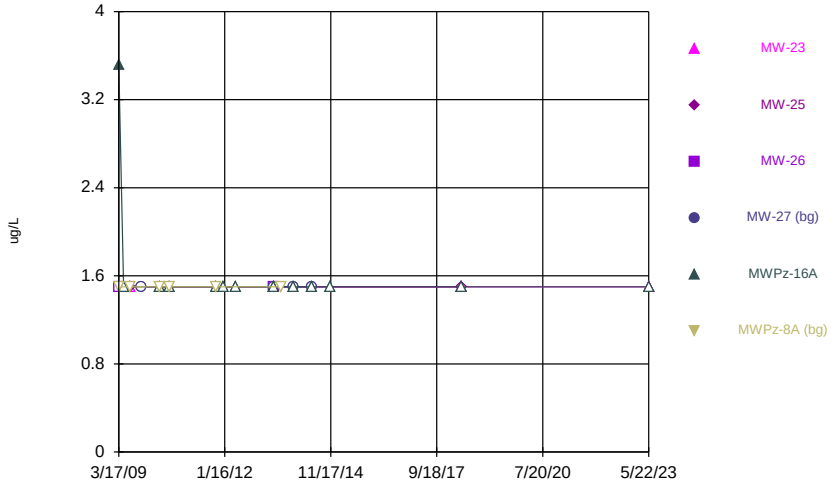
Time Series



Constituent: Dichlorodifluoromethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

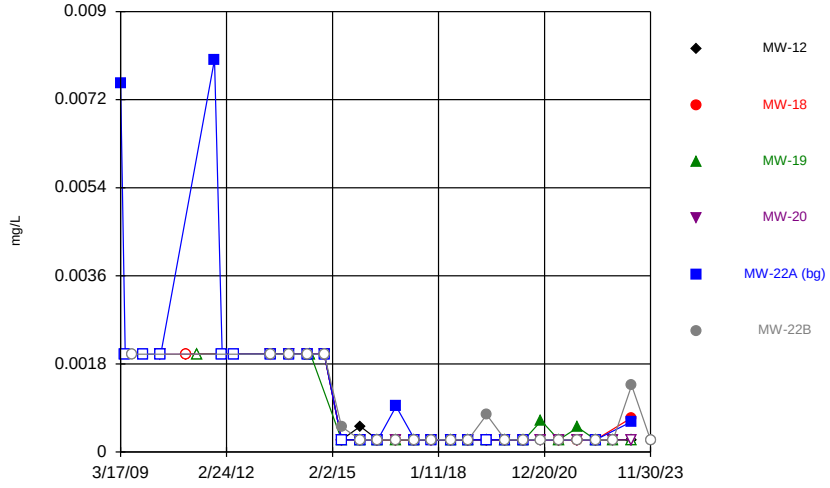
Time Series



Constituent: Dichlorodifluoromethane Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

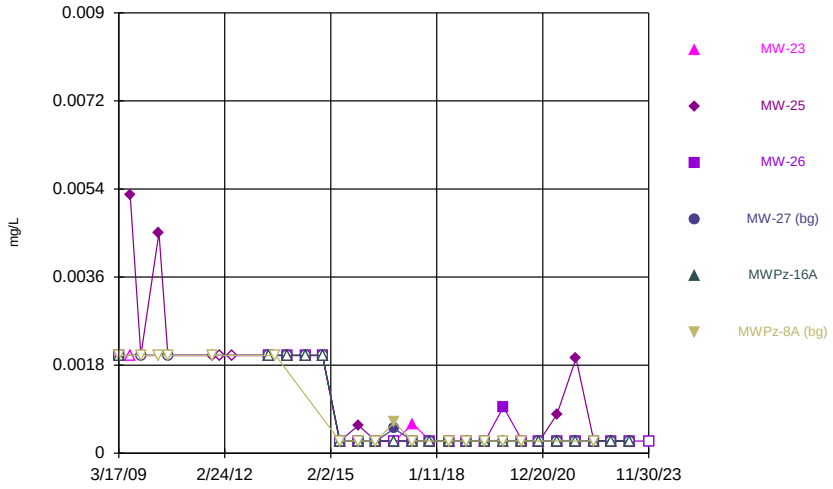
Time Series



Constituent: Lead Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

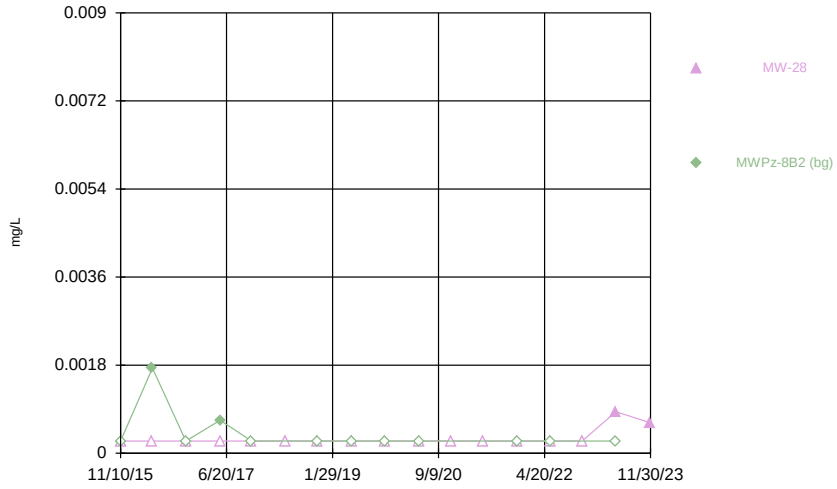
Time Series



Constituent: Lead Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

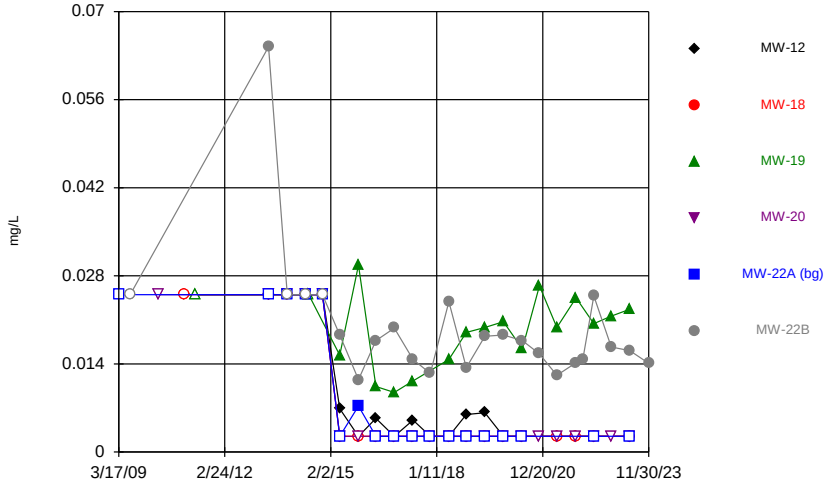
Time Series



Constituent: Lead Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

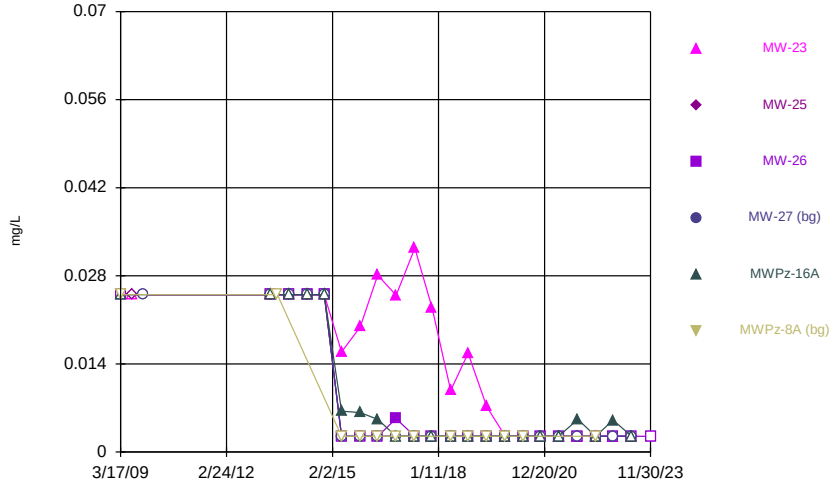
Time Series



Constituent: Nickel Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

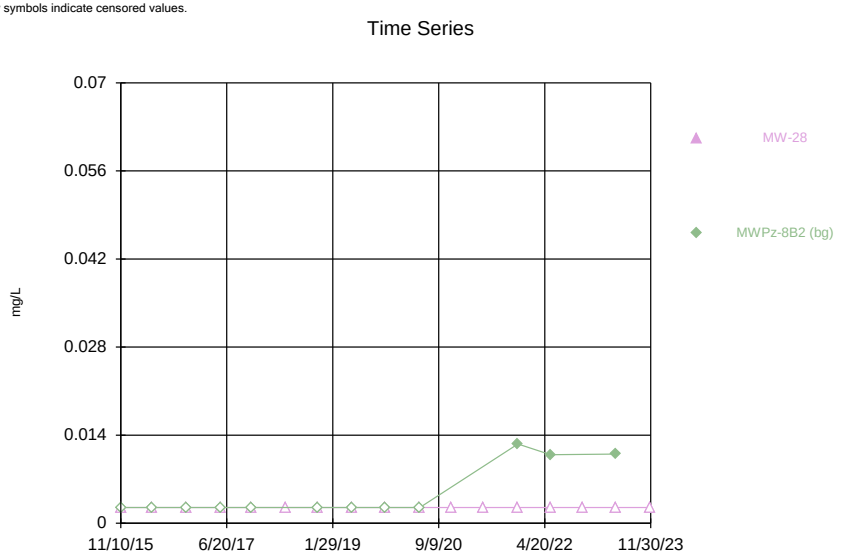
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



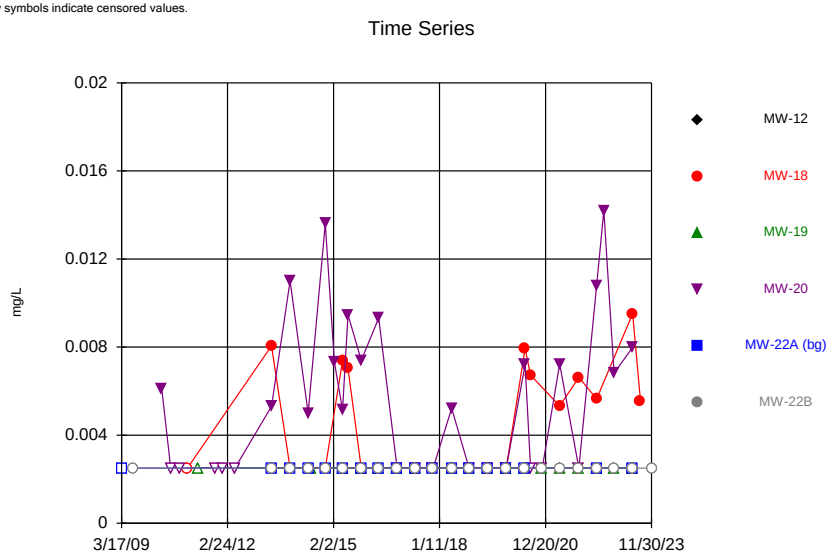
Constituent: Nickel Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



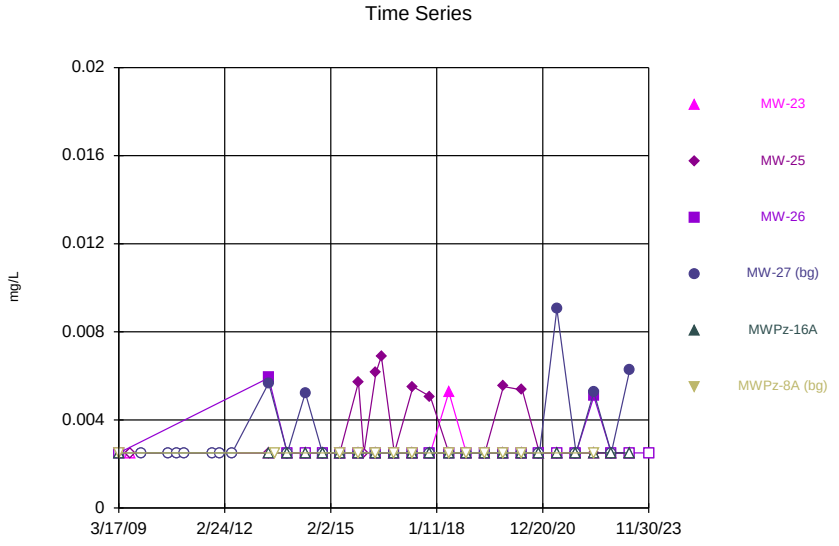
Constituent: Nickel Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



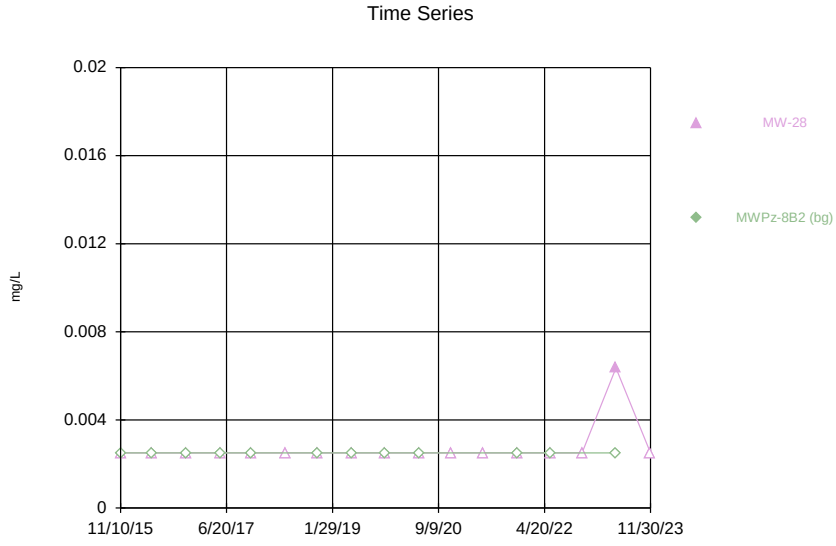
Constituent: Selenium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Selenium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

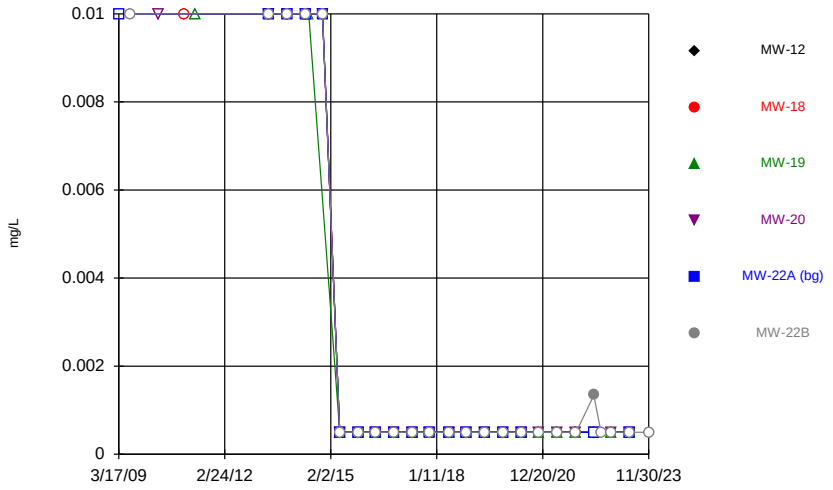
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Selenium Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

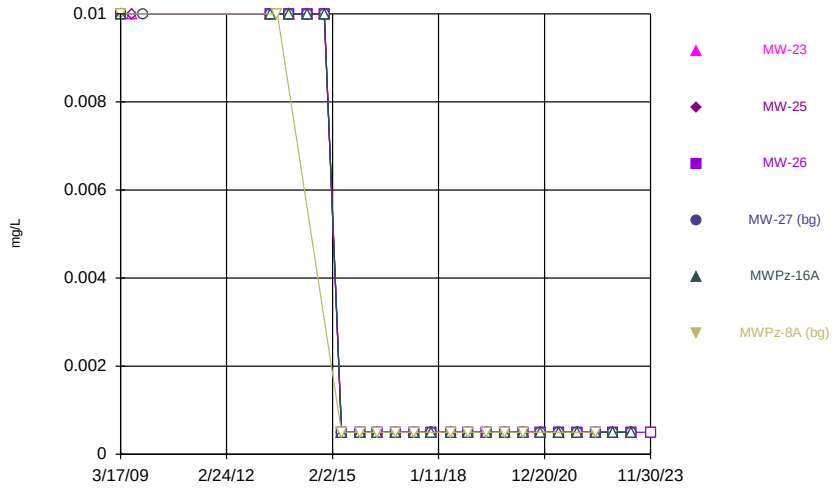
Time Series



Constituent: Silver Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

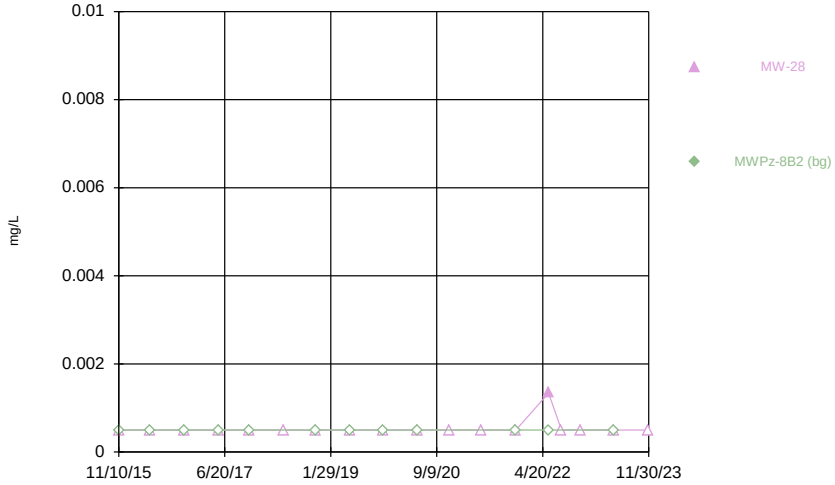
Time Series



Constituent: Silver Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

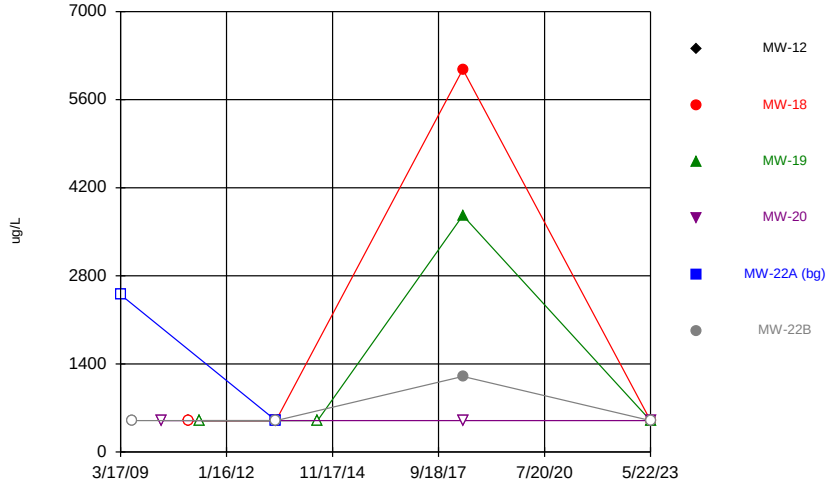
Time Series



Constituent: Silver Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

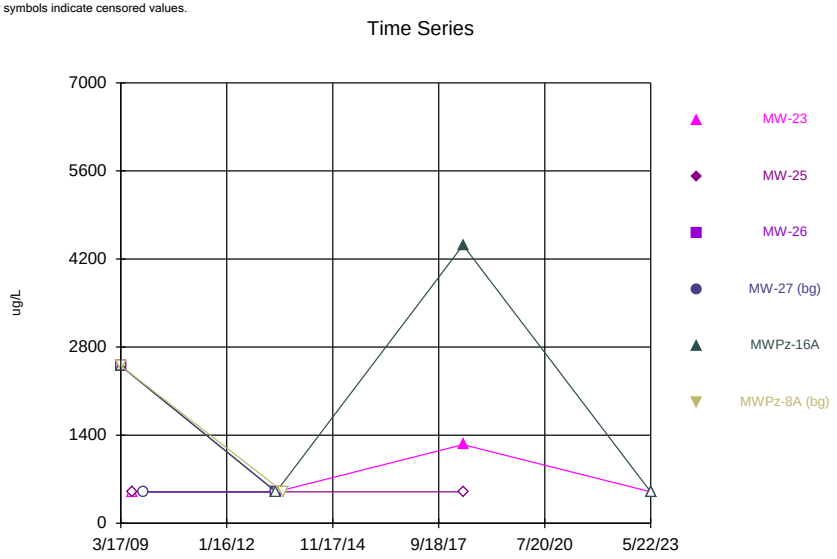
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



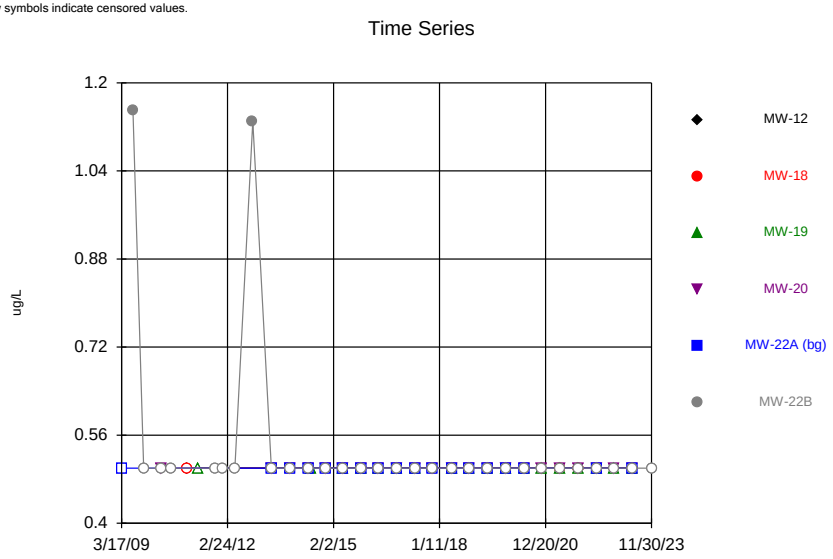
Constituent: Sulfide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



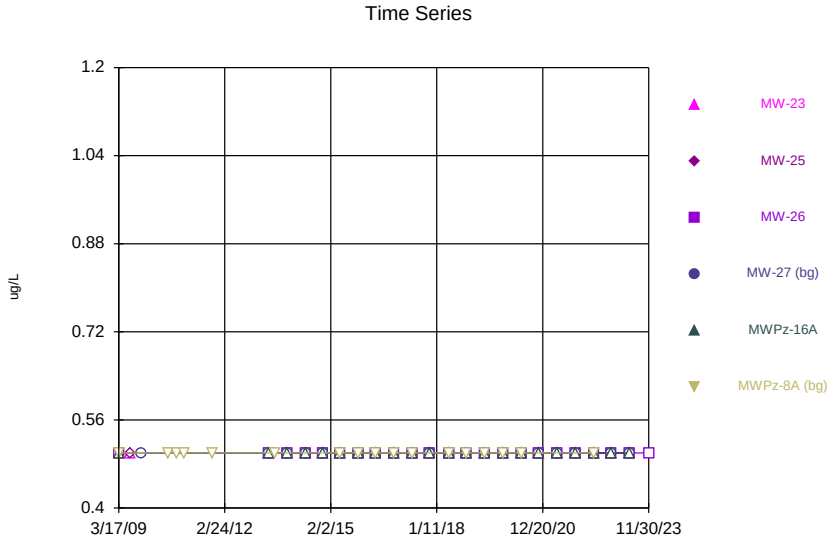
Constituent: Sulfide Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



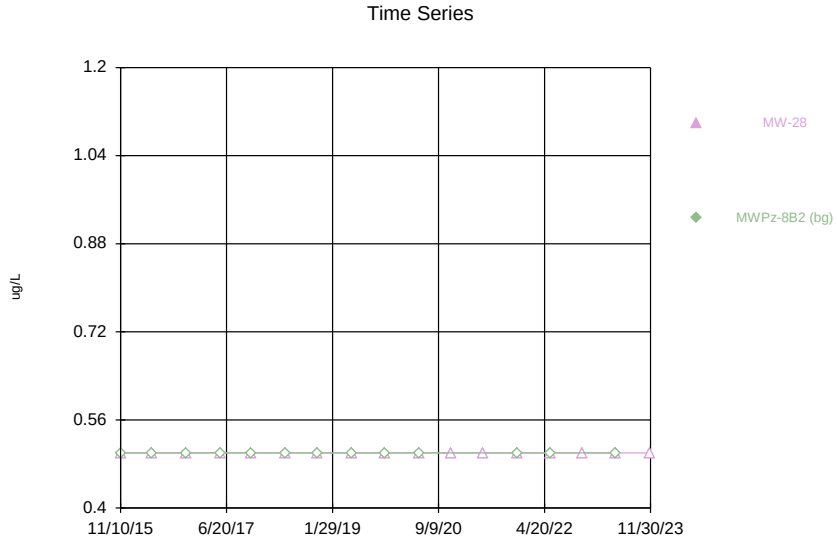
Constituent: Tetrachloroethene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



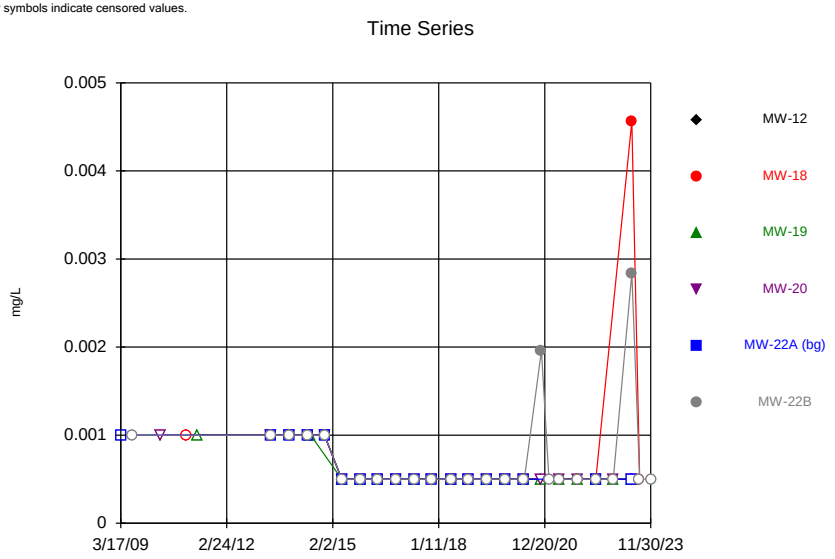
Constituent: Tetrachloroethene Analysis Run 2/26/2024 10:46 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



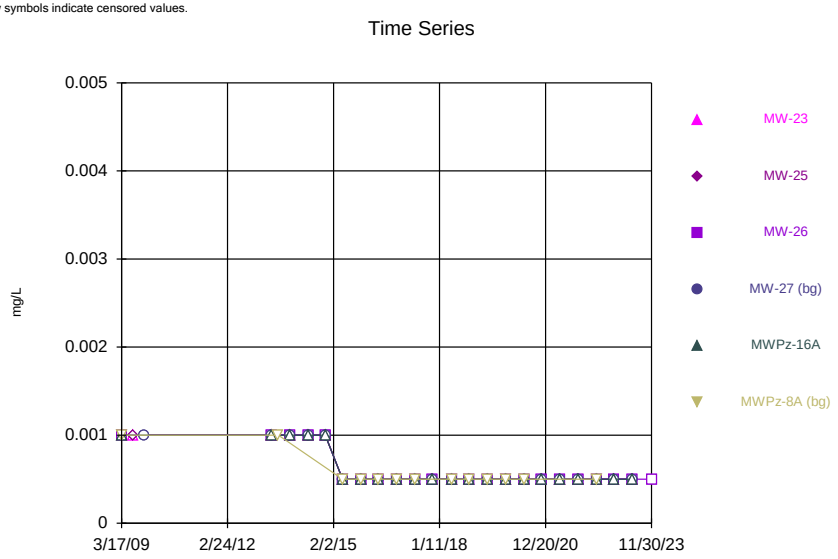
Constituent: Tetrachloroethene Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



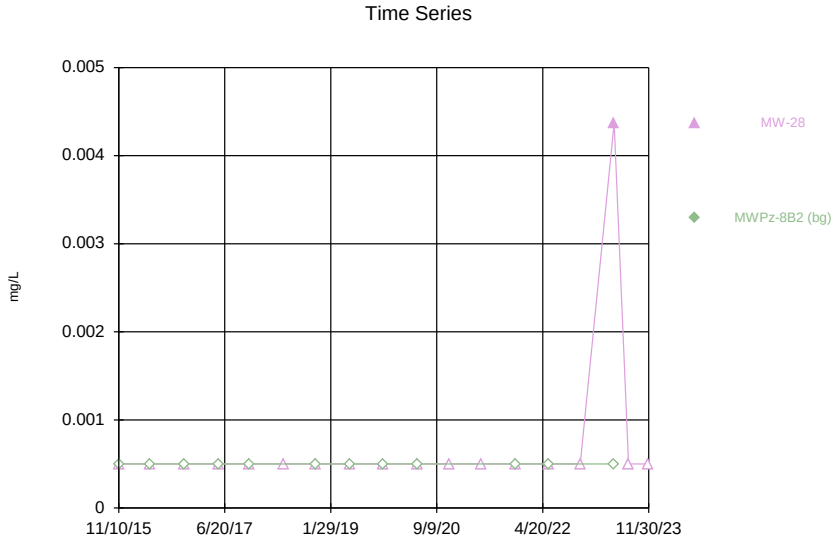
Constituent: Thallium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



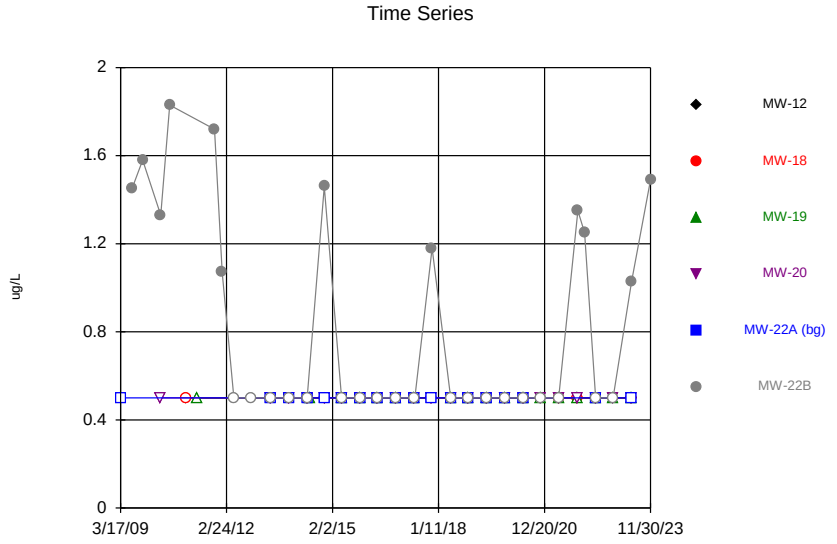
Constituent: Thallium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Thallium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

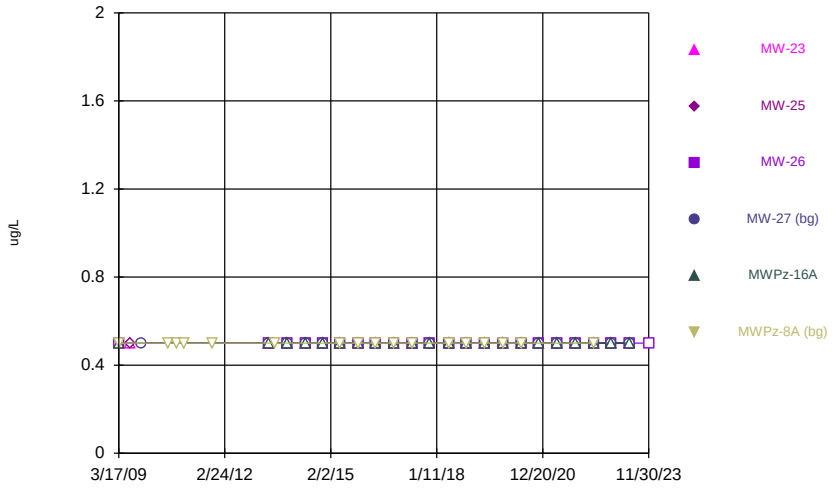
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: trans-1,2-Dichloroethene Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

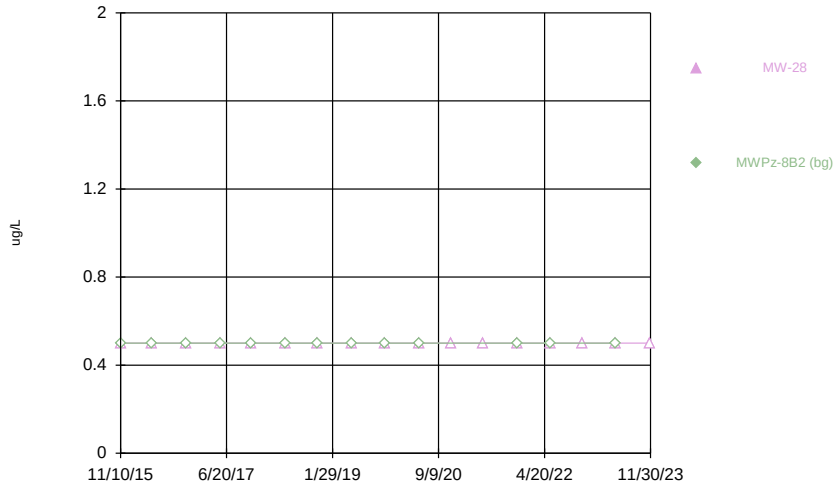
Time Series



Constituent: trans-1,2-Dichloroethene Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

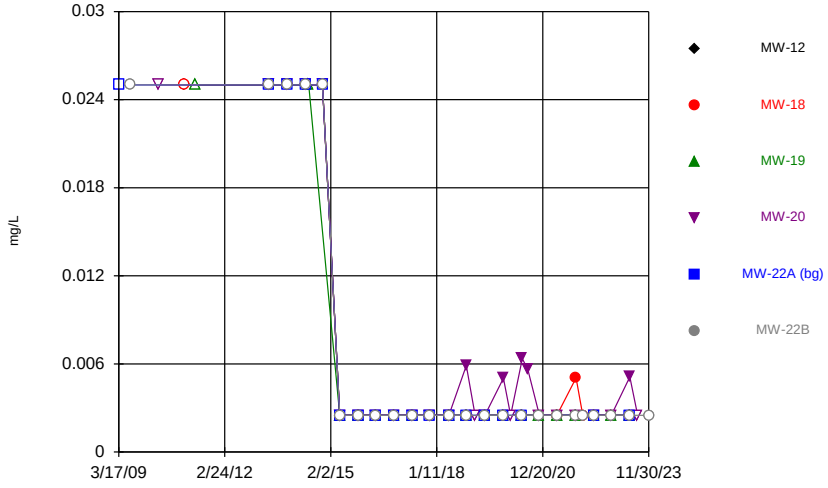
Time Series



Constituent: trans-1,2-Dichloroethene Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

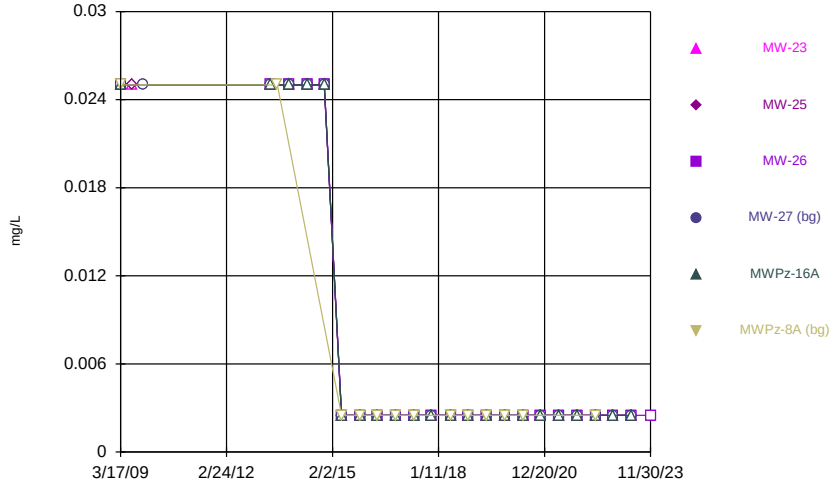
Time Series



Constituent: Vanadium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

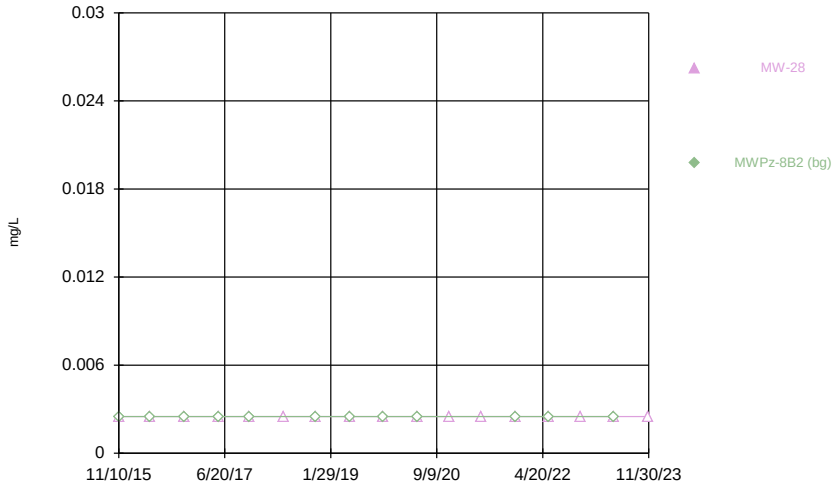
Time Series



Constituent: Vanadium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

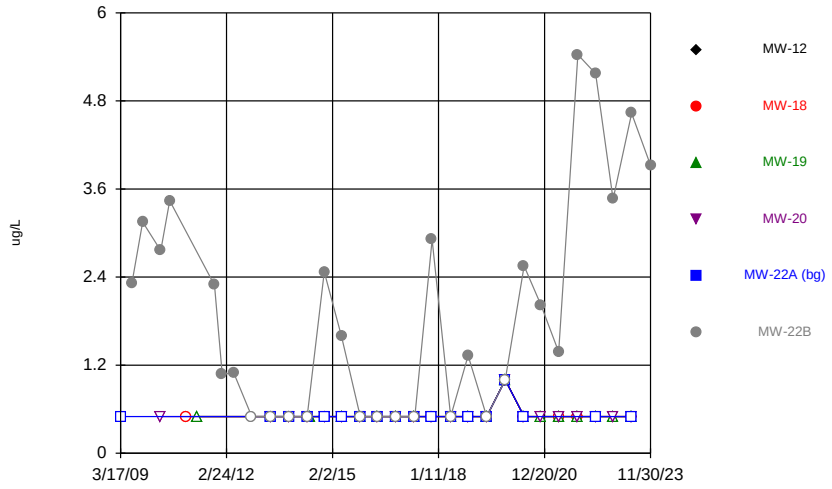
Time Series



Constituent: Vanadium Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

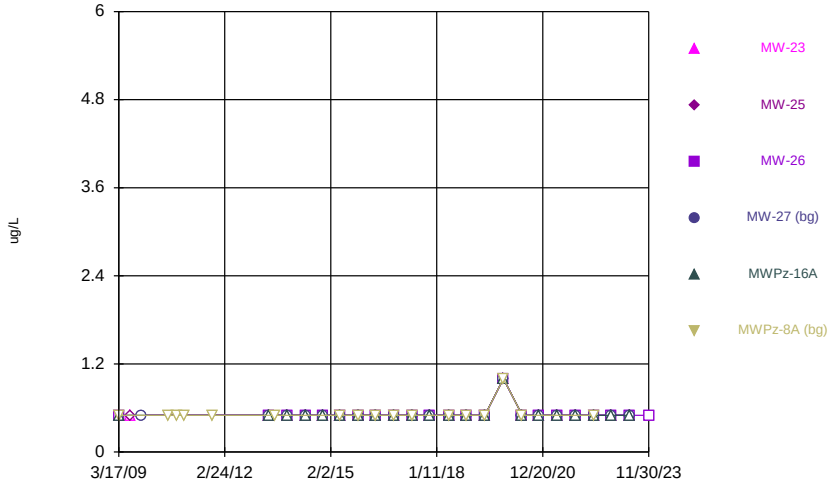
Time Series



Constituent: Vinyl Chloride Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

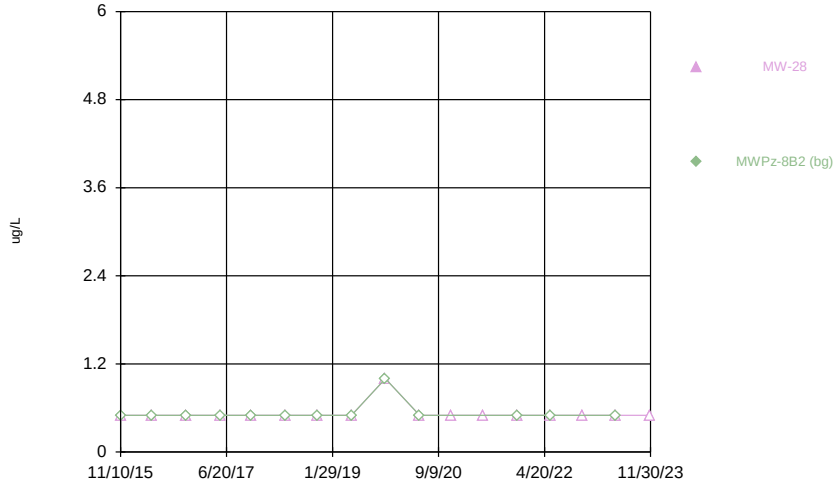
Time Series



Constituent: Vinyl Chloride Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

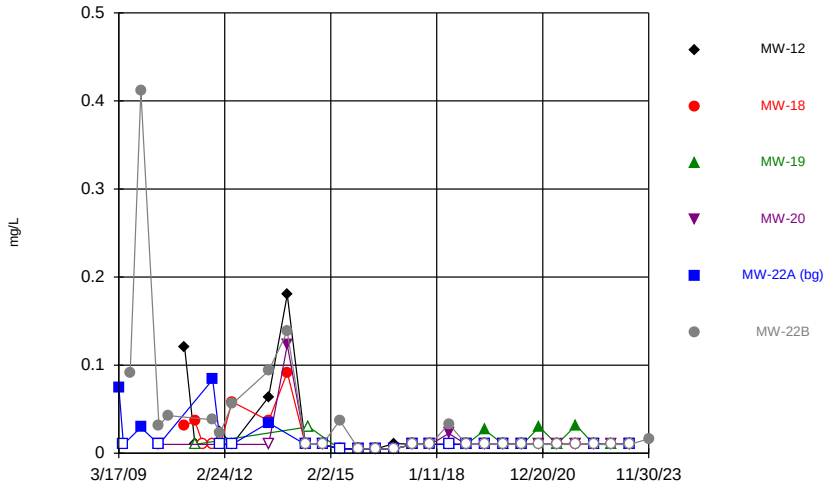
Time Series



Constituent: Vinyl Chloride Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

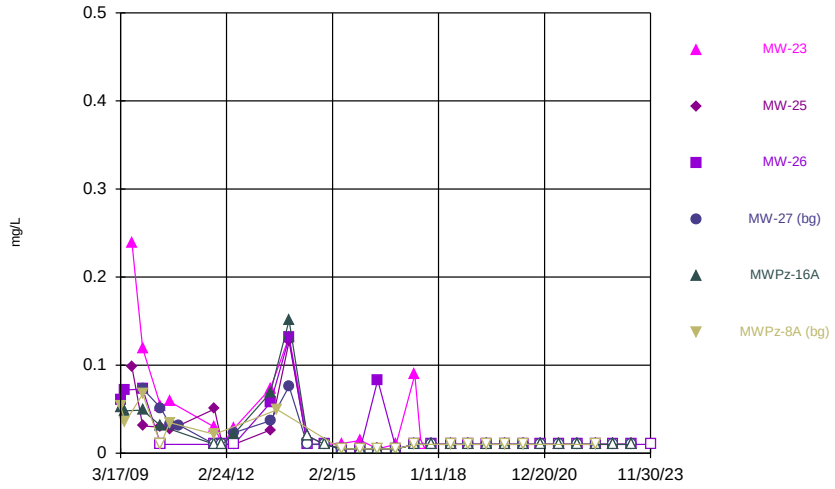
Time Series



Constituent: Zinc Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

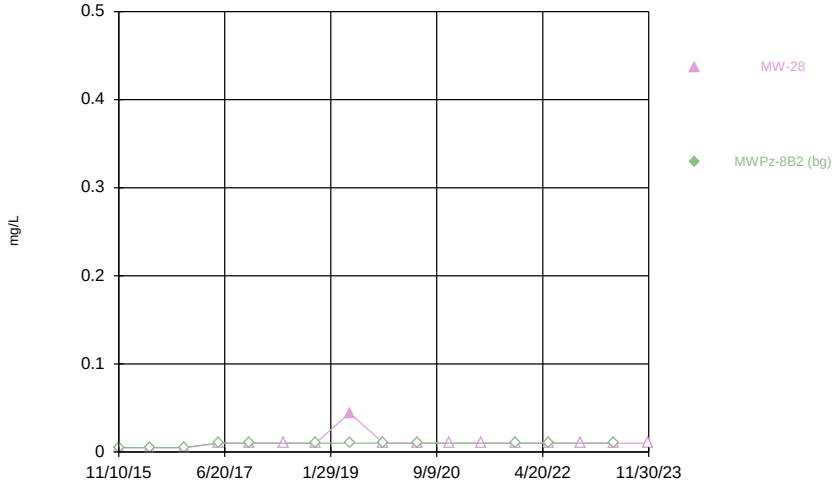
Time Series



Constituent: Zinc Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 2/26/2024 10:47 AM View: 2023AWQR - Time Series
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Attachment B

Outlier Tests Summary Table and Graphs

Outlier Analysis

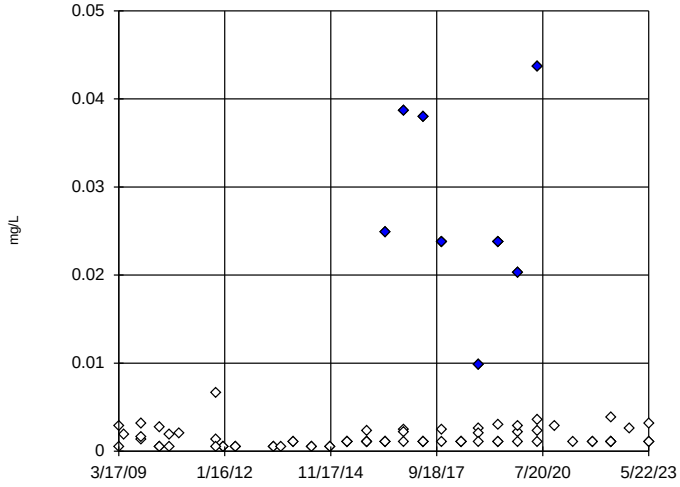
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas Printed 2/26/2024, 12:06 PM

Constituent	Well	Outlier	Value(s)	Date(s)	Method	Alpha	N	Mean	Std. Dev.	Normality Test
Arsenic (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.0249,0.0386,0.0379,0.0238,0.0238,0.00975,0.0203**	**n/a w/combined bg**	**NP (nrm)/OH**	**NaN**	**81**	**0.004047**	**0.008655**	**ShapiroFrancia**
Barium (mg/L)	MW-27,MWPz-8B2,MW...	No	n/a	n/a w/combined bg	EPA/OH	0.05	81	0.1222	0.1049	ShapiroFrancia
Cadmium (mg/L)	MW-22A,MW-27,MWPz...	No	n/a	n/a w/combined bg	NP (nrm)/OH	NaN	81	0.000384	0.0005311	ShapiroFrancia
Cobalt (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.01,0.01,0.0035,0.0035,0.0035,0.0035,0.0035,0.00**	**n/a w/combined bg**	**OH**	**NaN**	**65**	**0.001309**	**0.002246**	**n/a**
Copper (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.0345,0.0239,0.01,0.01,0.01,0.01,0.01,0.01,0.01,**	**n/a w/combined bg**	**OH**	**NaN**	**79**	**0.005341**	**0.00532**	**n/a**
Lead (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.00802,0.00754,0.002,0.002,0.002,0.002,0.002,0.0**	**n/a w/combined bg**	**OH**	**NaN**	**76**	**0.0009791**	**0.001369**	**n/a**
Nickel (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.025,0.025,0.025,0.025,0.025,0.025,0.025,0.025**	**n/a w/combined bg**	**OH**	**NaN**	**65**	**0.007143**	**0.008787**	**n/a**
Selenium (mg/L)	MW-22A,MW-27,MWPz...	No	n/a	n/a w/combined bg	OH	NaN	71	0.002768	0.00105	n/a
Zinc (mg/L)	**MW-22A,MW-27,MWPz...**	**Yes**	**0.0836,0.076,0.075,0.0733,0.0671,0.0535,0.0514,0.**	**n/a w/combined bg**	**OH**	**NaN**	**81**	**0.01697**	**0.01842**	**n/a**

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 81

Outliers are drawn as solid.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.01 alpha level.

High cutoff = 0.0069, low cutoff = -0.003425, based on IQR multiplier of 3.

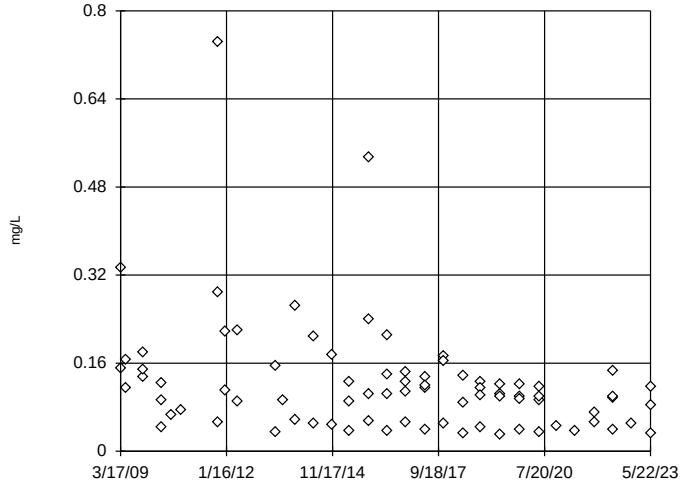
Constituent: Arsenic Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

EPA Screening (suspected outliers for Rosner's Test)

MW-27,MWPz-8B2,MWPz-8A,MW-22A



n = 81

Rosner's will not be run. No suspect values identified or unable to establish suspect values.
Ohio method in use.
Mean 0.1222, std. dev. 0.1049, critical Tn 3.134

Normality test used:
Shapiro Francia@alpha = 0.01
Calculated = 0.9642
Critical = 0.958 (after natural log transformation)
The distribution was found to be log-normal.

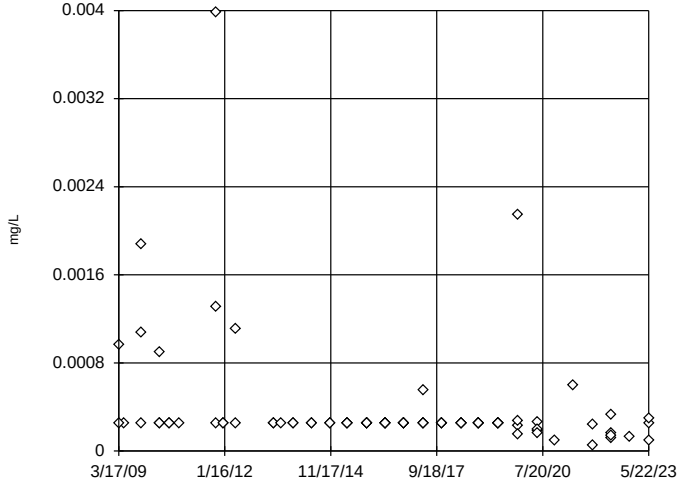
Constituent: Barium Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Tukey's Outlier Screening / Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 81

No outliers found.
Tukey's method used in lieu of parametric test because the Shapiro Francia normality test failed at the 0.01 alpha level.

The results were invalidated, because the lower and upper quartiles are equal.

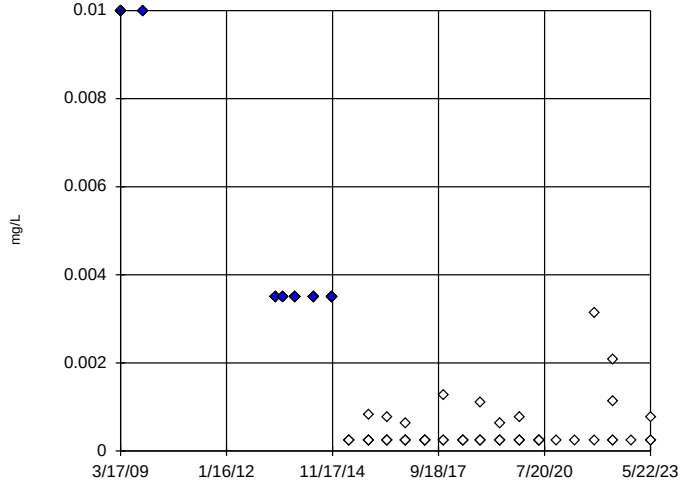
Constituent: Cadmium Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 65

Statistical outliers are drawn as solid.
Outliers per Ohio method.

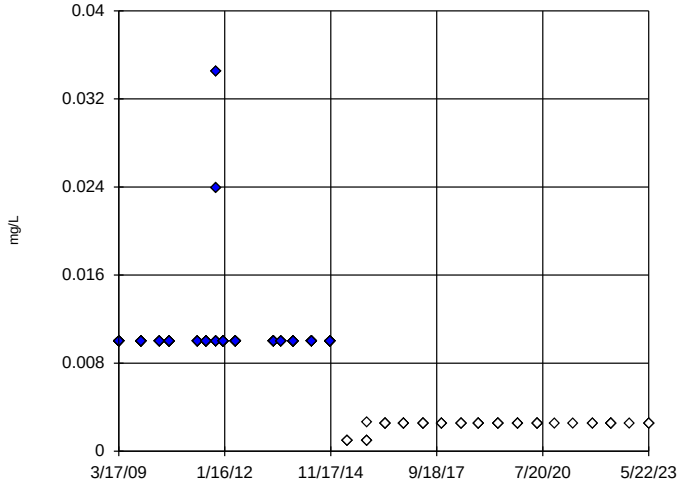
Constituent: Cobalt Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 79

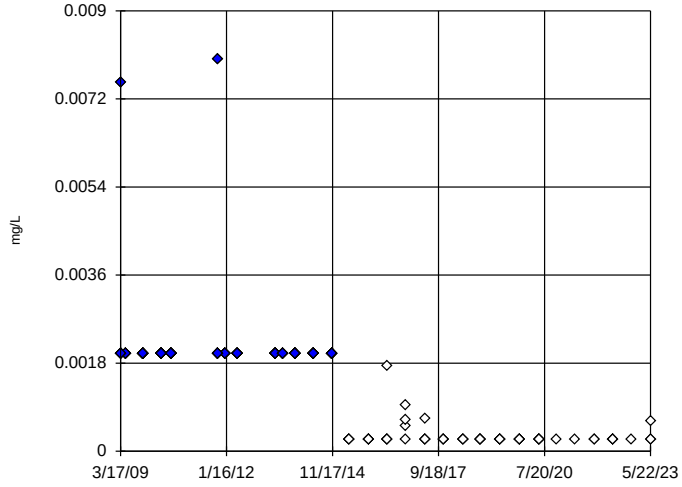
Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Copper Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 76

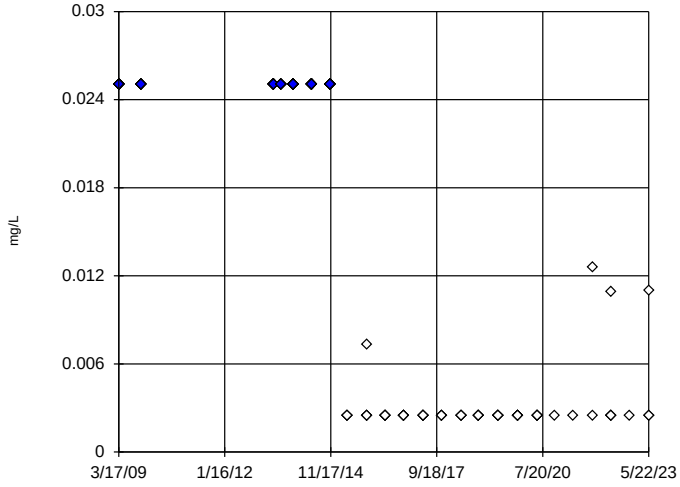
Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Lead Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 65

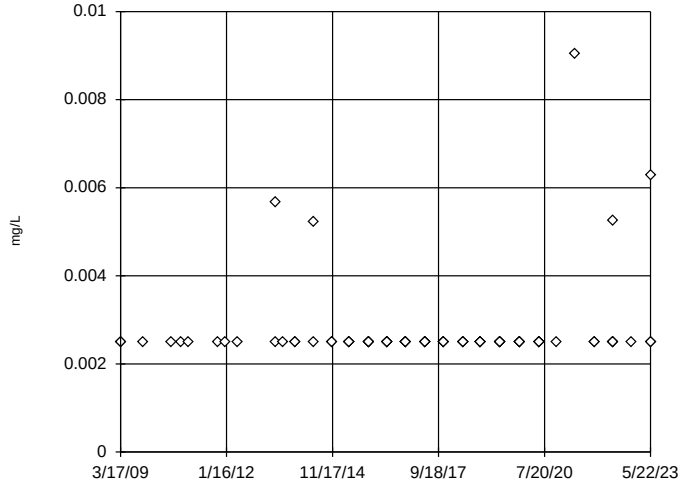
Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Nickel Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 71

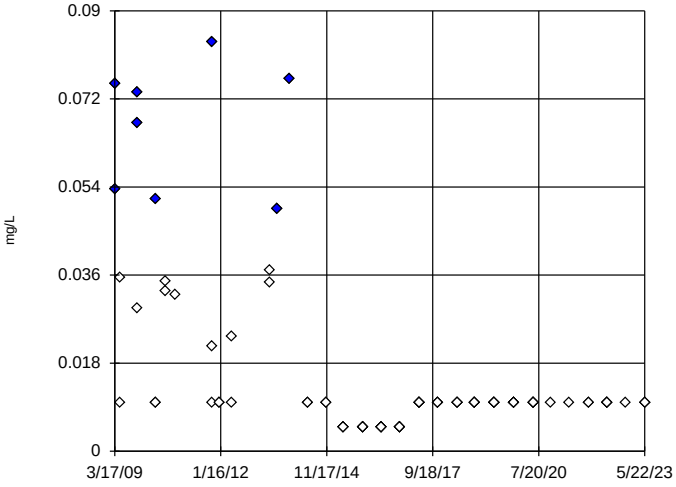
No statistical outliers.

Constituent: Selenium Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Ohio EPA 0715 Outlier Algorithm, Pooled Background

MW-22A,MW-27,MWPz-8A,MWPz-8B2



n = 81

Statistical outliers are drawn as solid.
Outliers per Ohio method.

Constituent: Zinc Analysis Run 2/26/2024 12:04 PM View: 2023AWQR - BG Outliers

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Attachment C

Prediction Limit Summary Table and Graphs

Prediction Limit

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas Printed 2/26/2024, 3:01 PM

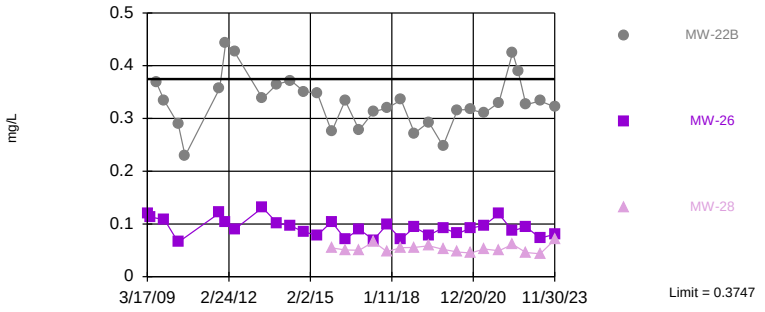
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Wells	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Barium (mg/L)	MW-22B	0.3747	n/a	11/30/2023	0.322	No	81	MW-22A,MW-27,MWPz-8A,MWPz-8B2	-2.334	0.6606	0	None	ln(x)	0.0005852	Param Inter 1 of 2
Barium (mg/L)	MW-26	0.3747	n/a	11/30/2023	0.0804	No	81	MW-22A,MW-27,MWPz-8A,MWPz-8B2	-2.334	0.6606	0	None	ln(x)	0.0005852	Param Inter 1 of 2
Barium (mg/L)	MW-28	0.3747	n/a	11/30/2023	0.0702	No	81	MW-22A,MW-27,MWPz-8A,MWPz-8B2	-2.334	0.6606	0	None	ln(x)	0.0005852	Param Inter 1 of 2
Cadmium (mg/L)	MW-22B	0.00398	n/a	11/30/2023	0.0005525	No	81	MW-27,MWPz-8A,MW-22A,MWPz-8B2	n/a	n/a	67.9	n/a	n/a	0.0002911	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	MW-22B	0.01	n/a	11/30/2023	0.0031	No	65	MW-27,MWPz-8A,MWPz-8B2,MW-22A	n/a	n/a	83.08	n/a	n/a	0.0004508	NP Inter (NDs) 1 of 2
Cobalt (mg/L)	MW-28	0.01	n/a	11/30/2023	0.000506	No	65	MW-27,MWPz-8A,MWPz-8B2,MW-22A	n/a	n/a	83.08	n/a	n/a	0.0004508	NP Inter (NDs) 1 of 2
Lead (mg/L)	MW-28	0.00802	n/a	11/30/2023	0.000622	No	76	MW-27,MWPz-8B2,MWPz-8A,MW-22A	n/a	n/a	89.47	n/a	n/a	0.0003321	NP Inter (NDs) 1 of 2
Nickel (mg/L)	MW-22B	0.025	n/a	11/30/2023	0.0141	No	65	MW-27,MWPz-8A,MWPz-8B2,MW-22A	n/a	n/a	93.85	n/a	n/a	0.0004508	NP Inter (NDs) 1 of 2
Zinc (mg/L)	MW-22B	0.0836	n/a	11/30/2023	0.0164	No	81	MW-22A,MWPz-8A,MWPz-8B2,MW-27	n/a	n/a	79.01	n/a	n/a	0.0002911	NP Inter (NDs) 1 of 2

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

Within Limit

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-2.334, Std. Dev.=0.6606, n=81. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9642, critical = 0.958. Kappa = 2.047 (c=9, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.005836. Individual comparison alpha = 0.0005852. Comparing 3 points to limit. Assumes 7 future values.

Constituent: Barium Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

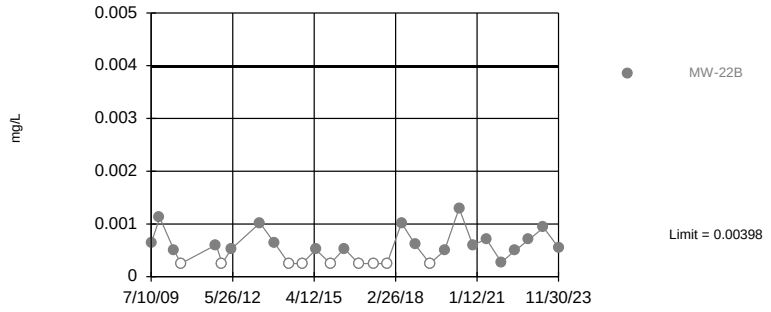
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

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 81 background values. 67.9% NDs. Annual per-constituent alpha = 0.005805. Individual comparison alpha = 0.0002911 (1 of 2). Assumes 9 future values.

Constituent: Cadmium Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

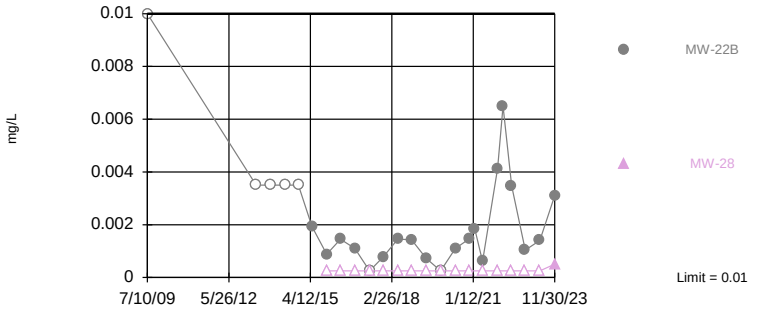
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

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 65 background values. 83.08% NDs. Annual per-constituent alpha = 0.008978. Individual comparison alpha = 0.0004508 (1 of 2). Comparing 2 points to limit. Assumes 8 future values.

Constituent: Cobalt Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

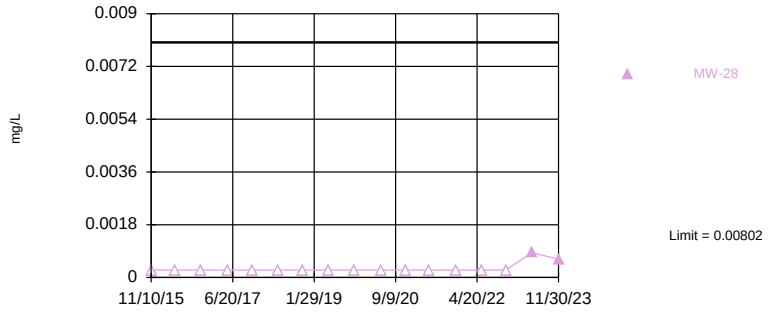
Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG

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 76 background values. 89.47% NDs. Annual per-constituent alpha = 0.006622. Individual comparison alpha = 0.0003321 (1 of 2). Assumes 9 future values.

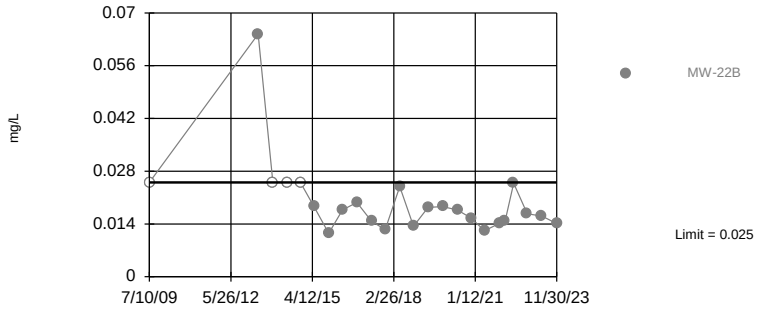
Constituent: Lead Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual

Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Sanitas™ v.9.6.37 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Interwell Non-parametric



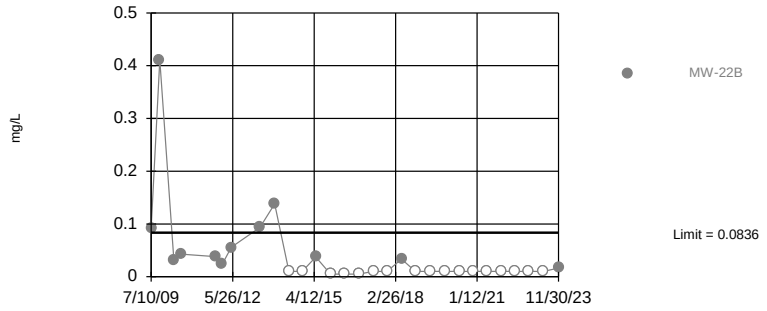
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 65 background values. 93.85% NDs. Annual per-constituent alpha = 0.008978. Individual comparison alpha = 0.0004508 (1 of 2). Assumes 9 future values.

Constituent: Nickel Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

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 81 background values. 79.01% NDs. Annual per-constituent alpha = 0.005805. Individual comparison alpha = 0.0002911 (1 of 2). Assumes 9 future values.

Constituent: Zinc Analysis Run 2/26/2024 3:00 PM View: 2023AWQR AM PL SemiAnnual
Kossuth County SLF Client: SCS Engineers Data: Kossuth County HMSP Sanitas

Attachment D

Sen's Slope/Mann Kendall Trend Test Summary Table and Graphs

Trend Test

Kossuth County SLF Data: Kossuth-AM 2023AWQR Printed 2/26/2024, 3:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-19	0.2948	16	21	No	8	0	0.01	NP
1,1-Dichloroethane (ug/L)	MWPz-16A	-0.00771	0	21	No	8	0	0.01	NP
4,4`-DDD (ug/L)	MW-19	0.001355	3	12	No	5	80	0.01	NP
Acetone (ug/L)	MW-18	0	13	21	No	8	75	0.01	NP
Acetone (ug/L)	MW-19	0	-6	-21	No	8	62.5	0.01	NP
Acetone (ug/L)	MW-22B	0	3	21	No	8	87.5	0.01	NP
Arsenic (mg/L)	MW-18	0	-1	-21	No	8	75	0.01	NP
Arsenic (mg/L)	MW-19	0.01601	20	21	No	8	0	0.01	NP
Arsenic (mg/L)	MW-20	0	-11	-21	No	8	75	0.01	NP
Barium (mg/L)	MW-18	-0.007229	-16	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-19	0.07048	18	21	No	8	0	0.01	NP
Barium (mg/L)	MW-20	-0.01218	-21	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-22B	0.003264	4	21	No	8	0	0.01	NP
Barium (mg/L)	MW-23	-0.0003349	-2	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-25	-0.01311	-19	-21	No	8	0	0.01	NP
Barium (mg/L)	MW-28	0.002909	4	21	No	8	0	0.01	NP
Barium (mg/L)	MWPz-16A	0.002756	2	21	No	8	0	0.01	NP
Benzene (ug/L)	MW-19	0.04543	5	21	No	8	50	0.01	NP
Benzene (ug/L)	MW-22B	0.7305	16	21	No	8	12.5	0.01	NP
Cadmium (mg/L)	MW-18	-0.0000355	-8	-21	No	8	62.5	0.01	NP
Cadmium (mg/L)	MW-19	-0.0001181	-9	-21	No	8	37.5	0.01	NP
Cadmium (mg/L)	MW-20	-0.00001704	-5	-21	No	8	25	0.01	NP
Cadmium (mg/L)	MW-22B	-0.0000388	-4	-21	No	8	0	0.01	NP
Cadmium (mg/L)	MW-23	-0.00003743	-8	-21	No	8	25	0.01	NP
Cadmium (mg/L)	MW-25	-0.00009178	-14	-21	No	8	12.5	0.01	NP
Cadmium (mg/L)	MW-28	-0.00002468	-8	-21	No	8	12.5	0.01	NP
Cadmium (mg/L)	MWPz-16A	-0.00001575	-4	-21	No	8	25	0.01	NP
Chromium (mg/L)	MW-22B	0	7	21	No	8	87.5	0.01	NP
cis-1,2-Dichloroethene (ug/L)	**MW-22B**	**9.777**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**
cis-1,2-Dichloroethene (ug/L)	MWPz-16A	0.002068	0	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-19	0.00009251	0	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-22B	0.00004955	0	21	No	8	0	0.01	NP
Cobalt (mg/L)	MW-25	0	1	21	No	8	87.5	0.01	NP
Cobalt (mg/L)	MW-28	0	7	21	No	8	87.5	0.01	NP
Cyanide (ug/L)	MW-22B	0	-1	-8	No	4	75	0.01	NP
Lead (mg/L)	MW-18	0	7	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-19	0	-3	-21	No	8	75	0.01	NP
Lead (mg/L)	MW-22B	0	5	21	No	8	87.5	0.01	NP
Lead (mg/L)	MW-25	0	1	21	No	8	75	0.01	NP
Lead (mg/L)	MW-28	0	11	21	No	8	75	0.01	NP
Nickel (mg/L)	MW-19	0.0008882	6	21	No	8	0	0.01	NP
Nickel (mg/L)	MW-22B	0.0006486	4	21	No	8	0	0.01	NP
Nickel (mg/L)	MWPz-16A	0	5	21	No	8	75	0.01	NP
Selenium (mg/L)	MW-18	0.000207	2	21	No	8	12.5	0.01	NP
Selenium (mg/L)	MW-20	0.002231	13	21	No	8	37.5	0.01	NP
Selenium (mg/L)	MW-25	0	-13	-21	No	8	75	0.01	NP
Selenium (mg/L)	MW-28	0	5	21	No	8	87.5	0.01	NP
Silver (mg/L)	MW-22B	0	-1	-21	No	8	87.5	0.01	NP
Silver (mg/L)	MW-28	0	-1	-21	No	8	87.5	0.01	NP
Sulfide (ug/L)	MW-18	0	1	8	No	4	75	0.01	NP

Trend Test

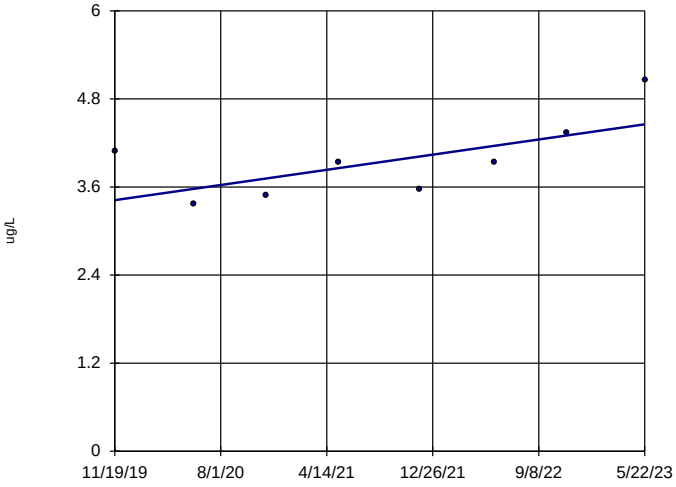
Kossuth County SLF Data: Kossuth-AM 2023AWQR Printed 2/26/2024, 3:39 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
Sulfide (ug/L)	MW-19	0	1	8	No	4	75	0.01	NP
Sulfide (ug/L)	MW-22B	0	1	8	No	4	75	0.01	NP
Sulfide (ug/L)	MW-23	0	1	8	No	4	75	0.01	NP
Sulfide (ug/L)	MWPz-16A	-70.48	-1	-8	No	4	75	0.01	NP
Thallium (mg/L)	MW-18	0	5	21	No	8	87.5	0.01	NP
Thallium (mg/L)	MW-22B	0	3	21	No	8	87.5	0.01	NP
Thallium (mg/L)	MW-28	0	3	21	No	8	87.5	0.01	NP
trans-1,2-Dichloroethene (ug/L)	MW-22B	0.1002	8	21	No	8	50	0.01	NP
Vanadium (mg/L)	MW-18	0	1	21	No	8	87.5	0.01	NP
Vanadium (mg/L)	MW-20	0	-3	-21	No	8	75	0.01	NP
Vinyl Chloride (ug/L)	MW-22B	0.539	6	21	No	8	0	0.01	NP
Zinc (mg/L)	MW-19	0	-1	-21	No	8	75	0.01	NP
Zinc (mg/L)	MW-22B	0	7	21	No	8	87.5	0.01	NP

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.2948 units per year.

Mann-Kendall statistic = 16 critical = 21

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

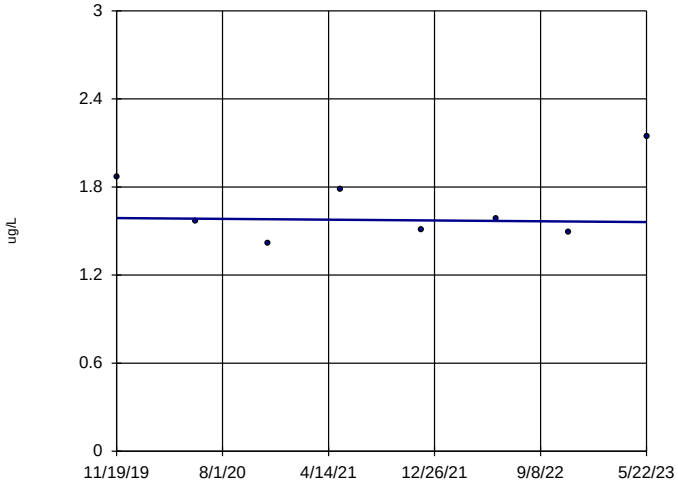
Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 3:37 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MWPz-16A



n = 8

Slope = -0.00771 units per year.

Mann-Kendall statistic = 0 critical = 21

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

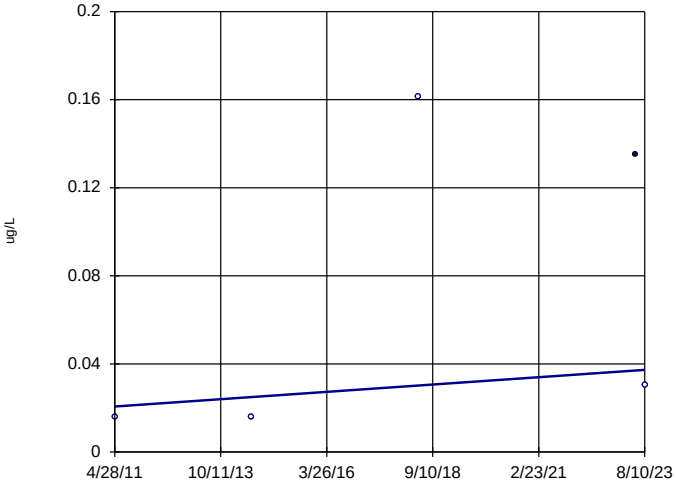
Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 3:37 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 5

Slope = 0.001355 units per year.

Mann-Kendall statistic = 3 critical = 12

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

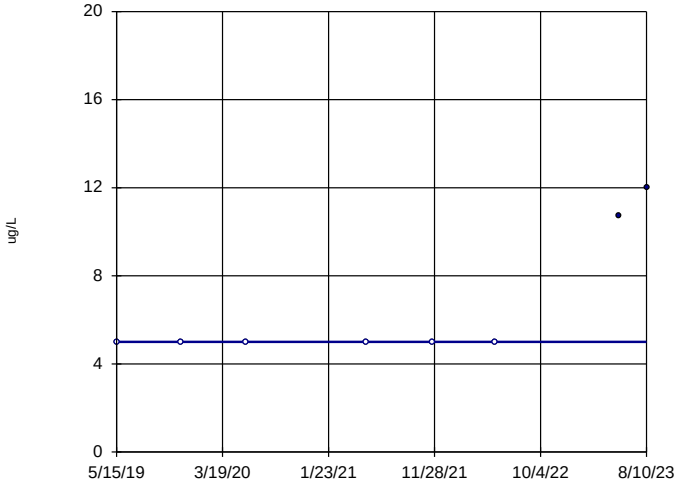
Constituent: 4,4`-DDD Analysis Run 2/26/2024 3:37 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 13 critical = 21

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

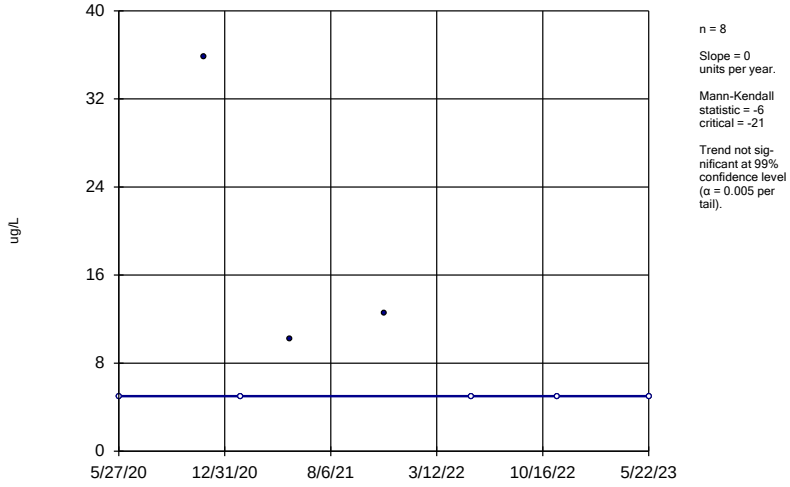
Constituent: Acetone Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -6
critical = -21

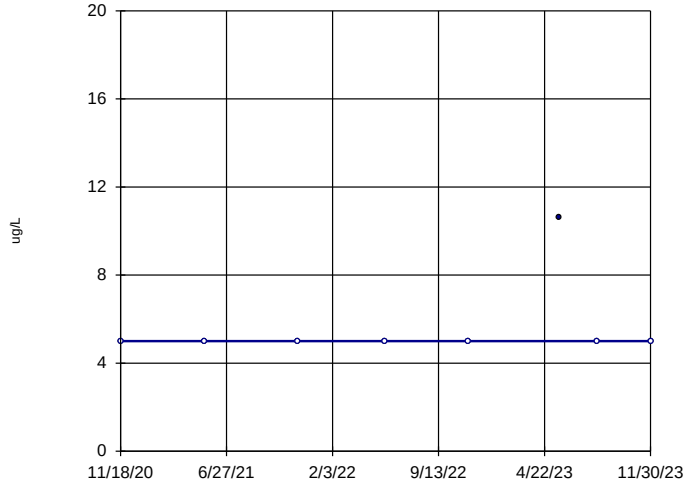
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 3
critical = 21

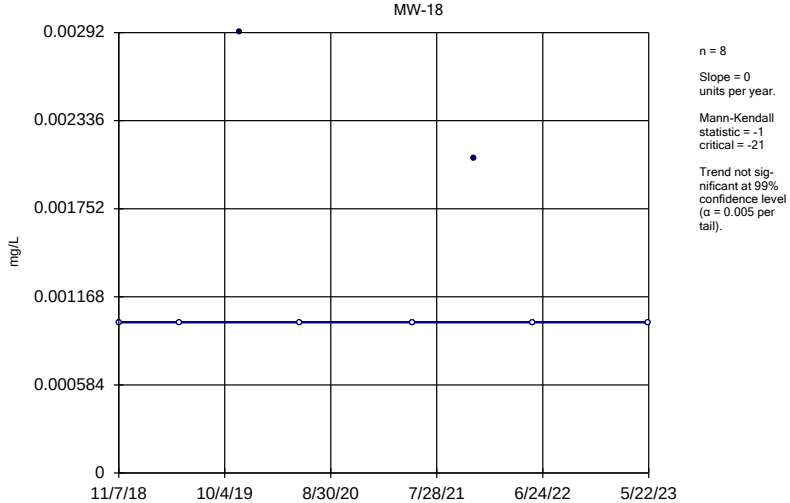
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Acetone Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -1
critical = -21

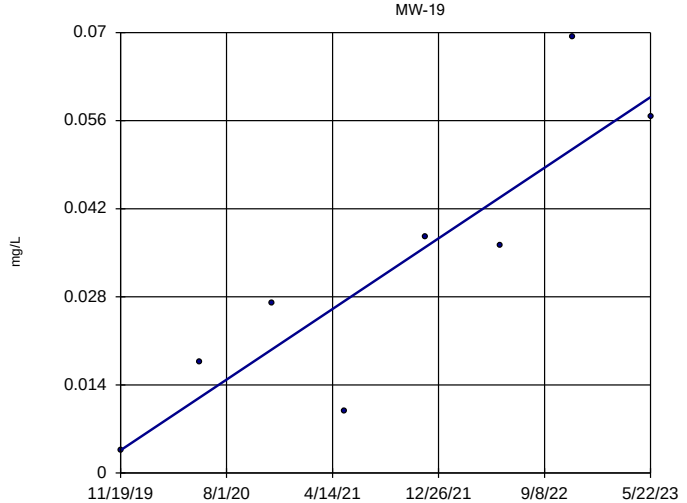
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Arsenic Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.01601
units per year.

Mann-Kendall
statistic = 20
critical = 21

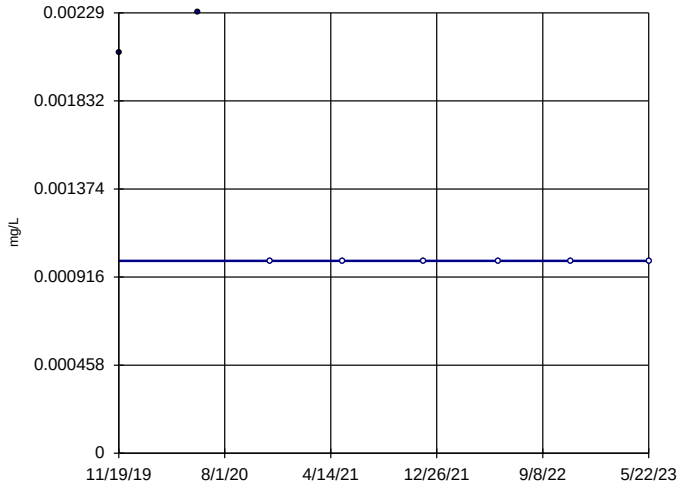
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Arsenic Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -11 critical = -21

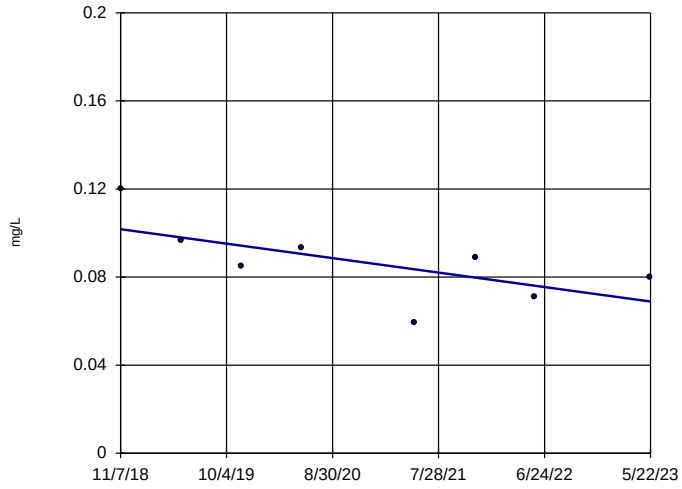
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Arsenic Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-18



n = 8

Slope = -0.007229 units per year.

Mann-Kendall statistic = -16 critical = -21

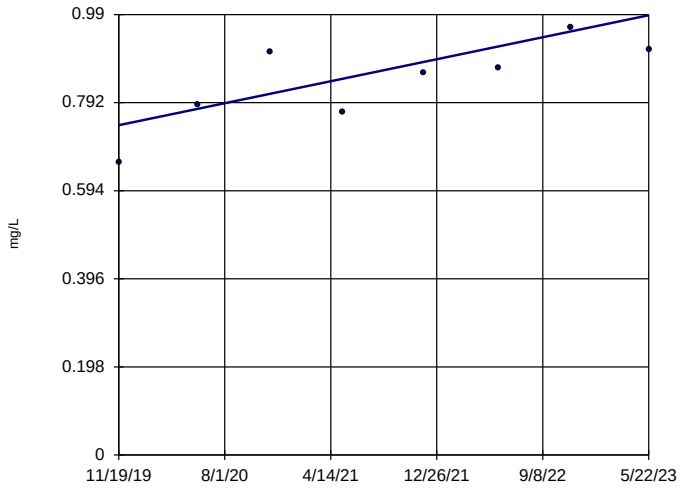
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.07048 units per year.

Mann-Kendall statistic = 18 critical = 21

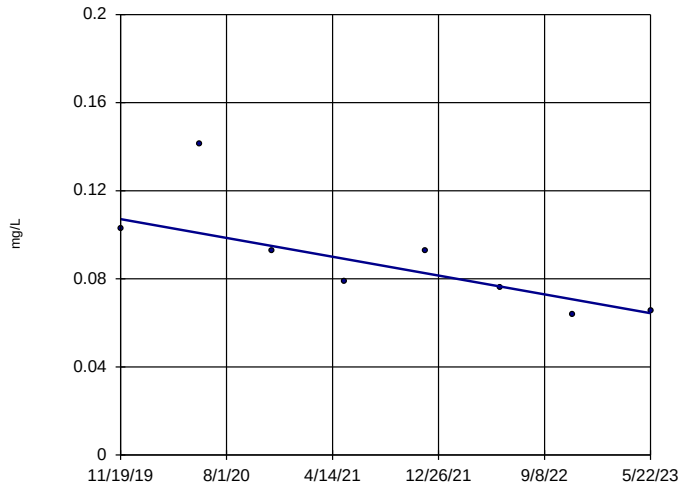
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-20



n = 8

Slope = -0.01218 units per year.

Mann-Kendall statistic = -21 critical = -21

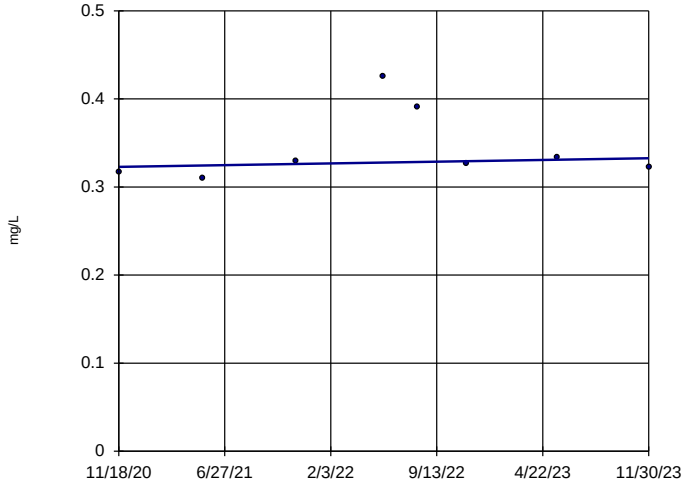
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0.003264 units per year.

Mann-Kendall statistic = 4 critical = 21

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

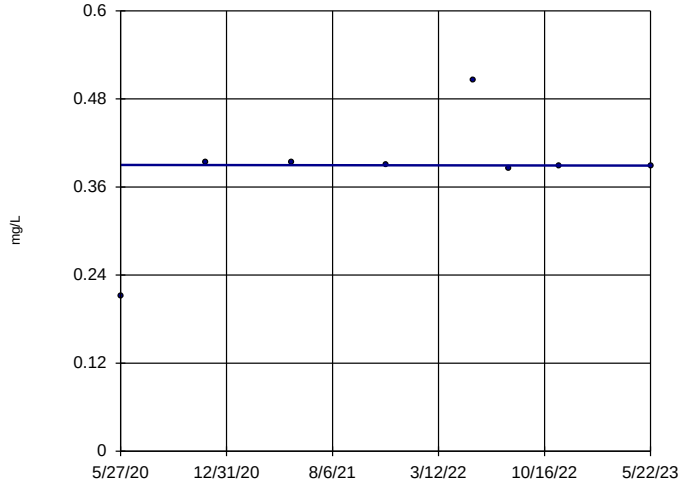
Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-23



n = 8

Slope = -0.0003349 units per year.

Mann-Kendall statistic = -2 critical = -21

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

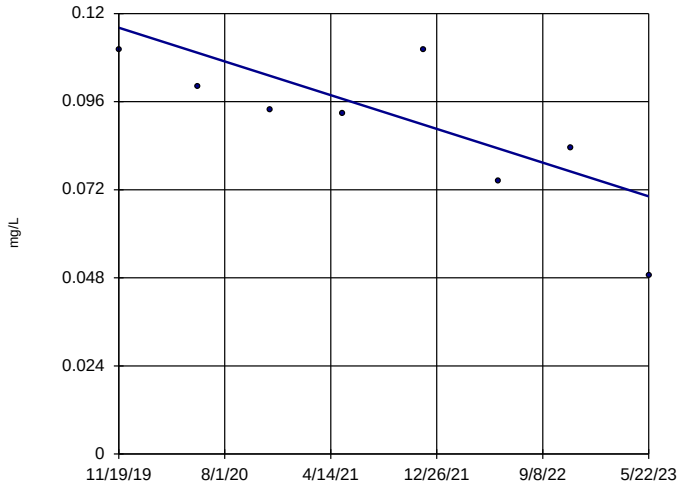
Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-25



n = 8

Slope = -0.01311 units per year.

Mann-Kendall statistic = -19 critical = -21

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

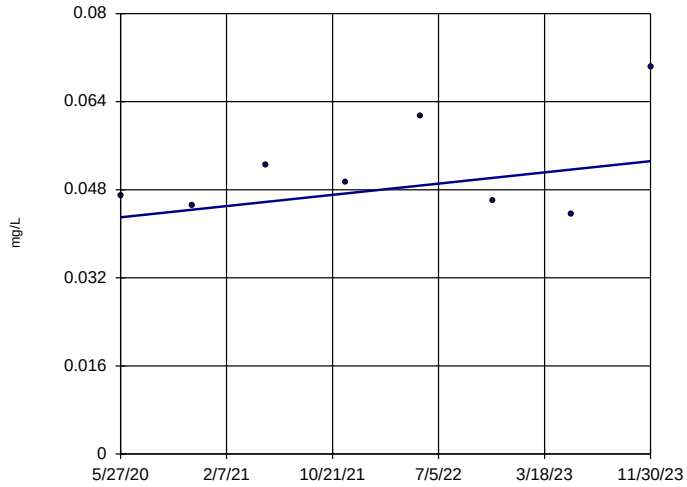
Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-28



n = 8

Slope = 0.002909 units per year.

Mann-Kendall statistic = 4 critical = 21

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

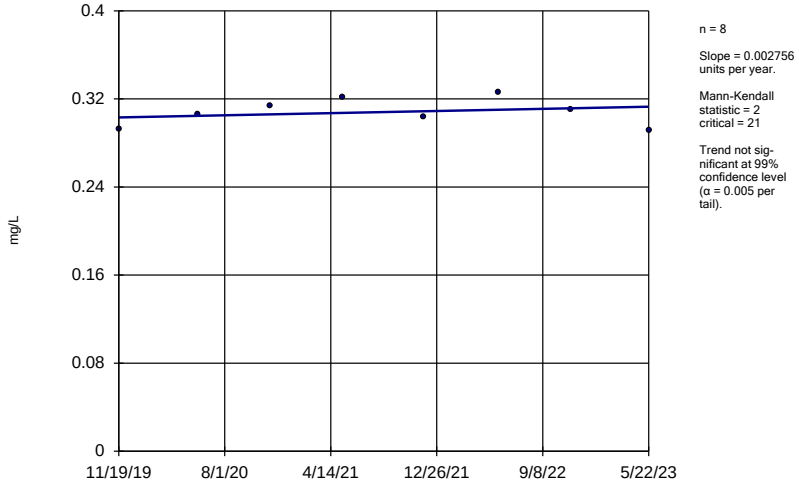
Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MWPz-16A



n = 8

Slope = 0.002756 units per year.

Mann-Kendall statistic = 2 critical = 21

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

Constituent: Barium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

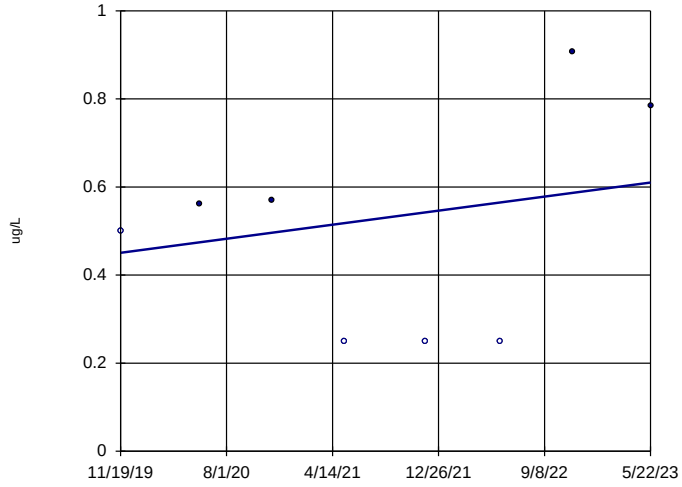
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.04543 units per year.

Mann-Kendall statistic = 5 critical = 21

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

Constituent: Benzene Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

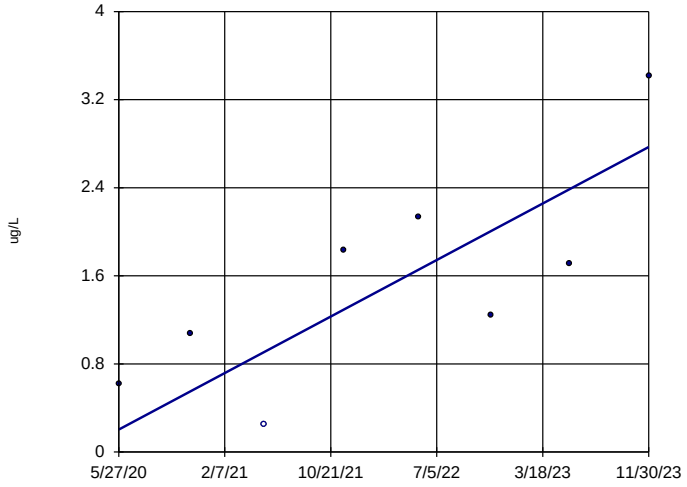
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0.7305 units per year.

Mann-Kendall statistic = 16 critical = 21

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

Constituent: Benzene Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

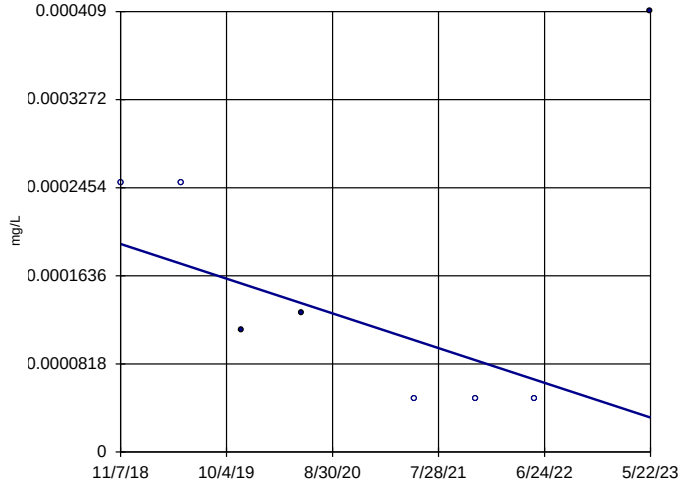
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = -0.0000355 units per year.

Mann-Kendall statistic = -8 critical = -21

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

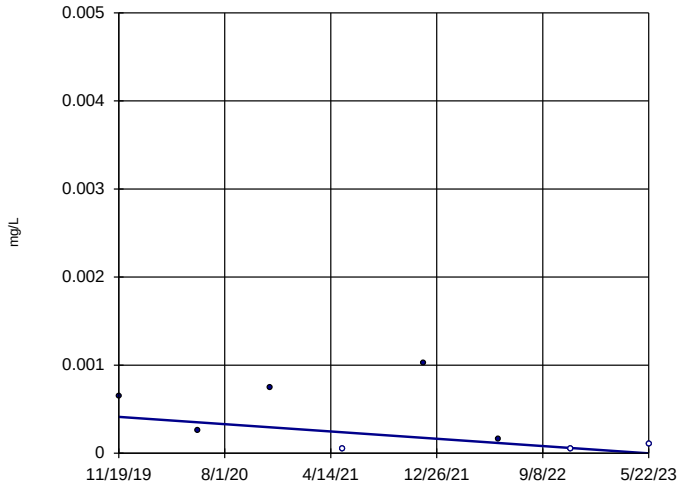
Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = -0.0001181 units per year.

Mann-Kendall statistic = -9
critical = -21

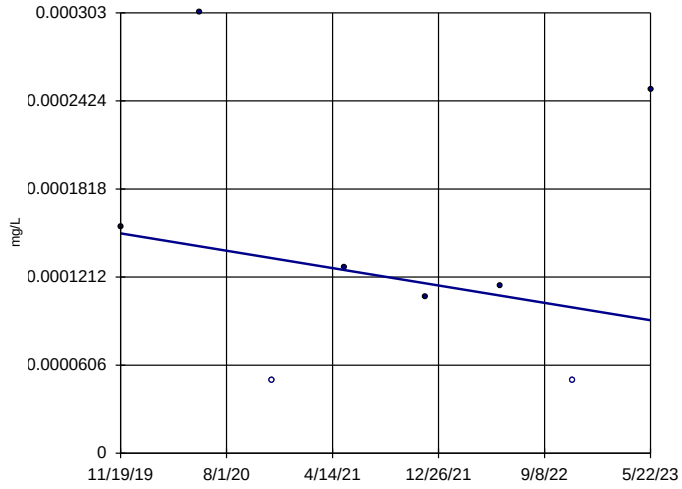
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = -0.00001704 units per year.

Mann-Kendall statistic = -5
critical = -21

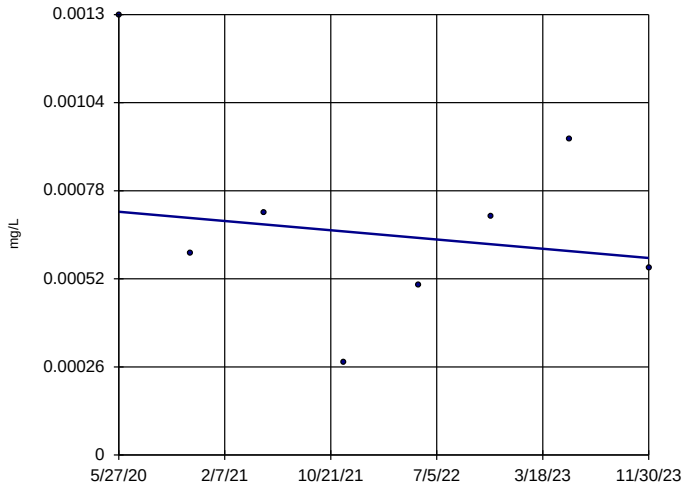
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-22B



n = 8

Slope = -0.0000388 units per year.

Mann-Kendall statistic = -4
critical = -21

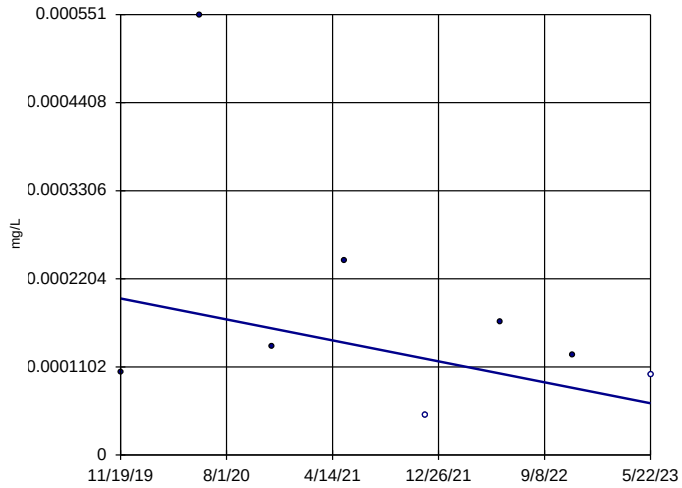
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-23



n = 8

Slope = -0.00003743 units per year.

Mann-Kendall statistic = -8
critical = -21

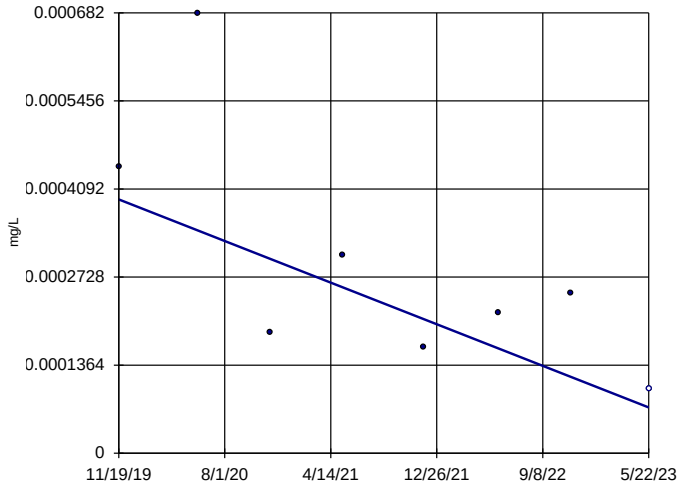
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25



n = 8

Slope = -0.00009178 units per year.

Mann-Kendall statistic = -14
critical = -21

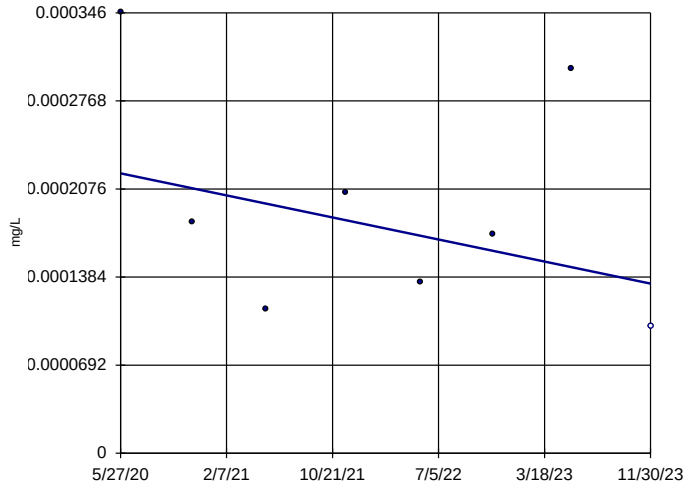
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = -0.00002468 units per year.

Mann-Kendall statistic = -8
critical = -21

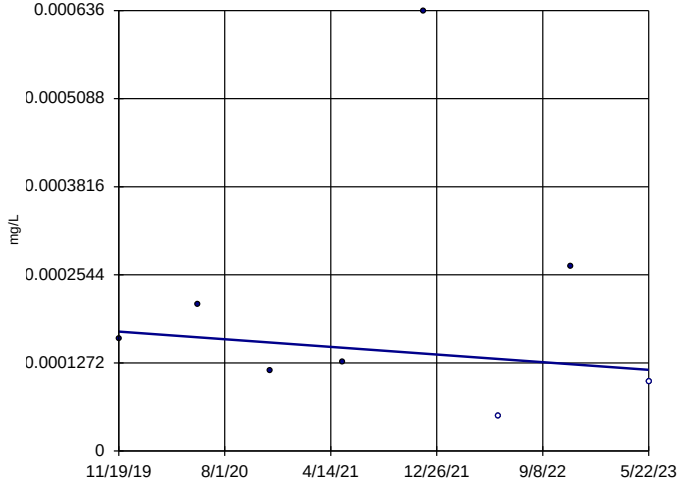
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MWPz-16A



n = 8

Slope = -0.00001575 units per year.

Mann-Kendall statistic = -4
critical = -21

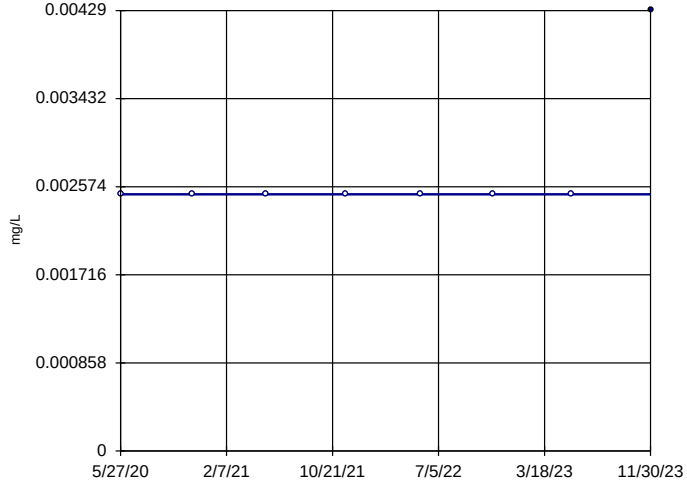
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Cadmium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 7
critical = 21

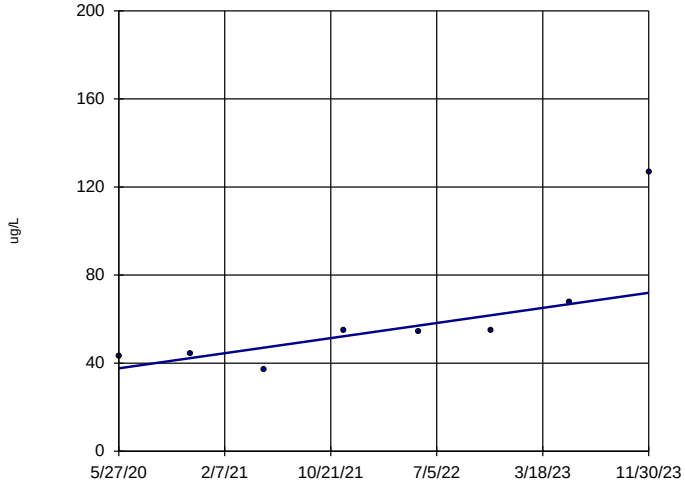
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chromium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-22B



n = 8

Slope = 9.777 units per year.

Mann-Kendall statistic = 22 critical = 21

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

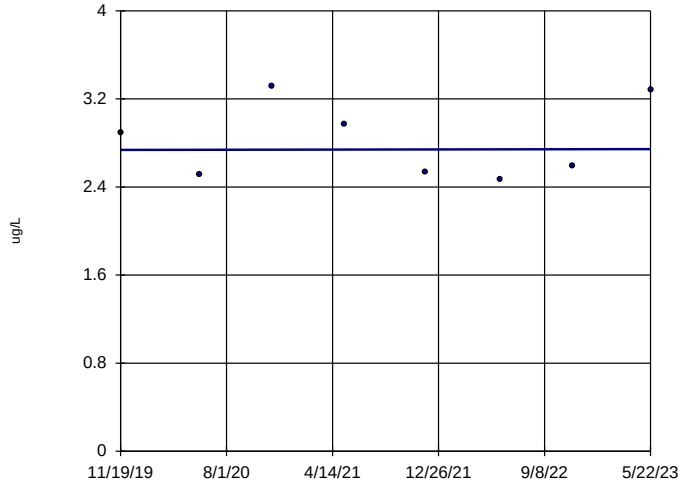
Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MWPz-16A



n = 8

Slope = 0.002068 units per year.

Mann-Kendall statistic = 0 critical = 21

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

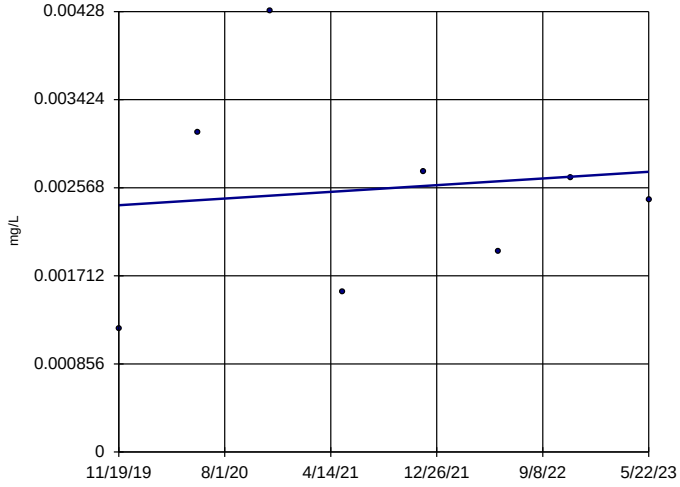
Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.00009251 units per year.

Mann-Kendall statistic = 0 critical = 21

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

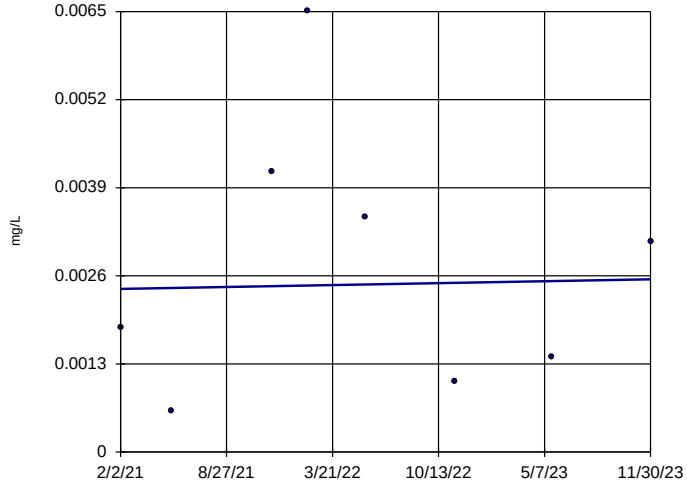
Constituent: Cobalt Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0.00004955 units per year.

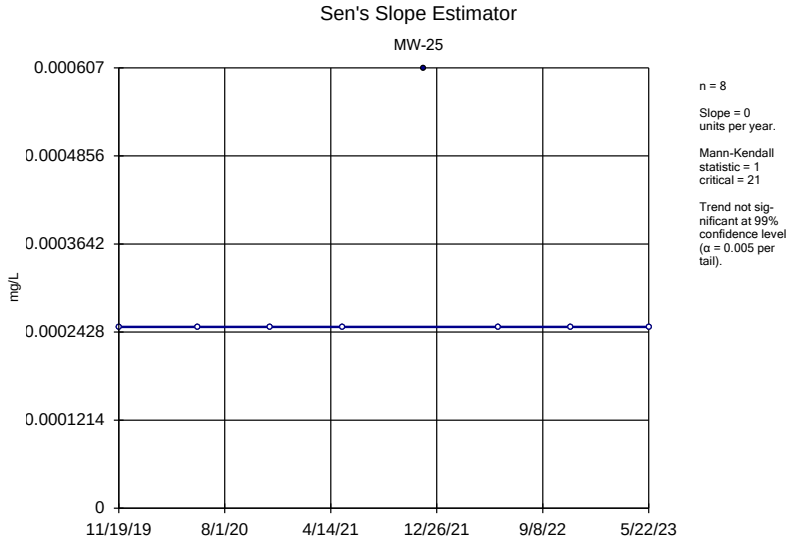
Mann-Kendall statistic = 0 critical = 21

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

Constituent: Cobalt Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

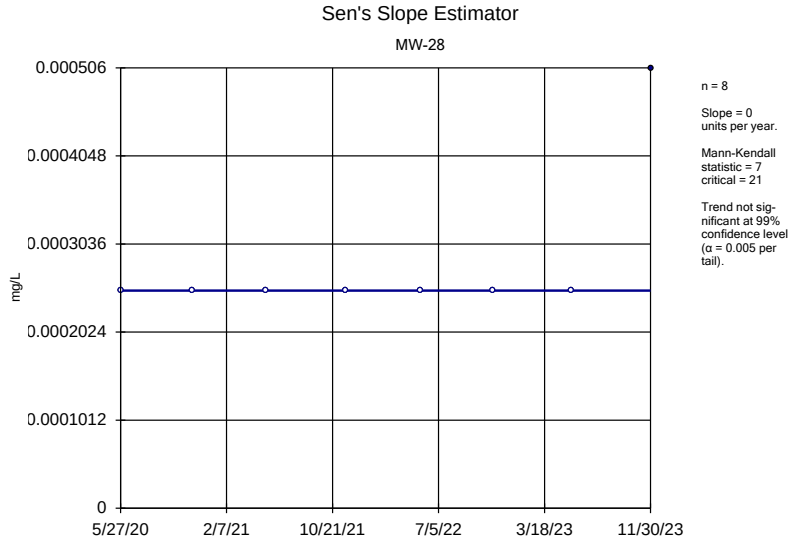
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



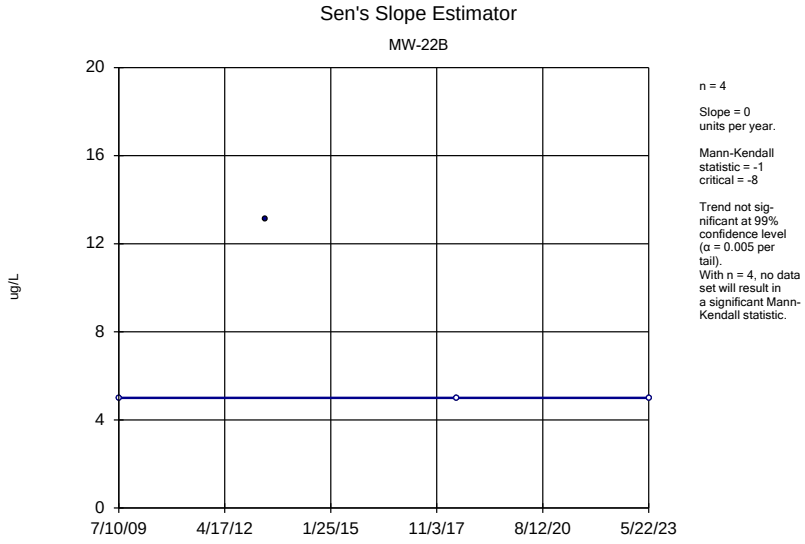
Constituent: Cobalt Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



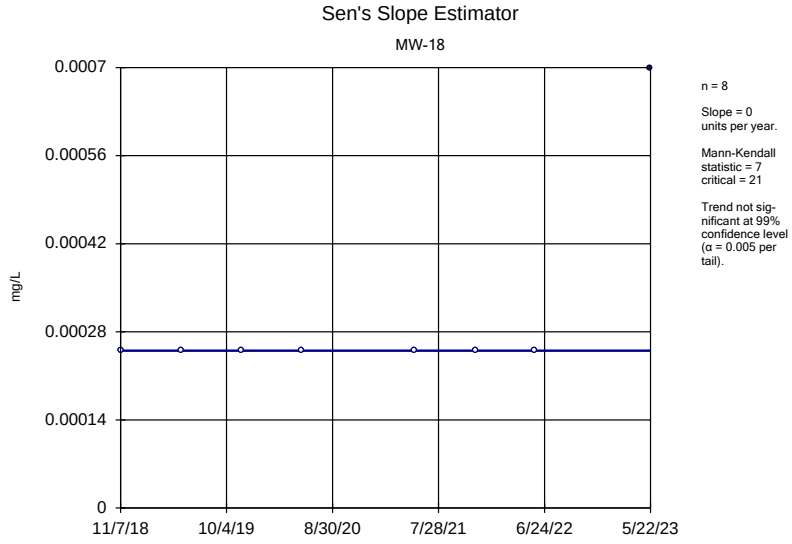
Constituent: Cobalt Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Cyanide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

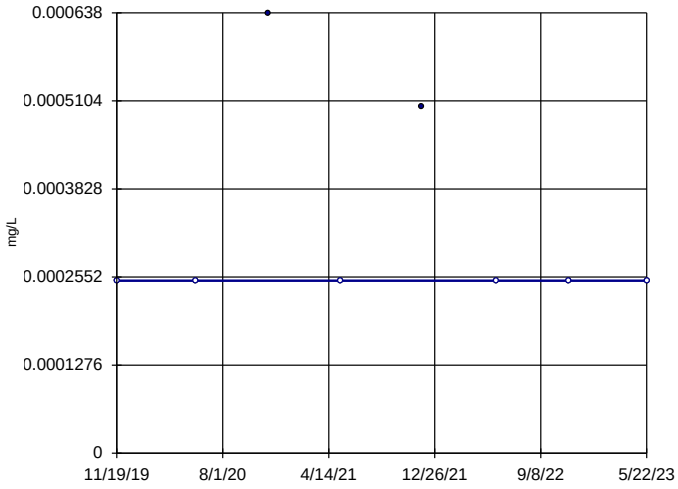


Constituent: Lead Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -3
critical = -21

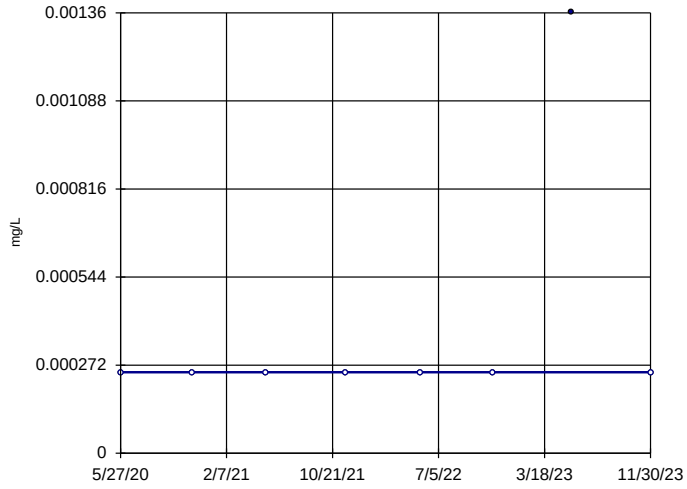
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 5
critical = 21

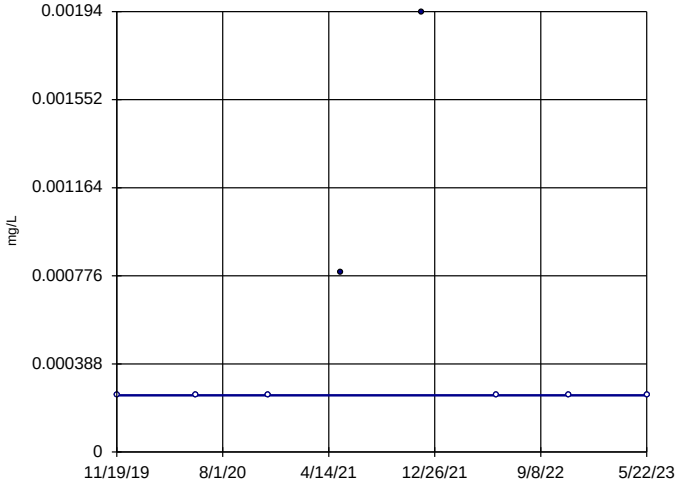
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 1
critical = 21

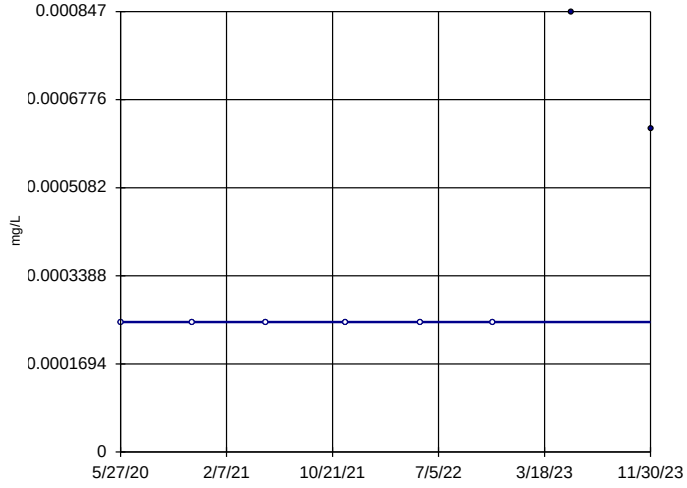
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 11
critical = 21

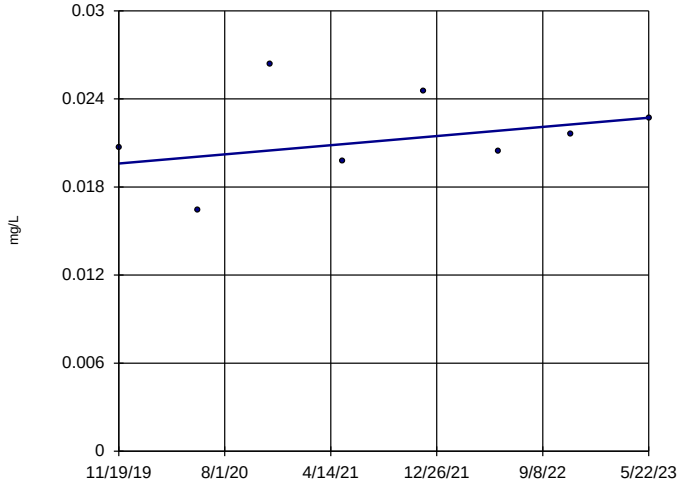
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Lead Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-19



n = 8

Slope = 0.0008882 units per year.

Mann-Kendall statistic = 6 critical = 21

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

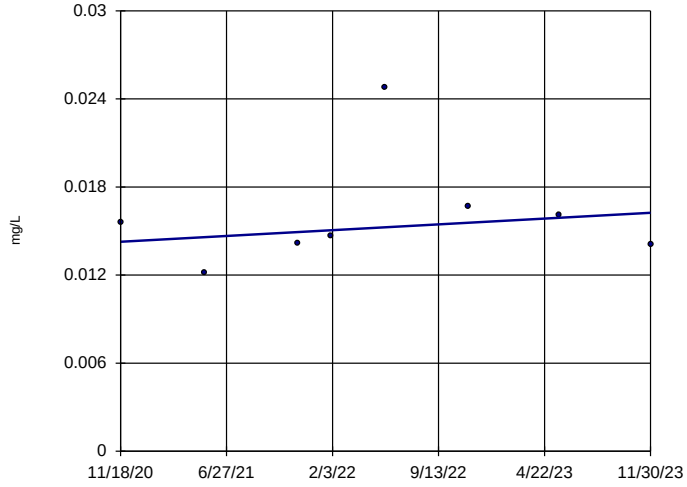
Constituent: Nickel Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0.0006486 units per year.

Mann-Kendall statistic = 4 critical = 21

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

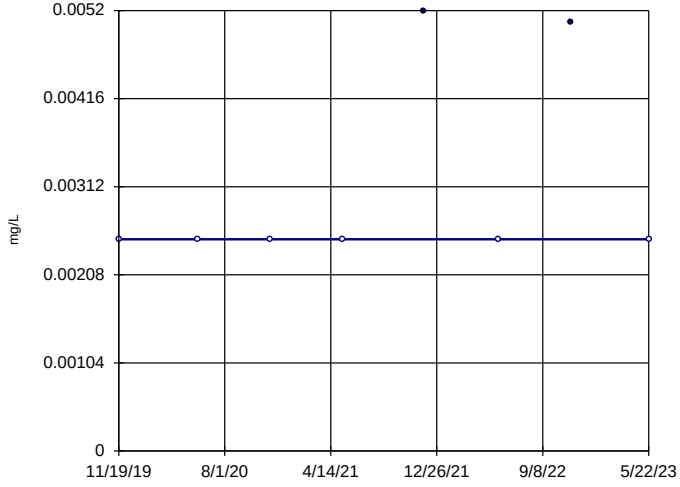
Constituent: Nickel Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MWPz-16A



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).

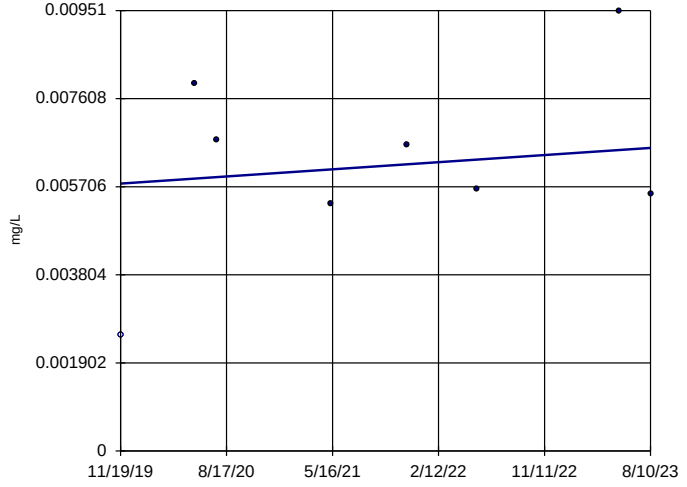
Constituent: Nickel Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = 0.000207 units per year.

Mann-Kendall statistic = 2 critical = 21

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

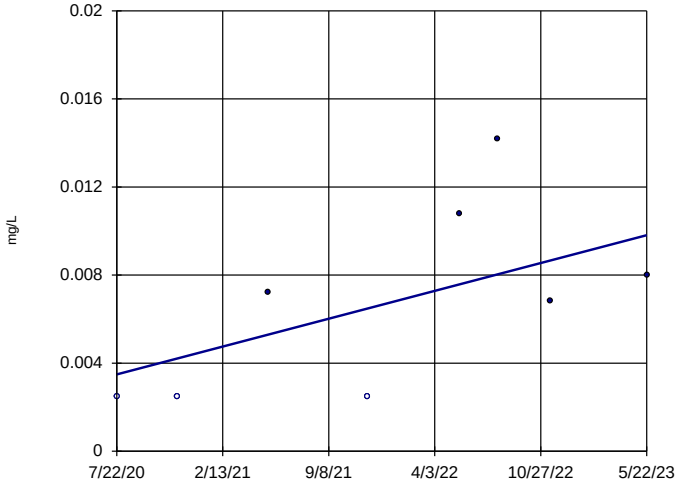
Constituent: Selenium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-20



n = 8

Slope = 0.002231 units per year.

Mann-Kendall statistic = 13 critical = 21

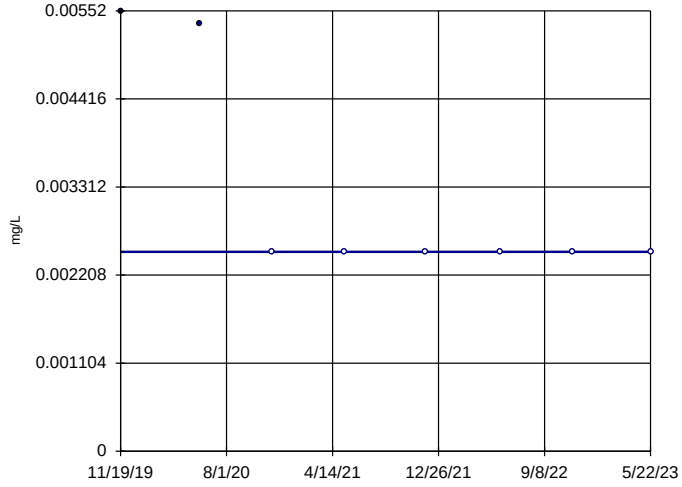
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-25



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -13 critical = -21

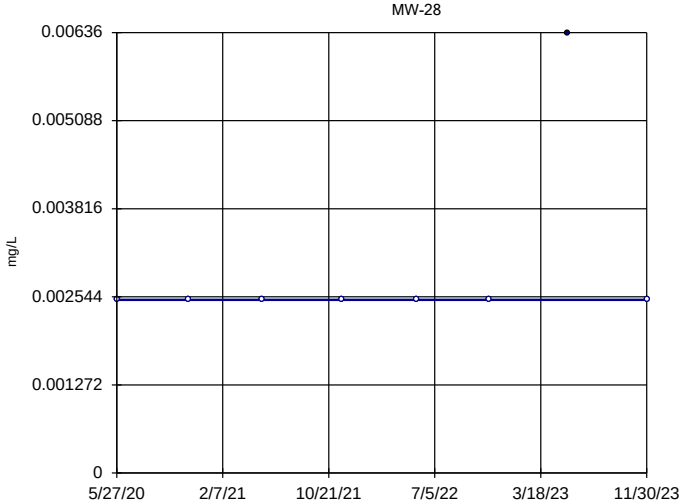
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 21

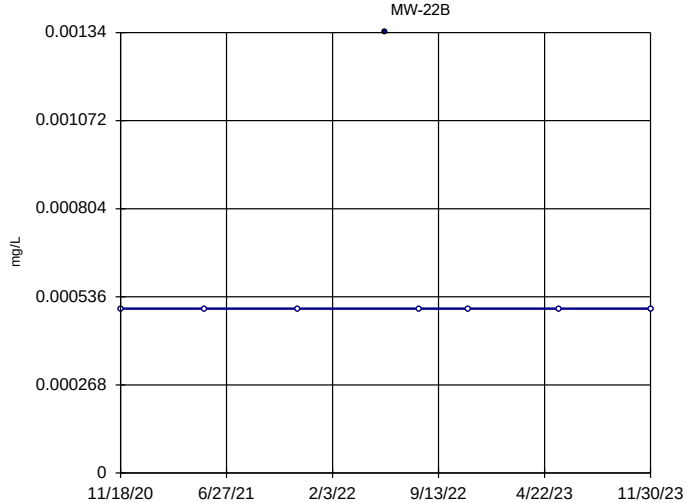
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Selenium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

Slope = 0 units per year.

Mann-Kendall statistic = -1 critical = -21

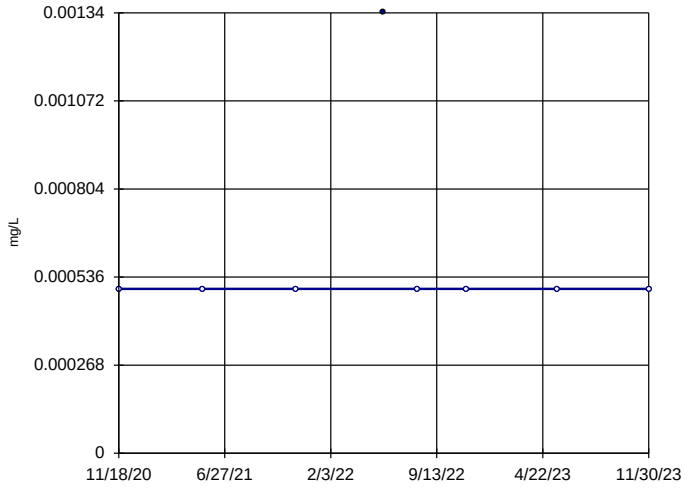
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Silver Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-28



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = -1
critical = -21

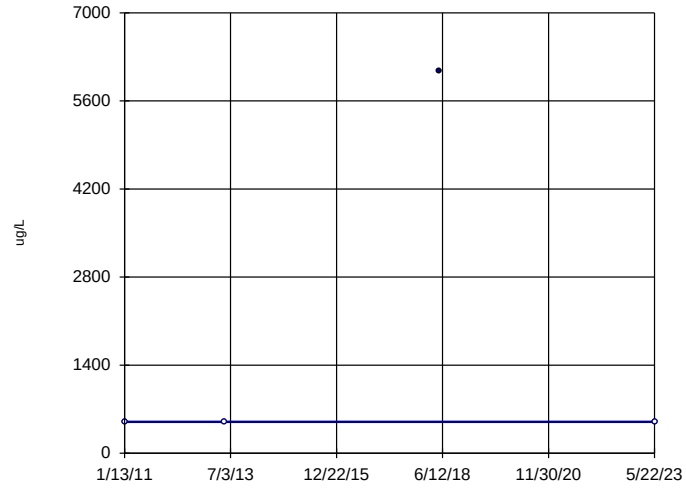
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Silver Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 4

Slope = 0
units per year.

Mann-Kendall
statistic = 1
critical = 8

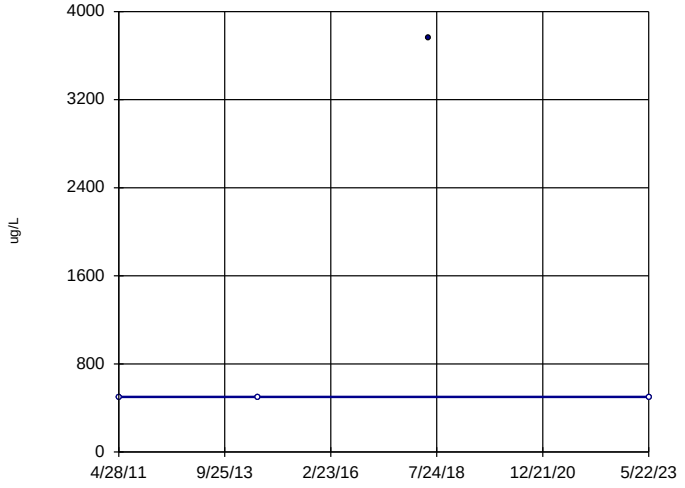
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).
With n = 4, no data
set will result in
a significant Mann-
Kendall statistic.

Constituent: Sulfide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-19



n = 4

Slope = 0
units per year.

Mann-Kendall
statistic = 1
critical = 8

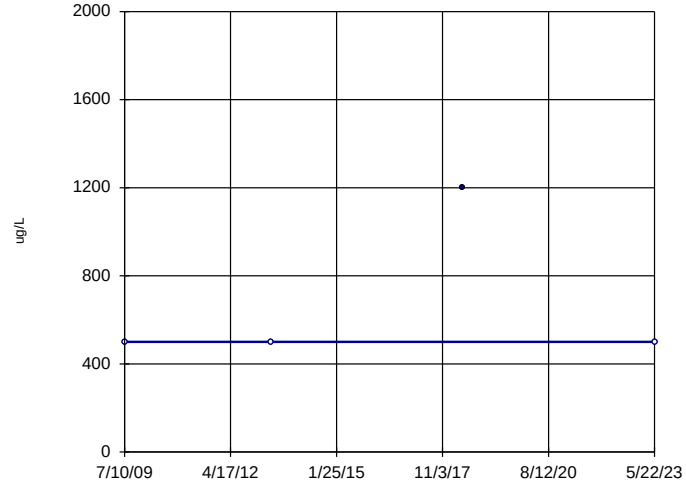
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).
With n = 4, no data
set will result in
a significant Mann-
Kendall statistic.

Constituent: Sulfide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 4

Slope = 0
units per year.

Mann-Kendall
statistic = 1
critical = 8

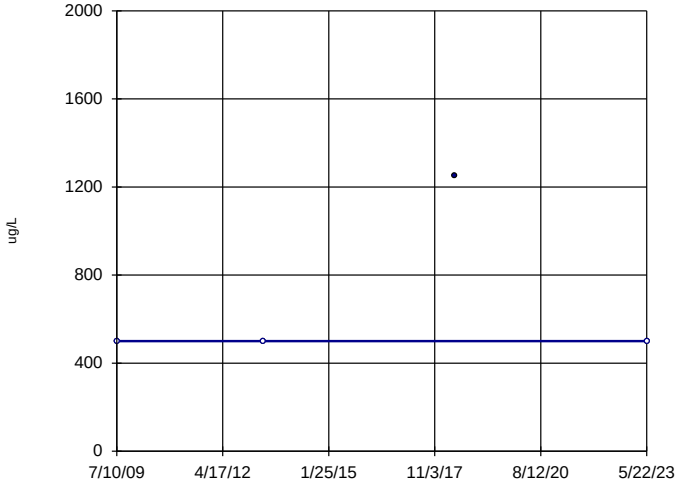
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).
With n = 4, no data
set will result in
a significant Mann-
Kendall statistic.

Constituent: Sulfide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-23



n = 4

Slope = 0
units per year.

Mann-Kendall
statistic = 1
critical = 8

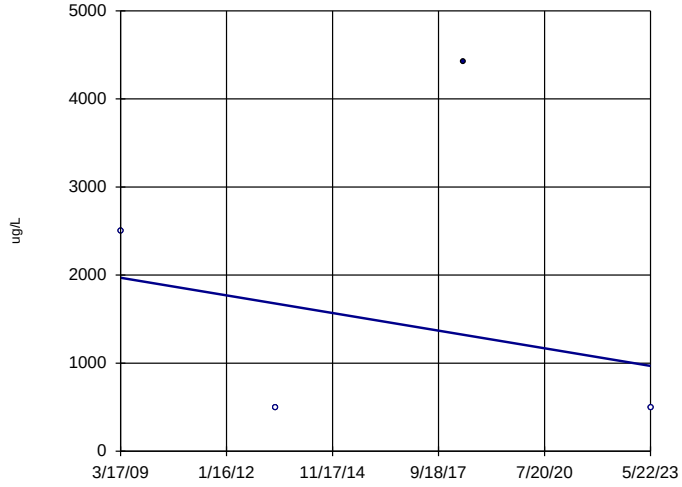
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).
With n = 4, no data
set will result in
a significant Mann-
Kendall statistic.

Constituent: Sulfide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MWPz-16A



n = 4

Slope = -70.48
units per year.

Mann-Kendall
statistic = -1
critical = -8

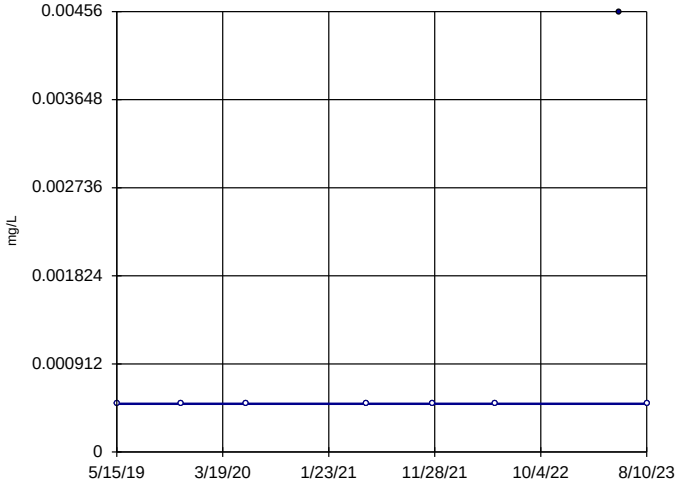
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).
With n = 4, no data
set will result in
a significant Mann-
Kendall statistic.

Constituent: Sulfide Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-18



n = 8

Slope = 0
units per year.

Mann-Kendall
statistic = 5
critical = 21

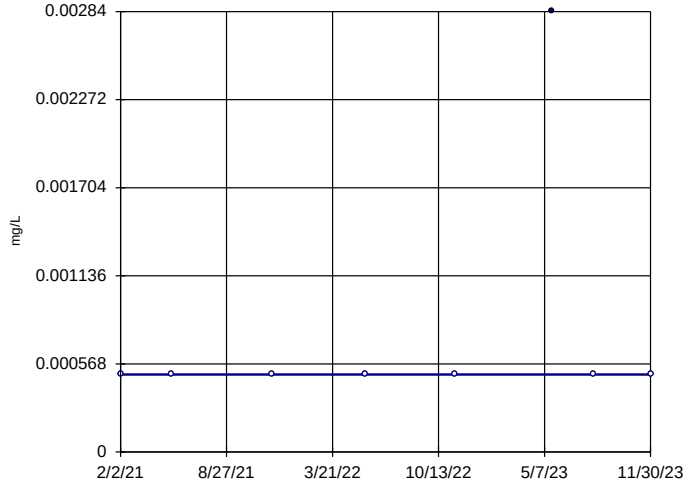
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Thallium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

MW-22B



n = 8

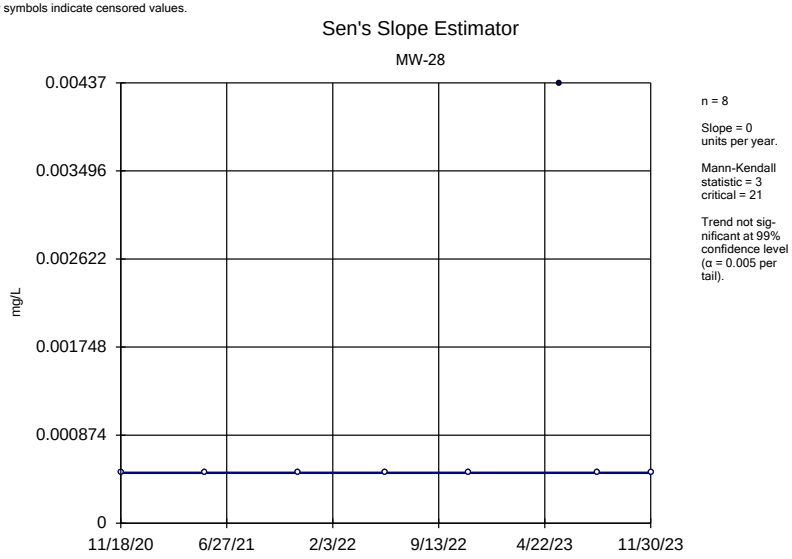
Slope = 0
units per year.

Mann-Kendall
statistic = 3
critical = 21

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

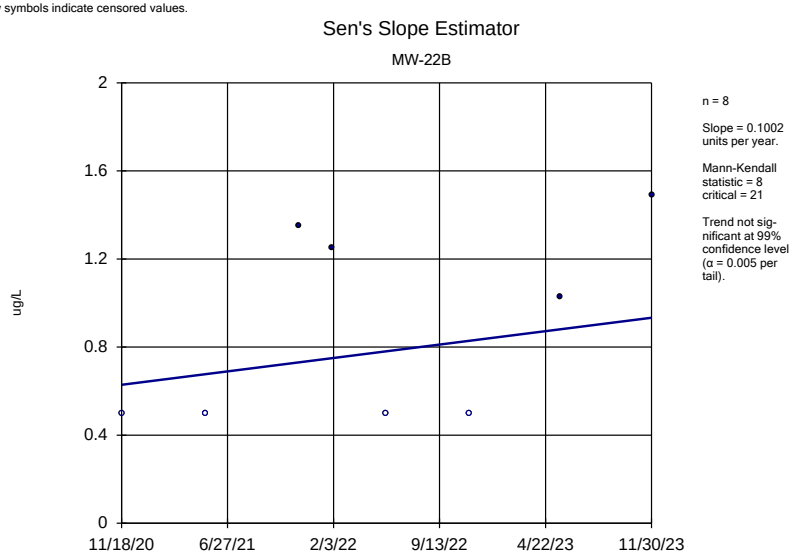
Constituent: Thallium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



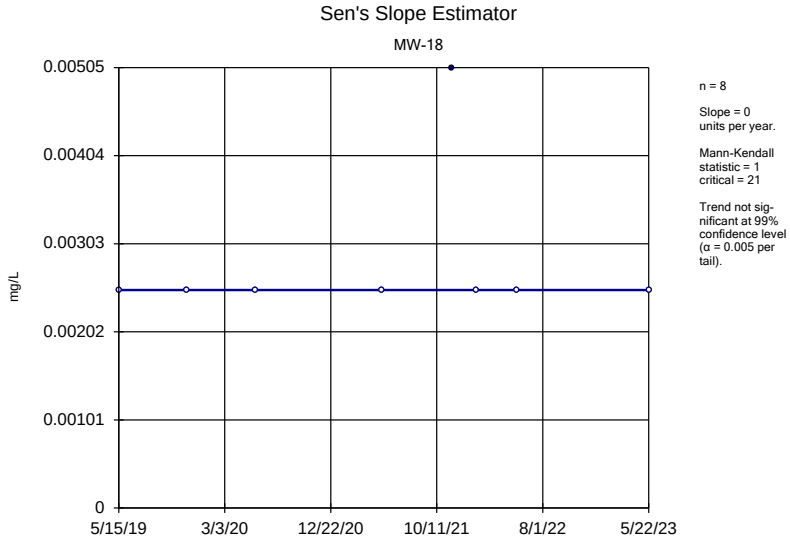
Constituent: Thallium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



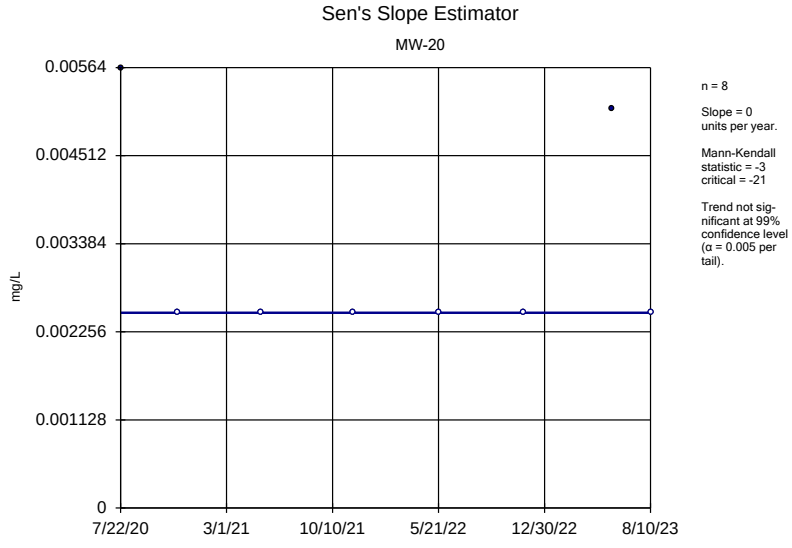
Constituent: trans-1,2-Dichloroethene Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



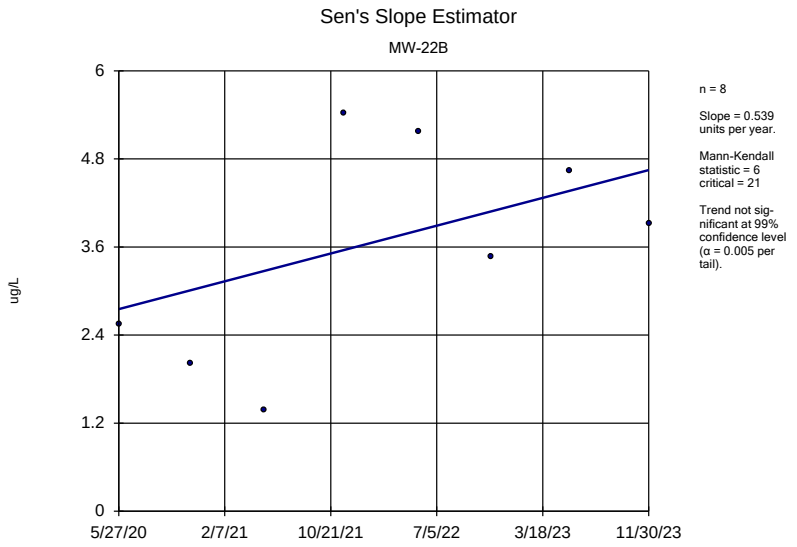
Constituent: Vanadium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



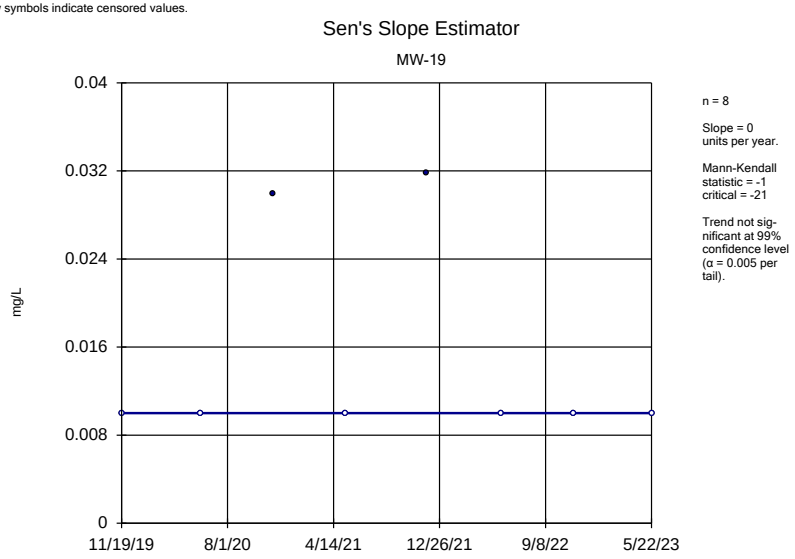
Constituent: Vanadium Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



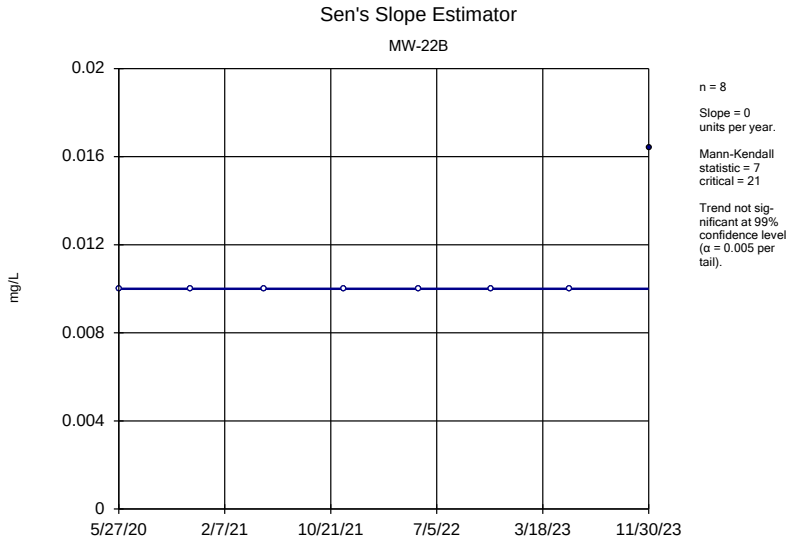
Constituent: Vinyl Chloride Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG
Hollow symbols indicate censored values.



Constituent: Zinc Analysis Run 2/26/2024 3:38 PM View: 2023AWQR - Mann Kendall
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Attachment E

Confidence Interval Summary Table and Graphs

Confidence Interval

Kossuth County SLF Data: Kossuth-AM 2023AWQR Printed 2/26/2024, 3:42 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
1,1-Dichloroethane (ug/L)	MW-19	4.552	3.39	140	No	8	0	No	0.01	Param.
1,1-Dichloroethane (ug/L)	MWPz-16A	1.927	1.413	140	No	8	0	No	0.01	Param.
4,4`-DDD (ug/L)	MW-19	0.1615	0.016	0.73	No	5	80	No	0.031	NP (NDs)
Acetone (ug/L)	MW-18	12	5	6300	No	8	75	No	0.004	NP (NDs)
Acetone (ug/L)	MW-19	35.8	5	6300	No	8	62.5	No	0.004	NP (NDs)
Acetone (ug/L)	MW-22B	10.6	5	6300	No	8	87.5	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-18	0.00292	0.001	0.01	No	8	75	No	0.004	NP (NDs)
Arsenic (mg/L)	MW-19	0.05621	0.008254	0.01	No	8	0	No	0.01	Param.
Arsenic (mg/L)	MW-20	0.00229	0.001	0.01	No	8	75	No	0.004	NP (NDs)
Barium (mg/L)	MW-18	0.106	0.06772	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-19	0.9438	0.7367	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-20	0.1158	0.06271	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-22B	0.3874	0.3008	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-23	0.506	0.212	2	No	8	0	No	0.004	NP (normality)
Barium (mg/L)	MW-25	0.1108	0.0675	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MW-28	0.06173	0.04195	2	No	8	0	No	0.01	Param.
Barium (mg/L)	MWPz-16A	0.3215	0.295	2	No	8	0	No	0.01	Param.
Benzene (ug/L)	MW-19	0.7771	0.4578	5	No	8	50	No	0.01	Param.
Benzene (ug/L)	MW-22B	2.576	0.4917	5	No	8	12.5	No	0.01	Param.
Cadmium (mg/L)	MW-18	0.000409	0.00005	0.005	No	8	62.5	No	0.004	NP (NDs)
Cadmium (mg/L)	MW-19	0.0007533	0.00003622	0.005	No	8	37.5	No	0.01	Param.
Cadmium (mg/L)	MW-20	0.0002338	0.00008119	0.005	No	8	25	No	0.01	Param.
Cadmium (mg/L)	MW-22B	0.001024	0.0003694	0.005	No	8	0	No	0.01	Param.
Cadmium (mg/L)	MW-23	0.000551	0.00005	0.005	No	8	25	No	0.004	NP (normality)
Cadmium (mg/L)	MW-25	0.0004927	0.00009452	0.005	No	8	12.5	No	0.01	Param.
Cadmium (mg/L)	MW-28	0.0002878	0.0001007	0.005	No	8	12.5	No	0.01	Param.
Cadmium (mg/L)	MWPz-16A	0.0003946	0.00004181	0.005	No	8	25	No	0.01	Param.
Chromium (mg/L)	MW-22B	0.00429	0.0025	0.1	No	8	87.5	No	0.004	NP (NDs)
cis-1,2-Dichloroethene (ug/L)	MWPz-16A	3.188	2.454	70	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-19	0.003512	0.001468	0.0021	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-22B	0.004833	0.0006863	0.0021	No	8	0	No	0.01	Param.
Cobalt (mg/L)	MW-25	0.000607	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	MW-28	0.000506	0.00025	0.0021	No	8	87.5	No	0.004	NP (NDs)
Cyanide (ug/L)	MW-22B	13.1	5	200	No	4	75	No	0.0625	NP (NDs)
Lead (mg/L)	MW-18	0.0007	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-19	0.000638	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-22B	0.00136	0.00025	0.015	No	8	87.5	No	0.004	NP (NDs)
Lead (mg/L)	MW-25	0.00194	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Lead (mg/L)	MW-28	0.000847	0.00025	0.015	No	8	75	No	0.004	NP (NDs)
Nickel (mg/L)	MW-19	0.0248	0.01833	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MW-22B	0.02008	0.01202	0.1	No	8	0	No	0.01	Param.
Nickel (mg/L)	MWPz-16A	0.0052	0.0025	0.1	No	8	75	No	0.004	NP (NDs)
Selenium (mg/L)	MW-18	0.008408	0.00405	0.05	No	8	12.5	No	0.01	Param.
Selenium (mg/L)	MW-20	0.011	0.004516	0.05	No	8	37.5	No	0.01	Param.
Selenium (mg/L)	MW-25	0.00552	0.0025	0.05	No	8	75	No	0.004	NP (NDs)
Selenium (mg/L)	MW-28	0.00636	0.0025	0.05	No	8	87.5	No	0.004	NP (NDs)
Silver (mg/L)	MW-22B	0.00134	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Silver (mg/L)	MW-28	0.00134	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Sulfide (ug/L)	MW-18	6080	500	1000	No	4	75	No	0.0625	NP (NDs)
Sulfide (ug/L)	MW-19	3760	500	1000	No	4	75	No	0.0625	NP (NDs)

Confidence Interval

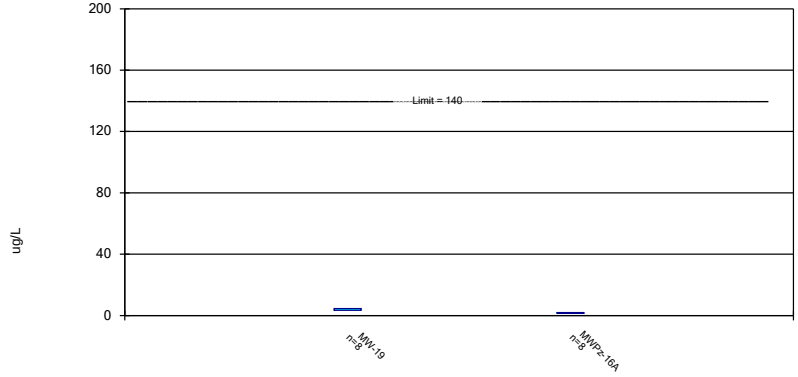
Kossuth County SLF Data: Kossuth-AM 2023AWQR Printed 2/26/2024, 3:42 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Sulfide (ug/L)	MW-22B	1200	500	1000	No	4	75	No	0.0625	NP (NDs)
Sulfide (ug/L)	MW-23	1250	500	1000	No	4	75	No	0.0625	NP (NDs)
Sulfide (ug/L)	MWPz-16A	4420	500	1000	No	4	75	No	0.0625	NP (NDs)
Thallium (mg/L)	MW-18	0.00456	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
Thallium (mg/L)	MW-22B	0.00284	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
Thallium (mg/L)	MW-28	0.00437	0.0005	0.002	No	8	87.5	No	0.004	NP (NDs)
trans-1,2-Dichloroethene (ug/L)	MW-22B	1.334	0.9456	100	No	8	50	No	0.01	Param.
Vanadium (mg/L)	MW-18	0.00505	0.0025	0.035	No	8	87.5	No	0.004	NP (NDs)
Vanadium (mg/L)	MW-20	0.00564	0.0025	0.035	No	8	75	No	0.004	NP (NDs)
Vinyl Chloride (ug/L)	MW-22B	5.149	1.99	2	No	8	0	No	0.01	Param.
Zinc (mg/L)	MW-19	0.0318	0.01	2	No	8	75	No	0.004	NP (NDs)
Zinc (mg/L)	MW-22B	0.0164	0.01	2	No	8	87.5	No	0.004	NP (NDs)

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

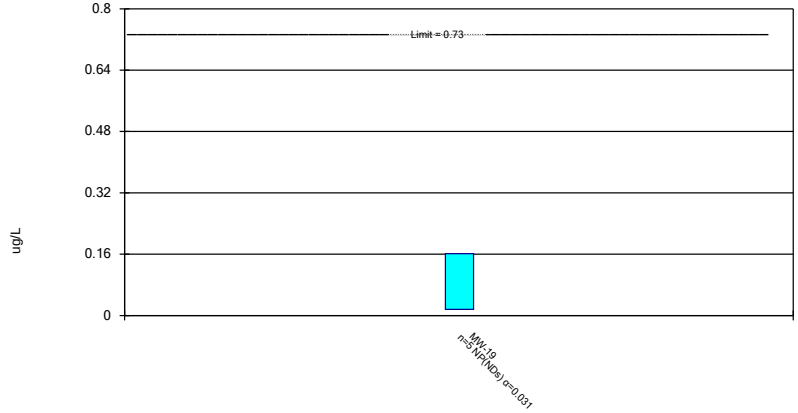


Constituent: 1,1-Dichloroethane Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

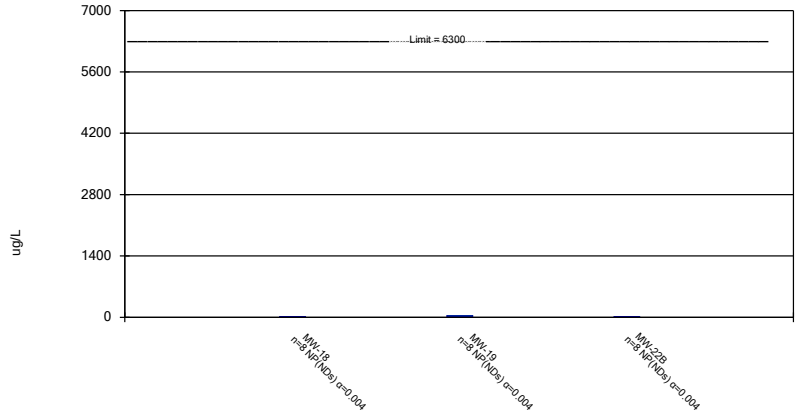


Constituent: 4,4`-DDD Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

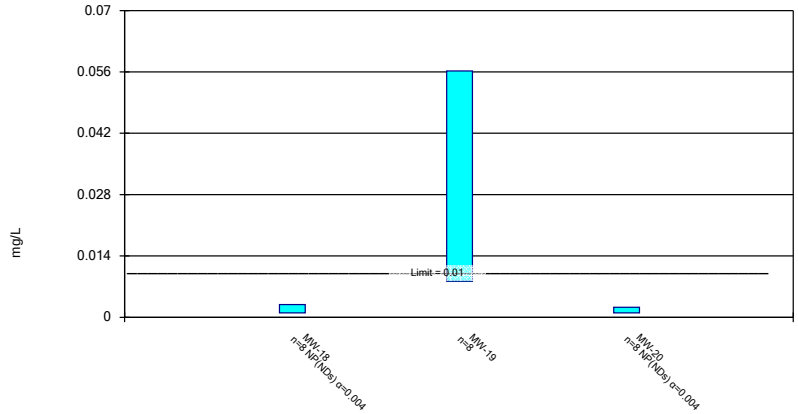


Constituent: Acetone Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.

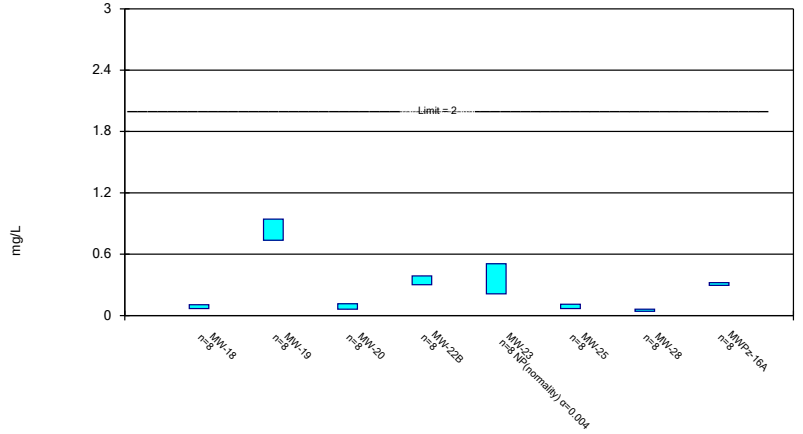


Constituent: Arsenic Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

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.

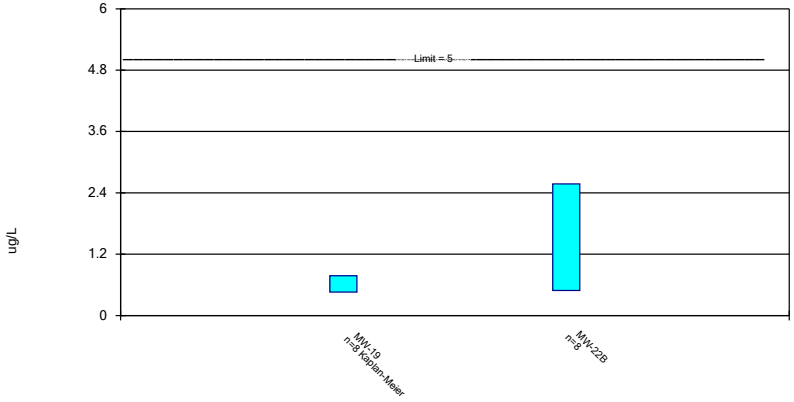


Constituent: Barium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

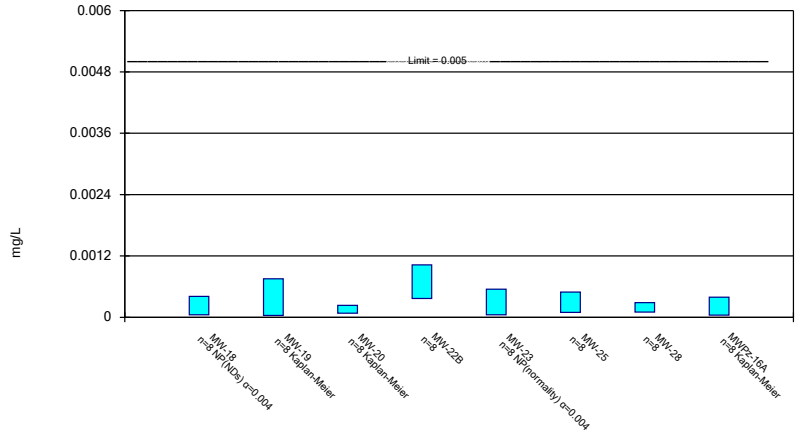


Constituent: Benzene Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

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.

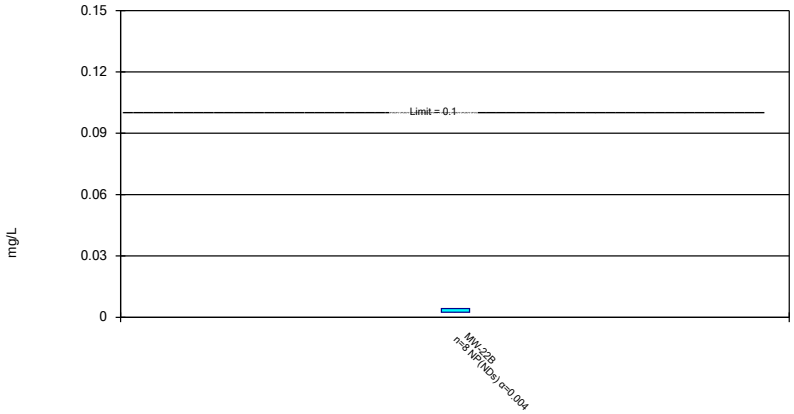


Constituent: Cadmium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

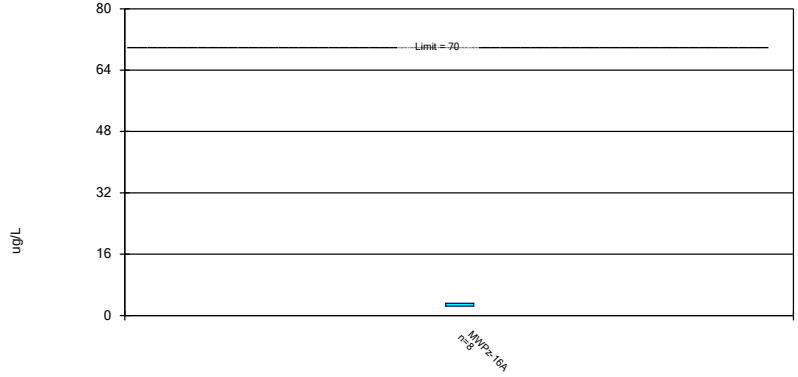


Constituent: Chromium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.

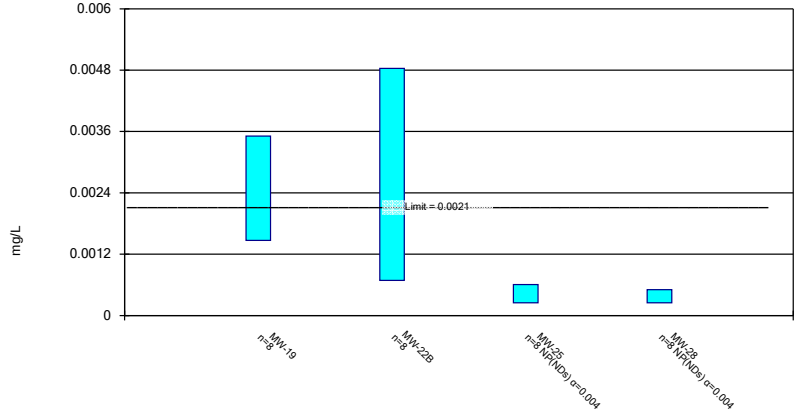


Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Inter
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

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.

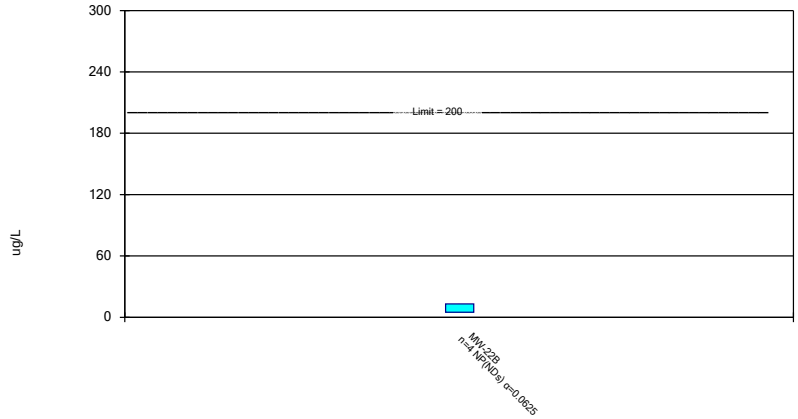


Constituent: Cobalt Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

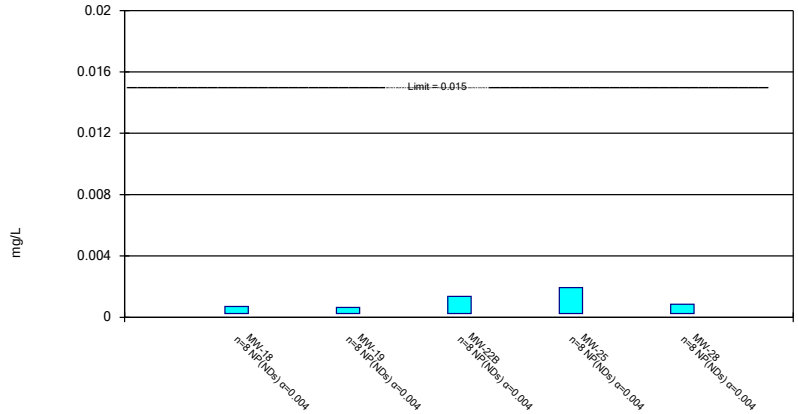


Constituent: Cyanide Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

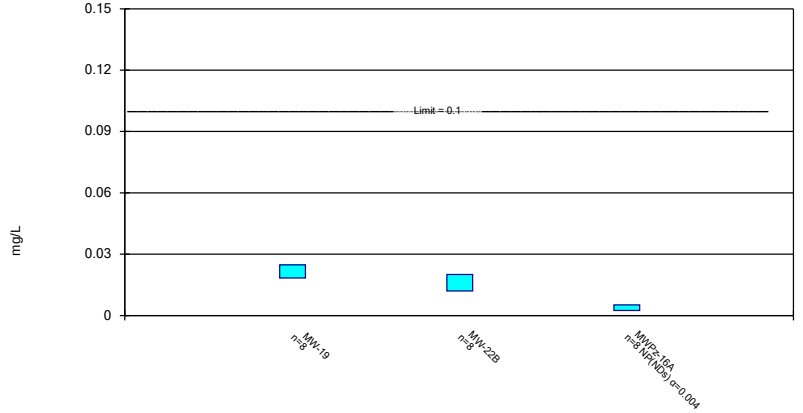


Constituent: Lead Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

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.

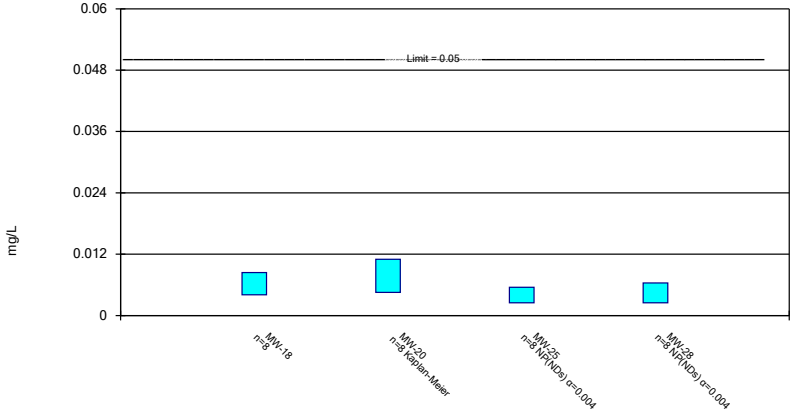


Constituent: Nickel Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

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.

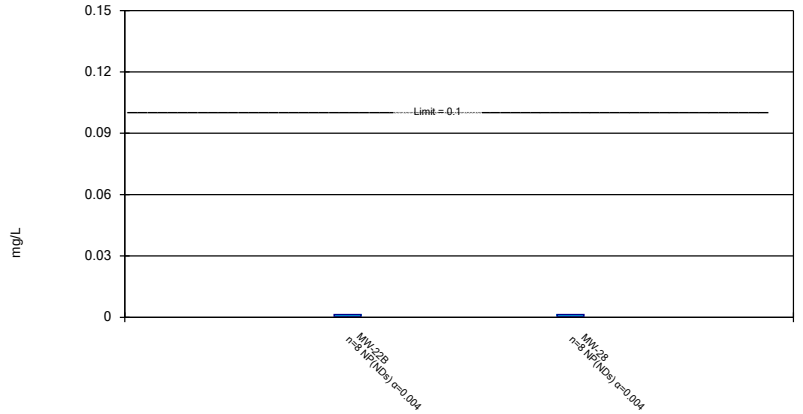


Constituent: Selenium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.

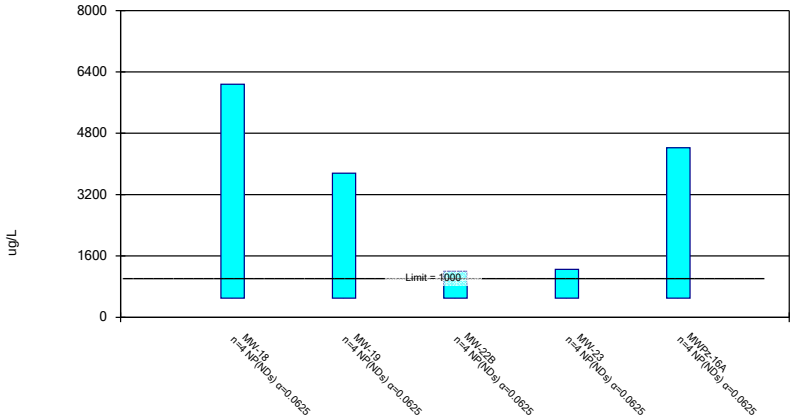


Constituent: Silver Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

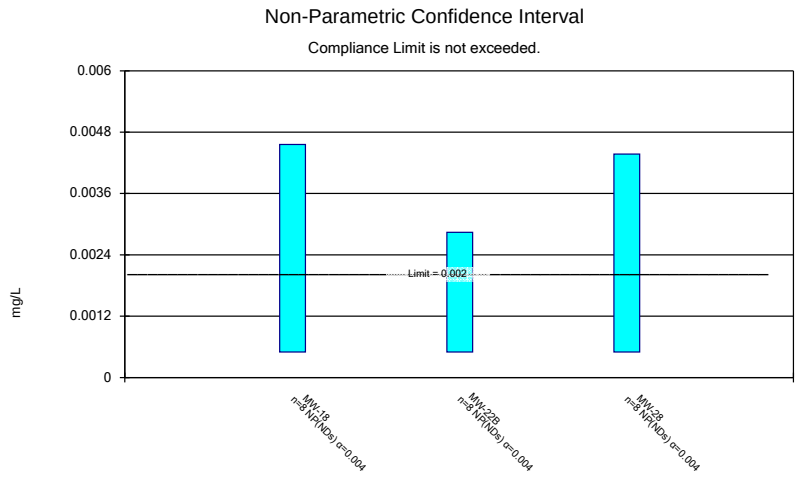
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



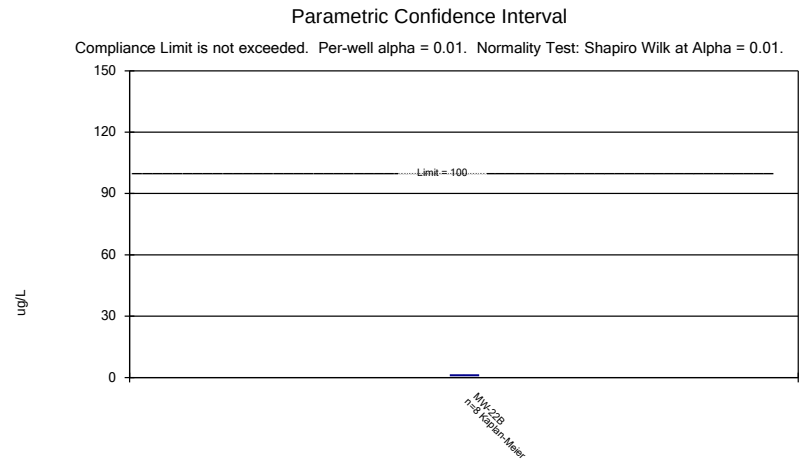
Constituent: Sulfide Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



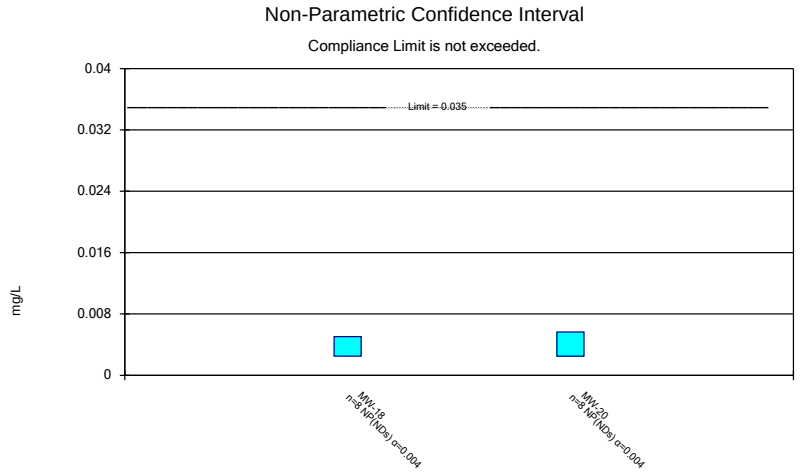
Constituent: Thallium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



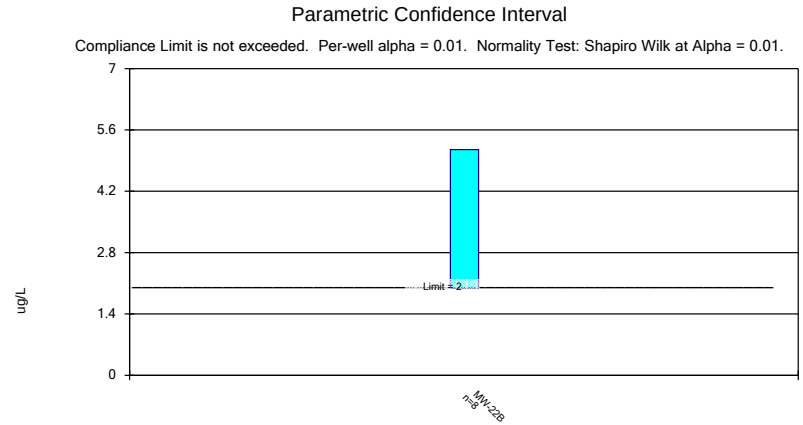
Constituent: trans-1,2-Dichloroethene Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence In
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



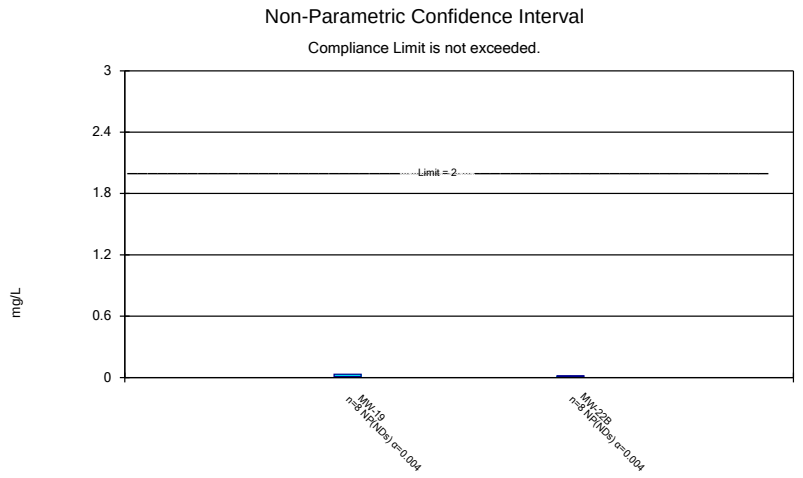
Constituent: Vanadium Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



Constituent: Vinyl Chloride Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG



Constituent: Zinc Analysis Run 2/26/2024 3:41 PM View: 2023AWQR - Confidence Interval
Kossuth County SLF Data: Kossuth-AM 2023AWQR

Attachment F

Thiel-Sen Trend Line Summary Table and Confidence Band Graphs

Theil Sen/Trend Test

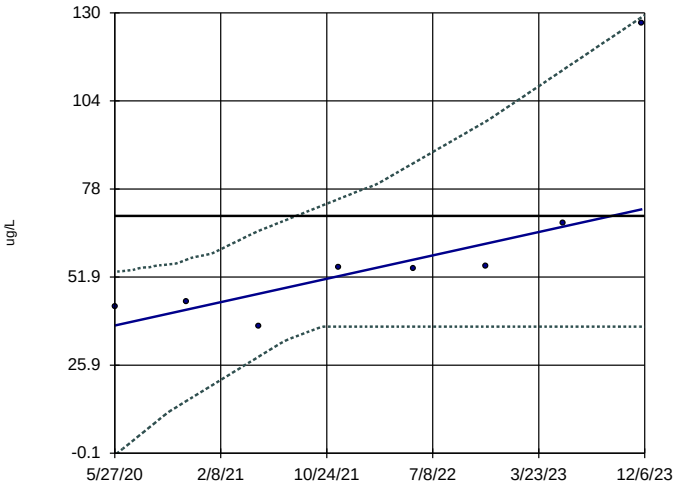
Kossuth County SLF Data: Kossuth-AM 2023AWQR Printed 2/26/2024, 3:44 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Alpha	Method
cis-1,2-Dichloroethene (ug/L)	**MW-22B**	**9.777**	**22**	**21**	**Yes**	**8**	**0**	**0.01**	**NP**

Sanitas™ v.10.0.16 Software licensed to SCS Engineers. UG

Sen's Slope and 99% Confidence Band

MW-22B



n = 8

Slope = 9.777
units per year.

Mann-Kendall
statistic = 22
critical = 21

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

Confidence band intersects
GWPS ug/L (70) on
08/12/21.

Constituent: cis-1,2-Dichloroethene Analysis Run 2/26/2024 3:43 PM View: 2023AWQR - Theil Sen

Kossuth County SLF Data: Kossuth-AM 2023AWQR

Appendix E

2023 Leachate Control System Performance Evaluation Report

Leachate Management Summary
2023 Leachate Control System Performance Evaluation Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

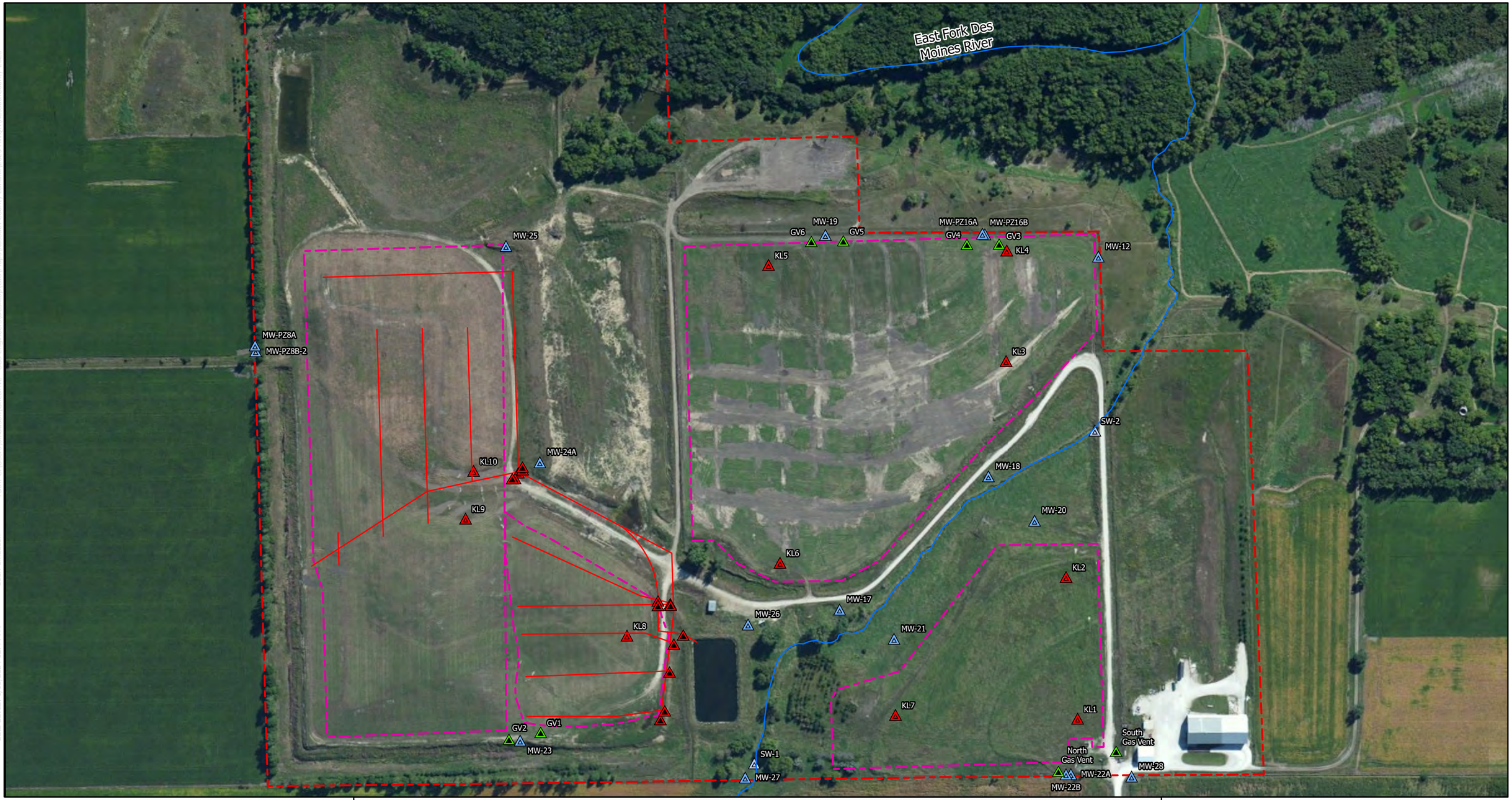
Month	Unlined Cells - Column Thickness (ft)											Discharged to POTW (gal)	Precipitation (in)
	KL1	KL2	KL3	KL4	KL5	KL6	KL7	KL8	KL9	KL10	Leachate Lagoon		
January 2023												0	1.54
February 2023												0	1.51
March 2023	0.75	7.24	10.32	0.00	13.58	13.85	1.84	1.77	12.33	4.35	3.00	0	0.67
April 2023												0	2.59
May 2023	0.88	7.39	11.29	2.92	15.98	14.64	1.72	2.05	12.44	4.97	2.98	0	3.29
June 2023												0	4.06
July 2023												0	1.77
August 2023	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	2.22
September 2023												0	1.92
October 2023												0	3.05
November 2023	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	0.04
December 2023												0	1.54
											Reporting Period Total	0	24.20

Notes:

1) Fluid level measurements are collected quarterly. March and May 2023 data provided by MER Engineering, Inc.
2) NM - Not measured. The third and fourth quarter leachate measurements were inadvertently omitted. Quarterly measurements will resume in the first quarter of 2024.
3) Precipitation data obtained from https://mesonet.agron.iastate.edu/ASOS/reports/mon_prec.php?year=2023.
4) Figure 1 shows the location of the leachate monitoring points.
5) Historical leachate levels and graphs are included in Attachment A.

Comments:

Reporting Period: January 2023 - December 2023.
Approved Changes to Leachate Collection System: There were no new approved changes to the leachate collection system during this reporting period.
Recommended Changes to Leachate Collection System: None.
Maintenance Performed on Leachate Collection System: None.
Last Date of Cleaning and Inspection: Fall 2020.
Date of Next Cleaning and Inspection: Leachate line cleaning and inspection will be performed in 2024.
Volume of Leachate Recirculated: Leachate is not recirculated at this facility.
Volume of Leachate Treated Off-Site: Leachate was not transported for treatment off-site during this reporting period.
Leachate Quality Testing Results: Leachate quality testing was not performed during this reporting period.



Leachate Control System

Legend

- Leachate Piezometer
- Leachate Line Cleanout
- Leachate Collection Line
- Monitoring Well
- Surface Monitoring Point
- Gas Vent
- Waterway
- Approximate Property Boundary
- Approximate Waste Boundary

Kossuth County Sanitary Landfill
Burt, IA
Project No: 27223408.24
Drawing Date: January 2024

Figure 1

N S E W

0 320 640 1,280 Feet

SCS ENGINEERS
environmental consultants and contractors

Path: C:\Users\bmadison\OneDrive - SCS Engineers\Desktop\GIS\Maps\KossuthCounty Landfill\2023 AWOR\KossuthCounty-2023-
User: bmadison
Date Saved: 1/18/2024 12:44 PM
Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

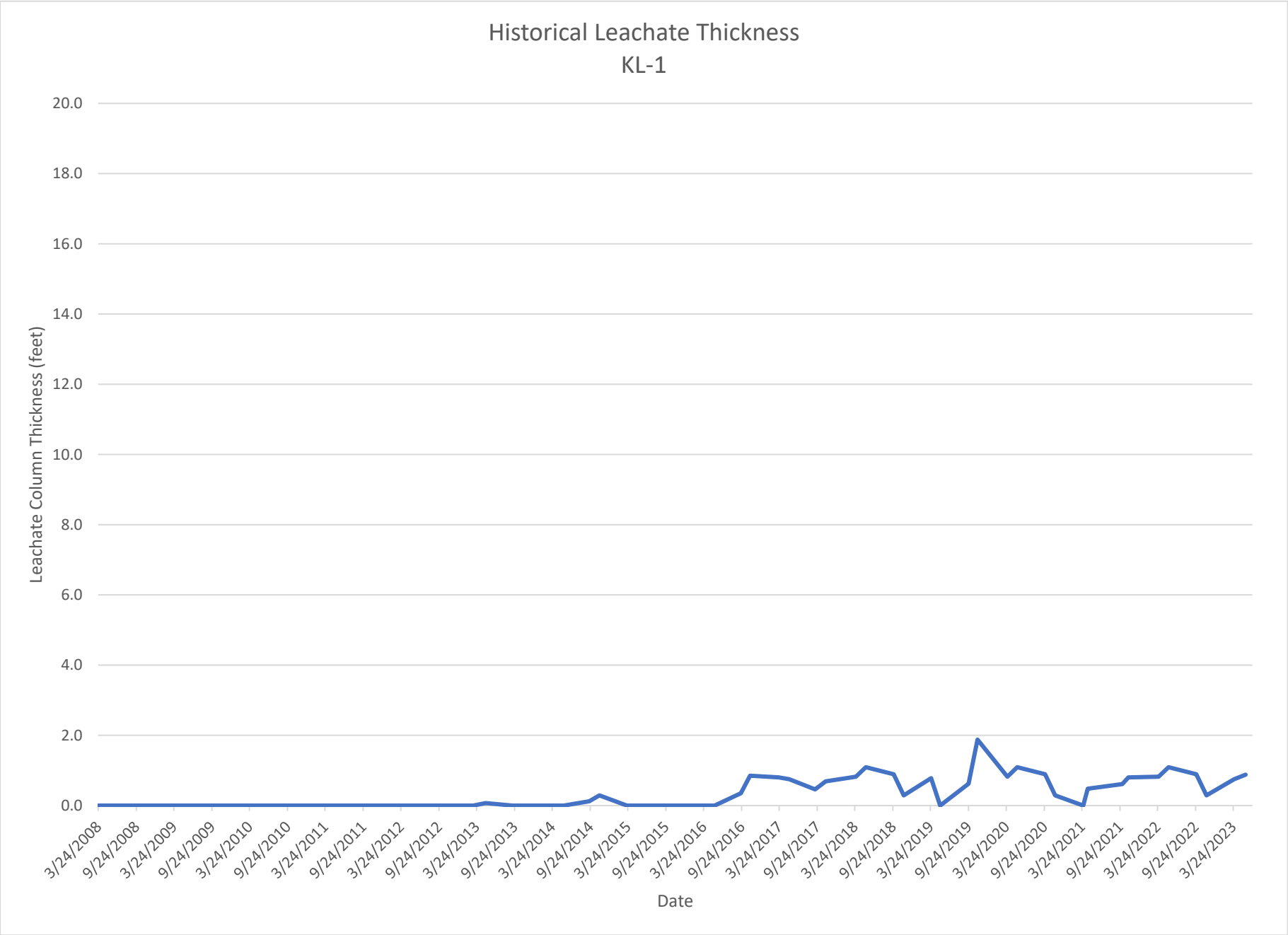
Attachment A

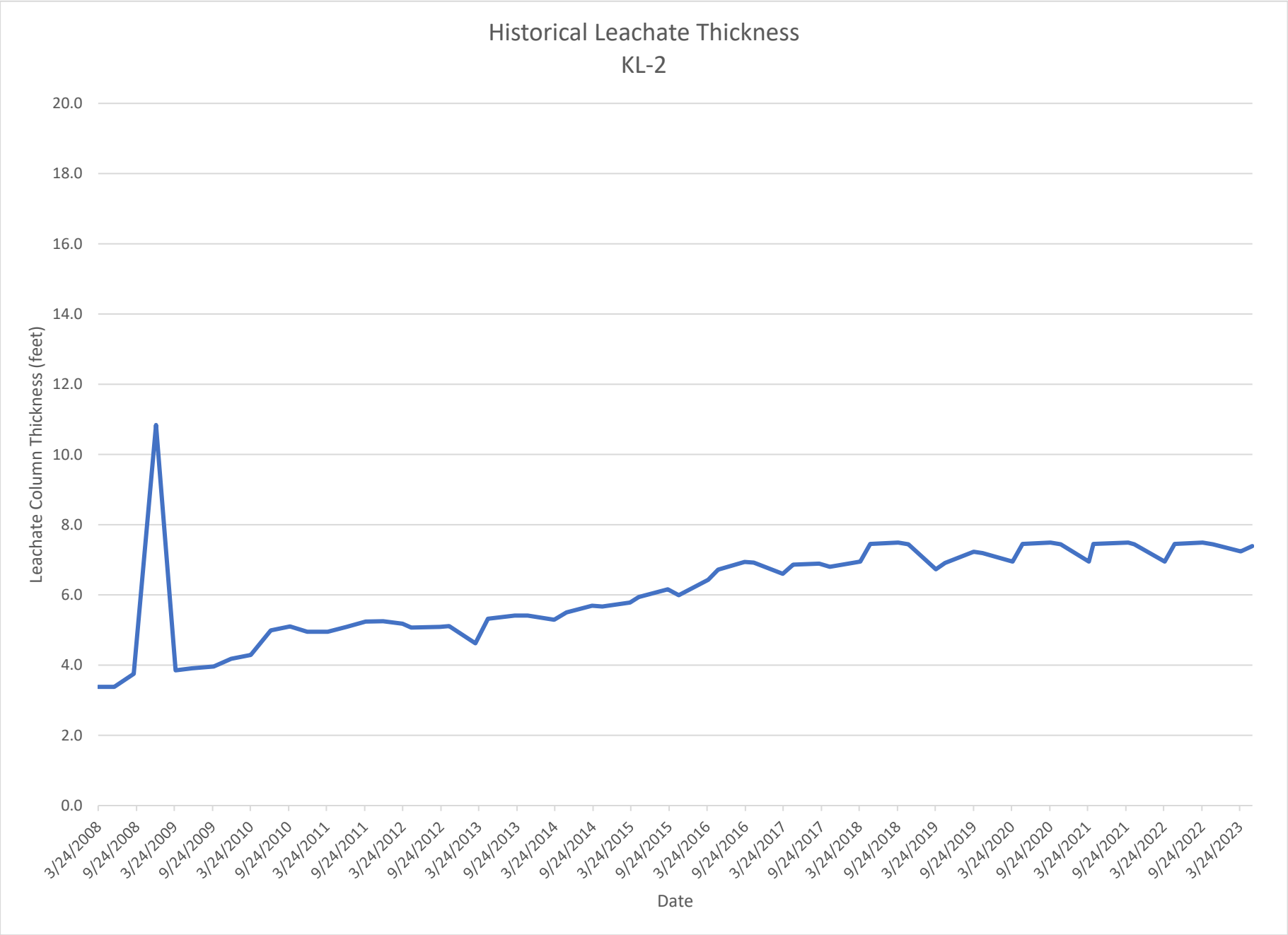
Historical Leachate Levels
Kossuth County Sanitary Landfill

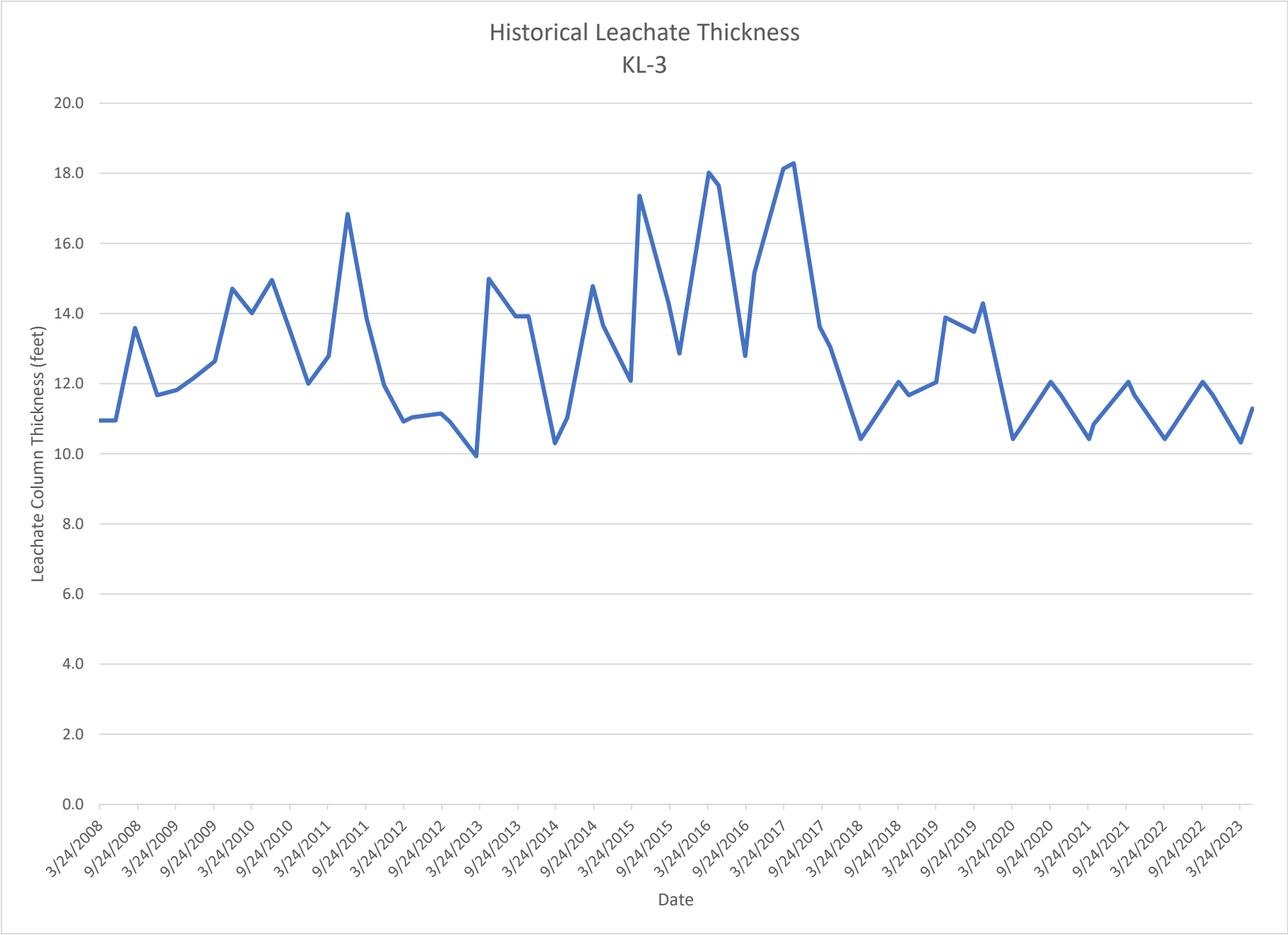
Monitoring Location	KL1	KL2	KL3	KL4	KL5	KL6	KL7	KL8	KL9	KL10	Leachate Lagoon
3/24/2008	0.0	3.4	11.0	0.0	13.1	13.1	0.8	0.5	0.8	1.4	2.5
6/9/2008	0.0	3.4	11.0	0.0	13.1	13.1	0.8	0.5	0.8	1.4	2.5
9/10/2008	0.0	3.8	13.6	1.4	14.5	13.1	0.0	0.7	2.2	0.9	1.5
12/26/2008	0.0	10.8	11.7	0.0	13.5	12.8	0.0	0.8	2.8	1.8	1.8
3/30/2009	0.0	3.9	11.8	2.5	15.1	14.1	0.8	0.7	2.4	1.6	3.1
6/17/2009	0.0	3.9	12.2	2.4	15.9	14.0	0.0	0.7	2.1	1.3	2.5
9/29/2009	0.0	4.0	12.6	1.4	13.8	13.0	1.1	0.2	2.7	1.0	2.0
12/22/2009	0.0	4.2	14.7	2.2	16.0	14.1	1.2	0.4	2.9	1.2	2.0
3/26/2010	0.0	4.3	14.0	3.6	17.6	14.4	1.2	1.1	2.7	2.5	3.8
6/30/2010	0.0	5.0	15.0	2.9	16.7	14.4	1.6	0.7	2.5	1.2	3.8
9/30/2010	0.0	5.1	13.4	1.2	14.5	13.6	1.3	0.0	2.8	2.2	3.5
12/22/2010	0.0	5.0	12.0	0.0	11.5	13.7	0.0	0.0	3.2	2.0	3.5
3/30/2011	0.0	5.0	12.8	0.0	13.1	14.5	1.1	0.0	2.7	2.4	3.5
6/29/2011	0.0	5.1	16.8	3.1	15.9	14.4	1.1	0.0	3.3	3.9	3.5
9/28/2011	0.0	5.2	13.9	1.7	14.3	13.9	1.2	0.0	4.1	2.9	3.0
12/21/2011	0.0	5.3	12.0	0.7	12.9	13.6	1.1	0.0	4.1	2.8	3.0
3/23/2012	0.0	5.2	10.9	0.9	12.2	13.7	1.0	0.0	3.5	2.7	3.3
5/4/2012	0.0	5.1	11.0	2.2	12.8	14.1	1.0	0.0	3.4	2.6	3.0
9/19/2012	0.0	5.1	11.2	0.4	12.3	11.8	0.8	0.0	4.1	2.6	2.0
11/2/2012	0.0	5.1	10.9	0.0	11.7	11.5	0.0	0.0	1.9	2.6	1.0
3/8/2013	0.0	4.6	9.9	0.0	10.3	10.7	0.4	0.0	2.7	2.6	1.2
5/7/2013	0.1	5.3	15.0	2.9	17.5	14.4	0.3	1.9	2.1	3.2	2.0
9/13/2013	0.0	5.4	13.9	2.1	14.9	12.9	1.3	0.0	2.5	2.7	1.8
11/14/2013	0.0	5.4	13.9	2.1	14.9	12.9	1.3	0.0	2.5	2.7	1.8
3/21/2014	0.0	5.3	10.3	0.0	11.7	11.8	1.0	0.0	2.3	1.9	2.5
5/19/2014	0.0	5.5	11.0	2.8	14.2	14.4	1.2	0.0	1.8	2.8	2.3
9/19/2014	0.1	5.7	14.8	2.7	16.4	14.2	1.7	0.0	2.5	1.6	2.9
11/7/2014	0.3	5.7	13.7	2.2	15.3	14.0	2.0	0.0	3.0	2.6	2.8
3/20/2015	0.0	5.8	12.1	0.5	13.7	14.1	1.2	0.0	2.9	2.7	2.8
5/1/2015	0.0	5.9	17.4	2.8	17.7	14.6	1.1	0.0	2.3	4.1	2.7
9/17/2015	0.0	6.2	14.3	2.4	16.1	14.5	1.2	0.0	5.1	4.6	3.3
11/9/2015	0.0	6.0	12.9	1.3	14.4	12.9	1.4	0.0	4.6	3.8	4.0
3/29/2016	0.0	6.4	18.0	2.9	18.5	14.5	1.2	2.4	7.8	7.9	4.1
5/16/2016	0.0	6.7	17.7	3.0	15.1	14.2	1.1	2.1	8.2	7.9	4.2
9/20/2016	0.4	6.9	12.8	2.6	16.1	14.7	1.1	0.0	7.7	7.1	4.0
11/3/2016	0.9	6.9	15.2	2.5	16.2	14.6	1.3	0.0	7.9	6.4	4.2
3/22/2017	0.8	6.6	18.1	2.8	16.7	14.5	1.0	0.0	9.9	8.3	4.6
5/11/2017	0.8	6.9	18.3	1.8	17.0	14.6	1.0	0.0	11.1	8.6	4.7
9/13/2017	0.5	6.9	13.6	1.9	14.9	14.5	1.1	0.0	11.4	7.7	3.9
11/3/2017	0.7	6.8	13.0	1.9	14.7	14.2	1.2	0.0	11.1	6.6	4.1
3/29/2018	0.8	7.0	10.4	0.0	12.7	12.3	1.6	0.0	12.1	4.8	3.2
5/16/2018	1.1	7.5	10.8	2.4	15.0	14.4	1.8	0.0	12.2	5.7	3.1
9/27/2018	0.9	7.5	12.1	0.7	13.1	12.0	1.2	0.0	12.7	5.2	2.3
11/15/2018	0.3	7.4	11.7	0.1	13.0	11.6	1.4	0.0	12.9	5.2	2.1
3/27/2019	0.8	6.7	12.0	0.2	14.0	12.3	1.1	0.0	12.0	7.5	5.3
5/10/2019	0.0	6.9	13.9	2.9	16.5	14.4	1.8	0.0	12.4	8.7	5.5
9/24/2019	0.6	7.2	13.5	1.2	15.1	14.5	1.5	0.0	13.3	9.1	5.0
11/6/2019	1.9	7.2	14.3	1.7	15.6	14.4	1.6	0.0	13.3	8.3	5.0

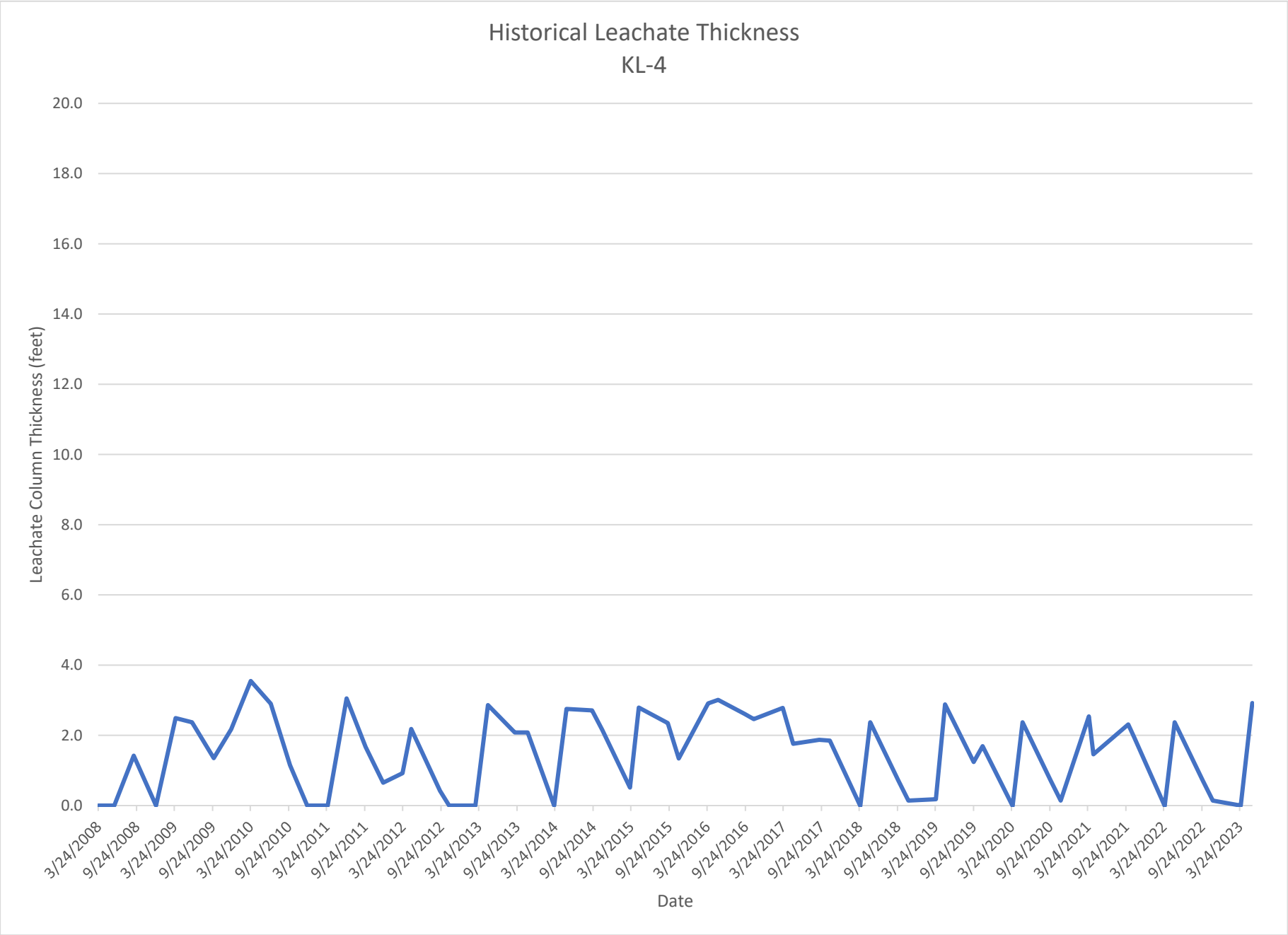
Historical Leachate Levels
Kossuth County Sanitary Landfill

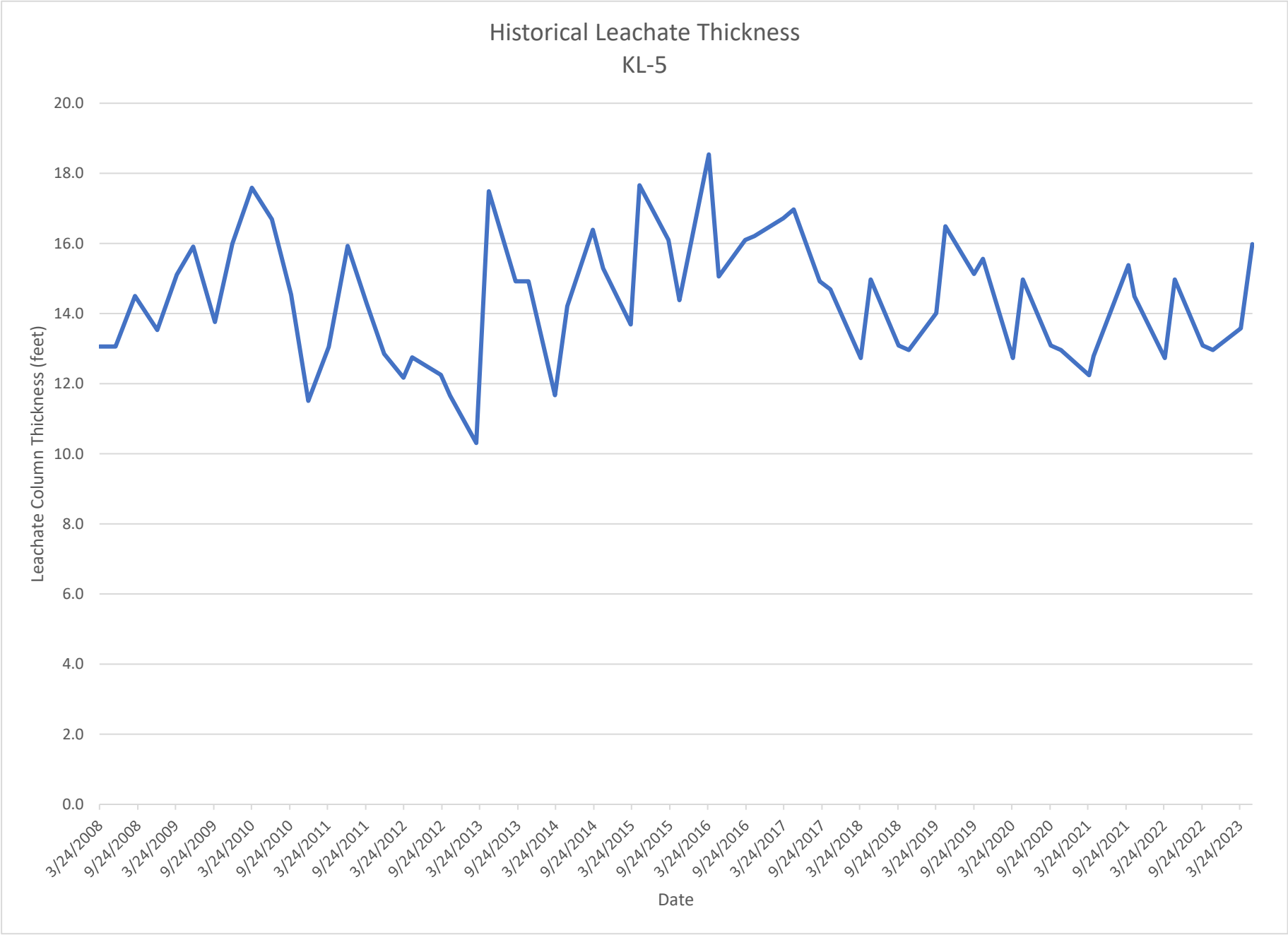
Monitoring Location	KL1	KL2	KL3	KL4	KL5	KL6	KL7	KL8	KL9	KL10	Leachate Lagoon
3/29/2020	0.8	7.0	10.4	0.0	12.7	12.3	1.6	0.0	12.1	4.8	3.2
5/16/2020	1.1	7.5	10.8	2.4	15.0	14.4	1.8	0.0	12.2	5.7	3.1
9/27/2020	0.9	7.5	12.1	0.7	13.1	12.0	1.2	0.0	12.7	5.2	2.3
11/15/2020	0.3	7.4	11.7	0.1	13.0	11.6	1.4	0.0	12.9	5.2	2.1
3/30/2021	NA	7.0	10.4	2.5	12.2	13.4	1.2	0.0	12.8	5.8	3.5
4/21/2021	0.5	7.5	10.8	1.5	12.8	13.8	1.6	0.0	12.6	5.2	3.2
10/5/2021	0.6	7.5	12.1	2.3	15.4	14.1	1.5	0.0	12.4	5.2	3.0
11/3/2021	0.8	7.4	11.7	1.9	14.5	13.1	1.7	0.0	12.6	5.2	3.0
3/29/2022	0.8	7.0	10.4	0.0	12.7	12.3	1.6	0.0	12.1	4.8	3.2
5/16/2022	1.1	7.5	10.8	2.4	15.0	14.4	1.8	0.0	12.2	5.7	3.1
9/27/2022	0.9	7.5	12.1	0.7	13.1	12.0	1.2	0.0	12.7	5.2	2.3
11/15/2022	0.3	7.4	11.7	0.1	13.0	11.6	1.4	0.0	12.9	5.2	2.1
3/29/2023	0.8	7.2	10.3	0.0	13.6	13.9	1.8	1.8	12.3	4.4	3.0
5/23/2023	0.9	7.4	11.3	2.9	16.0	14.6	1.7	2.1	12.4	5.0	3.0

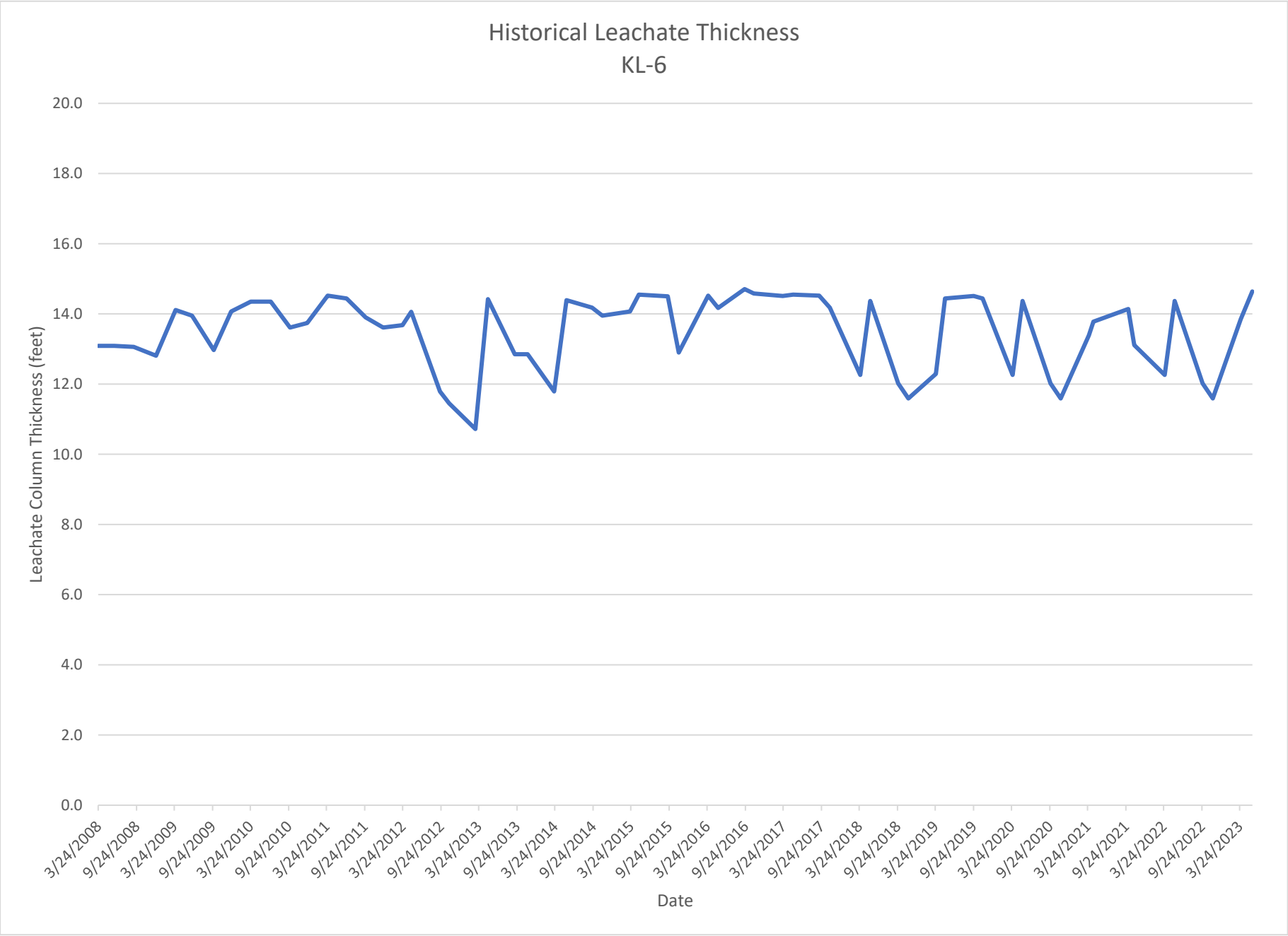

Historical Leachate Thickness
KL-1
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

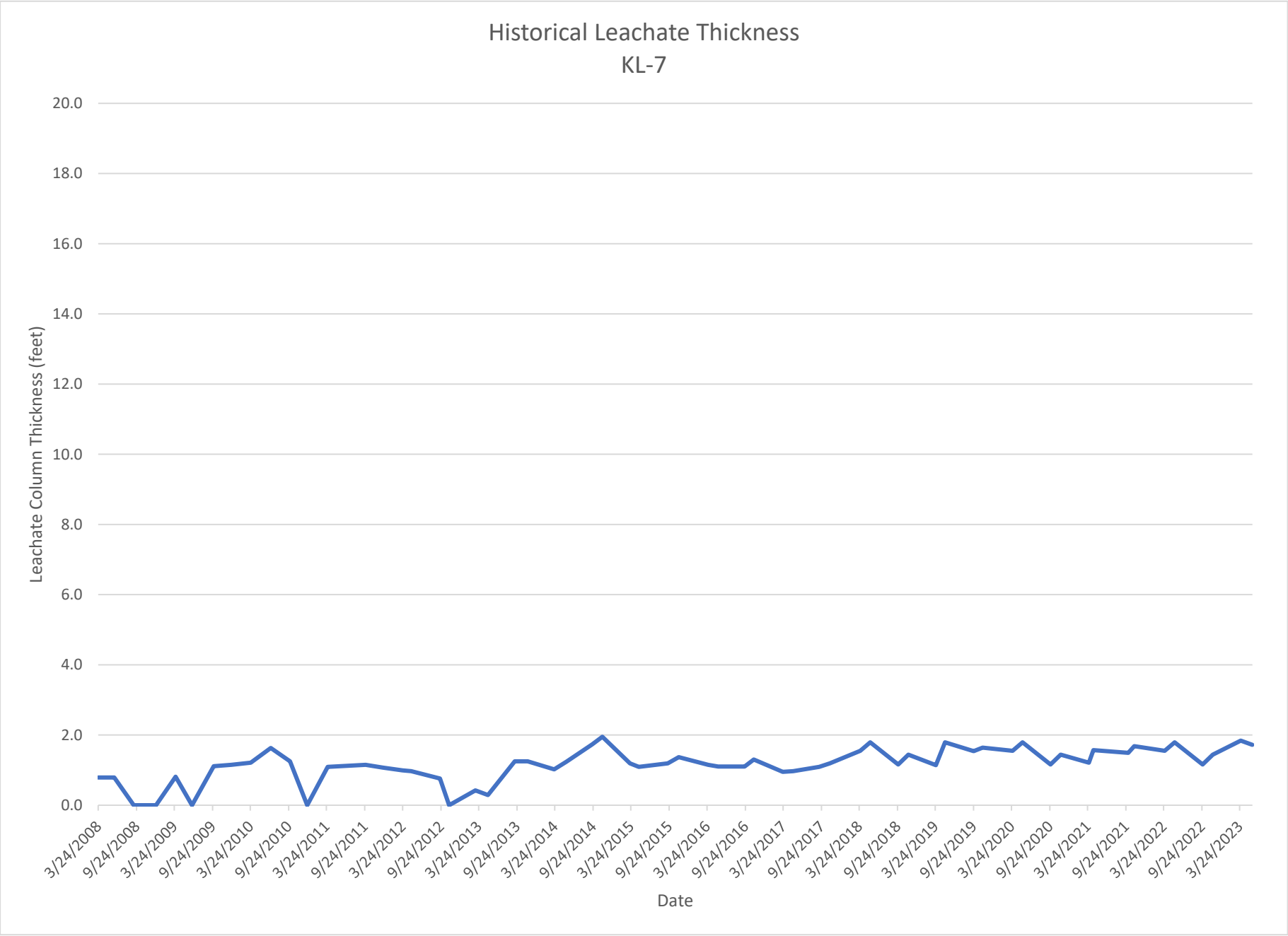

Historical Leachate Thickness
KL-2
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

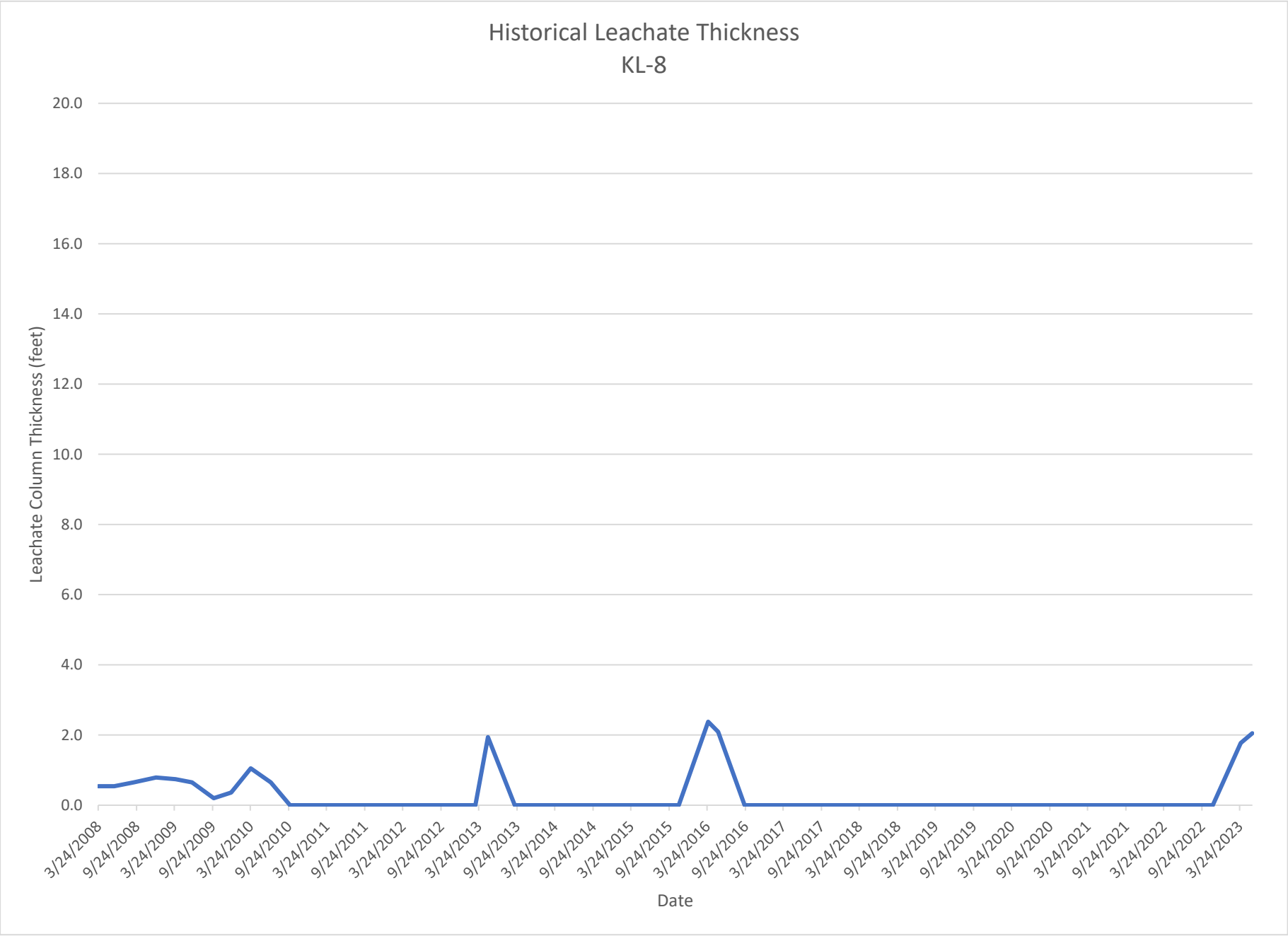

Historical Leachate Thickness
KL-3
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

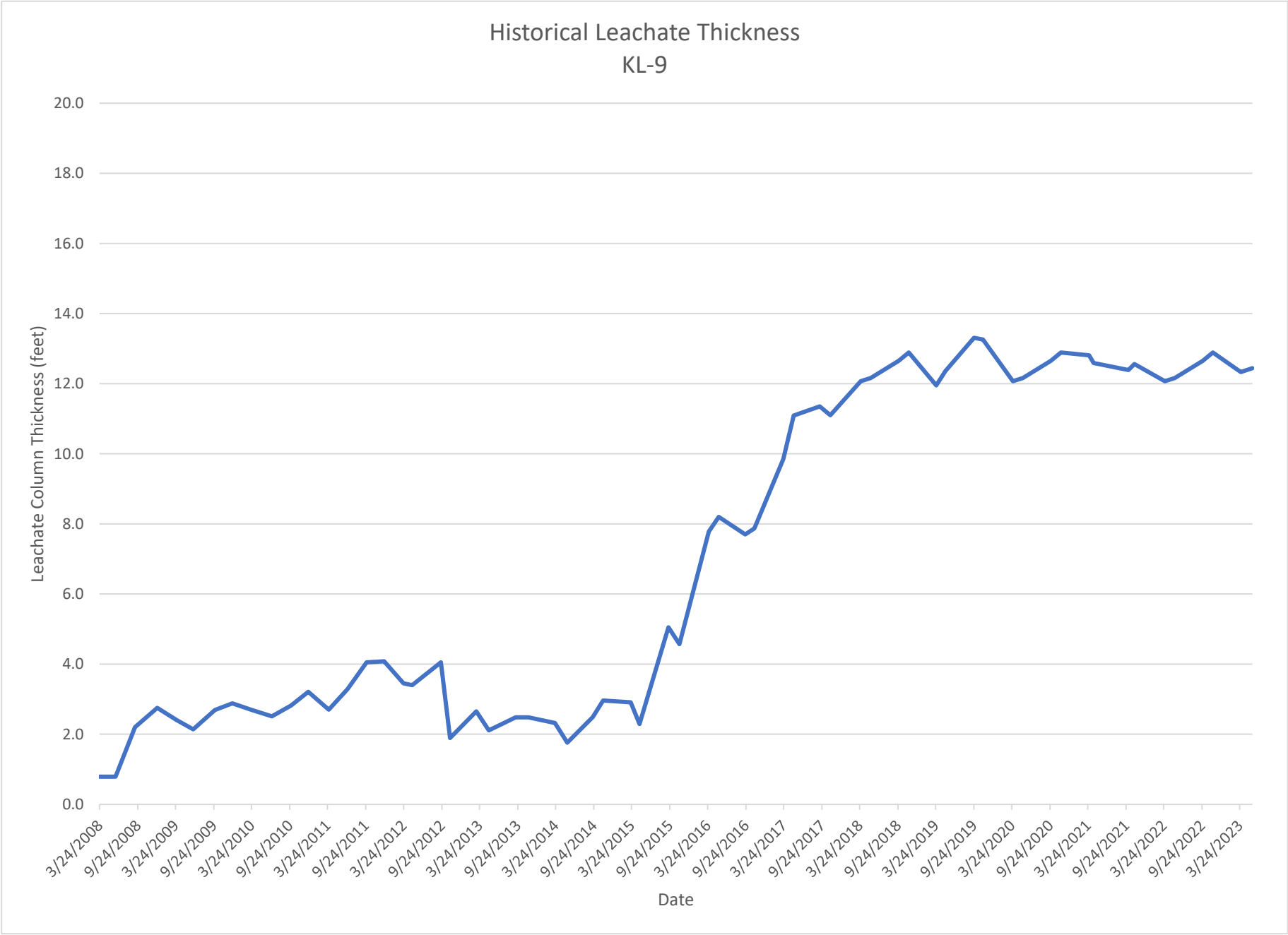

Historical Leachate Thickness
KL-4
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

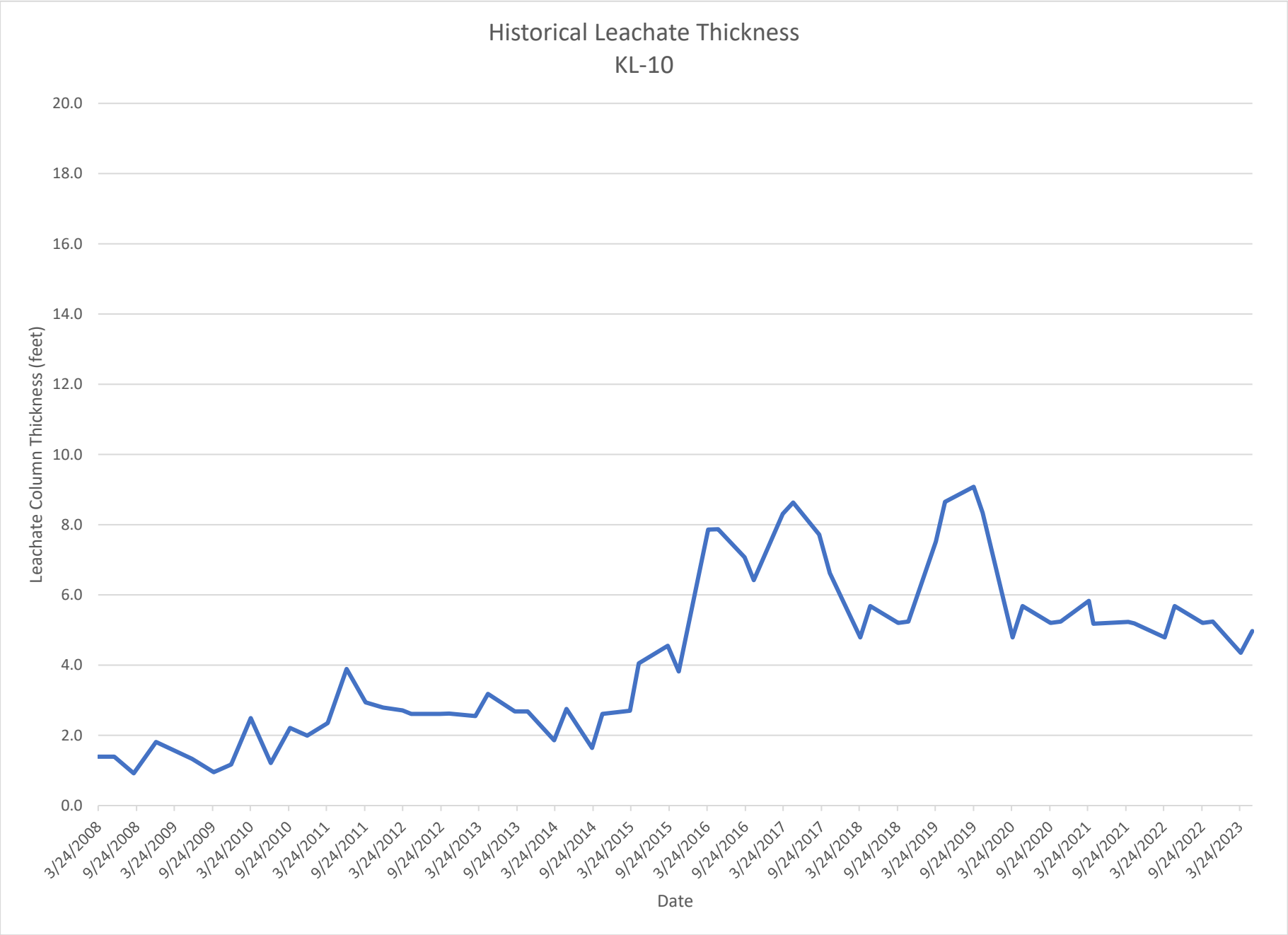

Historical Leachate Thickness
KL-5
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

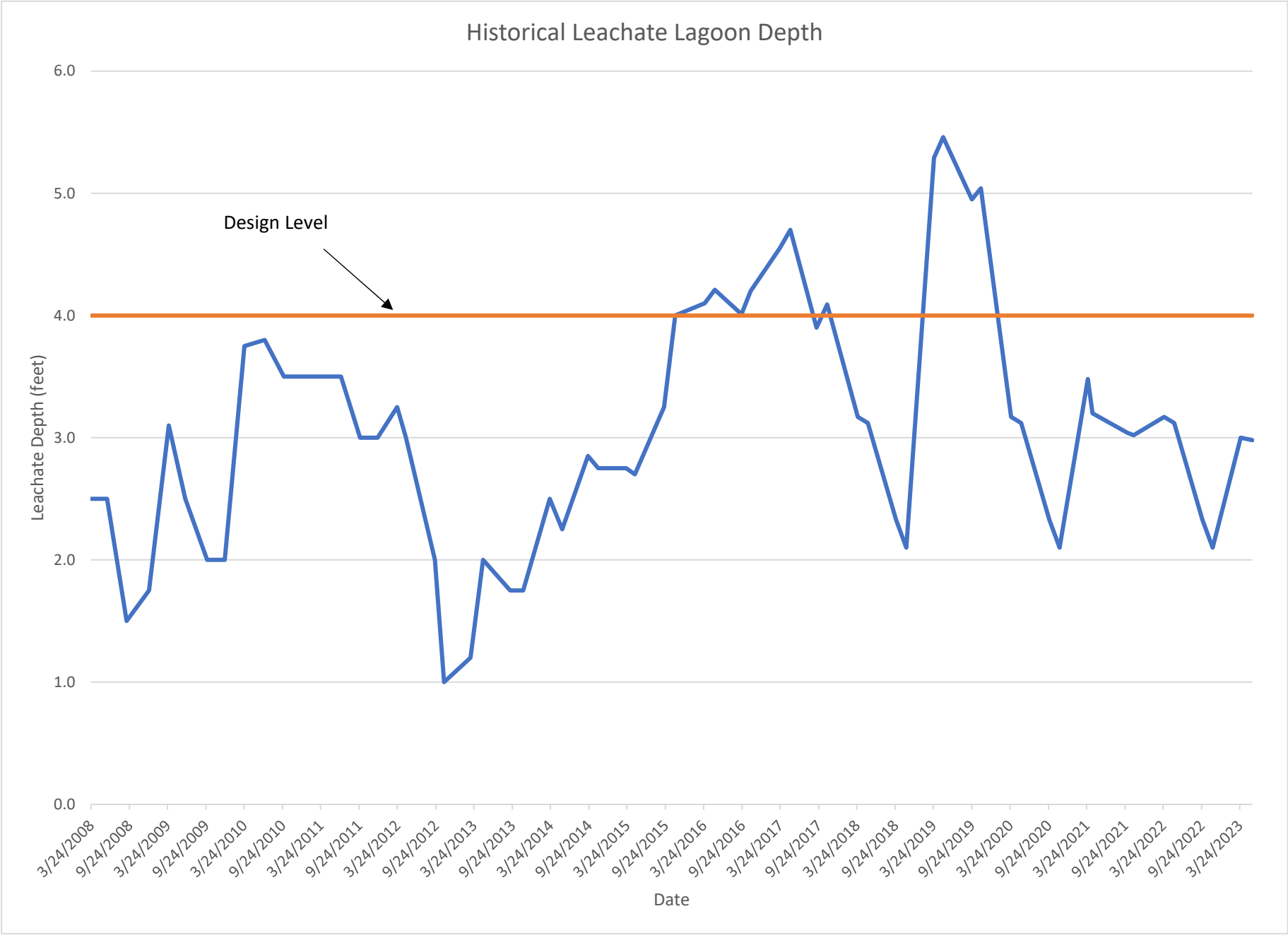

Historical Leachate Thickness
KL-6
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date


Historical Leachate Thickness
KL-7
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date


Historical Leachate Thickness
KL-8
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date


Historical Leachate Thickness
KL-9
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date


Historical Leachate Thickness
KL-10
Leachate Column Thickness (feet)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date


Historical Leachate Lagoon Depth
Design Level
Leachate Depth (feet)
6.0
5.0
4.0
3.0
2.0
1.0
0.0
3/24/2008
9/24/2008
3/24/2009
9/24/2009
3/24/2010
9/24/2010
3/24/2011
9/24/2011
3/24/2012
9/24/2012
3/24/2013
9/24/2013
3/24/2014
9/24/2014
3/24/2015
9/24/2015
3/24/2016
9/24/2016
3/24/2017
9/24/2017
3/24/2018
9/24/2018
3/24/2019
9/24/2019
3/24/2020
9/24/2020
3/24/2021
9/24/2021
3/24/2022
9/24/2022
3/24/2023
Date

Appendix F

2023 Landfill Gas Annual Report

Table 12
Gas Monitoring Summary
2023 Gas Monitoring Report
Kossuth County Sanitary Landfill
Permit No. 55-SDP-01-75C

Monitoring Points			Methane Results (% LEL)									
Name	**Type**	**Description**	**3/29/2023**	S(Y/N)	Inside Well	Outside Well	Site Boundary	**5/22/2023**	S(Y/N)	Inside Well	Outside Well	Site Boundary
#1. Office	Indoor	Inside Office	0					0				
#2. Recycling Building	Indoor	Inside Recycling Building	0					0				
#3. South Garage	Indoor	Inside South Garage	0					0				
#4. Transfer Station	Indoor	Inside Transfer Statopm	0					0				
#5. SW-1	Subsurface	Subsurface pin at property boundary near SW-1					0					0
#6. NE Corner	Ambient	Subsurface pin at property boundary near northeast corner					0					0
#7. SW-2	Subsurface	Subsurface pin at property boundary near SW-2					0					0
#8. NW Corner	Ambient	Subsurface pin at property boundary near northwest corner					0					0
#9. North Gas Vent	Gas Extraction Tile	At north outlet	12					50				
#10. South Gas Vent	Gas Extraction Tile	At south outlet	0					2				
#11. MWPz-16A	Monitoring Well	Inside monitoring well or subsurface pin	0	Y		0		0	Y		0	
#12. MW-12	Monitoring Well	Inside monitoring well or subsurface pin	0	Y		0		0	Y		0	
#13. MW-19	Monitoring Well	Inside monitoring well or subsurface pin	0	Y		0		0	N			
#14. MW-25	Monitoring Well	Inside monitoring well or subsurface pin	0	Y		0		0	Y		0	
#15. MWPz-8A	Monitoring Well	Inside monitoring well or subsurface pin	0	N	0			0	N	0		
#16. MW-23	Monitoring Well	Inside monitoring well or subsurface pin	0	N	0			0	N	0		
#17. MW-22B	Monitoring Well	Inside monitoring well or subsurface pin	0	N	0			0	N	0		
#18. MW-28	Monitoring Well	Inside monitoring well or subsurface pin	0	N	0			0	N	0		

Monitoring Points			Methane Results (% LEL)									
Name	**Type**	**Description**	**9/27/2023**	S(Y/N)	Inside Well	Outside Well	Site Boundary	**11/30/2023**	S(Y/N)	Inside Well	Outside Well	Site Boundary
#1. Office	Indoor	Inside Office	0					0				
#2. Recycling Building	Indoor	Inside Recycling Building	0					0				
#3. South Garage	Indoor	Inside South Garage	0					0				
#4. Transfer Station	Indoor	Inside Transfer Statopm	0					0				
#5. SW-1	Subsurface	Subsurface pin at property boundary near SW-1					0					
#6. NE Corner	Ambient	Subsurface pin at property boundary near northeast corner					0					
#7. SW-2	Subsurface	Subsurface pin at property boundary near SW-2					0					
#8. NW Corner	Ambient	Subsurface pin at property boundary near northwest corner					0					
#9. North Gas Vent	Gas Extraction Tile	At north outlet	0					0				
#10. South Gas Vent	Gas Extraction Tile	At south outlet	0					0				
#11. MWPz-16A	Monitoring Well	Inside monitoring well or subsurface pin		Y		0						
#12. MW-12	Monitoring Well	Inside monitoring well or subsurface pin		N	0							
#13. MW-19	Monitoring Well	Inside monitoring well or subsurface pin		N	0							
#14. MW-25	Monitoring Well	Inside monitoring well or subsurface pin		N	0							
#15. MWPz-8A	Monitoring Well	Inside monitoring well or subsurface pin		N	0							
#16. MW-23	Monitoring Well	Inside monitoring well or subsurface pin		N	0							
#17. MW-22B	Monitoring Well	Inside monitoring well or subsurface pin		N	0				N	4		
#18. MW-28	Monitoring Well	Inside monitoring well or subsurface pin		N	0				N	0		

Notes:
S(Y/N) - Was screen submerged, yes or no or blank is non-applicable
The March and May 2023 monitoring was performed by MER Engineering.
The September and November 2023 monitoring was performed by SCS.
* - The landfill gas monitoring network was modified this reporting period to require the entire network to be monitored semi-annually and site structures, the north and south gas vent outlets, and monitoring wells MW-22B and MW-28 to be monitored quarterly (Doc #107915, approved in Doc #108253).

No.	Name	Type
#1	Office	Indoor
#2	Recycling Building	Indoor
#3	South Garage (Maintenance Building)	Indoor
#4	Transfer Station	Indoor
#5	SW-1	Subsurface
#6	N.E. Corner	Outdoor
#7	SW-2	Subsurface
#8	N.W. Corner	Outdoor
#9	North Gas Vent	Subsurface
#10	South Gas Vent	Subsurface
#11	MW-PZ16A	Subsurface
#12	MW-12	Subsurface
#13	MW-19	Subsurface
#14	MW-25	Subsurface
#15	MWPz-8A	Subsurface
#16	MW-23	Subsurface
#17	MW-22B	Subsurface
#18	MW-28	Subsurface

SCS ENGINEERS
environmental consultants and contractors

Methane Monitoring Network

Legend

- Methane Monitoring Point
- Gas Vent
- Gas Collection Tile
- Leachate Piezometer
- Monitoring Well
- Surface Monitoring Point
- Waterway
- Approximate Property Boundary
- Approximate Waste Boundary

Kossuth County Sanitary Landfill
Burt, IA
Project No: 27223408.24
Drawing Date: January 2024

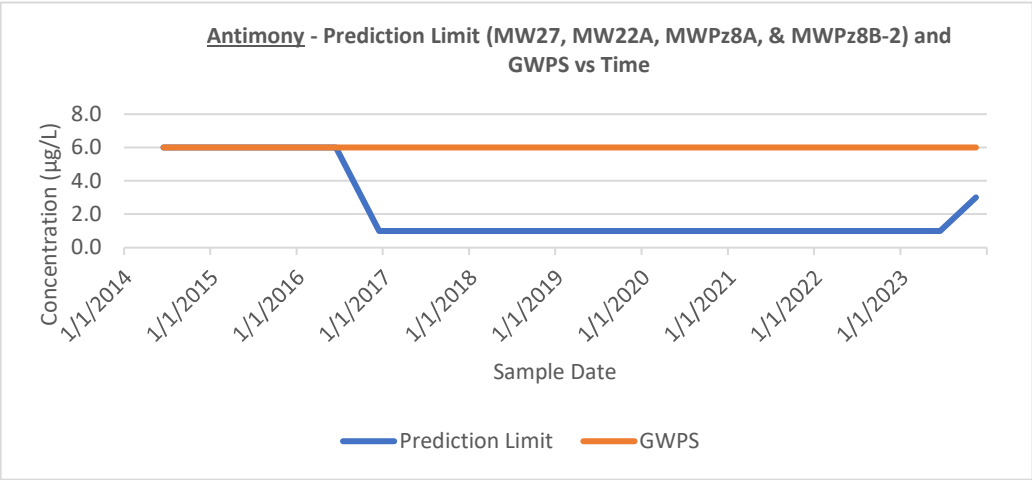
Figure 1

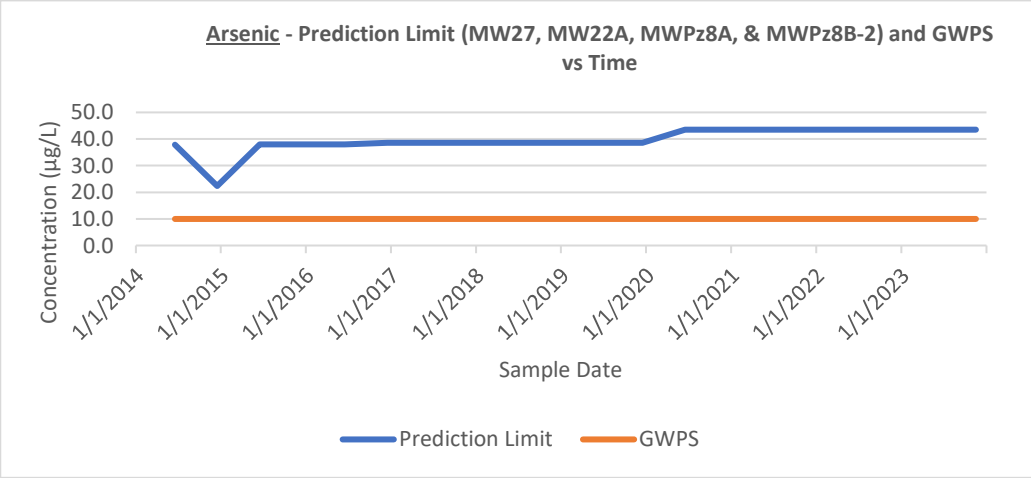
N E S W

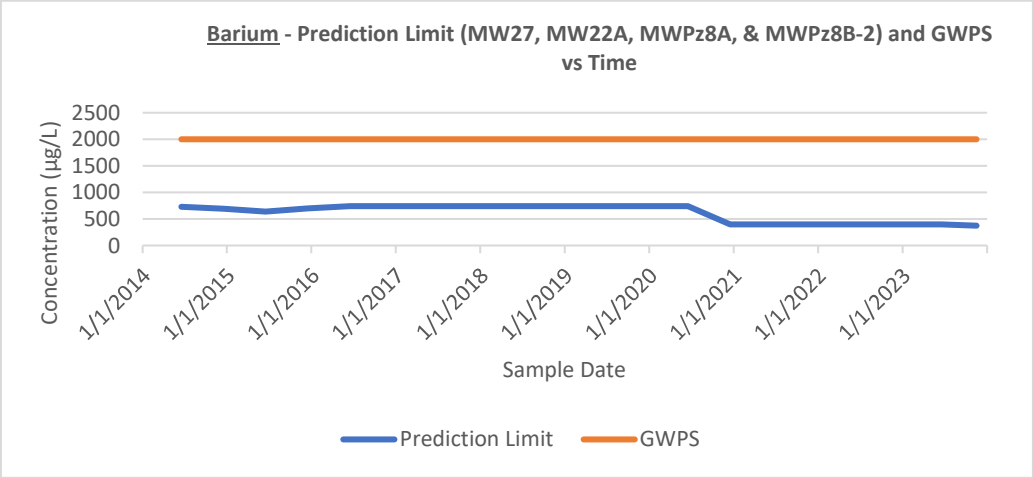
0 360 720 1,440 Feet

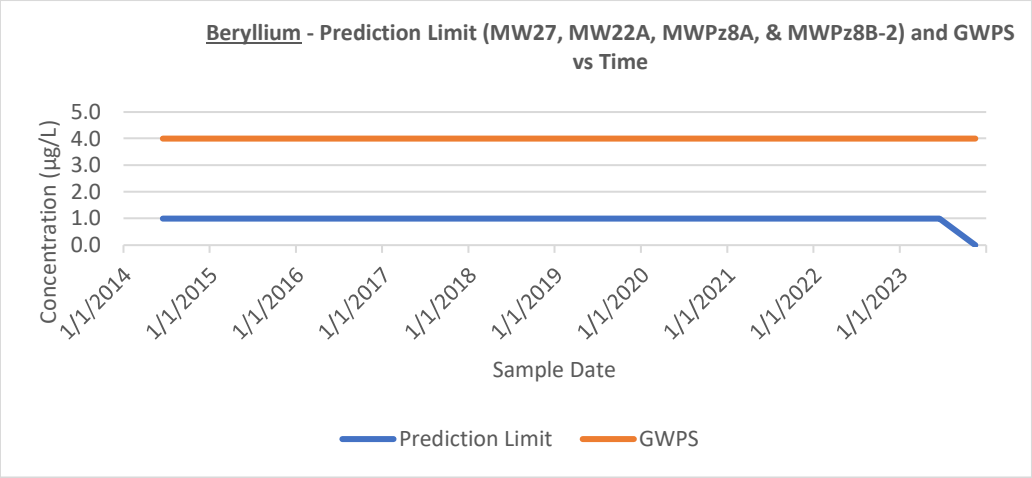
Path: C:\Users\bmadison\OneDrive - SCS Engineers\Desktop\GIS\Maps\KossuthCounty\Landfill\2023 AWOR\KossuthCounty-2023-
User: bmadison
Date Saved: 2/26/2024 4:11 PM
Iowa DNR, Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, Esri, CGIAR, USGS, Source: Esri, Maxar, Earthstar Geographics, IGN, and the GIS User Community, Esri, TomTom, Garmin, Foursquare, FAO, METI/NASA, USGS

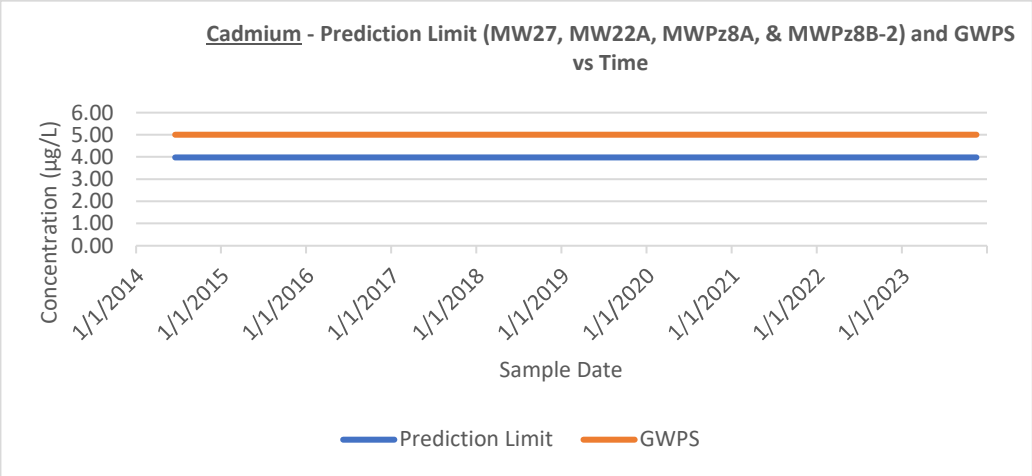
Appendix G
Standards History Graphs

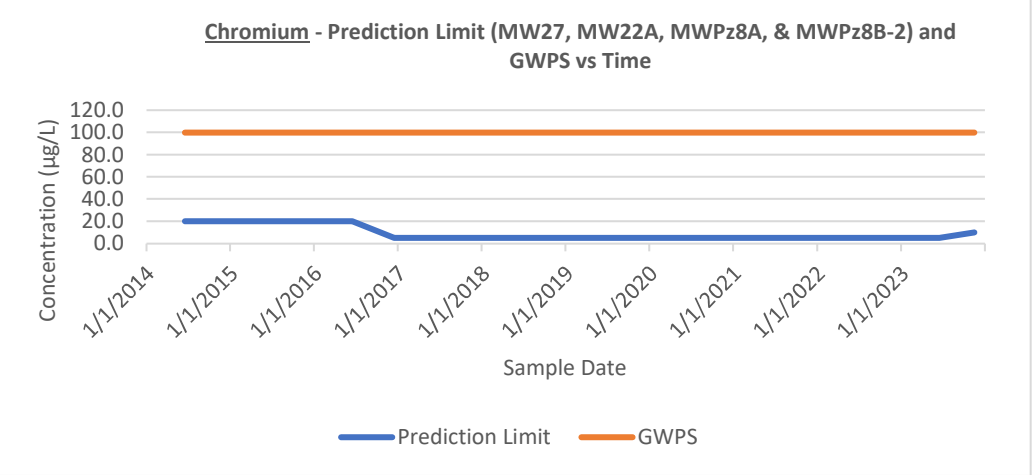

Antimony - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
8.0
6.0
4.0
2.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

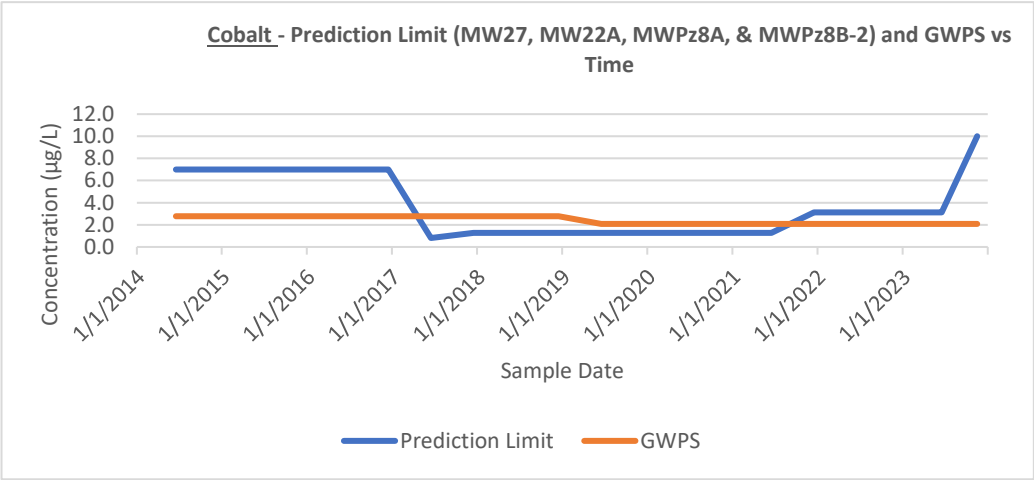

Arsenic - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
50.0
40.0
30.0
20.0
10.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

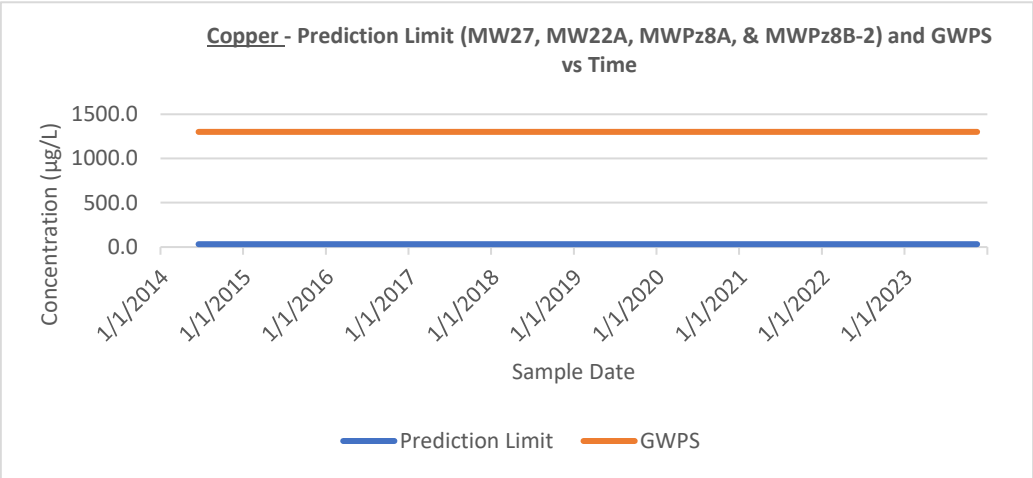

Barium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
2500
2000
1500
1000
500
0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

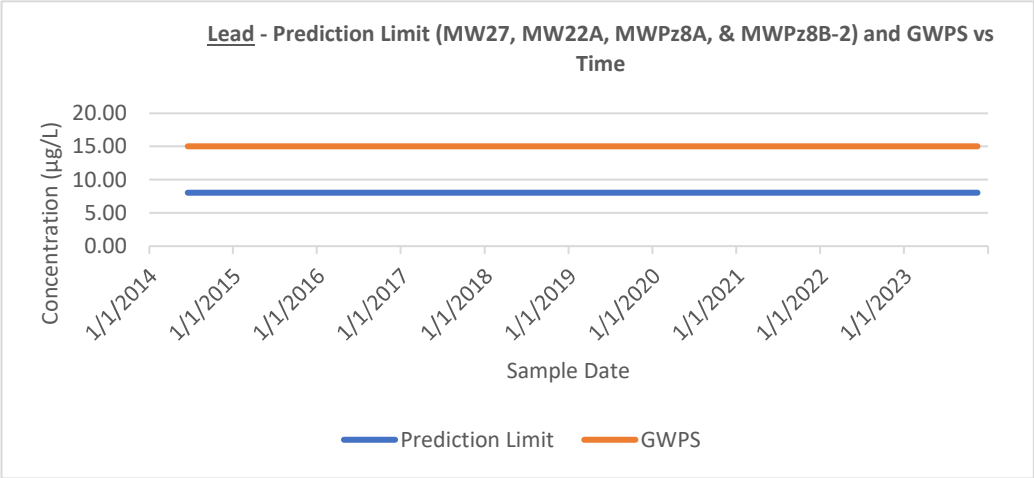

Beryllium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
5.0
4.0
3.0
2.0
1.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

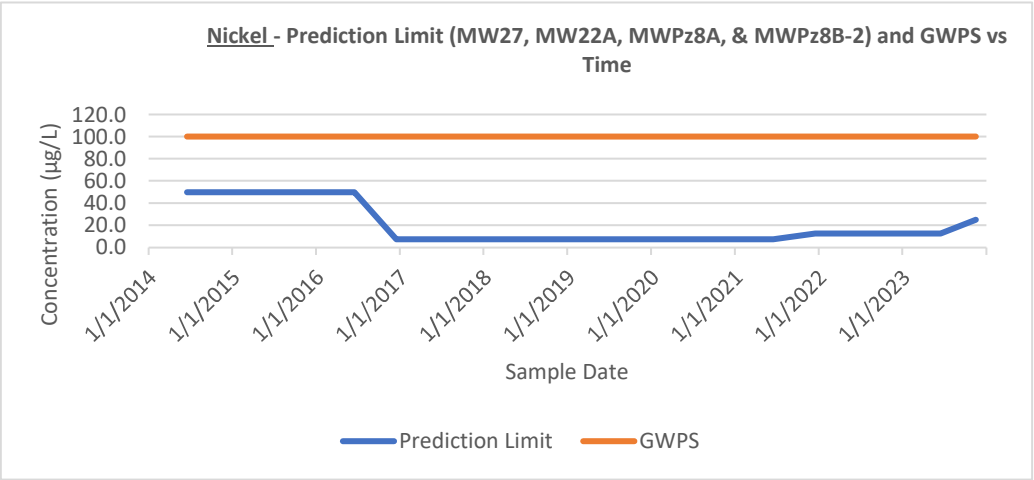

Cadmium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

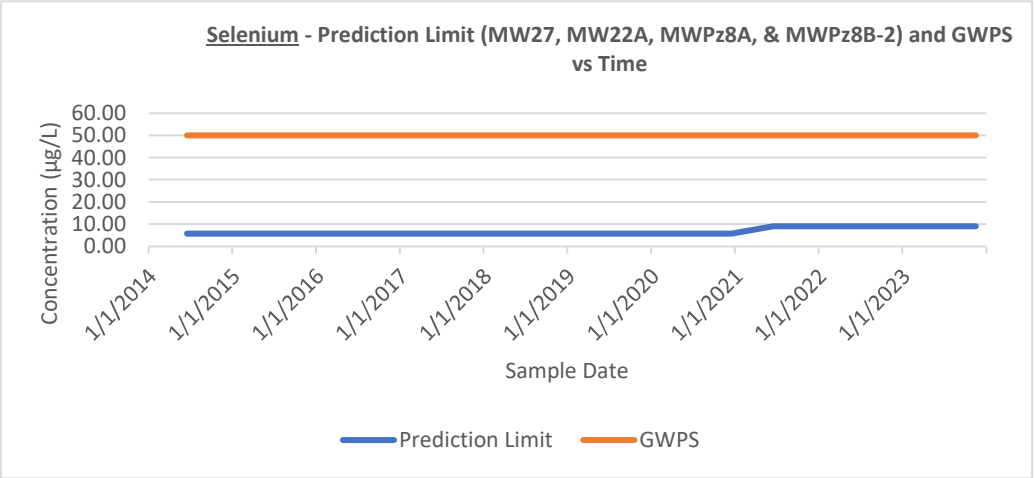

Chromium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

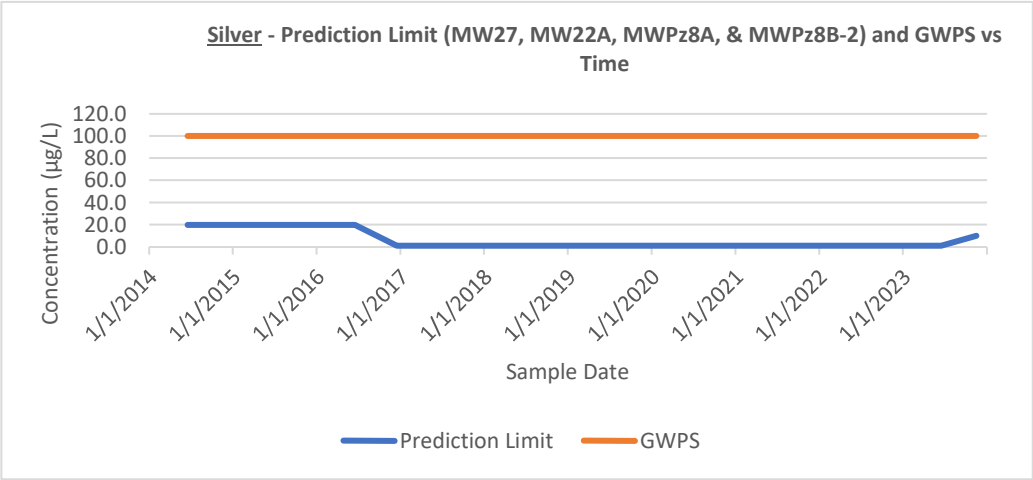

Cobalt - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

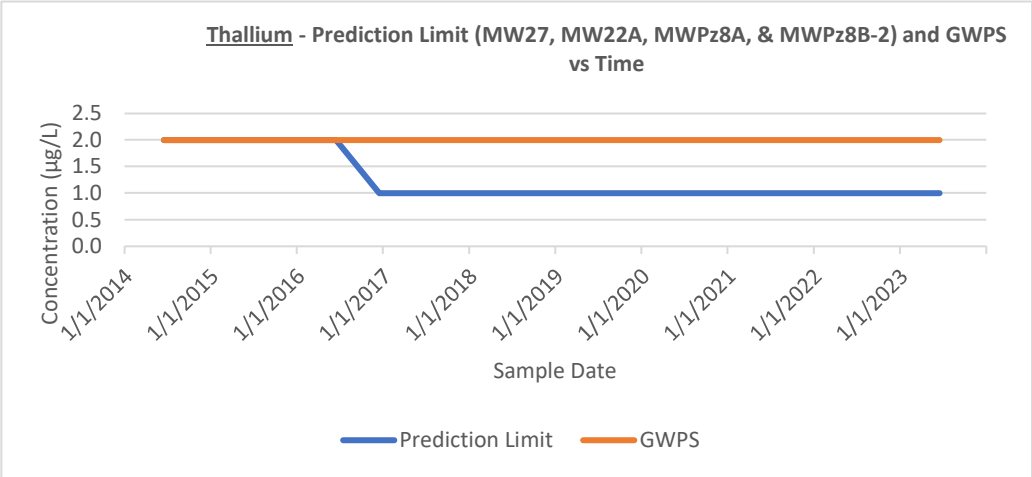

Copper - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
1500.0
1000.0
500.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

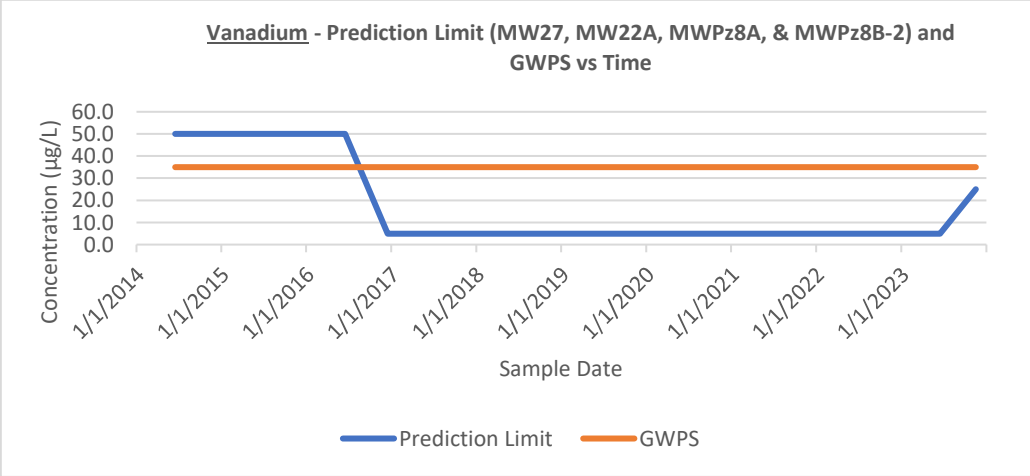

Lead - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
20.00
15.00
10.00
5.00
0.00
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS

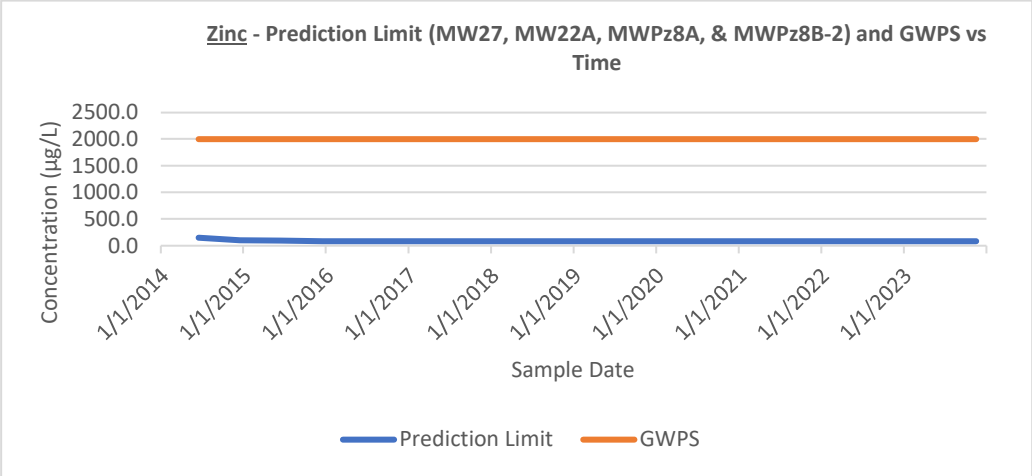

Nickel - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS


Selenium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS


Silver - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
120.0
100.0
80.0
60.0
40.0
20.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS


Thallium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
2.5
2.0
1.5
1.0
0.5
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS


Vanadium - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
60.0
50.0
40.0
30.0
20.0
10.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS


Zinc - Prediction Limit (MW27, MW22A, MWPz8A, & MWPz8B-2) and GWPS vs Time
Concentration (µg/L)
2500.0
2000.0
1500.0
1000.0
500.0
0.0
1/1/2014
1/1/2015
1/1/2016
1/1/2017
1/1/2018
1/1/2019
1/1/2020
1/1/2021
1/1/2022
1/1/2023
Sample Date
Prediction Limit
GWPS