

2023 ANNUAL GROUNDWATER QUALITY REPORT

FOR THE

GRUNDY COUNTY SANITARY LANDFILL

**38-SDP-1-75C
GRUNDY COUNTY, IOWA**

by:

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Certification

Prepared by: 

Date: 2-23-2024

Printed: Todd Whipple, CPG

Section 1.0 Background Information

1.1 Report Priority

The Owner desires to end regulatory oversight of the post-closure monitoring. The Owner desires to adopt an Environmental Covenant for the facility and have the Closure Permit rescinded.

Water quality findings have been determined to be in conformance with applicable rule (Iowa Administrative Code (IAC) 567-113). Water quality is highly similar to the findings from the previous years (2021 and 2022). Water quality findings validate that the water quality is static over time and that there are no Statistically Significant Levels (SSL) that require the consideration of corrective measures.

It is recommended that detection and assessment monitoring continue as outlined in Table 1, unless IDNR will consider suspending sampling and reporting activities in 2024 while an Environmental Covenant is being developed.

The frequency of compliance monitoring is annually based on the Revised Closure Permit dated September 28, 2023 (Doc # 107802). The frequency of bis(2-ethylhexyl) phthalate, phorate, and thionazin testing has been relaxed to once per five (5) years to correspond with the full Appendix II sample collection.

1.2 Period of Report Coverage

Water quality data evaluation is based on a running compilation of data beginning in April, 2012. Statistical evaluations herein are updated based on the 2023 annual water quality data collected October 4, 2023.

1.3 Current Site Map

Figure 1 is attached illustrating the current site features, monitoring well locations, and gas monitoring locations.

1.4 Site Status and Applicable Rules

Site Location

The Grundy County Sanitary Landfill is located in portions of the NE $\frac{1}{4}$ and the NW $\frac{1}{4}$ of Section 3, T87N, R17W, Grundy County, Iowa. The site encompasses approximately 29 acres. The facility operates under the Iowa Department of Natural Resources (IDNR) Permit Number 38-SDP-1-75P.

Landfill Layout

The site is situated in gently rolling terrain and adjacent properties are cultivated farm ground. Surface runoff from the site follows site topography and flows radially from the closed landfill area. The site drainage ultimately ends up in Black Hawk Creek.

The facility includes a closed landfill area of approximately 13 acres.

Applicable Rules

Groundwater monitoring at the site is conducted in accordance with Iowa Administrative Code (IAC) 567-113 as per the variance approved August 28, 2012.

1.5 Summary of Hydrologic Monitoring System Plan (HMSP)

The HMSP includes five (5) monitoring wells. MW-15A is the designated background/upgradient well(s) for the facility. Historic data collected from MW-18 (no longer sampled) is also included in the background data set. The Site Plan and the approved monitoring network are illustrated on Figure 1.

Monitoring Well Maintenance Performance Reevaluation activities associated with the HMSP monitoring wells are discussed in the information presented in Appendix A.

Prior to April 24, 2012, monitoring was performed according to Iowa Administrative Code 567-103 and 113 that predated current IAC 567, Chapter 113. For a summary of testing performed under the previous rule see document #79353. In addition, full Appendix II samples were collected on 4/16/2009 from all fourteen (14) site monitoring wells that existed on that date.

Sampling in accordance with current IAC 567, Chapter 113 and the Revised Closure Permit dated September 28, 2023 (Doc # 107802) is summarized in the table below.

Table 1 -- Hydrologic Monitoring System Plan (HMSP) & Required Testing

WELL	Monitoring Phase	April, 2024	October, 2024	Appendix II Sample History
MW-15 (b)	Water Level Only			4/16/09
MW-15A (b)	Detection Monitoring	Appendix I	No Sample	
MW-18 (b)	Water Level Only			4/16/09
MW-3	Water Level Only			4/16/09
MW-4	Water Level Only			4/16/09, 4/4/17, 4/12/18
MW-5	Water Level Only			4/16/09, 10/17/14, 10/4/19
MW-9	Assessment Monitoring	Appendix II	No Sample	4/16/09, 10/17/14, 10/4/19
MW-10	Water Level Only			4/16/09, 4/4/17, 4/12/18
MW-11	Assessment Monitoring	Appendix I ⁽¹⁾	No Sample	4/16/09, 4/4/17, 4/12/18, 10/4/23
MW-12	Water Level Only			4/16/09
MW-13	Assessment Monitoring	Appendix II	No Sample	4/16/09, 10/17/14, 10/4/19
MW-14	Assessment Monitoring	Appendix II	No Sample	4/16/09, 10/17/14, 10/4/19

(b) background well

⁽¹⁾ = bis(2-ethylhexyl)phthalate

Section 2.0 Reporting Period Monitoring Activities

Appendix B includes information related to the Monitoring Activities at this facility. A summary of all well testing beginning April 24, 2012 is included in Appendix B.1.

Field sampling information for the October 4, 2023 sampling episode is included on the field forms (IDNR Form 542-1322) in Appendix B.2.

A comprehensive summary of Analytical Data for the episodes between October 17, 2006 and October 4, 2023 is included in Appendix C.

2.1 Current Detection Monitoring Activities

The background wells are MW-15A and MW-18. Numerous semi-annual sampling episode for MW-18 collected between October 16, 2024 and April 6, 2022 are included in the background data pool. MW-18 is now retained as a water level monitoring point moving forward.

2.2 Current Assessment Monitoring Activities

Downgradient *assessment* monitoring wells include MW-9, MW-11, MW-13, and MW-14. Each assessment monitoring well has had a minimum of three (3) rounds of full Appendix II sampling performed to date. The Revised Closure Permit dated September 28, 2023 (Doc # 107802) allows a five (5) year frequency for full Appendix II sampling. The on-going supplemental sampling for detected compounds bis(2-ethylhexyl) phthalate, phorate, and thionazin in assessment monitoring wells has been relaxed to the same five (5) year frequency for full Appendix II sampling.

2.3 Current Corrective Action Activities and Monitoring

An Ecolotree® buffer is in place as a water quality maintenance system at this facility. The Closed Landfill has been retrofitted with a slurry wall and a leachate collection toe drain system on the north, east, and south sides of the fill in order to eliminate historic leachate seeps.

Section 3.0 Data Evaluation and Summary

Statistical Evaluations are prepared by Otter Creek Environmental Services for each monitoring episode. The Groundwater Statistics Report for the Grundy County Sanitary Landfill, First Semi-Annual Monitoring Event in 2023, dated November, 2023 is included in Appendix D.

The Keystone Analytical Report for the laboratory testing October 4, 2023 sampling episode is included in Appendix E.

QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-15A during the October 4, 2023 sampling episode.

The purpose of the field duplicate is to evaluate the precision of sample collection and analysis process from the field through the laboratory. The calculation of the Relative Percent Difference (RPD) for duplicate pair results is used as a means to evaluate the precision.

The Quality Control (QC) limit for the RPD on field duplicates is established at thirty percent (30%) for duplicate pairs that have reported concentrations five (5) times greater than the laboratory Reporting Limit. For samples and respective duplicates with reported analyte concentrations nearer the Reporting Limit, the RPD calculations demonstrate greater variability and the RPD can be very large. RPD values are considered nonrepresentative in the following conditions:

- a) Both the original and the duplicate results are less than five (5) times the Reporting Limit.
- b) One or both results are qualified, flagged, or estimated.
- c) One or both results are non-detected.

The results of the blind duplicate and the monitoring well results for October 4, 2023 were within the limits established and indicate that the data quality is acceptable without restriction.

BACKGROUND DATA VALIDATION

On July 10, 2014 an unnumbered Permit Amendment and Memo was issued by the IDNR regarding turbidity (Doc # 80714). A TSS and Field Turbidity Evaluation Report was prepared and submitted on March 24, 2015 (Doc# 82785) and was approved by IDNR on May 20, 2015 (Doc #83406).

A summary of field measured turbidity is included in Appendix D.2.

The background data utilized herein has been restricted to include only sample results that have been collected by “No Purge” methods in order to avoid turbidity related issues that may have been associated with historic sample collection methods.

Upgradient Data, Table 1, Attachment B, to the November, 2023 Statistical Evaluation Report (Appendix D) includes a summary of the most current background data. Any water quality results that are statistical outliers are tagged with an asterisk in the background data and the data would be excluded from use in the calculation of prediction limits. The Site Prediction Limits, Table 5, Attachment B established in the November, 2023 Statistical Evaluation Report (Appendix D) is based on the validated background.

STATISTICALLY SIGNIFICANT INCREASES (SSI)

The detected concentrations of each compound are compared to the site prediction limit for each respective compound. For detection monitoring wells, any detected concentration for a compound that is in excess of the calculated site prediction limit is recorded as a Statistically Significant Increase (SSI). In 2023, there were no new SSI recorded in detection monitoring wells.

For wells in assessment monitoring (MW-9, MW-11, MW-13, and MW-14), concentrations that exceed a prediction limit are also recorded in the table below, but they are not SSI, rather the result is compared to a GWPS. A running summary of detections that exceed a prediction limit is included in Appendix D.3. In 2023, the detections that exceed the prediction limit are summarized in Table 2 below.

Table 2 – Compounds Exceeding a Prediction Limit

Fall 2023	
MW-9**	Arsenic
	Barium
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene
MW-11**	bis (2-ethylhexyl)phthalate
MW-13**	Barium
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene
MW-14**	Arsenic
	Barium
	Nickel

** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits.

This report serves as notice to the operating record in accordance with IAC 567-113.10(5)c.

ASSESSMENT MONITORING SUMMARY

Assessment monitoring including the full Appendix II list has been performed at each well where a historic SSI is recorded (at the Assessment Monitoring Wells). Compounds detected to date beyond the Appendix I list are limited to bis(2-ethylhexyl) phthalate at MW-9 and MW-11; phorate at MW-9, MW-11, and MW-13; and thionazin at MW-14.

The summary of detections to date is presented in Table 3a-3c. The full Appendix II sample collection events are highlighted in green.

Table 3a - Bis(2-ethylhexyl)phthalate (ug/L) GWPS = 6.0 ug/L

Date	MW-9	MW-11	MW-13	MW-14
4/17/2009	<8	<8	<8	<8
4/24/2013	8.0	NT	<8	<8
10/08/2013	<10	NT	NT	NT
4/24/2014	<10	NT	NT	NT
10/17/2014	<8	NT	<8	<8
4/1/2015	<10	NT	NT	NT
10/2/2015	<10	NT	NT	NT
4/19/2016	<10	NT	NT	NT
10/10/2016	<10	NT	NT	NT
4/4/2017	<10	<8	NT	NT
10/18/2017	NT	NT	NT	NT
4/12/2018	<6	23.0	NT	NT
10/23/2018	<6	<6	NT	NT
4/8/2019	<6	NT	NT	NT
10/4/2019	<6	NT	<6	<6
4/9/2020	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT
4/1/2021	NT	NT	NT	NT
10/4/2021	NT	NT	NT	NT
4/6/2022	NT	NT	NT	NT
10/4/2023	NT	9.0	NT	NT

Table 3b - phorate (ug/L) GWPS = 1.4 ug/L

Date	MW-9	MW-11	MW-13	MW-14
4/17/2009	<0.4	<0.4	<0.4	<0.4
4/24/2013	<0.4	NT	<0.4	<0.4
10/17/2014	3.0	NT	2.0	7.1
4/1/2015	<0.4	NT	<0.4	<0.4
10/2/2015	1.2	NT	0.4	2.8
4/19/2016	<0.4	NT	<0.4	<0.4
10/10/2016	2.5	NT	0.8	2.8
4/4/2017	1.5	2.4	<0.4	<0.4
10/18/2017	<0.4	<0.4	<0.4	<0.4
4/12/2018	<0.4	<0.4	<0.4	<0.4
10/23/2018	<0.4	<0.4	<0.4	<0.4
4/8/2019	<0.4	<0.4	<0.4	<0.4
10/4/2019	<0.4	<0.4	<0.4	<0.4
4/9/2020	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT
4/1/2021	NT	NT	NT	NT
10/4/2021	NT	NT	NT	NT
4/6/2022	NT	NT	NT	NT
10/4/2023	NT	<0.4	NT	NT

Table 3c - thionazin (ug/L) GWPS = none

Date	MW-9	MW-11	MW-13	MW-14
4/17/2009	<0.4	<0.4	<0.4	<0.4
4/24/2013	<0.4	NT	<0.4	<0.4
10/17/2014	<0.4	NT	<0.4	0.5
4/1/2015	NT	NT	NT	<0.4
10/2/2015	NT	NT	NT	<0.4
4/4/2017	NT	<0.4	NT	<0.4
10/18/2017	NT	NT	NT	<0.4
4/12/2018	<0.4	<0.4	<0.4	<0.4
10/23/2018	NT	NT	NT	<0.4
4/8/2019	NT	NT	NT	<0.4
10/4/2019	<0.4	<0.4	<0.4	<0.4
4/9/2020	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT
4/1/2021	NT	NT	NT	NT
10/4/2021	NT	NT	NT	NT
4/6/2022	NT	NT	NT	NT
10/4/2023	NT	<0.4	NT	NT

Review of the results for bis(2-ethylhexyl) phthalate, phorate, and thionazin indicate that the compounds are uncommon and do not indicate any pattern or trends for detection.

Permit Amendment #4 dated May 20, 2015 (Doc# 83407) allows a five (5) year frequency for full Appendix II sampling, rather than annually. The on-going supplemental sampling for detected compounds bis(2-ethylhexyl) phthalate and thionazin in the assessment monitoring wells was relaxed to the same five (5) year frequency for full Appendix II sampling as allowed in the August 27, 2019 IDNR Letter (Doc # 95813). Semi-annual phorate sampling ceased after three (3) years of non-detection.

SITE SPECIFIC GWPS

Review of the inorganic Prediction Limits that are based on the restricted/validated background data (Table 5 of Attachment B in the Statistical Evaluation Reports in Appendix D) indicates that the prediction limit for cobalt (11.6 ug/L) calculated from the background data exceeds the published IAC 567, Chapter 137 Statewide Standard (2.1 ug/L). The Site-Specific GWPS should not be set lower than the Site Prediction Limit. For this report, the prediction limit for cobalt (11.6 ug/L) is utilized as the Site-Specific GWPS. For all other compounds the published IAC 567, Chapter 137 Statewide Standard are utilized as the GWPS.

STATISTICALLY SIGNIFICANT LEVELS (SSL)

The detected values that exceed site prediction limits are utilized to calculate the Confidence Interval (the 95% lower confidence limits (LCL) and the 95% upper control limits (UCL)) in

accordance with the 2009 Unified Guidance for Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities by US EPA. The 95% LCL values are compared to applicable GWPS. Any 95% LCL value that exceeds an applicable GWPS is recorded as an SSL. All wells with a recorded SSL require the plume of impact to be defined in the horizontal and vertical directions and required completion of an Assessment of Corrective Measures (ACM).

The SSL Evaluation for 2023 is based on data collected since October, 2014. The Confidence Intervals (95% LCL and 95% UCL) are calculated during each statistical evaluation based on the most recent four (4) data points.

Tables Summarizing the results, the prediction limits, the Confidence Intervals, and the GWPS are prepared and are included in Appendix F.

On the Summary Tables in Appendix F, the concentrations that exceed the Prediction Limit (SSI) are highlighted in brown. Any 95% LCL value that exceeds the GWPS would be highlighted in yellow. *Note that there are no 95% LCL values recorded that exceed a GWPS.*

As illustrated in the tables in Appendix F, there are no SSL recorded to date. There is no requirement to perform Assessment of Corrective Measures.

IN-PLACE WATER QUALITY MAINTENANCE SYSTEMS

An Ecolotree® buffer is in place as a water quality maintenance system at this facility. Maintenance on the landfill Ecolotree® Cap is on-going. Maintenance includes removal of dead trees and removal of volunteer trees. Saplings in a portion of the Ecolotree® Cap were mowed in 2022. It is recommended that the Ecolotree® buffer be maintained in the current condition as an on-going corrective measure for 2024.

The Closed Landfill has been retrofitted with a slurry wall and a leachate collection toe drain system on the north, east, and south sides of the fill. The retrofit leachate collection system was installed to eliminate leachate seeps, but also appears to function to control the water table system and flow paths at this facility. The system is interpreted to be performing as designed. This system is more fully discussed in the Leachate Control System Performance Evaluation Report incorporated in a later section of this report.

ASSESSMENT OF CORRECTIVE MEASURES (ACM) EVALUATION

Corrective Measures are not required at this facility.

RESPONSES TO WATER QUALITY RESULTS

Based on the minor nature of the water quality findings to date (the few recorded prediction limit exceedances), a recommendation is made that water quality testing and other post-closure care monitoring cease under the current closure permit. It is recommended that going forward, the post closure care and maintenance be managed by the Grundy County Landfill Commission

under an Environmental Covenant filed and recorded on the deed specific to the landfill facility, rather than under the Closure Permit issued by IDNR.

MONITORING WELL MAINTENANCE PERFORMANCE EVALUATION

The HMSP and the existing HMSP monitoring points are interpreted to be effective for on-going detection, assessment, and corrective action system monitoring at the facility. Monitoring Well Maintenance Performance Reevaluation activities associated with the HMSP monitoring wells are discussed in the information presented in Appendix A.

LEACHATE COLLECTION SYSTEM PERFORMANCE EVALUATION

See Appendix G.

GAS MONITORING EVALUATION

See Appendix H.

Section 4.0 Recommendations & Requests

Corrective Action monitoring is not warranted based on the water quality data reported.

Request IDNR participation in developing an Environmental Covenant for the facility in order to rescind the Closure Permit for the facility.

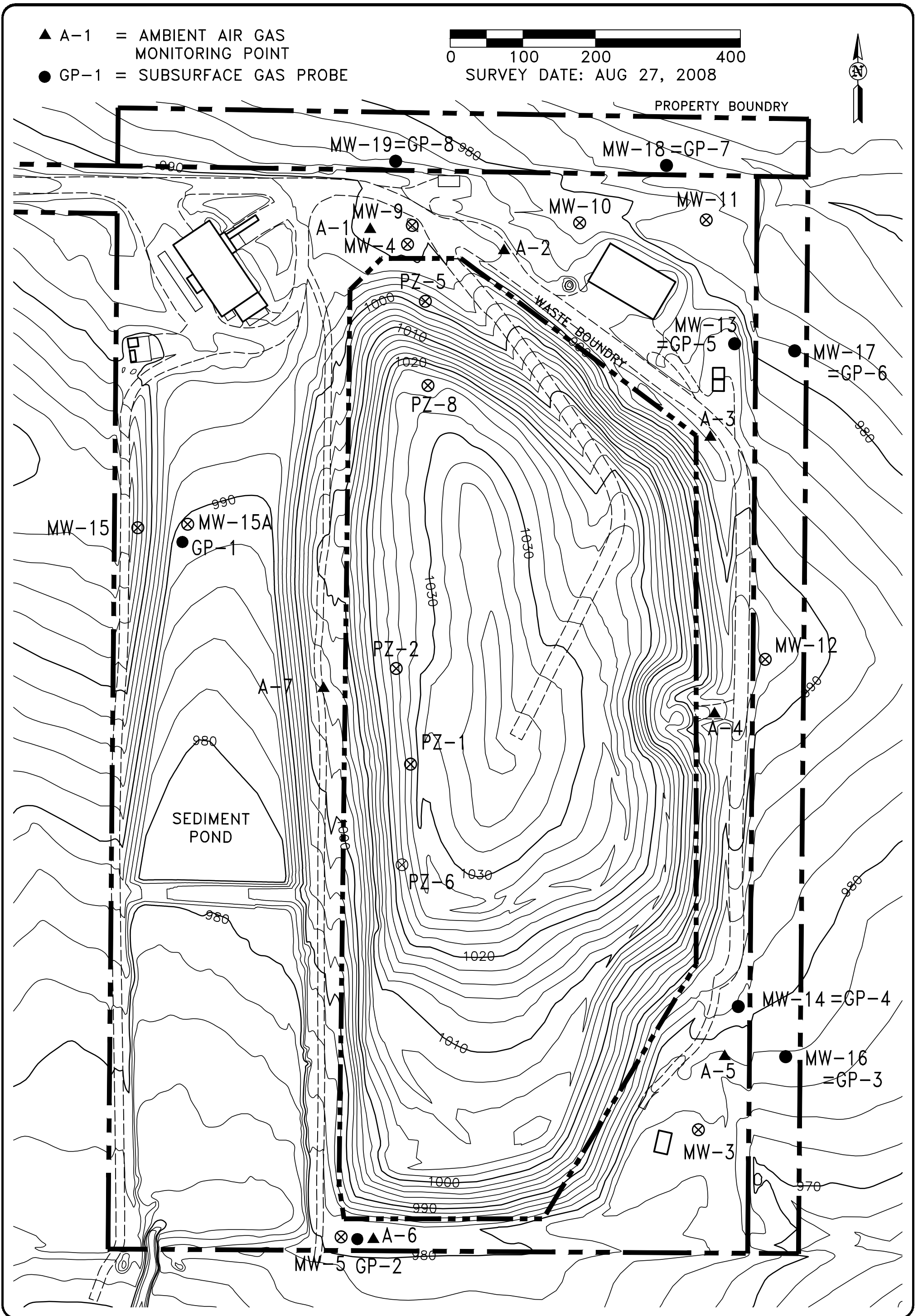
Request that IDNR suspend requirements for further sampling and testing in 2024 while the Environmental Covenant process is underway.

Groundwater monitoring should continue as outlined in Table 1 in the event that the IDNR does not respond with approval of the recommended course to pursue an Environmental Covenant.

Figures

- ▲ A-1 = AMBIENT AIR GAS MONITORING POINT
- GP-1 = SUBSURFACE GAS PROBE

0 100 200 400
 SURVEY DATE: AUG 27, 2008



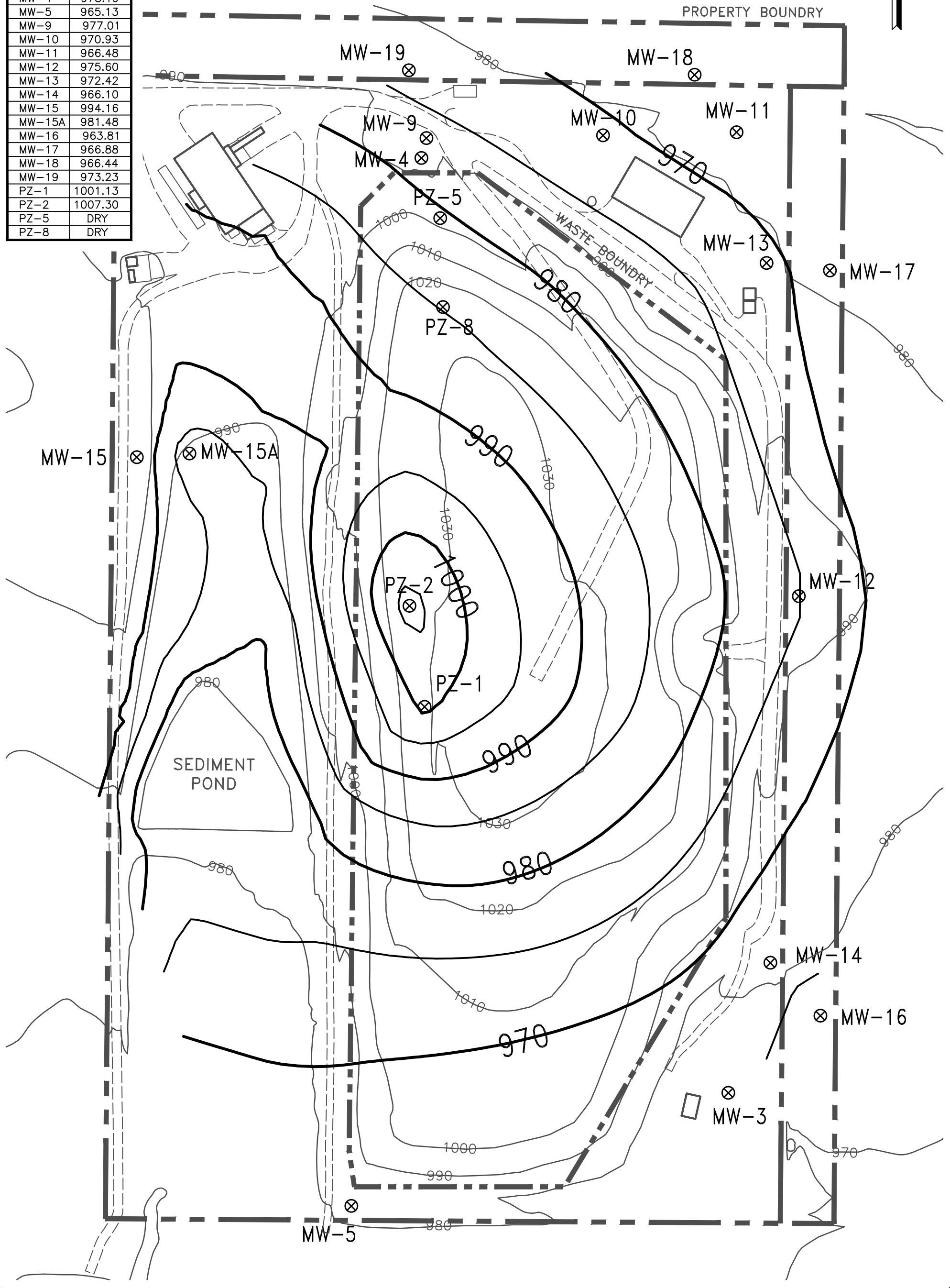
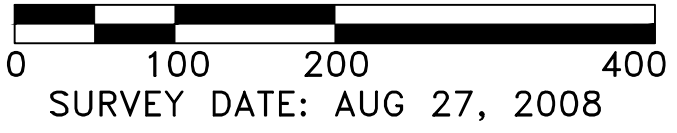
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**SITE PLAN WITH
 GAS MONITORING LOCATIONS**
 GRUNDY COUNTY SANITARY LANDFILL
 GRUNDY CENTER, IOWA

FIGURE:		1
REVISION	NO.	DATE
DRAWN DRA	PROJECT NO. 6033	DATE 1-9-24

WATER ELEVATION
OCTOBER 4, 2023

WELL	ELEV.
MW-3	965.80
MW-4	978.19
MW-5	965.13
MW-9	977.01
MW-10	970.93
MW-11	966.48
MW-12	975.60
MW-13	972.42
MW-14	966.10
MW-15	994.16
MW-15A	981.48
MW-16	963.81
MW-17	966.88
MW-18	966.44
MW-19	973.23
PZ-1	1001.13
PZ-2	1007.30
PZ-5	DRY
PZ-8	DRY



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GROUNDWATER CONTOURS
GRUNDY COUNTY SANITARY LANDFILL
GRUNDY CENTER, IOWA

FIGURE: 2	
REVISION	NO. DATE
DRAWN DRA	PROJECT NO. 6033-14A DATE 1-9-24

Appendix A
Monitoring Well Maintenance and Performance Re-evaluation

MONITORING WELL MAINTENANCE AND PERFORMANCE REEVALUATION

The table below outlines the status of well performance and maintenance activities as required by IAC 567-113.10(2) f.

Years	2014	2015	2016	2017	2018	2019
Annual water-quality report	X	X	X	X	X	X
High and low water levels	X	X	X	X	X	X
Six-month water levels	X	X	X	X	X	X
Well-depth measurement	X	X	X	X	X	X
Evaluation of recharge rates and chemistry	X		X		X	

X, completed; O, scheduled.

Future Assessment

Years	2020	2021	2022	2023	2024	2025
Annual water-quality report	X	X	X	X	O	O
High and low water levels	X	X	X	X	O	O
Six-month water levels	X	X	X	X	O	O
Well-depth measurement	X	X	X	X	O	O
Evaluation of recharge rates and chemistry	X		X		O	

X, completed; O, scheduled.

Monitoring Well Performance Reevaluation for wells is performed in accordance with IAC-567 113.10(2)f as per the variance approved August 28, 2012.

High & Low Water Levels

Water elevation data is included in the attached Tables A1. The maximum depth to water and the minimum depth to water are included at the bottom of each column. The variations over seasonal events are typically less than 10 ft across the site through time.

A Water Table Contour Map (Figure 2) dated October 4, 2023 is included with this report. The Water Table Contour Map illustrates the water table surface.

Well Depth & Sedimentation

Well depth measurements were made on October 4, 2023. Review of the measurement data included on the field measurement forms in Appendix B indicate that well sedimentation is estimated to be less than 1.5 feet at all site monitoring wells, except MW-11 (2.83 ft).

Well Recharge Rates & Chemistry

The 2001 AWQR (Doc# 25065) includes a summary of horizontal hydraulic conductivity testing results for numerous wells. Horizontal hydraulic conductivities ranged between 10^{-4} cm/sec and 10^{-6} cm/sec.

Well recovery data was again collected on April 6, 2022. Review of the field data for the April 6, 2022 sampling episode indicates that the water levels within each well recover to approximately 90+% at all wells, in 6 hours or less.

Based on this recorded data, recharge to the individual wells remains sufficient to promote collection of representative water quality samples and the wells are functioning as intended. Monitoring well recharge reevaluation is due biennially according to 113.10(2)f, and should be evaluated again in 2024.

Based on the apparent static condition of the water table across the site, it appears that the semi-annual water elevation data is sufficient to adequately monitor the hydrologic condition of the site.

No changes or modifications to the site monitoring wells are recommended.

Appendix A.1 - Historic Water Elevation Data

Water Elevation Data
 Grundy County Sanitary Landfill
 38-SDP-1-75C

Well/TOC	MW-3 978.44		MW-4 991.14		MW-5 982.96		MW-9 991.63		MW-10 984.28		MW-11 978.78		MW-12 995.41		MW-13 986.9	
	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
04/24/13	4.34	974.10	5.39	985.75	13.83	969.13	7.05	984.58	5.54	978.74	4.93	973.85	19.20	976.21	8.40	978.50
06/13/13	4.79	973.65	7.70	983.44	13.93	969.03	9.43	982.20	9.61	974.67	6.83	971.95	16.59	978.82	8.82	978.08
10/08/13	10.98	967.46	11.60	979.54	17.74	965.22	13.41	978.22	12.97	971.31	11.45	967.33	18.79	976.62	13.26	973.64
12/19/13	11.78	966.66	11.95	979.19	17.71	965.25	13.80	977.83	13.14	971.14	11.96	966.82	19.62	975.79	14.22	972.68
04/23/14	9.80	968.64	7.35	983.79	15.15	967.81	9.00	982.63	11.50	972.78	9.30	969.48	19.90	975.51	11.00	975.90
10/16/14	11.00	967.44	11.45	979.69	15.30	967.66	12.50	979.13	12.70	971.58	10.00	968.78	18.40	977.01	12.35	974.55
01/08/15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
04/01/15	10.25	968.19	9.45	981.69	15.84	967.12	11.30	980.33	12.50	971.78	9.60	969.18	18.40	977.01	12.40	974.50
06/09/15	NR	NR	NR	NR	NR	NR	9.95	981.68	NR	NR	NR	NR	NR	NR	NR	NR
10/02/15	9.85	968.59	10.10	981.04	15.75	967.21	11.85	979.78	12.30	971.98	9.70	969.08	17.70	977.71	12.75	974.15
11/24/15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	9.71	969.07	17.90	977.51	NR	NR
04/19/16	6.65	971.79	8.55	982.59	14.57	968.39	10.50	981.13	10.95	973.33	8.18	970.60	16.34	979.07	10.72	976.18
10/10/16	7.72	970.72	9.17	981.97	14.75	968.21	11.00	980.63	11.16	973.12	8.31	970.47	16.44	978.97	10.85	976.05
01/09/17	NR	NR	9.80	981.34	NR	NR	NR	NR	NR	NR	9.07	969.71	NR	NR	12.46	974.44
04/04/17	3.40	975.04	6.27	984.87	13.21	969.75	7.75	983.88	4.75	979.53	3.58	975.20	17.13	978.28	9.32	977.58
10/18/17	7.78	970.66	8.07	983.07	14.49	968.47	9.62	982.01	9.81	974.47	7.78	971.00	18.00	977.41	11.65	975.25
04/12/18	8.85	969.59	8.18	982.96	14.70	968.26	9.76	981.87	11.32	972.96	8.64	970.14	17.97	977.44	11.60	975.30
10/23/18	5.25	973.19	8.55	982.59	14.03	968.93	10.52	981.11	10.07	974.21	6.80	971.98	15.27	980.14	9.40	977.50
04/08/19	7.00	971.44	7.70	983.44	14.15	968.81	9.12	982.51	9.71	974.57	7.22	971.56	17.08	978.33	11.54	975.36
10/04/19	5.93	972.51	8.22	982.92	13.91	969.05	9.11	982.52	8.16	976.12	6.88	971.90	17.83	977.58	11.90	975.00
04/09/20	6.41	972.03	7.87	983.27	13.98	968.98	9.49	982.14	10.63	973.65	7.85	970.93	16.81	978.60	9.90	977.00
10/01/20	10.66	967.78	10.41	980.73	15.69	967.27	11.96	979.67	12.75	971.53	10.71	968.07	18.25	977.16	13.11	973.79
04/01/21	5.92	972.52	7.14	984.00	14.33	968.63	8.78	982.85	10.52	973.76	7.63	971.15	18.33	977.08	9.45	977.45
10/04/21	11.79	966.65	11.31	979.83	16.11	966.85	12.70	978.93	13.10	971.18	11.10	967.68	19.14	976.27	13.73	973.17
04/06/22	6.41	972.03	7.69	983.45	14.13	968.83	8.92	982.71	10.49	973.79	7.13	971.65	17.91	977.50	10.62	976.28
10/14/22	11.61	966.83	12.42	978.72	15.90	967.06	13.99	977.64	13.30	970.98	11.51	967.27	18.91	976.50	14.02	972.88
04/19/23	9.69	968.75	8.70	982.44	14.80	968.16	10.36	981.27	11.78	972.50	8.88	969.90	18.71	976.70	10.59	976.31
10/04/23	12.64	965.80	12.95	978.19	17.83	965.13	14.62	977.01	13.35	970.93	12.30	966.48	19.81	975.60	14.48	972.42
minimum	3.40	965.80	5.39	978.19	13.21	965.13	7.05	977.01	4.75	970.93	3.58	966.48	15.27	975.51	8.40	972.42
maximum	12.64	975.04	12.95	985.75	17.83	969.75	14.62	984.58	13.35	979.53	12.30	975.20	19.90	980.14	14.48	978.50

Water Elevation Data
 Grundy County Sanitary Landfill
 38-SDP-1-75C

Well/TOC	MW-14 983.63		MW-15 1012.46		MW-15A 992.32		MW-16 979.99		MW-17 980.24		MW-18 978.32		MW-19 986.66	
Date	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation	Water Depth	Water Elevation
04/24/13	11.73	971.90	NR	NR	NR	NR	13.69	966.30	8.29	971.95	4.45	973.87	6.67	979.99
06/13/13	10.72	972.91	NR	NR	NR	NR	9.12	970.87	7.96	972.28	6.05	972.27	9.55	977.11
10/08/13	16.29	967.34	NR	NR	7.69	984.63	14.85	965.14	12.77	967.47	10.13	968.19	12.06	974.60
12/19/13	17.10	966.53	NR	NR	11.70	980.62	15.78	964.21	13.17	967.07	10.56	967.76	12.15	974.51
04/23/14	15.40	968.23	NR	NR	4.70	987.62	16.00	963.99	12.40	967.84	7.70	970.62	9.40	977.26
10/16/14	16.00	967.63	NR	NR	4.70	987.62	14.60	965.39	12.80	967.44	8.30	970.02	10.70	975.96
01/08/15	NR	NR	NR	NR	4.65	987.67	NR	NR	NR	NR	NR	NR	NR	NR
04/01/15	16.10	967.53	NR	NR	4.30	988.02	14.90	965.09	12.10	968.14	8.20	970.12	10.70	975.96
06/09/15	13.50	970.13	NR	NR	6.34	985.98	NR	NR	NR	NR	7.05	971.27	NR	NR
10/02/15	15.70	967.93	NR	NR	5.80	986.52	14.05	965.94	12.10	968.14	8.20	970.12	10.90	975.76
11/24/15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
04/19/16	12.80	970.83	13.15	999.31	4.90	987.42	11.15	968.84	10.31	969.93	7.10	971.22	10.38	976.28
10/10/16	13.18	970.45	12.60	999.86	5.65	986.67	11.40	968.59	10.45	969.79	7.15	971.17	10.41	976.25
01/09/17	NR	NR	NR	NR	NR	NR	NR	NR	11.65	968.59	NR	NR	NR	NR
04/04/17	10.67	972.96	NR	NR	3.05	989.27	11.82	968.17	9.05	971.19	3.63	974.69	7.63	979.03
10/18/17	14.00	969.63	NR	NR	3.83	988.49	14.20	965.79	10.93	969.31	6.30	972.02	9.00	977.66
04/12/18	15.12	968.51	15.58	996.88	4.10	988.22	14.42	965.57	11.45	968.79	7.35	970.97	9.74	976.92
10/23/18	11.47	972.16	15.21	997.25	3.38	988.94	9.82	970.17	8.98	971.26	6.08	972.24	10.20	976.46
04/08/19	13.77	969.86	14.80	997.66	3.15	989.17	12.75	967.24	10.52	969.72	6.12	972.20	9.53	977.13
10/04/19	13.25	970.38	15.20	997.26	3.43	988.89	14.34	965.65	11.65	968.59	6.20	972.12	7.33	979.33
04/09/20	13.12	970.51	13.54	998.92	4.00	988.32	11.67	968.32	10.28	969.96	6.93	971.39	9.69	976.97
10/01/20	16.40	967.23	16.81	995.65	6.94	985.38	14.78	965.21	12.97	967.27	9.64	968.68	10.73	975.93
04/01/21	13.41	970.22	13.11	999.35	4.30	988.02	13.45	966.54	10.18	970.06	7.15	971.17	8.95	977.71
10/04/21	17.05	966.58	17.84	994.62	7.72	984.60	15.71	964.28	13.06	967.18	9.85	968.47	11.09	975.57
04/06/22	13.60	970.03	13.72	998.74	3.68	988.64	13.65	966.34	9.96	970.28	6.88	971.44	9.02	977.64
10/14/22	16.90	966.73	17.79	994.67	8.58	983.74	15.27	964.72	13.27	966.97	10.42	967.90	12.38	974.28
04/19/23	15.85	967.78	14.33	998.13	4.85	987.47	14.92	965.07	11.60	968.64	8.01	970.31	10.19	976.47
10/04/23	17.53	966.10	18.30	994.16	10.84	981.48	16.18	963.81	13.36	966.88	11.38	966.94	13.43	973.23
minimum	10.67	966.10	12.60	994.16	3.05	980.62	9.12	963.81	7.96	966.88	3.63	966.94	6.67	973.23
maximum	17.53	972.96	18.30	999.86	11.70	989.27	16.18	970.87	13.36	972.28	11.38	974.69	13.43	979.99

Appendix B

Monitoring Activities Information

Appendix B.1 – Summary of All Well Testing Activities

Table B.1 -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>4/13/09</u>	<u>4/24/12</u>	<u>9/19/12</u>	<u>4/24/13</u>	<u>10/8/13</u>
MW-15 (b)	Appendix II	Appendix I	Appendix I	Appendix I	---
MW-15A (b)	---	---	---	---	Appendix I
MW-3	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-4	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-5	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I
MW-9	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I ⁽¹⁾
MW-10	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-11	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-12	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-13	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I
MW-14	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I
MW-16	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I ⁽⁵⁾
MW-17	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-18	Appendix II	Appendix I	Appendix I	Appendix I	Appendix I
MW-19	Appendix II	Appendix I	Appendix I	Appendix II	Appendix I

continued -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>4/24/14</u>	<u>10/16/14</u>	<u>1/8/15</u>	<u>4/1/15</u>	<u>6/9/15</u>
MW-15 (b)	---	---			
MW-15A (b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-3	Appendix I	Appendix I		Appendix I	
MW-4	Appendix I	Appendix I		Appendix I	
MW-5	Appendix I	Appendix II		Appendix I ⁽⁴⁾	
MW-9	Appendix I ⁽¹⁾	Appendix II		Appendix I ^(1,3)	Barium
MW-10	Appendix I	Appendix I		Appendix I	
MW-11	Appendix I	Appendix I		Appendix I	
MW-12	Appendix I	Appendix I		Appendix I	
MW-13	Appendix I	Appendix II		Appendix I ⁽³⁾	
MW-14	Appendix I	Appendix II		Appendix I ^(3,4)	Barium+Nickel
MW-16	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾		Appendix I ^(3,4)	
MW-17	Appendix I	Appendix I		Appendix I ⁽³⁾	
MW-18	Appendix I	Appendix I		Appendix I	Appendix I
MW-19	Appendix I	Appendix II		Appendix I ^(1,2,3)	
Duplicate	At MW-15A	At MW-16		At MW-12	

continued -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>10/2/15</u>	<u>11/24/15</u>	<u>4/19/16</u>	<u>10/10/16</u>	<u>1/9/17</u>
MW-15 (b)	---	---		Appendix I	
MW-15A (b)	Appendix I		Appendix I	Appendix I	
MW-3	Appendix I		Appendix I	Appendix I	
MW-4	Appendix I		Appendix I	Appendix I	(R) – As+Ba
MW-5	Appendix I ⁽⁴⁾		Appendix I ⁽⁴⁾	Appendix I ⁽⁴⁾	
MW-9	Appendix I ^(1,3)		Appendix I ^(1,3)	Appendix I ^(1,3)	
MW-10	Appendix I		Appendix I	Appendix I	
MW-11	Appendix I	Cobalt	Appendix I	Appendix I	(R) - Ni
MW-12	Appendix I	Nickel	Appendix I	Appendix I	
MW-13	Appendix I ⁽³⁾		Appendix I ⁽³⁾	Appendix I ⁽³⁾	(R) - Cd
MW-14	Appendix I ^(3,4)		Appendix I ^(3,4)	Appendix I ^(3,4)	
MW-16	Appendix I ^(3,4)		Appendix I ^(3,4)	Appendix I ^(3,4)	
MW-17	Appendix I ⁽³⁾		Appendix I ⁽³⁾	Appendix I ⁽³⁾	(R) - Ba
MW-18 (b)	Appendix I		Appendix I	Appendix I	
MW-19	Appendix I ^(1,2,3)		Appendix I ^(1,2,3)	Appendix I ^(1,2,3)	
Duplicate	At MW-15A		At MW-3	At MW-5	

continued -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>4/4/17</u>	<u>10/18/17</u>	<u>4/12/18</u>	<u>10/23/18</u>
MW-15 (b)	---	---		
MW-15A (b)	Appendix I	Appendix I	Appendix I	Appendix I
MW-18 (b)	Appendix I	Appendix I	Appendix I	Appendix I
MW-3	Appendix I	Appendix I	Appendix I	Appendix I
MW-4	Appendix II	Appendix I	Appendix II	Appendix I
MW-5	Appendix I ⁽⁴⁾	Appendix I ⁽⁴⁾	Appendix I ⁽⁴⁾	Appendix I ⁽⁴⁾
MW-9	Appendix I ^(1,3)	Appendix I ^(1,3)	Appendix I ^(1,3)	Appendix I ^(1,3)
MW-10	Appendix II	Appendix I ⁽³⁾	Appendix II	Appendix I ^(1,3)
MW-11	Appendix II	Appendix I ⁽³⁾	Appendix II	Appendix I ^(1,3)
MW-12	Appendix I	Appendix I ⁽³⁾	Appendix I	Appendix I
MW-13	Appendix I ⁽³⁾	Appendix I ⁽³⁾	Appendix I ⁽³⁾	Appendix I ⁽³⁾
MW-14	Appendix I ^(3,4)	Appendix I ^(3,4)	Appendix I ^(3,4)	Appendix I ^(3,4)
MW-16	Appendix I ^(3,4)	Appendix I ^(3,4)	---	---
MW-17	Appendix I ⁽³⁾	Appendix I ⁽³⁾	---	---
MW-19	Appendix I ^(1,2,3)	Appendix I ^(1,3)	---	---
Duplicate	At MW-3	At MW-15A	At MW-4	At MW-5

continued -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>4/8/19</u>	<u>10/4/19</u>	<u>4/9/2020</u>	<u>10/1/2020</u>	<u>4/1/2021</u>	<u>10/4/2021</u>
MW-15A (b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-18 (b)	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-3	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-4	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-5	Appendix I ⁽⁴⁾	Appendix II	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-9	Appendix I ^(1,3)	Appendix II	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-10	Appendix I ⁽³⁾	Appendix I ⁽³⁾	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-11	Appendix I ⁽³⁾	Appendix I ⁽³⁾	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-12	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I	Appendix I
MW-13	Appendix I ⁽³⁾	Appendix II	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
MW-14	Appendix I ^(3,4)	Appendix II	Appendix I ⁽⁵⁾	Appendix I ⁽⁵⁾	Appendix I	Appendix I
Duplicate	At MW-5	At MW-18	At MW-3	At MW-10	At MW-5	At MW-4

continued -- Itemized Summary of Hydrologic Monitoring (to date)

<u>WELL</u>	<u>4/6/2022</u>	<u>10/4/2023</u>
MW-15A (b)	Appendix I	Appendix I
MW-18 (b)	Appendix I	---
MW-3	Appendix I	---
MW-4	Appendix I	---
MW-5	Appendix I	---
MW-9	Appendix I	Appendix I
MW-10	Appendix I	---
MW-11	Appendix I	Appendix II
MW-12	Appendix I	---
MW-13	Appendix I	Appendix I
MW-14	Appendix I	Appendix I
Duplicate	At MW-3	At MW-15A

(b) background well

(R) Ni = Resample Nickel

(1) = bis(2ethylhexyl) phthalate

(2) = sulfide

(3) = phorate

(4) = thionazin (0,0-diethyl 0-2-pyrazinyl phosphorothioate)

(5) = Appendix I plus no detected Appendix II compounds performed in accordance with 113.10(6)d.2.

Appendix B.2 - Field Sampling Forms

**Grundy County Sanitary Landfill
PERMIT # 38-SDP-1-75C**

10/4/2023

Sampled by: Todd Whipple

Weather conditions: Partly cloudy, breezy, 70 degrees

IDNR Form 542-1322

Monitoring Well: MW 9 (dg)

Primary Sampling Method: No-Purge for Appendix I
Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	991.63
Well Depth	22.78
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	991.63
Well Depth	22.78
Top Screen	978.00
Bottom Screen	968.00
Bottom Well	968.00
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	17.00
Top sample	974.63
Bottom sample	970.63
Turbidity(NTU)	78.08 red

Date	Time	Water Level	Water Elevation	Notes
10/4/2023	9:50	14.62	977.01	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	78.08
Appendix I	Metals	150	150	78.08
Appendix I	VOC	240	240	78.08
Full Appendix II	10 more containers	5620		
TSS	BEHP	1 - qt		
Supplemental	Phorate	1 - qt		
Supplemental				
Total		400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	991.63	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	22.78	Before purging	10/4/2023	9:50	14.62	977.01		0.0	
		After purging				991.63			
		Top of Screen after construction				978.00			
						-0.99			feet above (+) or below (-) top screen
		Bottom of Well after construction				968.00			
		Bottom of Well	10/4/2023		23.00	968.63			
						0.63			feet sedimentation
		Before Sampling				991.63			App I
		Before Sampling				991.63			App II
		Recovery				991.63			
		Recovery				991.63			
		Recovery				991.63			

IDNR Form 542-1322

Monitoring Well: MW 11 (dg)

Primary Sampling Method: No-Purge for Appendix I
 Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	978.78
Well Depth	20.55
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	978.78
Well Depth	20.55
Top Screen	965.40
Bottom Screen	955.40
Bottom Well	955.40
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	964.28
Bottom sample	960.28
Turbidity(NTU)	4.19

Date	Time	Water Level	Water Elevation	Notes
10/4/2023	10:12	12.3	966.48	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	4.19
Appendix I	Metals	150	150	4.19
Appendix I	VOC	240	240	4.19
Full Appendix II	10 more containers	5620	5620	
TSS	TSS	1 - qt		
Supplemental	BEHP	1 - qt		
Supplemental	Phorate			
Total		6020	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	978.78	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.55								
		Before purging	10/4/2023	10:12	12.3	966.48	4	3.0	No
		After purging	10/4/2023	10:30	12.60	966.18			
		Top of Screen after construction				965.40			
						1.08			feet above (+) or below (-) top screen
		Bottom of Well after construction				955.40			
		Bottom of Well	10/4/2023		20.55	958.23			
						2.83			feet sedimentation
		Before Sampling				978.78			App I
		Before Sampling				978.78			Supplemental
		Recovery				978.78			
		Recovery				978.78			
		Recovery				978.78			

IDNR Form 542-1322

Monitoring Well: MW 13 (dg)

Primary Sampling Method: No-Purge for Appendix I
 Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	986.9
Well Depth	19.00
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	986.9
Well Depth	19.95
Top Screen	977.00
Bottom Screen	967.00
Bottom Well	967.00
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	14.50
Top sample	972.40
Bottom sample	968.40
Turbidity(NTU)	1.68

Date	Time	Water Level	Water Elevation	Notes
10/4/2023	10:46	14.48	972.42	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	1.68
Appendix I	Metals	150	150	1.68
Appendix I	VOC	240	240	1.68
Full Appendix II	10 more containers	5620		
TSS	TSS	1 - qt		
Supplemental	BEHP	1 - qt		
Supplemental	Phorate			
Total		400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	986.9	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	19.00		10/4/2023	10:46	14.48	972.42		0.0	
			After purging			986.90			
			Top of Screen after construction			977.00			
						-4.58			feet above (+) or below (-) top screen
			Bottom of Well after construction			967.00			
			Bottom of Well	10/4/2023	19.95	966.95			
						-0.05			feet sedimentation
			Before Sampling			986.90			App I
			Before Sampling			986.90			App II
			Recovery			986.90			
			Recovery			986.90			
			Recovery			986.90			

IDNR Form 542-1322

Monitoring Well: MW 14 (dg)

Primary Sampling Method: No-Purge for Appendix I
 Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	983.62
Well Depth	20.00
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	983.63
Well Depth	20.25
Top Screen	973.50
Bottom Screen	963.50
Bottom Well	963.50
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	16.00
Top sample	967.63
Bottom sample	963.63
Turbidity(NTU)	33.36

Date	Time	Water Level	Water Elevation	Notes
10/4/2023	11:05	17.53	966.1	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	33.36
Appendix I	Metals	150	150	33.36
Appendix I	VOC	240	240	33.36
Full Appendix II	10 more containers	5620		
TSS	TSS	1 - qt		
Supplemental	Phorate/Thionazin	1 - qt		
Supplemental				
Total		400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	983.63	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	20.00		10/4/2023	11:05	17.53	966.10		0.0	
			After purging			983.63			
			Top of Screen after construction			973.50			
						-7.40			feet above (+) or below (-) top screen
			Bottom of Well after construction			963.50			
			Bottom of Well	10/4/2023	20.25	963.38			
						-0.12			feet sedimentation
			Before Sampling			983.63			App I
			Before Sampling			983.63			App II
			Recovery			983.63			
			Recovery			983.63			
			Recovery			983.63			

IDNR Form 542-1322

Monitoring Well: MW 15A (ug)

Primary Sampling Method: No-Purge for Appendix I
 Secondary Sampling Method: Purge & Sample for all analytes beyond Appendix I

GENERAL INFORMATION

TOC	992.32
Well Depth	18.00
Capped	YES
Standing Water	NO
Litter	NO
Level Tape	Solinst 101
NTU Meter	Hach 2100P
No-Purge Equipment -	Solinst 429
Purge Equipment -	Waterra

NO PURGE METHOD

TOC	992.32
Well Depth	15.75
Top Screen	985.13
Bottom Screen	975.13
Bottom Well	975.13
Sampler Length (ft)	4.00
Sampler Volume (mL)	440.00
Feet cordage	11.00
Top sample	981.32
Bottom sample	977.32
Turbidity(NTU)	2.63

Date	Time	Water Level	Water Elevation	Notes
10/4/2023	9:30	10.84	981.48	

ANALYTES, CONTAINERS, AND VOLUMES

Analyte	Required Volume (mL)	Volume Collected No-Purge (mL)	Volume Collected Purge & Sample (mL)	Turbidity this Container (NTU)
All	Field NTU	10	10	2.63
Appendix I	Metals	150	150	2.63
Appendix I	VOC	240	240	2.63
Full Appendix II	10 more containers	5620		
TSS	TSS	1 - qt		
Supplemental	BEHP	1 - qt		
Supplemental				
Total		400	0	

PURGE & SAMPLE METHOD - Purge by Waterra Inertial Lift Pump, then well rest, then sample collection

TOC	992.32	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
Well Depth	18.00		10/4/2023	9:30	10.84	981.48		0.0	
			After purging			992.32			
			Top of Screen after construction			985.13			
						-3.65			feet above (+) or below (-) top screen
			Bottom of Well after construction			975.13			
			Bottom of Well	10/4/2023	15.75	976.57			
						1.44			feet sedimentation
			Before Sampling			992.32			
			Before Sampling			992.32			
			Recovery			992.32			
			Recovery			992.32			
			Recovery			992.32			

Appendix C

Water Quality Summary Tables

Table 1

Analytical Data Summary for MW-10

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
(3 4)-methylphenol	ug/L							<8	
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L							<1	
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L							<8	
1,2,4-trichlorobenzene	ug/L							<1	
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L							<8	
1,3,5-trinitrobenzene	ug/L							<8	
1,3-dichlorobenzene	ug/L							<1	
1,3-dichloropropane	ug/L							<1	
1,3-dinitrobenzene	ug/L							<8	
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	ug/L							<8	
1,4-phenylenediamine	ug/L							<8	
1-naphthylamine	ug/L							<8	
2,2-dichloropropane	ug/L							<1	
2,3,4,6-tetrachlorophenol	ug/L							<8	
2,4,5-t	ug/L							<.5	
2,4,5-tp (silvex)	ug/L							<.5	
2,4,5-trichlorophenol	ug/L							<8	
2,4,6-trichlorophenol	ug/L							<8	
2,4-d	ug/L							<2	
2,4-dichlorophenol	ug/L							<8	
2,4-dimethylphenol	ug/L							<8	
2,4-dinitrophenol	ug/L							<8	
2,4-dinitrotoluene	ug/L							<8	
2,6-dichlorophenol	ug/L							<8	
2,6-dinitrotoluene	ug/L							<8	
2-acetylaminofluorene	ug/L							<8	
2-butanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L							<8	
2-chlorophenol	ug/L							<8	
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L							<8	
2-methylphenol	ug/L							<8	
2-naphthylamine	ug/L							<8	
2-nitroaniline	ug/L							<8	
2-nitrophenol	ug/L							<8	
3,3'-dichlorobenzidine	ug/L							<8	
3,3'-dimethylbenzidine	ug/L							<8	
3-methylcholanthrene	ug/L							<8	
3-nitroaniline	ug/L							<8	
4,4'-ddd	ug/L							<.05	
4,4'-dde	ug/L							<.05	
4,4'-ddt	ug/L							<.05	
4,6-dinitro-2-methylphenol	ug/L							<8	
4-aminobiphenyl	ug/L							<8	
4-bromophenyl phenyl ether	ug/L							<8	
4-chloro-3-methylphenol	ug/L							<8	
4-chloroaniline	ug/L							<8	
4-chlorophenyl phenyl ether	ug/L							<8	
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L							<8	
4-nitrophenol	ug/L							<8	
5-nitro-o-toluidine	ug/L							<8	
7,12-dimethylbenz(a)anthracene	ug/L							<8	
Acenaphthene	ug/L							<8	
Acenaphthylene	ug/L							<8	
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L							<10	
Acetophenone	ug/L							<8	
Acrolein	ug/L							<10	
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L							<.05	
Allyl chloride	ug/L							<1	
Alpha-bhc	ug/L							<.05	
Anthracene	ug/L							<8	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-10

Constituents	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021	4/6/2022
(3 4)-methylphenol	<.8								
1,1,1,2-tetrachloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1,1-trichloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1,2,2-tetrachloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1,2-trichloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1-dichloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1-dichloroethene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,1-dichloropropene	<.1								
1,2,3-trichloropropane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,2,4,5-tetrachlorobenzene	<.8								
1,2,4-trichlorobenzene	<.1								
1,2-dibromo-3-chloropropane	<.1	<.1	<.1	<.1	<.5	<.5	<.5	<.5	<.5
1,2-dibromoethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,2-dichlorobenzene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,2-dichloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,2-dichloropropane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,2-dinitrobenzene	<.8								
1,3,5-trinitrobenzene	<.8								
1,3-dichlorobenzene	<.1								
1,3-dichloropropane	<.1								
1,3-dinitrobenzene	<.8								
1,4-dichlorobenzene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
1,4-naphthoquinone	<.8								
1,4-phenylenediamine	<.8								
1-naphthylamine	<.8								
2,2-dichloropropane	<.1								
2,3,4,6-tetrachlorophenol	<.8								
2,4,5-t	<.5								
2,4,5-tp (silvex)	<.5								
2,4,5-trichlorophenol	<.8								
2,4,6-trichlorophenol	<.8								
2,4-d	<.2								
2,4-dichlorophenol	<.8								
2,4-dimethylphenol	<.8								
2,4-dinitrophenol	<.8								
2,4-dinitrotoluene	<.8								
2,6-dichlorophenol	<.8								
2,6-dinitrotoluene	<.8								
2-acetylaminofluorene	<.8								
2-butanone	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<10
2-chloronaphthalene	<.8								
2-chlorophenol	<.8								
2-hexanone	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
2-methylnaphthalene	<.8								
2-methylphenol	<.8								
2-naphthylamine	<.8								
2-nitroaniline	<.8								
2-nitrophenol	<.8								
3,3'-dichlorobenzidine	<.8								
3,3'-dimethylbenzidine	<.8								
3-methylcholanthrene	<.8								
3-nitroaniline	<.8								
4,4'-ddd	<.05								
4,4'-dde	<.05								
4,4'-ddt	<.05								
4,6-dinitro-2-methylphenol	<.8								
4-aminobiphenyl	<.8								
4-bromophenyl phenyl ether	<.8								
4-chloro-3-methylphenol	<.8								
4-chloroaniline	<.8								
4-chlorophenyl phenyl ether	<.8								
4-methyl-2-pentanone	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
4-nitroaniline	<.8								
4-nitrophenol	<.8								
5-nitro-o-toluidine	<.8								
7,12-dimethylbenz(a)anthracene	<.8								
Acenaphthene	<.8								
Acenaphthylene	<.8								
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	<10								
Acetophenone	<.8								
Acrolein	<10								
Acrylonitrile	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Aldrin	<.05								
Allyl chloride	<.1								
Alpha-bhc	<.05								
Anthracene	<.8								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-10

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L							<.1	
Arochlor 1221	ug/L							<.2	
Arochlor 1232	ug/L							<.2	
Arochlor 1242	ug/L							<.2	
Arochlor 1248	ug/L							<.2	
Arochlor 1254	ug/L							<.1	
Arochlor 1260	ug/L							<.1	
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Azobenzene	ug/L							<8	
Barium, total	ug/L	228	375	324	324	318	269	251	287
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L							<8	
Benzo(a)pyrene	ug/L							<8	
Benzo(b)fluoranthene	ug/L							<8	
Benzo(g,h,i)perylene	ug/L							<8	
Benzo(k)fluoranthene	ug/L							<8	
Benzyl alcohol	ug/L							<8	
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L							<.05	
Bis (2-chloroethoxy) methane	ug/L							<8	
Bis(2-chloroethyl) ether	ug/L							<8	
Bis(2-chloroisopropyl) ether	ug/L							<8	
Bis(2-ethylhexyl) phthalate	ug/L							<8	
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L							<8	
Cadmium, total	ug/L	<.8	1.3	<.8	<.8	1.6	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L							<.1	
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate	ug/L							<8	
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L							<1	
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L							<8	
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	1.5	<.8	1.6	1.5	1.1	.8	1.5
Copper, total	ug/L	14.4	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L							<.005	
Delta-bhc	ug/L							<.05	
Diallate	ug/L							<8	
Dibenzo(a,h)anthracene	ug/L							<8	
Dibenzofuran	ug/L							<8	
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L							<1	
Dieldrin	ug/L							<.05	
Diethyl phthalate	ug/L							<8	
Dimethoate	ug/L							<.4	
Dimethylphthalate	ug/L							<8	
Di-n-butyl phthalate	ug/L							<8	
Di-n-octyl phthalate	ug/L							<8	
Dinoseb	ug/L							<.5	
Diphenylamine	ug/L							<8	
Disulfoton	ug/L							<.4	
Endosulfan i	ug/L							<.05	
Endosulfan ii	ug/L							<.05	
Endosulfan sulfate	ug/L							<.05	
Endrin	ug/L							<.05	
Endrin aldehyde	ug/L							<.05	
Ethyl methacrylate	ug/L							<10	
Ethyl methanesulfonate	ug/L							<8	
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L							<.4	
Fluoranthene	ug/L							<8	
Fluorene	ug/L							<8	
Gamma-bhc (lindane)	ug/L							<.05	
Heptachlor	ug/L							<.05	
Heptachlor epoxide	ug/L							<.05	
Hexachlorobenzene	ug/L							<.05	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-10

Constituents	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021	4/6/2022
Antimony, total	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
Arochlor 1016	<.1								
Arochlor 1221	<.2								
Arochlor 1232	<.2								
Arochlor 1242	<.2								
Arochlor 1248	<.2								
Arochlor 1254	<.1								
Arochlor 1260	<.1								
Arsenic, total	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Azobenzene	<.8								
Barium, total	250	299	259	295	280	381	310	305	279
Benzene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Benzo(a)anthracene	<.8								
Benzo(a)pyrene	<.8								
Benzo(b)fluoranthene	<.8								
Benzo(g,h,i)perylene	<.8								
Benzo(k)fluoranthene	<.8								
Benzyl alcohol	<.8								
Beryllium, total	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Beta-bhc	<.05								
Bis (2-chloroethoxy) methane	<.8								
Bis(2-chloroethyl) ether	<.8								
Bis(2-chloroisopropyl) ether	<.8								
Bis(2-ethylhexyl) phthalate	13	<.6							
Bromochloromethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Bromodichloromethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Bromoform	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Bromomethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Butyl benzyl phthalate	<.8								
Cadmium, total	<.8	1.0	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Carbon tetrachloride	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Chlordane	<.1								
Chlorobenzene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Chlorobenzilate	<.8								
Chloroethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Chloroform	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Chloromethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Chloroprene	<.1								
Chromium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Chrysene	<.8								
Cis-1,2-dichloroethene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Cis-1,3-dichloropropene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Cobalt, total	<.8	1.3	.9	1.3	1.3	1.7	1.2	1.6	1.3
Copper, total	<.4.0	<.4.0	<.4.0	<.4.0	<.4.0	<.4.0	<.4.0	<.4.0	<.4.0
Cyanide, total	<.005								
Delta-bhc	<.05								
Diallate	<.8								
Dibenzo(a,h)anthracene	<.8								
Dibenzofuran	<.8								
Dibromochloromethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Dibromomethane	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Dichlorodifluoromethane	<.1								
Dieldrin	<.05								
Diethyl phthalate	<.8								
Dimethoate	<.4								
Dimethylphthalate	<.8								
Di-n-butyl phthalate	<.8								
Di-n-octyl phthalate	<.8								
Dinoseb	<.5								
Diphenylamine	<.8								
Disulfoton	<.4								
Endosulfan i	<.05								
Endosulfan ii	<.05								
Endosulfan sulfate	<.05								
Endrin	<.05								
Endrin aldehyde	<.05								
Ethyl methacrylate	<.10								
Ethyl methanesulfonate	<.8								
Ethylbenzene	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Famphur	<.4								
Fluoranthene	<.8								
Fluorene	<.8								
Gamma-bhc (lindane)	<.05								
Heptachlor	<.05								
Heptachlor epoxide	<.05								
Hexachlorobenzene	<.05								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-10

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Hexachlorobutadiene	ug/L							<8	
Hexachlorocyclopentadiene	ug/L							<8	
Hexachloroethane	ug/L							<8	
Hexachloropropene	ug/L							<8	
Indeno(1,2,3-cd)pyrene	ug/L							<8	
Isobutanol	mg/L							<1	
Isodrin	ug/L							<8	
Isophorone	ug/L							<8	
Isosafrole	ug/L							<8	
Kepone	ug/L							<8	
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L							<.5	
Methacrylonitrile	ug/L							<1	
Methapyrilene	ug/L							<8	
Methoxychlor	ug/L							<.05	
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L							<1	
Methyl methanesulfonate	ug/L							<8	
Methyl parathion	ug/L							<.4	
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L							<8	
Nickel, total	ug/L	18.1	25.2	26.2	25.2	27.1	13.5	18.2	13.9
Nitrobenzene	ug/L							<8	
N-nitrosodiethylamine	ug/L							<8	
N-nitrosodimethylamine	ug/L							<8	
N-nitrosodi-n-butylamine	ug/L							<8	
N-nitroso-di-n-propylamine	ug/L							<8	
N-nitrosodiphenylamine	ug/L							<8	
N-nitrosomethylethylamine	ug/L							<8	
N-nitrosopiperidine	ug/L							<8	
N-nitrosopyrrolidine	ug/L							<8	
O,o,o-triethyl phosphorothioate	ug/L							<.4	
O-toluidine	ug/L							<8	
Parathion	ug/L							<.4	
P-dimethylaminoazobenzene	ug/L							<8	
Pentachlorobenzene	ug/L							<8	
Pentachloronitrobenzene (pcnb)	ug/L							<8	
Pentachlorophenol	ug/L							<8	
Phenacetin	ug/L							<8	
Phenanthrene	ug/L							<8	
Phenol	ug/L							<8	
Phorate	ug/L							.5	<.4
Pronamide	ug/L							<8	
Propionitrile	ug/L							<10	
Pyrene	ug/L							<8	
Safrole	ug/L							<8	
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		970	22					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L							<.1	
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Thionazin	ug/L							<.4	
Tin, total	ug/L							<20	
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L							<.2	
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	14.9	<8.0	<8.0	8.4	16.5	<8.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for MW-10

Constituents	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021	4/6/2022
Hexachlorobutadiene	<.8								
Hexachlorocyclopentadiene	<.8								
Hexachloroethane	<.8								
Hexachloropropene	<.8								
Indeno(1,2,3-cd)pyrene	<.8								
Isobutanol	<.1								
Isodrin	<.8								
Isophorone	<.8								
Isosafrole	<.8								
Kepone	<.8								
Lead, total	<.4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total	<.5								
Methacrylonitrile	<.1								
Methapyrilene	<.8								
Methoxychlor	<.05								
Methyl iodide	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	<.1								
Methyl methanesulfonate	<.8								
Methyl parathion	<.4								
Methylene chloride	<.5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene	<.8								
Nickel, total	17.1	18.2	16.8	13.9	18.0	18.4	17.3	13.2	16.7
Nitrobenzene	<.8								
N-nitrosodiethylamine	<.8								
N-nitrosodimethylamine	<.8								
N-nitrosodi-n-butylamine	<.8								
N-nitroso-di-n-propylamine	<.8								
N-nitrosodiphenylamine	<.8								
N-nitrosomethylethylamine	<.8								
N-nitrosopiperidine	<.8								
N-nitrosopyrrolidine	<.8								
O,o,o-triethyl phosphorothioate	<.4								
O-toluidine	<.8								
Parathion	<.4								
P-dimethylaminoazobenzene	<.8								
Pentachlorobenzene	<.8								
Pentachloronitrobenzene (pcnb)	<.8								
Pentachlorophenol	<.8								
Phenacetin	<.8								
Phenanthrene	<.8								
Phenol	<.8								
Phorate	<.4	<.4	<.4	<.4					
Pronamide	<.8								
Propionitrile	<10								
Pyrene	<.8								
Safrole	<.8								
Selenium, total	<.4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<.4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	<.1								
Tetrachloroethene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<.4	<4	<2	<2	<2	<2	<2	<2	<2
Thionazin	<.4			<.4					
Tin, total	<20								
Toluene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	<.2								
Trans-1,2-dichloroethene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<.5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<.5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<.1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<.2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	20.3	33.8	14.1	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	11/24/2015	4/19/2016	10/10/2016	1/9/2017
(3 4)-methylphenol	ug/L								
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,1-dichloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,1-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	
1,1-dichloropropene	ug/L								
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1		<1	<1	
1,2,4,5-tetrachlorobenzene	ug/L								
1,2,4-trichlorobenzene	ug/L								
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1		<1	<1	
1,2-dibromoethane	ug/L	<1	<1	<1	<1		<1	<1	
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1		<1	<1	
1,2-dichloroethane	ug/L	<1	<1	<1	<1		<1	<1	
1,2-dichloropropane	ug/L	<1	<1	<1	<1		<1	<1	
1,2-dinitrobenzene	ug/L								
1,3,5-trinitrobenzene	ug/L								
1,3-dichlorobenzene	ug/L								
1,3-dichloropropane	ug/L								
1,3-dinitrobenzene	ug/L								
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1		<1	<1	
1,4-naphthoquinone	ug/L								
1,4-phenylenediamine	ug/L								
1-naphthylamine	ug/L								
2,2-dichloropropane	ug/L								
2,3,4,6-tetrachlorophenol	ug/L								
2,4,5-t	ug/L								
2,4,5-tp (silvex)	ug/L								
2,4,5-trichlorophenol	ug/L								
2,4,6-trichlorophenol	ug/L								
2,4-d	ug/L								
2,4-dichlorophenol	ug/L								
2,4-dimethylphenol	ug/L								
2,4-dinitrophenol	ug/L								
2,4-dinitrotoluene	ug/L								
2,6-dichlorophenol	ug/L								
2,6-dinitrotoluene	ug/L								
2-acetylaminofluorene	ug/L								
2-butanone	ug/L	<5	<5	<5	<5		<5	<5	
2-chloronaphthalene	ug/L								
2-chlorophenol	ug/L								
2-hexanone	ug/L	<5	<5	<5	<5		<5	<5	
2-methylnaphthalene	ug/L								
2-methylphenol	ug/L								
2-naphthylamine	ug/L								
2-nitroaniline	ug/L								
2-nitrophenol	ug/L								
3,3'-dichlorobenzidine	ug/L								
3,3'-dimethylbenzidine	ug/L								
3-methylcholanthrene	ug/L								
3-nitroaniline	ug/L								
4,4'-ddd	ug/L								
4,4'-dde	ug/L								
4,4'-ddt	ug/L								
4,6-dinitro-2-methylphenol	ug/L								
4-aminobiphenyl	ug/L								
4-bromophenyl phenyl ether	ug/L								
4-chloro-3-methylphenol	ug/L								
4-chloroaniline	ug/L								
4-chlorophenyl phenyl ether	ug/L								
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5		<5	<5	
4-nitroaniline	ug/L								
4-nitrophenol	ug/L								
5-nitro-o-toluidine	ug/L								
7,12-dimethylbenz(a)anthracene	ug/L								
Acenaphthene	ug/L								
Acenaphthylene	ug/L								
Acetone	ug/L	<10	<10	<10	<10		<10	<10	
Acetonitrile	ug/L								
Acetophenone	ug/L								
Acrolein	ug/L								
Acrylonitrile	ug/L	<5	<5	<5	<5		<5	<5	
Aldrin	ug/L								
Allyl chloride	ug/L								
Alpha-bhc	ug/L								
Anthracene	ug/L								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/4/2017	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020
(3-4)-methylphenol	<8			<8					
1,1,1,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloropropene	<1			<1					
1,2,3-trichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	<8			<8					
1,2,4-trichlorobenzene	<1			<1					
1,2-dibromo-3-chloropropane	<1	<1		<1	<1	<1	<1	<5	<5
1,2-dibromoethane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	<8			<8					
1,3,5-trinitrobenzene	<8			<8					
1,3-dichlorobenzene	<1			<1					
1,3-dichloropropane	<1			<1					
1,3-dinitrobenzene	<8			<8					
1,4-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
1,4-naphthoquinone	<8			<8					
1,4-phenylenediamine	<8			<8					
1-naphthylamine	<8			<8					
2,2-dichloropropane	<1			<1					
2,3,4,6-tetrachlorophenol	<8			<8					
2,4,5-t	<5			<5					
2,4,5-tp (silvex)	<5			<5					
2,4,5-trichlorophenol	<8			<8					
2,4,6-trichlorophenol	<8			<8					
2,4-d	<2			<2					
2,4-dichlorophenol	<8			<8					
2,4-dimethylphenol	<8			<8					
2,4-dinitrophenol	<8			<8					
2,4-dinitrotoluene	<8			<8					
2,6-dichlorophenol	<8			<8					
2,6-dinitrotoluene	<8			<8					
2-acetylaminofluorene	<8			<8					
2-butanone	<5	<5		<5	<5	<5	<5	<5	<5
2-chloronaphthalene	<8			<8					
2-chlorophenol	<8			<8					
2-hexanone	<5	<5		<5	<5	<5	<5	<5	<5
2-methylnaphthalene	<8			<8					
2-methylphenol	<8			<8					
2-naphthylamine	<8			<8					
2-nitroaniline	<8			<8					
2-nitrophenol	<8			<8					
3,3'-dichlorobenzidine	<8			<8					
3,3'-dimethylbenzidine	<8			<8					
3-methylcholanthrene	<8			<8					
3-nitroaniline	<8			<8					
4,4'-ddd	<.05			<.05					
4,4'-dde	<.05			<.05					
4,4'-ddt	<.05			<.05					
4,6-dinitro-2-methylphenol	<8			<8					
4-aminobiphenyl	<8			<8					
4-bromophenyl phenyl ether	<8			<8					
4-chloro-3-methylphenol	<8			<8					
4-chloroaniline	<8			<8					
4-chlorophenyl phenyl ether	<8			<8					
4-methyl-2-pentanone	<5	<5		<5	<5	<5	<5	<5	<5
4-nitroaniline	<8			<8					
4-nitrophenol	<8			<8					
5-nitro-o-toluidine	<8			<8					
7,12-dimethylbenz(a)anthracene	<8			<8					
Acenaphthene	<8			<8					
Acenaphthylene	<8			<8					
Acetone	<10	<10		<10	<10	<10	<10	<10	<10
Acetonitrile	<10			<10					
Acetophenone	<8			<8					
Acrolein	<10			<10					
Acrylonitrile	<5	<5		<5	<5	<5	<5	<5	<5
Aldrin	<.05			<.05					
Allyl chloride	<1			<1					
Alpha-bhc	<.05			<.05					
Anthracene	<8			<8					

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/1/2021	10/4/2021	4/6/2022	10/4/2023
(3 4)-methylphenol				<8
1,1,1,2-tetrachloroethane	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1
1,1-dichloropropene				<1
1,2,3-trichloropropane	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene				<8
1,2,4-trichlorobenzene				<1
1,2-dibromo-3-chloropropane	<5	<5	<5	<1
1,2-dibromoethane	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1
1,2-dinitrobenzene				<8
1,3,5-trinitrobenzene				<8
1,3-dichlorobenzene				<1
1,3-dichloropropane				<1
1,3-dinitrobenzene				<8
1,4-dichlorobenzene	<1	<1	<1	<1
1,4-naphthoquinone				<8
1,4-phenylenediamine				<8
1-naphthylamine				<8
2,2-dichloropropane				<1
2,3,4,6-tetrachlorophenol				<8
2,4,5-t				<5
2,4,5-tp (silvex)				<5
2,4,5-trichlorophenol				<8
2,4,6-trichlorophenol				<8
2,4-d				<2
2,4-dichlorophenol				<8
2,4-dimethylphenol				<8
2,4-dinitrophenol				<8
2,4-dinitrotoluene				<8
2,6-dichlorophenol				<8
2,6-dinitrotoluene				<8
2-acetylaminofluorene				<8
2-butanone	<5	<5	<10	<5
2-chloronaphthalene				<8
2-chlorophenol				<8
2-hexanone	<5	<5	<5	<5
2-methylnaphthalene				<8
2-methylphenol				<8
2-naphthylamine				<8
2-nitroaniline				<8
2-nitrophenol				<8
3,3'-dichlorobenzidine				<8
3,3'-dimethylbenzidine				<8
3-methylcholanthrene				<8
3-nitroaniline				<8
4,4'-ddd				<.05
4,4'-dde				<.05
4,4'-ddt				<.05
4,6-dinitro-2-methylphenol				<8
4-aminobiphenyl				<8
4-bromophenyl phenyl ether				<8
4-chloro-3-methylphenol				<8
4-chloroaniline				<8
4-chlorophenyl phenyl ether				<8
4-methyl-2-pentanone	<5	<5	<5	<5
4-nitroaniline				<8
4-nitrophenol				<8
5-nitro-o-toluidine				<8
7,12-dimethylbenz(a)anthracene				<8
Acenaphthene				<8
Acenaphthylene				<8
Acetone	<10	<10	<10	<10
Acetonitrile				<10
Acetophenone				<8
Acrolein				<10
Acrylonitrile	<5	<5	<5	<5
Aldrin				<.05
Allyl chloride				<1
Alpha-bhc				<.05
Anthracene				<8

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	11/24/2015	4/19/2016	10/10/2016	1/9/2017
Antimony, total	ug/L	<2	<2	<2	<2		<2	<2	
Arochlor 1016	ug/L								
Arochlor 1221	ug/L								
Arochlor 1232	ug/L								
Arochlor 1242	ug/L								
Arochlor 1248	ug/L								
Arochlor 1254	ug/L								
Arochlor 1260	ug/L								
Arsenic, total	ug/L	<4	<4	<4	<4		<4	<4	
Azobenzene	ug/L								
Barium, total	ug/L	155	204	224	472		154	152	
Benzene	ug/L	<1	<1	<1	<1		<1	<1	
Benzo(a)anthracene	ug/L								
Benzo(a)pyrene	ug/L								
Benzo(b)fluoranthene	ug/L								
Benzo(g,h,i)perylene	ug/L								
Benzo(k)fluoranthene	ug/L								
Benzyl alcohol	ug/L								
Beryllium, total	ug/L	<4	<4	<4	<4		<4	<4	
Beta-bhc	ug/L								
Bis (2-chloroethoxy) methane	ug/L								
Bis(2-chloroethyl) ether	ug/L								
Bis(2-chloroisopropyl) ether	ug/L								
Bis(2-ethylhexyl) phthalate	ug/L								
Bromochloromethane	ug/L	<1	<1	<1	<1		<1	<1	
Bromodichloromethane	ug/L	<1	<1	<1	<1		<1	<1	
Bromoform	ug/L	<1	<1	<1	<1		<1	<1	
Bromomethane	ug/L	<1	<1	<1	<1		<1	<1	
Butyl benzyl phthalate	ug/L								
Cadmium, total	ug/L	1.4	1.5	<8	1.9		1.2	<8	
Carbon disulfide	ug/L	<1	<1	<1	<1		<1	<1	
Carbon tetrachloride	ug/L	<1	<1	<1	<1		<1	<1	
Chlordane	ug/L								
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	
Chlorobenzilate	ug/L								
Chloroethane	ug/L	<1	<1	<1	<1		<1	<1	
Chloroform	ug/L	<1	<1	<1	<1		<1	<1	
Chloromethane	ug/L	<1	<1	<1	<1		<1	<1	
Chloroprene	ug/L								
Chromium, total	ug/L	<8	<8	<8	<8		<8	<8	
Chrysene	ug/L								
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1		<1	<1	
Cobalt, total	ug/L	<4.0	7.5	2.7	12.8	3.4	<8	<8	
Copper, total	ug/L	<4.0	<4.0	<4.0	7.5		<4.0	<4.0	
Cyanide, total	mg/L								
Delta-bhc	ug/L								
Diallate	ug/L								
Dibenzo(a,h)anthracene	ug/L								
Dibenzofuran	ug/L								
Dibromochloromethane	ug/L	<1	<1	<1	<1		<1	<1	
Dibromomethane	ug/L	<1	<1	<1	<1		<1	<1	
Dichlorodifluoromethane	ug/L								
Dieldrin	ug/L								
Diethyl phthalate	ug/L								
Dimethoate	ug/L								
Dimethylphthalate	ug/L								
Di-n-butyl phthalate	ug/L								
Di-n-octyl phthalate	ug/L								
Dinoseb	ug/L								
Diphenylamine	ug/L								
Disulfoton	ug/L								
Endosulfan i	ug/L								
Endosulfan ii	ug/L								
Endosulfan sulfate	ug/L								
Endrin	ug/L								
Endrin aldehyde	ug/L								
Ethyl methacrylate	ug/L								
Ethyl methanesulfonate	ug/L								
Ethylbenzene	ug/L	<1	<1	<1	<1		<1	<1	
Famphur	ug/L								
Fluoranthene	ug/L								
Fluorene	ug/L								
Gamma-bhc (lindane)	ug/L								
Heptachlor	ug/L								
Heptachlor epoxide	ug/L								
Hexachlorobenzene	ug/L								

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/4/2017	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020
Antimony, total	<2	<2		<2	<2	<2	<2	<2	<2
Arochlor 1016	<.1			<.1					
Arochlor 1221	<.2			<.2					
Arochlor 1232	<.2			<.2					
Arochlor 1242	<.2			<.2					
Arochlor 1248	<.2			<.2					
Arochlor 1254	<.1			<.1					
Arochlor 1260	<.1			<.1					
Arsenic, total	<4	<4		<4	<4	<4	<4	<4	<4
Azobenzene	<8			<8					
Barium, total	282	236		162	118	444	279	227	293
Benzene	<1	<1		<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	<8			<8					
Benzo(a)pyrene	<8			<8					
Benzo(b)fluoranthene	<8			<8					
Benzo(g,h,i)perylene	<8			<8					
Benzo(k)fluoranthene	<8			<8					
Benzyl alcohol	<8			<8					
Beryllium, total	<4	<4		<4	<4	<4	<4	<4	<4
Beta-bhc	<.05			<.05					
Bis (2-chloroethoxy) methane	<8			<8					
Bis(2-chloroethyl) ether	<8			<8					
Bis(2-chloroisopropyl) ether	<8			<8					
Bis(2-ethylhexyl) phthalate	<8			23	<6				
Bromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromoform	<1	<1		<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	<8			<8					
Cadmium, total	<.8	<.8		<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1		<1	<1	<1	<1	<1	<1
Chlordane	<.1			<.1					
Chlorobenzene	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate	<8			<8					
Chloroethane	<1	<1		<1	<1	<1	<1	<1	<1
Chloroform	<1	<1		<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Chloroprene	<1			<1					
Chromium, total	<8	<8		<8	<8	<8	<8	<8	<8
Chrysene	<8			<8					
Cis-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Cobalt, total	1.8	3.5		<8	<8	28.7	16.7	10.5	20.6
Copper, total	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total	<.005			<.005					
Delta-bhc	<.05			<.05					
Diallate	<8			<8					
Dibenzo(a,h)anthracene	<8			<8					
Dibenzofuran	<8			<8					
Dibromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	<1			<1					
Dieldrin	<.05			<.05					
Diethyl phthalate	<8			<8					
Dimethoate	<.4			<.4					
Dimethylphthalate	<8			<8					
Di-n-butyl phthalate	<8			<8					
Di-n-octyl phthalate	<8			<8					
Dinoseb	<.5			<.5					
Diphenylamine	<8			<8					
Disulfoton	<.4			<.4					
Endosulfan i	<.05			<.05					
Endosulfan ii	<.05			<.05					
Endosulfan sulfate	<.05			<.05					
Endrin	<.05			<.05					
Endrin aldehyde	<.05			<.05					
Ethyl methacrylate	<10			<10					
Ethyl methanesulfonate	<8			<8					
Ethylbenzene	<1	<1		<1	<1	<1	<1	<1	<1
Famphur	<.4			<.4					
Fluoranthene	<8			<8					
Fluorene	<8			<8					
Gamma-bhc (lindane)	<.05			<.05					
Heptachlor	<.05			<.05					
Heptachlor epoxide	<.05			<.05					
Hexachlorobenzene	<.05			<.05					

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/1/2021	10/4/2021	4/6/2022	10/4/2023
Antimony, total	<2	<2	<2	<2
Arochlor 1016				<.2
Arochlor 1221				<.2
Arochlor 1232				<.2
Arochlor 1242				<.2
Arochlor 1248				<.2
Arochlor 1254				<.2
Arochlor 1260				<.2
Arsenic, total	<4	<4	<4	<4
Azobenzene				<8
Barium, total	203	270	342	243
Benzene	<1	<1	<1	<1
Benzo(a)anthracene				<8
Benzo(a)pyrene				<8
Benzo(b)fluoranthene				<8
Benzo(g,h,i)perylene				<8
Benzo(k)fluoranthene				<8
Benzyl alcohol				<8
Beryllium, total	<4	<4	<4	<4
Beta-bhc				<.05
Bis (2-chloroethoxy) methane				<8
Bis(2-chloroethyl) ether				<8
Bis(2-chloroisopropyl) ether				<8
Bis(2-ethylhexyl) phthalate				9
Bromochloromethane	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1
Butyl benzyl phthalate				<8
Cadmium, total	.9	<.8	5.8	<.8
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chlordane				<.1
Chlorobenzene	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate				<8
Chloroethane	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chloroprene				<1
Chromium, total	<8	<8	<8	<8
Chrysene				<8
Cis-1,2-dichloroethene	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	9.2	14.8	1.7	8.3
Copper, total	<4.0	<4.0	<4.0	<4.0
Cyanide, total				<.005
Delta-bhc				<.05
Diallate				<8
Dibenzo(a,h)anthracene				<8
Dibenzofuran				<8
Dibromochloromethane	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1
Dichlorodifluoromethane				<1
Dieldrin				<.05
Diethyl phthalate				<8
Dimethoate				<.4
Dimethylphthalate				<8
Di-n-butyl phthalate				<8
Di-n-octyl phthalate				<8
Dinoseb				<.5
Diphenylamine				<8
Disulfoton				<.4
Endosulfan i				<.05
Endosulfan ii				<.05
Endosulfan sulfate				<.05
Endrin				<.05
Endrin aldehyde				<.05
Ethyl methacrylate				<10
Ethyl methanesulfonate				<8
Ethylbenzene	<1	<1	<1	<1
Famphur				<.4
Fluoranthene				<8
Fluorene				<8
Gamma-bhc (lindane)				<.05
Heptachlor				<.05
Heptachlor epoxide				<.05
Hexachlorobenzene				<.05

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	11/24/2015	4/19/2016	10/10/2016	1/9/2017
Hexachlorobutadiene	ug/L								
Hexachlorocyclopentadiene	ug/L								
Hexachloroethane	ug/L								
Hexachloropropene	ug/L								
Indeno(1,2,3-cd)pyrene	ug/L								
Isobutanol	mg/L								
Isodrin	ug/L								
Isophorone	ug/L								
Isosafrole	ug/L								
Kepone	ug/L								
Lead, total	ug/L	<4	<4	<4	<4		<4	<4	
Mercury, total	ug/L								
Methacrylonitrile	ug/L								
Methapyrilene	ug/L								
Methoxychlor	ug/L								
Methyl iodide	ug/L	<1	<1	<1	<1		<1	<1	
Methyl methacrylate	ug/L								
Methyl methanesulfonate	ug/L								
Methyl parathion	ug/L								
Methylene chloride	ug/L	<5	<5	<5	<5		<5	<5	
Naphthalene	ug/L								
Nickel, total	ug/L	<4.0	7.5	<4.0	24.6		9.6	12.7	53.1
Nitrobenzene	ug/L								
N-nitrosodiethylamine	ug/L								
N-nitrosodimethylamine	ug/L								
N-nitrosodi-n-butylamine	ug/L								
N-nitroso-di-n-propylamine	ug/L								
N-nitrosodiphenylamine	ug/L								
N-nitrosomethylethylamine	ug/L								
N-nitrosopiperidine	ug/L								
N-nitrosopyrrolidine	ug/L								
O,o,o-triethyl phosphorothioate	ug/L								
O-toluidine	ug/L								
Parathion	ug/L								
P-dimethylaminoazobenzene	ug/L								
Pentachlorobenzene	ug/L								
Pentachloronitrobenzene (pcnb)	ug/L								
Pentachlorophenol	ug/L								
Phenacetin	ug/L								
Phenanthrene	ug/L								
Phenol	ug/L								
Phorate	ug/L								
Pronamide	ug/L								
Propionitrile	ug/L								
Pyrene	ug/L								
Safrole	ug/L								
Selenium, total	ug/L	<4	<4	<4	<4		<4	<4	
Silver, total	ug/L	<4	<4	<4	<4		<4	<4	
Solids, total suspended	mg/L		56	39					
Styrene	ug/L	<1	<1	<1	<1		<1	<1	
Sulfide, total	mg/L								
Tetrachloroethene	ug/L	<1	<1	<1	<1		<1	<1	
Thallium, total	ug/L	<4	<4	<4	<4		<4	<4	
Thionazin	ug/L								
Tin, total	ug/L								
Toluene	ug/L	<1	<1	<1	<1		<1	<1	
Toxaphene	ug/L								
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1		<1	<1	
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5		<5	<5	
Trichloroethene	ug/L	<1	<1	<1	<1		<1	<1	
Trichlorofluoromethane	ug/L	<1	<1	<1	<1		<1	<1	
Vanadium, total	ug/L	<20	<20	<20	<20		<20	<20	
Vinyl acetate	ug/L	<5	<5	<5	<5		<5	<5	
Vinyl chloride	ug/L	<1	<1	<1	<1		<1	<1	
Xylenes, total	ug/L	<2	<2	<2	<2		<2	<2	
Zinc, total	ug/L	9.9	14.1	9.0	38.2		8.8	<8.0	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/4/2017	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020
Hexachlorobutadiene	<8			<8					
Hexachlorocyclopentadiene	<8			<8					
Hexachloroethane	<8			<8					
Hexachloropropene	<8			<8					
Indeno(1,2,3-cd)pyrene	<8			<8					
Isobutanol	<1			<1					
Isodrin	<8			<8					
Isophorone	<8			<8					
Isosafrole	<8			<8					
Kepone	<8			<8					
Lead, total	<4	<4		<4	<4	<4	<4	<4	<4
Mercury, total	<.5			<.5					
Methacrylonitrile	<1			<1					
Methapyrilene	<8			<8					
Methoxychlor	<.05			<.05					
Methyl iodide	<1	<1		<1	<1	<1	<1	<1	<1
Methyl methacrylate	<1			<1					
Methyl methanesulfonate	<8			<8					
Methyl parathion	<.4			<.4					
Methylene chloride	<5	<5		<5	<5	<5	<5	<5	<5
Naphthalene	<8			<8					
Nickel, total	15.1	13.3		<4.0	4.7	16.6	8.0	9.5	16.7
Nitrobenzene	<8			<8					
N-nitrosodiethylamine	<8			<8					
N-nitrosodimethylamine	<8			<8					
N-nitrosodi-n-butylamine	<8			<8					
N-nitroso-di-n-propylamine	<8			<8					
N-nitrosodiphenylamine	<8			<8					
N-nitrosomethylethylamine	<8			<8					
N-nitrosopiperidine	<8			<8					
N-nitrosopyrrolidine	<8			<8					
O,o,o-triethyl phosphorothioate	<.4			<.4					
O-toluidine	<8			<8					
Parathion	<.4			<.4					
P-dimethylaminoazobenzene	<8			<8					
Pentachlorobenzene	<8			<8					
Pentachloronitrobenzene (pcnb)	<8			<8					
Pentachlorophenol	<8			<8					
Phenacetin	<8			<8					
Phenanthrene	<8			<8					
Phenol	<8			<8					
Phorate	2.4	<.4		<.4	<.4	<.4	<.4		
Pronamide	<8			<8					
Propionitrile	<10			<10					
Pyrene	<8			<8					
Safrole	<8			<8					
Selenium, total	<4	<4		<4	<4	<4	<4	<4	<4
Silver, total	<4	<4		<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1		<1	<1	<1	<1	<1	<1
Sulfide, total	<.1			<.1					
Tetrachloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4		<4	<4	<2	<2	<2	<2
Thionazin	<.4			<.4			<.4		
Tin, total	<20			<20					
Toluene	<1	<1		<1	<1	<1	<1	<1	<1
Toxaphene	<.2			<.2					
Trans-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5		<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1		<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20		<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5		<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1		<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2		<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0		<8.0	10.5	26.7	11.7	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 2

Analytical Data Summary for MW-11

Constituents	4/1/2021	10/4/2021	4/6/2022	10/4/2023
Hexachlorobutadiene				<8
Hexachlorocyclopentadiene				<8
Hexachloroethane				<8
Hexachloropropene				<8
Indeno(1,2,3-cd)pyrene				<8
Isobutanol				<1
Isodrin				<8
Isophorone				<8
Isosafrole				<8
Kepone				<8
Lead, total	<4	<4	<4	<4
Mercury, total				<.5
Methacrylonitrile				<1
Methapyrilene				<8
Methoxychlor				<.05
Methyl iodide	<1	<1	<1	<2
Methyl methacrylate				<1
Methyl methanesulfonate				<8
Methyl parathion				<.4
Methylene chloride	<5	<5	<5	<5
Naphthalene				<8
Nickel, total	8.3	4.2	10.7	7.4
Nitrobenzene				<8
N-nitrosodiethylamine				<8
N-nitrosodimethylamine				<8
N-nitrosodi-n-butylamine				<8
N-nitroso-di-n-propylamine				<8
N-nitrosodiphenylamine				<8
N-nitrosomethylethylamine				<8
N-nitrosopiperidine				<8
N-nitrosopyrrolidine				<8
O,o,o-triethyl phosphorothioate				<.4
O-toluidine				<8
Parathion				<.4
P-dimethylaminoazobenzene				<8
Pentachlorobenzene				<8
Pentachloronitrobenzene (pcnb)				<8
Pentachlorophenol				<8
Phenacetin				<8
Phenanthrene				<8
Phenol				<8
Phorate				<.4
Pronamide				<8
Propionitrile				<10
Pyrene				<8
Safrole				<8
Selenium, total	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4
Solids, total suspended				
Styrene	<1	<1	<1	<1
Sulfide, total				<.1
Tetrachloroethene	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2
Thionazin				<.4
Tin, total				<20
Toluene	<1	<1	<1	<1
Toxaphene				<.2
Trans-1,2-dichloroethene	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for MW-12

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	11/24/2015	4/19/2016	10/10/2016	4/4/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1		<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1		<1	<1	<1
2-butanone	ug/L	<5	<5	<5	<5		<5	<5	<5
2-hexanone	ug/L	<5	<5	<5	<5		<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5		<5	<5	<5
Acetone	ug/L	<10	<10	<10	<10		<10	<10	<10
Acrylonitrile	ug/L	<5	<5	<5	<5		<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2		<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Barium, total	ug/L	70.7	76.3	107.0	95.8		88.5	73.1	74.7
Benzene	ug/L	<1	<1	<1	<1		<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1		<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Cadmium, total	ug/L	<.8	<.8	<.8	<.8		<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1		<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1		<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1		<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1		<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8		<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1		<1	<1	<1
Cobalt, total	ug/L	<4.0	<.8	.9	<.8		<.8	<.8	<.8
Copper, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1		<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1		<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5		<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	<4.0	39.1	<8.0	<4.0	<4.0	<4.0
Phorate	ug/L								
Selenium, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Solids, total suspended	mg/L		1140	107					
Styrene	ug/L	<1	<1	<1	<1		<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1		<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4		<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1		<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1		<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1		<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5		<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1		<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1		<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20		<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5		<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1		<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2		<2	<2	<2
Zinc, total	ug/L	<8.0	<8.0	<8.0	<8.0		10.5	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for MW-12

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	1/15/2019	4/8/2019	10/4/2019	4/9/2020	10/1/2020
1,1,1,2-tetrachloroethane	<1		<1	<1		<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1	<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1	<1		<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1	<1		<1	<1	<1	<1
1,1-dichloroethane	<1		<1	<1		<1	<1	<1	<1
1,1-dichloroethene	<1		<1	<1		<1	<1	<1	<1
1,2,3-trichloropropane	<1		<1	<1		<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1		<1	<1		<1	<1	<5	<5
1,2-dibromoethane	<1		<1	<1		<1	<1	<1	<1
1,2-dichlorobenzene	<1		<1	<1		<1	<1	<1	<1
1,2-dichloroethane	<1		<1	<1		<1	<1	<1	<1
1,2-dichloropropane	<1		<1	<1		<1	<1	<1	<1
1,4-dichlorobenzene	<1		<1	<1		<1	<1	<1	<1
2-butanone	<5		<5	<5		<5	<5	<5	<5
2-hexanone	<5		<5	<5		<5	<5	<5	<5
4-methyl-2-pentanone	<5		<5	<5		<5	<5	<5	<5
Acetone	<10		<10	<10		<10	<10	<10	<10
Acrylonitrile	<5		<5	<5		<5	<5	<5	<5
Antimony, total	<2		<2	<2		<2	<2	<2	<2
Arsenic, total	<4		<4	<4		<4	<4	<4	<4
Barium, total	84.1		78.3	76.8		81.0	85.5	78.7	68.8
Benzene	<1		<1	<1		<1	<1	<1	<1
Beryllium, total	<4		<4	<4		<4	<4	<4	<4
Bromochloromethane	<1		<1	<1		<1	<1	<1	<1
Bromodichloromethane	<1		<1	<1		<1	<1	<1	<1
Bromoform	<1		<1	<1		<1	<1	<1	<1
Bromomethane	<1		<1	<1		<1	<1	<1	<1
Cadmium, total	<.8		<.8	<.8		<.8	<.8	<.8	<.8
Carbon disulfide	<1		<1	<1		<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1		<1	<1	<1	<1
Chlorobenzene	<1		<1	<1		<1	<1	<1	<1
Chloroethane	<1		<1	<1		<1	<1	<1	<1
Chloroform	<1		<1	<1		<1	<1	<1	<1
Chloromethane	<1		<1	<1		<1	<1	<1	<1
Chromium, total	<8		<8	<8		<8	<8	<8	<8
Cis-1,2-dichloroethene	<1		<1	<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	<1		<1	<1		<1	<1	<1	<1
Cobalt, total	<.8		<.8	<.8		<.8	<.8	<.4	<.4
Copper, total	156	<4	<4	<4		<4	<4	<4	<4
Dibromochloromethane	<1		<1	<1		<1	<1	<1	<1
Dibromomethane	<1		<1	<1		<1	<1	<1	<1
Ethylbenzene	<1		<1	<1		<1	<1	<1	<1
Lead, total	<4		<4	<4		<4	<4	<4	<4
Methyl iodide	<1		<1	<1		<1	<1	<1	<1
Methylene chloride	<5		<5	<5		<5	<5	<5	<5
Nickel, total	<4.0		<4.0	<4.0		<4.0	<4.0	<4.0	<4.0
Phorate	<.4								
Selenium, total	<4		<4	<4		<4	<4	<4	<4
Silver, total	<4		<4	<4		<4	<4	<4	<4
Solids, total suspended									
Styrene	<1		<1	<1		<1	<1	<1	<1
Tetrachloroethene	<1		<1	<1		<1	<1	<1	<1
Thallium, total	<4		<4	<4		<2	<2	<2	<2
Toluene	<1		<1	<1		<1	<1	<1	<1
Trans-1,2-dichloroethene	<1		<1	<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1	<1		<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5	<5		<5	<5	<5	<5
Trichloroethene	<1		<1	<1		<1	<1	<1	<1
Trichlorofluoromethane	<1		<1	<1		<1	<1	<1	<1
Vanadium, total	<20		<20	<20		<20	<20	<20	<20
Vinyl acetate	<5		<5	<5		<5	<5	<5	<5
Vinyl chloride	<1		<1	<1		<1	<1	<1	<1
Xylenes, total	<2		<2	<2		<2	<2	<2	<2
Zinc, total	<8.0		<8.0	15.4	<8.0	13.4	8.2	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 3

Analytical Data Summary for MW-12

Constituents	4/1/2021	10/4/2021	4/6/2022
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1
1,2-dibromo-3-chloropropane	<5	<5	<5
1,2-dibromoethane	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1
2-butanone	<5	<5	<10
2-hexanone	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5
Acetone	<10	<10	<10
Acrylonitrile	<5	<5	<5
Antimony, total	<2	<2	<2
Arsenic, total	<4	<4	<4
Barium, total	75.7	65.2	88.8
Benzene	<1	<1	<1
Beryllium, total	<4	<4	<4
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Cadmium, total	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlorobenzene	<1	<1	<1
Chloroethane	<1	<1	<1
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chromium, total	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	<.4	<.4	.4
Copper, total	<4	<4	<4
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Ethylbenzene	<1	<1	<1
Lead, total	<4	<4	<4
Methyl iodide	<1	<1	<1
Methylene chloride	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0
Phorate			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Solids, total suspended			
Styrene	<1	<1	<1
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Toluene	<1	<1	<1
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20	<20	<20
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
(3 4)-methylphenol	ug/L		<8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloropropene	ug/L		<1						
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2,4,5-tetrachlorobenzene	ug/L		<8						
1,2,4-trichlorobenzene	ug/L		<1						
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dinitrobenzene	ug/L		<8						
1,3,5-trinitrobenzene	ug/L		<8						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<8						
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0	2.7	3.5	2.5		<1.0
1,4-naphthoquinone	ug/L		<8						
1,4-phenylenediamine	ug/L		<8						
1-naphthylamine	ug/L		<8						
2,2-dichloropropane	ug/L		<1						
2,3,4,6-tetrachlorophenol	ug/L		<8						
2,4,5-t	ug/L		<.5						
2,4,5-tp (silvex)	ug/L		<.5						
2,4,5-trichlorophenol	ug/L		<8						
2,4,6-trichlorophenol	ug/L		<8						
2,4-d	ug/L		<2						
2,4-dichlorophenol	ug/L		<8						
2,4-dimethylphenol	ug/L		<8						
2,4-dinitrophenol	ug/L		<8						
2,4-dinitrotoluene	ug/L		<8						
2,6-dichlorophenol	ug/L		<8						
2,6-dinitrotoluene	ug/L		<8						
2-acetylaminofluorene	ug/L		<8						
2-butanone	ug/L	<5	<5	<5	<5	<5	<5		<5
2-chloronaphthalene	ug/L		<8						
2-chlorophenol	ug/L		<8						
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5		<5
2-methylnaphthalene	ug/L		<8						
2-methylphenol	ug/L		<8						
2-naphthylamine	ug/L		<8						
2-nitroaniline	ug/L		<8						
2-nitrophenol	ug/L		<8						
3,3'-dichlorobenzidine	ug/L		<8						
3,3'-dimethylbenzidine	ug/L		<8						
3-methylcholanthrene	ug/L		<8						
3-nitroaniline	ug/L		<8						
4,4'-ddd	ug/L		<.05						
4,4'-dde	ug/L		<.05						
4,4'-ddt	ug/L		<.05						
4,6-dinitro-2-methylphenol	ug/L		<8						
4-aminobiphenyl	ug/L		<8						
4-bromophenyl phenyl ether	ug/L		<8						
4-chloro-3-methylphenol	ug/L		<8						
4-chloroaniline	ug/L		<8						
4-chlorophenyl phenyl ether	ug/L		<8						
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5		<5
4-nitroaniline	ug/L		<8						
4-nitrophenol	ug/L		<8						
5-nitro-o-toluidine	ug/L		<8						
7,12-dimethylbenz(a)anthracene	ug/L		<8						
Acenaphthene	ug/L		<8						
Acenaphthylene	ug/L		<8						
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0		<10.0
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<8						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5		<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		<.05						
Anthracene	ug/L		<8						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
(3 4)-methylphenol						<8			
1,1,1,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene						<1			
1,2,3-trichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene						<8			
1,2,4-trichlorobenzene						<1			
1,2-dibromo-3-chloropropane	<1		<1	<1	<1	<1	<5	<5	<5
1,2-dibromoethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene						<8			
1,3,5-trinitrobenzene						<8			
1,3-dichlorobenzene						<1			
1,3-dichloropropane						<1			
1,3-dinitrobenzene						<8			
1,4-dichlorobenzene	2.0		<1.0	5.9	3.7	4.1	1.9	2.7	<1.0
1,4-naphthoquinone						<8			
1,4-phenylenediamine						<8			
1-naphthylamine						<8			
2,2-dichloropropane						<1			
2,3,4,6-tetrachlorophenol						<8			
2,4,5-t						<.5			
2,4,5-tp (silvex)						<.5			
2,4,5-trichlorophenol						<8			
2,4,6-trichlorophenol						<8			
2,4-d						<2			
2,4-dichlorophenol						<8			
2,4-dimethylphenol						<8			
2,4-dinitrophenol						<8			
2,4-dinitrotoluene						<8			
2,6-dichlorophenol						<8			
2,6-dinitrotoluene						<8			
2-acetylaminofluorene						<8			
2-butanone	<5		<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene						<8			
2-chlorophenol						<8			
2-hexanone	<5		<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene						<8			
2-methylphenol						<8			
2-naphthylamine						<8			
2-nitroaniline						<8			
2-nitrophenol						<8			
3,3'-dichlorobenzidine						<8			
3,3'-dimethylbenzidine						<8			
3-methylcholanthrene						<8			
3-nitroaniline						<8			
4,4'-ddd						<.05			
4,4'-dde						<.05			
4,4'-ddt						<.05			
4,6-dinitro-2-methylphenol						<8			
4-aminobiphenyl						<8			
4-bromophenyl phenyl ether						<8			
4-chloro-3-methylphenol						<8			
4-chloroaniline						<8			
4-chlorophenyl phenyl ether						<8			
4-methyl-2-pentanone	<5		<5	<5	<5	<5	<5	<5	<5
4-nitroaniline						<8			
4-nitrophenol						<8			
5-nitro-o-toluidine						<8			
7,12-dimethylbenz(a)anthracene						<8			
Acenaphthene						<8			
Acenaphthylene						<8			
Acetone	17.7		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile						<10			
Acetophenone						<8			
Acrolein						<10			
Acrylonitrile	<5		<5	<5	<5	<5	<5	<5	<5
Aldrin						<.05			
Allyl chloride						<1			
Alpha-bhc						<.05			
Anthracene						<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/4/2021	4/6/2022	10/4/2023
(3 4)-methylphenol			
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,1-dichloropropene			
1,2,3-trichloropropane	<1	<1	<1
1,2,4,5-tetrachlorobenzene			
1,2,4-trichlorobenzene			
1,2-dibromo-3-chloropropane	<5	<5	<5
1,2-dibromoethane	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,2-dinitrobenzene			
1,3,5-trinitrobenzene			
1,3-dichlorobenzene			
1,3-dichloropropane			
1,3-dinitrobenzene			
1,4-dichlorobenzene	2.3	1.4	2.6
1,4-naphthoquinone			
1,4-phenylenediamine			
1-naphthylamine			
2,2-dichloropropane			
2,3,4,6-tetrachlorophenol			
2,4,5-t			
2,4,5-tp (silvex)			
2,4,5-trichlorophenol			
2,4,6-trichlorophenol			
2,4-d			
2,4-dichlorophenol			
2,4-dimethylphenol			
2,4-dinitrophenol			
2,4-dinitrotoluene			
2,6-dichlorophenol			
2,6-dinitrotoluene			
2-acetylaminofluorene			
2-butanone	<5	<10	<10
2-chloronaphthalene			
2-chlorophenol			
2-hexanone	<5	<5	<5
2-methylnaphthalene			
2-methylphenol			
2-naphthylamine			
2-nitroaniline			
2-nitrophenol			
3,3'-dichlorobenzidine			
3,3'-dimethylbenzidine			
3-methylcholanthrene			
3-nitroaniline			
4,4'-ddd			
4,4'-dde			
4,4'-ddt			
4,6-dinitro-2-methylphenol			
4-aminobiphenyl			
4-bromophenyl phenyl ether			
4-chloro-3-methylphenol			
4-chloroaniline			
4-chlorophenyl phenyl ether			
4-methyl-2-pentanone	<5	<5	<5
4-nitroaniline			
4-nitrophenol			
5-nitro-o-toluidine			
7,12-dimethylbenz(a)anthracene			
Acenaphthene			
Acenaphthylene			
Acetone	<10.0	<10.0	<10.0
Acetonitrile			
Acetophenone			
Acrolein			
Acrylonitrile	<5	<5	<5
Aldrin			
Allyl chloride			
Alpha-bhc			
Anthracene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2		<2
Arochlor 1016	ug/L		<.1						
Arochlor 1221	ug/L		<.2						
Arochlor 1232	ug/L		<.2						
Arochlor 1242	ug/L		<.2						
Arochlor 1248	ug/L		<.2						
Arochlor 1254	ug/L		<.1						
Arochlor 1260	ug/L		<.1						
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Azobenzene	ug/L		<8						
Barium, total	ug/L	288	355	321	359	434	291		130
Benzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Benzo(a)anthracene	ug/L		<8						
Benzo(a)pyrene	ug/L		<8						
Benzo(b)fluoranthene	ug/L		<8						
Benzo(g,h,i)perylene	ug/L		<8						
Benzo(k)fluoranthene	ug/L		<8						
Benzyl alcohol	ug/L		<8						
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Beta-bhc	ug/L		<.05						
Bis (2-chloroethoxy) methane	ug/L		<8						
Bis(2-chloroethyl) ether	ug/L		<8						
Bis(2-chloroisopropyl) ether	ug/L		<8						
Bis(2-ethylhexyl) phthalate	ug/L		<8						
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Butyl benzyl phthalate	ug/L		<8						
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	8.7	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1		<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1		<1
Chlordane	ug/L		<.1						
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0
Chlorobenzilate	ug/L		<8						
Chloroethane	ug/L	<1.0	<1.0	<1.0	1.1	<1.0	1.0		<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1		<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8		<8
Chrysene	ug/L		<8						
Cis-1,2-dichloroethene	ug/L	<1.0	1.2	<1.0	<1.0	1.1	<1.0		<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		<1
Cobalt, total	ug/L	<4.0	1.0	1.1	<.8	<.8	<.8		<.8
Copper, total	ug/L	<4.0	<4.0	<4.0	<4.0	4.2	<4.0		<4.0
Cyanide, total	mg/L		<.005						
Delta-bhc	ug/L		<.05						
Diallate	ug/L		<8						
Dibenzo(a,h)anthracene	ug/L		<8						
Dibenzofuran	ug/L		<8						
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Dichlorodifluoromethane	ug/L		<1						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<8						
Dimethoate	ug/L		<.4	<.4	<.4				
Dimethylphthalate	ug/L		<8						
Di-n-butyl phthalate	ug/L		<8						
Di-n-octyl phthalate	ug/L		<8						
Dinoseb	ug/L		<.5						
Diphenylamine	ug/L		<8						
Disulfoton	ug/L		<.4	<.4	<.4				
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Ethyl methacrylate	ug/L		<10						
Ethyl methanesulfonate	ug/L		<8						
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
Famphur	ug/L		<.4	<.4	<.4				
Fluoranthene	ug/L		<8						
Fluorene	ug/L		<8						
Gamma-bhc (lindane)	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<.05						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
Antimony, total	<2		<2	<2	<2	<2	<2	<2	<2
Arochlor 1016						<1			
Arochlor 1221						<2			
Arochlor 1232						<2			
Arochlor 1242						<2			
Arochlor 1248						<2			
Arochlor 1254						<1			
Arochlor 1260						<1			
Arsenic, total	<4		<4	<4	<4	<4	<4	<4	<4
Azobenzene						<8			
Barium, total	341	337	259	392	280	403	253	384	141
Benzene	<1.0		<1.0	1.8	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene						<8			
Benzo(a)pyrene						<8			
Benzo(b)fluoranthene						<8			
Benzo(g,h,i)perylene						<8			
Benzo(k)fluoranthene						<8			
Benzyl alcohol						<8			
Beryllium, total	<4		<4	<4	<4	<4	<4	<4	<4
Beta-bhc						<.05			
Bis (2-chloroethoxy) methane						<8			
Bis(2-chloroethyl) ether						<8			
Bis(2-chloroisopropyl) ether						<8			
Bis(2-ethylhexyl) phthalate						<6			
Bromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromoform	<1		<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate						<8			
Cadmium, total	<.8		<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1	<1	<1	<1	<1	<1
Chlordane						<1			
Chlorobenzene	<1.0		<1.0	2.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate						<8			
Chloroethane	2.1		<1.0	2.0	<1.0	3.1	<1.0	2.0	<1.0
Chloroform	<1		<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroprene						<1			
Chromium, total	<8		<8	<8	<8	<8	<8	<8	<8
Chrysene						<8			
Cis-1,2-dichloroethene	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Cobalt, total	1.4		2.0	<.8	<.8	6.2	.7	11.8	<.4
Copper, total	<4.0		<4.0	6.2	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total						<.005			
Delta-bhc						<.05			
Diallate						<8			
Dibenzo(a,h)anthracene						<8			
Dibenzofuran						<8			
Dibromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane						<1			
Dieldrin						<.05			
Diethyl phthalate						<8			
Dimethoate			<.4						
Dimethylphthalate						<8			
Di-n-butyl phthalate						<8			
Di-n-octyl phthalate						<8			
Dinoseb						<.5			
Diphenylamine						<8			
Disulfoton			<.4						
Endosulfan i						<.05			
Endosulfan ii						<.05			
Endosulfan sulfate						<.05			
Endrin						<.05			
Endrin aldehyde						<.05			
Ethyl methacrylate						<10			
Ethyl methanesulfonate						<8			
Ethylbenzene	<1		<1	<1	<1	<1	<1	<1	<1
Famphur			<.4						
Fluoranthene						<8			
Fluorene						<8			
Gamma-bhc (lindane)						<.05			
Heptachlor						<.05			
Heptachlor epoxide						<.05			
Hexachlorobenzene						<.05			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/4/2021	4/6/2022	10/4/2023
Antimony, total	<2	<2	<2
Arochlor 1016			
Arochlor 1221			
Arochlor 1232			
Arochlor 1242			
Arochlor 1248			
Arochlor 1254			
Arochlor 1260			
Arsenic, total	<4	<4	<4
Azobenzene			
Barium, total	358	352	334
Benzene	<1.0	<1.0	<1.0
Benzo(a)anthracene			
Benzo(a)pyrene			
Benzo(b)fluoranthene			
Benzo(g,h,i)perylene			
Benzo(k)fluoranthene			
Benzyl alcohol			
Beryllium, total	<4	<4	<4
Beta-bhc			
Bis (2-chloroethoxy) methane			
Bis(2-chloroethyl) ether			
Bis(2-chloroisopropyl) ether			
Bis(2-ethylhexyl) phthalate			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Butyl benzyl phthalate			
Cadmium, total	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlordane			
Chlorobenzene	<1.0	<1.0	1.1
Chlorobenzilate			
Chloroethane	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chloroprene			
Chromium, total	<8	<8	<8
Chrysene			
Cis-1,2-dichloroethene	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	9.5	3.9	10.6
Copper, total	<4.0	4.0	<4.0
Cyanide, total			
Delta-bhc			
Diallate			
Dibenzo(a,h)anthracene			
Dibenzofuran			
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Dichlorodifluoromethane			
Dieldrin			
Diethyl phthalate			
Dimethoate			
Dimethylphthalate			
Di-n-butyl phthalate			
Di-n-octyl phthalate			
Dinoseb			
Diphenylamine			
Disulfoton			
Endosulfan i			
Endosulfan ii			
Endosulfan sulfate			
Endrin			
Endrin aldehyde			
Ethyl methacrylate			
Ethyl methanesulfonate			
Ethylbenzene	<1	<1	<1
Famphur			
Fluoranthene			
Fluorene			
Gamma-bhc (lindane)			
Heptachlor			
Heptachlor epoxide			
Hexachlorobenzene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
Hexachlorobutadiene	ug/L		<.8						
Hexachlorocyclopentadiene	ug/L		<.8						
Hexachloroethane	ug/L		<.8						
Hexachloropropene	ug/L		<.8						
Indeno(1,2,3-cd)pyrene	ug/L		<.8						
Isobutanol	mg/L		<.1						
Isodrin	ug/L		<.8						
Isophorone	ug/L		<.8						
Isosafrole	ug/L		<.8						
Kepone	ug/L		<.8						
Lead, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4		<.4
Mercury, total	ug/L		<.5						
Methacrylonitrile	ug/L		<.1						
Methapyrilene	ug/L		<.8						
Methoxychlor	ug/L		<.05						
Methyl iodide	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Methyl methacrylate	ug/L		<.1						
Methyl methanesulfonate	ug/L		<.8						
Methyl parathion	ug/L		<.4	<.4	<.4				
Methylene chloride	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5
Naphthalene	ug/L		<.8						
Nickel, total	ug/L	67.6	85.7	76.7	67.3	67.6	38.8		<.4.0
Nitrobenzene	ug/L		<.8						
N-nitrosodiethylamine	ug/L		<.8						
N-nitrosodimethylamine	ug/L		<.8						
N-nitrosodi-n-butylamine	ug/L		<.8						
N-nitroso-di-n-propylamine	ug/L		<.8						
N-nitrosodiphenylamine	ug/L		<.8						
N-nitrosomethylethylamine	ug/L		<.8						
N-nitrosopiperidine	ug/L		<.8						
N-nitrosopyrrolidine	ug/L		<.8						
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4	<.4				
O-toluidine	ug/L		<.8						
Parathion	ug/L		<.4	<.4	<.4				
P-dimethylaminoazobenzene	ug/L		<.8						
Pentachlorobenzene	ug/L		<.8						
Pentachloronitrobenzene (pcnb)	ug/L		<.8						
Pentachlorophenol	ug/L		<.8						
Phenacetin	ug/L		<.8						
Phenanthrene	ug/L		<.8						
Phenol	ug/L		<.8						
Phorate	ug/L		2.0	<.4	.4	<.4	.8		<.4
Pronamide	ug/L		<.8						
Propionitrile	ug/L		<.10						
Pyrene	ug/L		<.8						
Safrole	ug/L		<.8						
Selenium, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4		<.4
Silver, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4		<.4
Solids, total suspended	mg/L		44	14					
Styrene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Sulfide, total	mg/L		<.1						
Tetrachloroethene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Thallium, total	ug/L	<.4	<.4	<.4	<.4	<.4	<.4		<.4
Thionazin	ug/L		<.4	<.4	<.4				
Tin, total	ug/L		<.20						
Toluene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Toxaphene	ug/L		<.2						
Trans-1,2-dichloroethene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Trans-1,3-dichloropropene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Trans-1,4-dichloro-2-butene	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5
Trichloroethene	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Trichlorofluoromethane	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Vanadium, total	ug/L	<.20	<.20	<.20	<.20	<.20	<.20		<.20
Vinyl acetate	ug/L	<.5	<.5	<.5	<.5	<.5	<.5		<.5
Vinyl chloride	ug/L	<.1	<.1	<.1	<.1	<.1	<.1		<.1
Xylenes, total	ug/L	<.2	<.2	<.2	<.2	<.2	<.2		<.2
Zinc, total	ug/L	<.8.0	<.8.0	<.8.0	<.8.0	31.8	<.8.0		<.8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
Hexachlorobutadiene						<8			
Hexachlorocyclopentadiene						<8			
Hexachloroethane						<8			
Hexachloropropene						<8			
Indeno(1,2,3-cd)pyrene						<8			
Isobutanol						<1			
Isodrin						<8			
Isophorone						<8			
Isosafrole						<8			
Kepone						<8			
Lead, total	<4		<4	<4	<4	<4	<4	<4	<4
Mercury, total						<.5			
Methacrylonitrile						<1			
Methapyrilene						<8			
Methoxychlor						<.05			
Methyl iodide	<1		<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate						<1			
Methyl methanesulfonate						<8			
Methyl parathion			<.4						
Methylene chloride	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene						<8			
Nickel, total	47.1	65.8	55.0	46.7	60.8	79.6	43.1	75.9	12.7
Nitrobenzene						<8			
N-nitrosodiethylamine						<8			
N-nitrosodimethylamine						<8			
N-nitrosodi-n-butylamine						<8			
N-nitroso-di-n-propylamine						<8			
N-nitrosodiphenylamine						<8			
N-nitrosomethylethylamine						<8			
N-nitrosopiperidine						<8			
N-nitrosopyrrolidine						<8			
O,o,o-triethyl phosphorothioate			<.4						
O-toluidine						<8			
Parathion			<.4						
P-dimethylaminoazobenzene						<8			
Pentachlorobenzene						<8			
Pentachloronitrobenzene (pcnb)						<8			
Pentachlorophenol						<8			
Phenacetin						<8			
Phenanthrene						<8			
Phenol						<8			
Phorate	<.4		<.4	<.4	<.4	<.4			
Pronamide						<8			
Propionitrile						<10			
Pyrene						<8			
Safrole						<8			
Selenium, total	<4		<4	<4	<4	<4	<4	<4	<4
Silver, total	<4		<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1		<1	<1	<1	<1	<1	<1	<1
Sulfide, total						<.1			
Tetrachloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4		<4	<4	<2	<2	<2	<2	<2
Thionazin			<.4			<.4			
Tin, total						<20			
Toluene	<1		<1	<1	<1	<1	<1	<1	<1
Toxaphene						<.2			
Trans-1,2-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1		<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20		<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5		<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2		<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0		<8.0	35.5	19.5	26.2	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 4

Analytical Data Summary for MW-13

Constituents	10/4/2021	4/6/2022	10/4/2023
Hexachlorobutadiene			
Hexachlorocyclopentadiene			
Hexachloroethane			
Hexachloropropene			
Indeno(1,2,3-cd)pyrene			
Isobutanol			
Isodrin			
Isophorone			
Isosafrole			
Kepone			
Lead, total	<4	<4	<4
Mercury, total			
Methacrylonitrile			
Methapyrilene			
Methoxychlor			
Methyl iodide	<1	<1	<1
Methyl methacrylate			
Methyl methanesulfonate			
Methyl parathion			
Methylene chloride	<5	<5	<5
Naphthalene			
Nickel, total	67.8	106.0	75.4
Nitrobenzene			
N-nitrosodiethylamine			
N-nitrosodimethylamine			
N-nitrosodi-n-butylamine			
N-nitroso-di-n-propylamine			
N-nitrosodiphenylamine			
N-nitrosomethylethylamine			
N-nitrosopiperidine			
N-nitrosopyrrolidine			
O,o,o-triethyl phosphorothioate			
O-toluidine			
Parathion			
P-dimethylaminoazobenzene			
Pentachlorobenzene			
Pentachloronitrobenzene (pcnb)			
Pentachlorophenol			
Phenacetin			
Phenanthrene			
Phenol			
Phorate			
Pronamide			
Propionitrile			
Pyrene			
Safrole			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Solids, total suspended			
Styrene	<1	<1	<1
Sulfide, total			
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Thionazin			
Tin, total			
Toluene	<1	<1	<1
Toxaphene			
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20	<20	<20
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
(3 4)-methylphenol	ug/L		<.8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloropropene	ug/L		<1						
1,2,3-trichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L		<.8						
1,2,4-trichlorobenzene	ug/L		<1						
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dinitrobenzene	ug/L		<.8						
1,3,5-trinitrobenzene	ug/L		<.8						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<.8						
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0
1,4-naphthoquinone	ug/L		<.8						
1,4-phenylenediamine	ug/L		<.8						
1-naphthylamine	ug/L		<.8						
2,2-dichloropropane	ug/L		<1						
2,3,4,6-tetrachlorophenol	ug/L		<.8						
2,4,5-t	ug/L		<.5						
2,4,5-tp (silvex)	ug/L		<.5						
2,4,5-trichlorophenol	ug/L		<.8						
2,4,6-trichlorophenol	ug/L		<.8						
2,4-d	ug/L		<.2						
2,4-dichlorophenol	ug/L		<.8						
2,4-dimethylphenol	ug/L		<.8						
2,4-dinitrophenol	ug/L		<.8						
2,4-dinitrotoluene	ug/L		<.8						
2,6-dichlorophenol	ug/L		<.8						
2,6-dinitrotoluene	ug/L		<.8						
2-acetylaminofluorene	ug/L		<.8						
2-butanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
2-chloronaphthalene	ug/L		<.8						
2-chlorophenol	ug/L		<.8						
2-hexanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
2-methylnaphthalene	ug/L		<.8						
2-methylphenol	ug/L		<.8						
2-naphthylamine	ug/L		<.8						
2-nitroaniline	ug/L		<.8						
2-nitrophenol	ug/L		<.8						
3,3'-dichlorobenzidine	ug/L		<.8						
3,3'-dimethylbenzidine	ug/L		<.8						
3-methylcholanthrene	ug/L		<.8						
3-nitroaniline	ug/L		<.8						
4,4'-ddd	ug/L		<.05						
4,4'-dde	ug/L		<.05						
4,4'-ddt	ug/L		<.05						
4,6-dinitro-2-methylphenol	ug/L		<.8						
4-aminobiphenyl	ug/L		<.8						
4-bromophenyl phenyl ether	ug/L		<.8						
4-chloro-3-methylphenol	ug/L		<.8						
4-chloroaniline	ug/L		<.8						
4-chlorophenyl phenyl ether	ug/L		<.8						
4-methyl-2-pentanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
4-nitroaniline	ug/L		<.8						
4-nitrophenol	ug/L		<.8						
5-nitro-o-toluidine	ug/L		<.8						
7,12-dimethylbenz(a)anthracene	ug/L		<.8						
Acenaphthene	ug/L		<.8						
Acenaphthylene	ug/L		<.8						
Acetone	ug/L	<10.0	<10.0	<10.0		<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<.8						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L	<5	<.5	<5		<5	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		<.05						
Anthracene	ug/L		<.8						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
(3 4)-methylphenol						<8			
1,1,1,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene						<1			
1,2,3-trichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene						<8			
1,2,4-trichlorobenzene						<1			
1,2-dibromo-3-chloropropane	<1		<1	<1	<1	<1	<5	<5	<5
1,2-dibromoethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1		<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene						<8			
1,3,5-trinitrobenzene						<8			
1,3-dichlorobenzene						<1			
1,3-dichloropropane						<1			
1,3-dinitrobenzene						<8			
1,4-dichlorobenzene	1.1		<1.0	<1.0	<1.0	<1.0	1.1	<1.0	1.3
1,4-naphthoquinone						<8			
1,4-phenylenediamine						<8			
1-naphthylamine						<8			
2,2-dichloropropane						<1			
2,3,4,6-tetrachlorophenol						<8			
2,4,5-t						<.5			
2,4,5-tp (silvex)						<.5			
2,4,5-trichlorophenol						<8			
2,4,6-trichlorophenol						<8			
2,4-d						<2			
2,4-dichlorophenol						<8			
2,4-dimethylphenol						<8			
2,4-dinitrophenol						<8			
2,4-dinitrotoluene						<8			
2,6-dichlorophenol						<8			
2,6-dinitrotoluene						<8			
2-acetylaminofluorene						<8			
2-butanone	<5		<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene						<8			
2-chlorophenol						<8			
2-hexanone	<5		<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene						<8			
2-methylphenol						<8			
2-naphthylamine						<8			
2-nitroaniline						<8			
2-nitrophenol						<8			
3,3'-dichlorobenzidine						<8			
3,3'-dimethylbenzidine						<8			
3-methylcholanthrene						<8			
3-nitroaniline						<8			
4,4'-ddd						<.05			
4,4'-dde						<.05			
4,4'-ddt						<.05			
4,6-dinitro-2-methylphenol						<8			
4-aminobiphenyl						<8			
4-bromophenyl phenyl ether						<8			
4-chloro-3-methylphenol						<8			
4-chloroaniline						<8			
4-chlorophenyl phenyl ether						<8			
4-methyl-2-pentanone	<5		<5	<5	<5	<5	<5	<5	<5
4-nitroaniline						<8			
4-nitrophenol						<8			
5-nitro-o-toluidine						<8			
7,12-dimethylbenz(a)anthracene						<8			
Acenaphthene						<8			
Acenaphthylene						<8			
Acetone	18.6		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile						<10			
Acetophenone						<8			
Acrolein						<10			
Acrylonitrile	<5		<5	<5	<5	<5	<5	<5	<5
Aldrin						<.05			
Allyl chloride						<1			
Alpha-bhc						<.05			
Anthracene						<8			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/4/2021	4/6/2022	10/4/2023
(3 4)-methylphenol			
1,1,1,2-tetrachloroethane	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1
1,1-dichloroethane	<1	<1	<1
1,1-dichloroethene	<1	<1	<1
1,1-dichloropropene			
1,2,3-trichloropropane	<1	<1	<1
1,2,4,5-tetrachlorobenzene			
1,2,4-trichlorobenzene			
1,2-dibromo-3-chloropropane	<5	<5	<5
1,2-dibromoethane	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1
1,2-dichloroethane	<1	<1	<1
1,2-dichloropropane	<1	<1	<1
1,2-dinitrobenzene			
1,3,5-trinitrobenzene			
1,3-dichlorobenzene			
1,3-dichloropropane			
1,3-dinitrobenzene			
1,4-dichlorobenzene	1.0	1.0	<1.0
1,4-naphthoquinone			
1,4-phenylenediamine			
1-naphthylamine			
2,2-dichloropropane			
2,3,4,6-tetrachlorophenol			
2,4,5-t			
2,4,5-tp (silvex)			
2,4,5-trichlorophenol			
2,4,6-trichlorophenol			
2,4-d			
2,4-dichlorophenol			
2,4-dimethylphenol			
2,4-dinitrophenol			
2,4-dinitrotoluene			
2,6-dichlorophenol			
2,6-dinitrotoluene			
2-acetylaminofluorene			
2-butanone	<5	<10	<10
2-chloronaphthalene			
2-chlorophenol			
2-hexanone	<5	<5	<5
2-methylnaphthalene			
2-methylphenol			
2-naphthylamine			
2-nitroaniline			
2-nitrophenol			
3,3'-dichlorobenzidine			
3,3'-dimethylbenzidine			
3-methylcholanthrene			
3-nitroaniline			
4,4'-ddd			
4,4'-dde			
4,4'-ddt			
4,6-dinitro-2-methylphenol			
4-aminobiphenyl			
4-bromophenyl phenyl ether			
4-chloro-3-methylphenol			
4-chloroaniline			
4-chlorophenyl phenyl ether			
4-methyl-2-pentanone	<5	<5	<5
4-nitroaniline			
4-nitrophenol			
5-nitro-o-toluidine			
7,12-dimethylbenz(a)anthracene			
Acenaphthene			
Acenaphthylene			
Acetone	<10.0	<10.0	<10.0
Acetonitrile			
Acetophenone			
Acrolein			
Acrylonitrile	<5	<5	<5
Aldrin			
Allyl chloride			
Alpha-bhc			
Anthracene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
Antimony, total	ug/L	<2	<2	<2		<2	<2	<2	<2
Arochlor 1016	ug/L		<.1						
Arochlor 1221	ug/L		<.2						
Arochlor 1232	ug/L		<.2						
Arochlor 1242	ug/L		<.2						
Arochlor 1248	ug/L		<.2						
Arochlor 1254	ug/L		<.1						
Arochlor 1260	ug/L		<.1						
Arsenic, total	ug/L	<4.0	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0
Azobenzene	ug/L		<8						
Barium, total	ug/L	290.0	711.0	747.0	419.0	818.0	671.0	483.0	76.3
Benzene	ug/L	<1.0	1.6	<1.0		1.8	1.9	1.3	<1.0
Benzo(a)anthracene	ug/L		<8						
Benzo(a)pyrene	ug/L		<8						
Benzo(b)fluoranthene	ug/L		<8						
Benzo(g,h,i)perylene	ug/L		<8						
Benzo(k)fluoranthene	ug/L		<8						
Benzyl alcohol	ug/L		<8						
Beryllium, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Beta-bhc	ug/L		<.05						
Bis (2-chloroethoxy) methane	ug/L		<8						
Bis(2-chloroethyl) ether	ug/L		<8						
Bis(2-chloroisopropyl) ether	ug/L		<8						
Bis(2-ethylhexyl) phthalate	ug/L		<8						
Bromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Butyl benzyl phthalate	ug/L		<8						
Cadmium, total	ug/L	<.8	<.8	<.8		<.8	1.7	<.8	1.3
Carbon disulfide	ug/L	<1	<1	<1		<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1		<1	<1	<1	<1
Chlordane	ug/L		<.1						
Chlorobenzene	ug/L	<1.0	4.7	1.1		5.3	6.1	4.4	<1.0
Chlorobenzilate	ug/L		<8						
Chloroethane	ug/L	<1.0	<1.0	<1.0		<1.0	<1.0	1.2	<1.0
Chloroform	ug/L	<1	<1	<1		<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L	<8	<8	<8		<8	<8	<8	<8
Chrysene	ug/L		<8						
Cis-1,2-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	8.6	5.6		7.4	4.4	3.4	<.8
Copper, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Cyanide, total	mg/L		<.005						
Delta-bhc	ug/L		<.05						
Diallate	ug/L		<8						
Dibenzo(a,h)anthracene	ug/L		<8						
Dibenzofuran	ug/L		<8						
Dibromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Dichlorodifluoromethane	ug/L		<1.0						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<8						
Dimethoate	ug/L		<.4	<.4		<.4			
Dimethylphthalate	ug/L		<8						
Di-n-butyl phthalate	ug/L		<8						
Di-n-octyl phthalate	ug/L		<8						
Dinoseb	ug/L		<.5						
Diphenylamine	ug/L		<8						
Disulfoton	ug/L		<.4	<.4		<.4			
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Ethyl methacrylate	ug/L		<10						
Ethyl methanesulfonate	ug/L		<8						
Ethylbenzene	ug/L	<1	<1	<1		<1	<1	<1	<1
Famphur	ug/L		<.4	<.4		<.4			
Fluoranthene	ug/L		<8						
Fluorene	ug/L		<8						
Gamma-bhc (lindane)	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<.05						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
Antimony, total	<2		<2	<2	<2	<2	<2	<2	<2
Arochlor 1016						<1			
Arochlor 1221						<2			
Arochlor 1232						<2			
Arochlor 1242						<2			
Arochlor 1248						<2			
Arochlor 1254						<1			
Arochlor 1260						<1			
Arsenic, total	<4.0		<4.0	<4.0	4.1	<4.0	10.2	<4.0	<4.0
Azobenzene						<8			
Barium, total	1110.0	692.0	1130.0	368.0	809.0	903.0	986.0	717.0	714.0
Benzene	1.5		1.2	2.7	1.9	1.6	1.6	2.3	<1.0
Benzo(a)anthracene						<8			
Benzo(a)pyrene						<8			
Benzo(b)fluoranthene						<8			
Benzo(g,h,i)perylene						<8			
Benzo(k)fluoranthene						<8			
Benzyl alcohol						<8			
Beryllium, total	<4		<4	<4	<4	<4	<4	<4	<4
Beta-bhc						<.05			
Bis (2-chloroethoxy) methane						<8			
Bis(2-chloroethyl) ether						<8			
Bis(2-chloroisopropyl) ether						<8			
Bis(2-ethylhexyl) phthalate						<6			
Bromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Bromoform	<1		<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate						<8			
Cadmium, total	<.8		<.8	<.8	1.7	<.8	.9	<.8	<.8
Carbon disulfide	<1		<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1		<1	<1	<1	<1	<1	<1	<1
Chlordane						<1			
Chlorobenzene	6.8		5.7	8.2	9.3	7.5	8.7	9.1	6.2
Chlorobenzilate						<8			
Chloroethane	1.3		<1.0	<1.0	<1.0	1.7	<1.0	<1.0	<1.0
Chloroform	<1		<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Chloroprene						<1			
Chromium, total	<8		<8	<8	<8	<8	<8	<8	<8
Chrysene						<8			
Cis-1,2-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Cobalt, total	13.4	7.5	14.3	4.1	3.8	8.2	5.5	2.9	7.4
Copper, total	<4		<4	<4	<4	<4	<4	<4	<4
Cyanide, total						<.005			
Delta-bhc						<.05			
Diallate						<8			
Dibenzo(a,h)anthracene						<8			
Dibenzofuran						<8			
Dibromochloromethane	<1		<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1		<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane						1.2			
Dieldrin						<.05			
Diethyl phthalate						<8			
Dimethoate			<.4						
Dimethylphthalate						<8			
Di-n-butyl phthalate						<8			
Di-n-octyl phthalate						<8			
Dinoseb						<.5			
Diphenylamine						<8			
Disulfoton			<.4						
Endosulfan i						<.05			
Endosulfan ii						<.05			
Endosulfan sulfate						<.05			
Endrin						<.05			
Endrin aldehyde						<.05			
Ethyl methacrylate						<10			
Ethyl methanesulfonate						<8			
Ethylbenzene	<1		<1	<1	<1	<1	<1	<1	<1
Famphur			<.4						
Fluoranthene						<8			
Fluorene						<8			
Gamma-bhc (lindane)						<.05			
Heptachlor						<.05			
Heptachlor epoxide						<.05			
Hexachlorobenzene						<.05			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/4/2021	4/6/2022	10/4/2023
Antimony, total	<2	<2	<2
Arochlor 1016			
Arochlor 1221			
Arochlor 1232			
Arochlor 1242			
Arochlor 1248			
Arochlor 1254			
Arochlor 1260			
Arsenic, total	30.5	<4.0	5.5
Azobenzene			
Barium, total	1530.0	1360.0	843.0
Benzene	<1.0	<1.0	<1.0
Benzo(a)anthracene			
Benzo(a)pyrene			
Benzo(b)fluoranthene			
Benzo(g,h,i)perylene			
Benzo(k)fluoranthene			
Benzyl alcohol			
Beryllium, total	<4	<4	<4
Beta-bhc			
Bis (2-chloroethoxy) methane			
Bis(2-chloroethyl) ether			
Bis(2-chloroisopropyl) ether			
Bis(2-ethylhexyl) phthalate			
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Butyl benzyl phthalate			
Cadmium, total	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlordane			
Chlorobenzene	3.9	5.3	<1.0
Chlorobenzilate			
Chloroethane	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chloroprene			
Chromium, total	<8	<8	<8
Chrysene			
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	19.2	15.0	7.3
Copper, total	<4	<4	<4
Cyanide, total			
Delta-bhc			
Diallate			
Dibenzo(a,h)anthracene			
Dibenzofuran			
Dibromochloromethane	<1	<1	<1
Dibromomethane	<1	<1	<1
Dichlorodifluoromethane			
Dieldrin			
Diethyl phthalate			
Dimethoate			
Dimethylphthalate			
Di-n-butyl phthalate			
Di-n-octyl phthalate			
Dinoseb			
Diphenylamine			
Disulfoton			
Endosulfan i			
Endosulfan ii			
Endosulfan sulfate			
Endrin			
Endrin aldehyde			
Ethyl methacrylate			
Ethyl methanesulfonate			
Ethylbenzene	<1	<1	<1
Famphur			
Fluoranthene			
Fluorene			
Gamma-bhc (lindane)			
Heptachlor			
Heptachlor epoxide			
Hexachlorobenzene			

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
Hexachlorobutadiene	ug/L		<.8						
Hexachlorocyclopentadiene	ug/L		<.8						
Hexachloroethane	ug/L		<.8						
Hexachloropropene	ug/L		<.8						
Indeno(1,2,3-cd)pyrene	ug/L		<.8						
Isobutanol	mg/L		<1						
Isodrin	ug/L		<.8						
Isophorone	ug/L		<.8						
Isosafrole	ug/L		<.8						
Kepone	ug/L		<.8						
Lead, total	ug/L	<4.0	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0
Mercury, total	ug/L		<.5						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<.8						
Methoxychlor	ug/L		<.05						
Methyl iodide	ug/L	<1	<1	<1		<1	<1	<1	<1
Methyl methacrylate	ug/L		<1						
Methyl methanesulfonate	ug/L		<.8						
Methyl parathion	ug/L		<.4	<.4		<.4			
Methylene chloride	ug/L	<5	<.5	<5		<5	<5	<5	<5
Naphthalene	ug/L		<.8						
Nickel, total	ug/L	22.2	69.2	54.2	31.8	76.9	67.7	33.0	<4.0
Nitrobenzene	ug/L		<.8						
N-nitrosodiethylamine	ug/L		<.8						
N-nitrosodimethylamine	ug/L		<.8						
N-nitrosodi-n-butylamine	ug/L		<.8						
N-nitroso-di-n-propylamine	ug/L		<.8						
N-nitrosodiphenylamine	ug/L		<.8						
N-nitrosomethylethylamine	ug/L		<.8						
N-nitrosopiperidine	ug/L		<.8						
N-nitrosopyrrolidine	ug/L		<.8						
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4		<.4			
O-toluidine	ug/L		<.8						
Parathion	ug/L		<.4	<.4		<.4			
P-dimethylaminoazobenzene	ug/L		<.8						
Pentachlorobenzene	ug/L		<.8						
Pentachloronitrobenzene (pcnb)	ug/L		<.8						
Pentachlorophenol	ug/L		<.8						
Phenacetin	ug/L		<.8						
Phenanthrene	ug/L		<.8						
Phenol	ug/L		<.8						
Phorate	ug/L		7.1	<.4		2.8	<.4	2.7	<.4
Pronamide	ug/L		<.8						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<.8						
Safrole	ug/L		<.8						
Selenium, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Solids, total suspended	mg/L		415	127					
Styrene	ug/L	<1	<1	<1		<1	<1	<1	<1
Sulfide, total	mg/L		<.1						
Tetrachloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Thionazin	ug/L		.5	<.4		<.4	<.4	<.4	<.4
Tin, total	ug/L		<20						
Toluene	ug/L	<1	<1	<1		<1	<1	<1	<1
Toxaphene	ug/L		<.2						
Trans-1,2-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5		<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20		<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5		<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1		<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2		<2	<2	<2	<2
Zinc, total	ug/L	11.1	8.6	<8.0		<8.0	38.9	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/18/2017	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021
Hexachlorobutadiene						<8			
Hexachlorocyclopentadiene						<8			
Hexachloroethane						<8			
Hexachloropropene						<8			
Indeno(1,2,3-cd)pyrene						<8			
Isobutanol						<1			
Isodrin						<8			
Isophorone						<8			
Isosafrole						<8			
Kepone						<8			
Lead, total	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Mercury, total						<.5			
Methacrylonitrile						<1			
Methapyrilene						<8			
Methoxychlor						<.05			
Methyl iodide	<1		<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate						<1			
Methyl methanesulfonate						<8			
Methyl parathion			<.4						
Methylene chloride	<5		<5	<5	<5	<5	<5	<5	<5
Naphthalene						<8			
Nickel, total	44.4	61.3	46.3	19.4	55.8	42.5	61.0	50.6	23.3
Nitrobenzene						<8			
N-nitrosodiethylamine						<8			
N-nitrosodimethylamine						<8			
N-nitrosodi-n-butylamine						<8			
N-nitroso-di-n-propylamine						<8			
N-nitrosodiphenylamine						<8			
N-nitrosomethylethylamine						<8			
N-nitrosopiperidine						<8			
N-nitrosopyrrolidine						<8			
O,o,o-triethyl phosphorothioate			<.4						
O-toluidine						<8			
Parathion			<.4						
P-dimethylaminoazobenzene						<8			
Pentachlorobenzene						<8			
Pentachloronitrobenzene (pcnb)						<8			
Pentachlorophenol						<8			
Phenacetin						<8			
Phenanthrene						<8			
Phenol						<8			
Phorate	<.4		<.4	<.4	<.4	<.4			
Pronamide						<8			
Propionitrile						<10			
Pyrene						<8			
Safrole						<8			
Selenium, total	<4		<4	<4	<4	<4	<4	<4	<4
Silver, total	<4		<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1		<1	<1	<1	<1	<1	<1	<1
Sulfide, total						<.1			
Tetrachloroethene	<1		<1	1	<1	<1	<1	<1	<1
Thallium, total	<4		<4	<4	<2	<2	<2	<2	<2
Thionazin	<.4		<.4	<.4	<.4	<.4			
Tin, total						<20			
Toluene	<1		<1	<1	<1	<1	<1	<1	<1
Toxaphene						<.2			
Trans-1,2-dichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1		<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5		<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1		<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1		<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20		<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5		<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1		<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2		<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0		<8.0	43.6	40.2	24.4	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 5

Analytical Data Summary for MW-14

Constituents	10/4/2021	4/6/2022	10/4/2023
Hexachlorobutadiene			
Hexachlorocyclopentadiene			
Hexachloroethane			
Hexachloropropene			
Indeno(1,2,3-cd)pyrene			
Isobutanol			
Isodrin			
Isophorone			
Isosafrole			
Kepone			
Lead, total	5.1	<4.0	<4.0
Mercury, total			
Methacrylonitrile			
Methapyrilene			
Methoxychlor			
Methyl iodide	<1	<1	<1
Methyl methacrylate			
Methyl methanesulfonate			
Methyl parathion			
Methylene chloride	<5	<5	<5
Naphthalene			
Nickel, total	52.6	50.6	33.8
Nitrobenzene			
N-nitrosodiethylamine			
N-nitrosodimethylamine			
N-nitrosodi-n-butylamine			
N-nitroso-di-n-propylamine			
N-nitrosodiphenylamine			
N-nitrosomethylethylamine			
N-nitrosopiperidine			
N-nitrosopyrrolidine			
O,o,o-triethyl phosphorothioate			
O-toluidine			
Parathion			
P-dimethylaminoazobenzene			
Pentachlorobenzene			
Pentachloronitrobenzene (pcnb)			
Pentachlorophenol			
Phenacetin			
Phenanthrene			
Phenol			
Phorate			
Pronamide			
Propionitrile			
Pyrene			
Safrole			
Selenium, total	<4	<4	<4
Silver, total	<4	<4	<4
Solids, total suspended			
Styrene	<1	<1	<1
Sulfide, total			
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Thionazin			
Tin, total			
Toluene	<1	<1	<1
Toxaphene			
Trans-1,2-dichloroethene	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5
Trichloroethene	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1
Vanadium, total	<20	<20	<20
Vinyl acetate	<5	<5	<5
Vinyl chloride	<1	<1	<1
Xylenes, total	<2	<2	<2
Zinc, total	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-15A

Constituents	Units	4/24/2014	10/15/2014	1/8/2015	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	145.0	210.0	154.0	99.4	157.0	243.0	185.0	237.0	199.0
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	1.3
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	<8	<8	<8	<8	<8	<8	<8	<8
Copper, total	ug/L	4.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	9.4	<4.0	<4.0	<4.0
Selenium, total	ug/L	7.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		68		76					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	11.3	<8.0	<8.0	<8.0	<20.0	<8.0	12.2	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-15A

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	17.2	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2.0	<2.0	2.8	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	249.0	190.0	239.0	212.0	270.0	205.0	225.0	154.0	202.0
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<8	<8	<8	<8	<8	<4	<4	.5	1.7
Copper, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.1	<4.0	<4.0
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2
Toluene	<2	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	<8.0	9.0	<8.0	8.7	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 6

Analytical Data Summary for MW-15A

Constituents	4/6/2022	10/4/2023
1,1,1,2-tetrachloroethane	<1	<1
1,1,1-trichloroethane	<1	<1
1,1,2,2-tetrachloroethane	<1	<1
1,1,2-trichloroethane	<1	<1
1,1-dichloroethane	<1	<1
1,1-dichloroethene	<1	<1
1,2,3-trichloropropane	<1	<1
1,2-dibromo-3-chloropropane	<5	<5
1,2-dibromoethane	<1	<1
1,2-dichlorobenzene	<1	<1
1,2-dichloroethane	<1	<1
1,2-dichloropropane	<1	<1
1,4-dichlorobenzene	<1	<1
2-butanone	<10	<10
2-hexanone	<5	<5
4-methyl-2-pentanone	<5	<5
Acetone	<10.0	<10.0
Acrylonitrile	<5	<5
Antimony, total	<2.0	<2.0
Arsenic, total	<4	<4
Barium, total	289.0	166.0
Benzene	<1	<1
Beryllium, total	<4	<4
Bromochloromethane	<1	<1
Bromodichloromethane	<1	<1
Bromoform	<1	<1
Bromomethane	<1	<1
Cadmium, total	<.8	<.8
Carbon disulfide	<1	<1
Carbon tetrachloride	<1	<1
Chlorobenzene	<1	<1
Chloroethane	<1	<1
Chloroform	<1	<1
Chloromethane	<1	<1
Chromium, total	<8	<8
Cis-1,2-dichloroethene	<1	<1
Cis-1,3-dichloropropene	<1	<1
Cobalt, total	4.7	<.4
Copper, total	<4.0	<4.0
Dibromochloromethane	<1	<1
Dibromomethane	<1	<1
Ethylbenzene	<1	<1
Lead, total	<4	<4
Methyl iodide	<1	<1
Methylene chloride	<5	<5
Nickel, total	8.2	<4.0
Selenium, total	<4.0	<4.0
Silver, total	<4	<4
Solids, total suspended		
Styrene	<1	<1
Tetrachloroethene	<1	<1
Thallium, total	<2	<2
Toluene	<1	<1
Trans-1,2-dichloroethene	<1	<1
Trans-1,3-dichloropropene	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5
Trichloroethene	<1	<1
Trichlorofluoromethane	<1	<1
Vanadium, total	<20	<20
Vinyl acetate	<5	<5
Vinyl chloride	<1	<1
Xylenes, total	<2	<2
Zinc, total	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 7

Analytical Data Summary for MW-16

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	18.3
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	526	326	502	385	101	111	170	372
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	1.1	<.8	<.8	<.8	<.8	<.8	1.6	1.3
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.7
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	4.2	.9	1.1	1.1	<.8	<.8	<.8	1.5
Copper, total	ug/L	5.6	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dimethoate	ug/L			<.4	<.4				
Disulfoton	ug/L			<.4	<.4				
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L			<.4	<.4				
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Methyl parathion	ug/L			<.4	<.4				
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	45.5	37.0	47.4	31.2	<4.0	<4.0	<4.0	35.9
O,o,o-triethyl phosphorothioate	ug/L			<.4	<.4				
Parathion	ug/L			<.4	<.4				
Phorate	ug/L			<.4	.7	<.4	.7	<.4	<.4
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		139	106					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Thionazin	ug/L			<.4	<.4	<.4	<.4	<.4	<.4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	12.0	<8.0	<8.0	9.0	8.3	<8.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 7

Analytical Data Summary for MW-16

Constituents	1/12/2018
1,1,1,2-tetrachloroethane	
1,1,1-trichloroethane	
1,1,2,2-tetrachloroethane	
1,1,2-trichloroethane	
1,1-dichloroethane	
1,1-dichloroethene	
1,2,3-trichloropropane	
1,2-dibromo-3-chloropropane	
1,2-dibromoethane	
1,2-dichlorobenzene	
1,2-dichloroethane	
1,2-dichloropropane	
1,4-dichlorobenzene	
2-butanone	
2-hexanone	
4-methyl-2-pentanone	
Acetone	
Acrylonitrile	
Antimony, total	
Arsenic, total	
Barium, total	416
Benzene	
Beryllium, total	
Bromochloromethane	
Bromodichloromethane	
Bromoform	
Bromomethane	
Cadmium, total	
Carbon disulfide	
Carbon tetrachloride	
Chlorobenzene	
Chloroethane	<1
Chloroform	
Chloromethane	
Chromium, total	
Cis-1,2-dichloroethene	
Cis-1,3-dichloropropene	
Cobalt, total	
Copper, total	
Dibromochloromethane	
Dibromomethane	
Dimethoate	
Disulfoton	
Ethylbenzene	
Famphur	
Lead, total	
Methyl iodide	
Methyl parathion	
Methylene chloride	
Nickel, total	51.7
O,o,o-triethyl phosphorothioate	
Parathion	
Phorate	
Selenium, total	
Silver, total	
Solids, total suspended	
Styrene	
Tetrachloroethene	
Thallium, total	
Thionazin	
Toluene	
Trans-1,2-dichloroethene	
Trans-1,3-dichloropropene	
Trans-1,4-dichloro-2-butene	
Trichloroethene	
Trichlorofluoromethane	
Vanadium, total	
Vinyl acetate	
Vinyl chloride	
Xylenes, total	
Zinc, total	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-17

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
2-butanone	ug/L	<5	<5	<5	<5	<5	<5		<5
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5		<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5		<5
Acetone	ug/L	<10	<10	<10	<10	<10	<10		<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5		<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2		<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Barium, total	ug/L	142	176	204	243	269	293	208	141
Benzene	ug/L	<1	<1	<1	<1	<1	<1		<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1		<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Cadmium, total	ug/L	<8	2.0	<8	<8	<8	1.4		<8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1		<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1		<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1		<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8		<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		<1
Cobalt, total	ug/L	<4.0	<8	<8	<8	<8	<8		<8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Dimethoate	ug/L			<4	<4				
Disulfoton	ug/L			<4	<4				
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
Famphur	ug/L			<4	<4				
Lead, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1		<1
Methyl parathion	ug/L			<4	<4				
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5		<5
Nickel, total	ug/L	7.1	7.0	15.9	28.9	40.0	41.0		15.3
O,o,o-triethyl phosphorothioate	ug/L			<4	<4				
Parathion	ug/L			<4	<4				
Phorate	ug/L			<4	<4	<4	<4		<4
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Solids, total suspended	mg/L		320	42					
Styrene	ug/L	<1	<1	<1	<1	<1	<1		<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4		<4
Thionazin	ug/L			<4	<4				
Toluene	ug/L	<1	<1	<1	<1	<1	<1		<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5		<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1		<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20		<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5		<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1		<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2		<2
Zinc, total	ug/L	<8.0	8.7	<8.0	<8.0	11.4	<8.0		<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 8

Analytical Data Summary for MW-17

Constituents	10/18/2017
1,1,1,2-tetrachloroethane	<1
1,1,1-trichloroethane	<1
1,1,2,2-tetrachloroethane	<1
1,1,2-trichloroethane	<1
1,1-dichloroethane	<1
1,1-dichloroethene	<1
1,2,3-trichloropropane	<1
1,2-dibromo-3-chloropropane	<1
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,4-dichlorobenzene	<1
2-butanone	<5
2-hexanone	<5
4-methyl-2-pentanone	<5
Acetone	<10
Acrylonitrile	<5
Antimony, total	<2
Arsenic, total	<4
Barium, total	189
Benzene	<1
Beryllium, total	<4
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Cadmium, total	1.0
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chromium, total	<8
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	<.8
Copper, total	<4
Dibromochloromethane	<1
Dibromomethane	<1
Dimethoate	
Disulfoton	
Ethylbenzene	<1
Famphur	
Lead, total	<4
Methyl iodide	<1
Methyl parathion	
Methylene chloride	<5
Nickel, total	10.3
O,o,o-triethyl phosphorothioate	
Parathion	
Phorate	<.4
Selenium, total	<4
Silver, total	<4
Solids, total suspended	
Styrene	<1
Tetrachloroethene	<1
Thallium, total	<4
Thionazin	
Toluene	<1
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20
Vinyl acetate	<5
Vinyl chloride	<1
Xylenes, total	<2
Zinc, total	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 9

Analytical Data Summary for MW-18

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	16.3
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	105.0	144.0	121.0	141.0	178.0	130.0	170.0	144.0	168.0
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	1.1	2.2	<8	<8	<8	1.8	1.6	<8	<8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	11.6	<8	<8	<8	<8	<8	<8	<8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	5.2	10.9	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.5
Selenium, total	ug/L	8.1	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		298	37						
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	12.6	12.8	<8.0	<20.0	<8.0	8.3	<8.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 9

Analytical Data Summary for MW-18

Constituents	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021	4/6/2022
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<5	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<10
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	95.6	148.0	136.0	186.0	107.0	172.0	188.0	179.0	171.0
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8	<.8	<.8	<.4	<.4	<.4	.4	.4
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0	<4.0	5.4	<4.0	<4.0	<4.0	5.4	<4.0
Selenium, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<2	<2	<2	<2	<2	<2	<2
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	11.2	29.4	19.7	<20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-19

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
(3 4)-methylphenol	ug/L		Δ8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L		<1						
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L		Δ8						
1,2,4-trichlorobenzene	ug/L		<1						
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L		Δ8						
1,3,5-trinitrobenzene	ug/L		Δ8						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		Δ8						
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0	2.0	1.7	2.3	1.9	2.1
1,4-naphthoquinone	ug/L		Δ8						
1,4-phenylenediamine	ug/L		Δ8						
1-naphthylamine	ug/L		Δ8						
2,2-dichloropropane	ug/L		<1						
2,3,4,6-tetrachlorophenol	ug/L		Δ8						
2,4,5-t	ug/L		Δ5						
2,4,5-tp (silvex)	ug/L		Δ5						
2,4,5-trichlorophenol	ug/L		Δ8						
2,4,6-trichlorophenol	ug/L		Δ8						
2,4-d	ug/L		Δ2						
2,4-dichlorophenol	ug/L		Δ8						
2,4-dimethylphenol	ug/L		Δ8						
2,4-dinitrophenol	ug/L		Δ8						
2,4-dinitrotoluene	ug/L		Δ8						
2,6-dichlorophenol	ug/L		Δ8						
2,6-dinitrotoluene	ug/L		Δ8						
2-acetylaminofluorene	ug/L		Δ8						
2-butanone	ug/L	<5	Δ5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene	ug/L		Δ8						
2-chlorophenol	ug/L		Δ8						
2-hexanone	ug/L	<5	Δ5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L		Δ8						
2-methylphenol	ug/L		Δ8						
2-naphthylamine	ug/L		Δ8						
2-nitroaniline	ug/L		Δ8						
2-nitrophenol	ug/L		Δ8						
3,3'-dichlorobenzidine	ug/L		Δ8						
3,3'-dimethylbenzidine	ug/L		Δ8						
3-methylcholanthrene	ug/L		Δ8						
3-nitroaniline	ug/L		Δ8						
4,4'-ddd	ug/L		Δ5						
4,4'-dde	ug/L		Δ5						
4,4'-ddt	ug/L		Δ5						
4,6-dinitro-2-methylphenol	ug/L		Δ8						
4-aminobiphenyl	ug/L		Δ8						
4-bromophenyl phenyl ether	ug/L		Δ8						
4-chloro-3-methylphenol	ug/L		Δ8						
4-chloroaniline	ug/L		Δ8						
4-chlorophenyl phenyl ether	ug/L		Δ8						
4-methyl-2-pentanone	ug/L	<5	Δ5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L		Δ8						
4-nitrophenol	ug/L		Δ8						
5-nitro-o-toluidine	ug/L		Δ8						
7,12-dimethylbenz(a)anthracene	ug/L		Δ8						
Acenaphthene	ug/L		Δ8						
Acenaphthylene	ug/L		Δ8						
Acetone	ug/L	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		Δ8						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L	<5	Δ5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L		Δ5						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		Δ5						
Anthracene	ug/L		Δ8						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-19

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L		<.1						
Arochlor 1221	ug/L		<.2						
Arochlor 1232	ug/L		<.2						
Arochlor 1242	ug/L		<.2						
Arochlor 1248	ug/L		<.2						
Arochlor 1254	ug/L		<.1						
Arochlor 1260	ug/L		<.1						
Arsenic, total	ug/L	<4.0	<4.0	5.7	<4.0	8.6	<4.0	<4.0	<4.0
Azobenzene	ug/L		<.8						
Barium, total	ug/L	639	683	769	616	750	602	633	661
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L		<.8						
Benzo(a)pyrene	ug/L		<.8						
Benzo(b)fluoranthene	ug/L		<.8						
Benzo(g,h,i)perylene	ug/L		<.8						
Benzo(k)fluoranthene	ug/L		<.8						
Benzyl alcohol	ug/L		<.8						
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L		<.05						
Bis (2-chloroethoxy) methane	ug/L		<.8						
Bis(2-chloroethyl) ether	ug/L		<.8						
Bis(2-chloroisopropyl) ether	ug/L		<.8						
Bis(2-ethylhexyl) phthalate	ug/L		21	11	<10	<10	<10	<10	<6
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L		<.8						
Cadmium, total	ug/L	<.8	1.2	<.8	<.8	<.8	1.2	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L		<.1						
Chlorobenzene	ug/L	1.9	5.8	3.4	6.9	<1.0	8.6	8.1	9.3
Chlorobenzilate	ug/L		<.8						
Chloroethane	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L	<8	<.8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L		<.8						
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	2.5	2.9	1.8	4.6	1.9	3.1	2.7
Copper, total	ug/L	4.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L		<.005						
Delta-bhc	ug/L		<.05						
Diallate	ug/L		<.8						
Dibenzo(a,h)anthracene	ug/L		<.8						
Dibenzofuran	ug/L		<.8						
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L		<1						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<.8						
Dimethoate	ug/L		<.4	<.4	<.4				
Dimethylphthalate	ug/L		<.8						
Di-n-butyl phthalate	ug/L		<.8						
Di-n-octyl phthalate	ug/L		<.8						
Dinoseb	ug/L		<.5						
Diphenylamine	ug/L		<.8						
Disulfoton	ug/L		<.4	<.4	<.4				
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Ethyl methacrylate	ug/L		<10						
Ethyl methanesulfonate	ug/L		<.8						
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L		<.4	<.4	<.4				
Fluoranthene	ug/L		<.8						
Fluorene	ug/L		<.8						
Gamma-bhc (lindane)	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<.05						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 10

Analytical Data Summary for MW-19

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Hexachlorobutadiene	ug/L		<.8						
Hexachlorocyclopentadiene	ug/L		<.8						
Hexachloroethane	ug/L		<.8						
Hexachloropropene	ug/L		<.8						
Indeno(1,2,3-cd)pyrene	ug/L		<.8						
Isobutanol	mg/L		<.1						
Isodrin	ug/L		<.8						
Isophorone	ug/L		<.8						
Isosafrole	ug/L		<.8						
Kepone	ug/L		<.8						
Lead, total	ug/L	<4	<.4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L		<.5						
Methacrylonitrile	ug/L		<.1						
Methapyrilene	ug/L		<.8						
Methoxychlor	ug/L		<.05						
Methyl iodide	ug/L	<1	<.1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L		<.1						
Methyl methanesulfonate	ug/L		<.8						
Methyl parathion	ug/L		<.4	<.4	<.4				
Methylene chloride	ug/L	<5	<.5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L		<.8						
Nickel, total	ug/L	37.7	34.2	35.6	23.3	35.9	23.0	31.4	33.1
Nitrobenzene	ug/L		<.8						
N-nitrosodiethylamine	ug/L		<.8						
N-nitrosodimethylamine	ug/L		<.8						
N-nitrosodi-n-butylamine	ug/L		<.8						
N-nitroso-di-n-propylamine	ug/L		<.8						
N-nitrosodiphenylamine	ug/L		<.8						
N-nitrosomethylethylamine	ug/L		<.8						
N-nitrosopiperidine	ug/L		<.8						
N-nitrosopyrrolidine	ug/L		<.8						
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4	<.4				
O-toluidine	ug/L		<.8						
Parathion	ug/L		<.4	<.4	<.4				
P-dimethylaminoazobenzene	ug/L		<.8						
Pentachlorobenzene	ug/L		<.8						
Pentachloronitrobenzene (pcnb)	ug/L		<.8						
Pentachlorophenol	ug/L		<.8						
Phenacetin	ug/L		<.8						
Phenanthrene	ug/L		<.8						
Phenol	ug/L		<.8						
Phorate	ug/L		3.3	<.4	1.0	<.4	2.2	2.5	<.4
Pronamide	ug/L		<.8						
Propionitrile	ug/L		<.10						
Pyrene	ug/L		<.8						
Safrole	ug/L		<.8						
Selenium, total	ug/L	<4	<.4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<.4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		111	24					
Styrene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Sulfide, total	mg/L		<.10	.21	<.10	<.10	<.10	<.10	<.10
Tetrachloroethene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Thallium, total	ug/L	<4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Thionazin	ug/L		<.4	<.4	<.4				
Tin, total	ug/L		<.20						
Toluene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Toxaphene	ug/L		<.2						
Trans-1,2-dichloroethene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Trans-1,3-dichloropropene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Trans-1,4-dichloro-2-butene	ug/L	<5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Trichloroethene	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Trichlorofluoromethane	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Vanadium, total	ug/L	<20	<.20	<.20	<.20	<.20	<.20	<.20	<.20
Vinyl acetate	ug/L	<5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
Vinyl chloride	ug/L	<1	<.1	<.1	<.1	<.1	<.1	<.1	<.1
Xylenes, total	ug/L	<2	<.2	<.2	<.2	<.2	<.2	<.2	<.2
Zinc, total	ug/L	<8.0	<.8.0	9.9	<.8.0	14.9	<.8.0	<.8.0	<.8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-3

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
2-butanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	ug/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	15.6
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Barium, total	ug/L	75.4	55.6	61.7	66.0	58.4	58.1	52.2	64.1
Benzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cadmium, total	ug/L	1.9	.9	<.8	<.8	3.0	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	<.8	<.8	.9	<.8	<.8	<.8	<.8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Lead, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, total	ug/L	<4.0	<4.0	5.4	4.8	<4.0	<4.0	<4.0	<4.0
Selenium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		207	21					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	8.2	9.1	<8.0	<8.0	19.0	<8.0	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-3

Constituents	4/12/2018	10/23/2018	1/15/2019	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
1,1,1,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
1,2,3-trichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	<1	<1		<1	<1	<5	<5	<5	<5
1,2-dibromoethane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1		<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1		<1	<1	<1	<1	<1	<1
1,4-dichlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
2-butanone	<5	<5		<5	<5	<5	<5	<5	<5
2-hexanone	<5	<5		<5	<5	<5	<5	<5	<5
4-methyl-2-pentanone	<5	<5		<5	<5	<5	<5	<5	<5
Acetone	<10.0	<10.0		<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5		<5	<5	<5	<5	<5	<5
Antimony, total	<2	<2		<2	<2	<2	<2	<2	<2
Arsenic, total	<4	<4		<4	<4	<4	<4	<4	<4
Barium, total	55.5	52.9	47.0	55.0	58.2	53.7	53.6	55.8	53.3
Benzene	<1	<1		<1	<1	<1	<1	<1	<1
Beryllium, total	<4	<4		<4	<4	<4	<4	<4	<4
Bromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Bromoform	<1	<1		<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Cadmium, total	<.8	<.8		<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1		<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1		<1	<1	<1	<1	<1	<1
Chlorobenzene	<1	<1		<1	<1	<1	<1	<1	<1
Chloroethane	<1	<1		<1	<1	<1	<1	<1	<1
Chloroform	<1	<1		<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Chromium, total	<8	<8		<8	<8	<8	<8	<8	<8
Cis-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Cobalt, total	<.8	<.8		<.8	<.8	<.4	.9	<.4	.7
Copper, total	<4	<4		<4	<4	<4	<4	<4	<4
Dibromochloromethane	<1	<1		<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1		<1	<1	<1	<1	<1	<1
Ethylbenzene	<1	<1		<1	<1	<1	<1	<1	<1
Lead, total	<4	<4		<4	<4	<4	<4	<4	<4
Methyl iodide	<1	<1		<1	<1	<1	<1	<1	<1
Methylene chloride	<5	<5		<5	<5	<5	<5	<5	<5
Nickel, total	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Selenium, total	<4	<4		<4	<4	<4	<4	<4	<4
Silver, total	<4	<4		<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1		<1	<1	<1	<1	<1	<1
Tetrachloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4		<2	<2	<2	<2	<2	<2
Toluene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,2-dichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1		<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5		<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1		<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1		<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20		<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5		<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1		<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2		<2	<2	<2	<2	<2	<2
Zinc, total	<8.0	18.5	<8.0	12.2	13.3	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 11

Analytical Data Summary for MW-3

Constituents	4/6/2022
1,1,1,2-tetrachloroethane	<1
1,1,1-trichloroethane	<1
1,1,2,2-tetrachloroethane	<1
1,1,2-trichloroethane	<1
1,1-dichloroethane	<1
1,1-dichloroethene	<1
1,2,3-trichloropropane	<1
1,2-dibromo-3-chloropropane	<5
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,4-dichlorobenzene	<1
2-butanone	<10
2-hexanone	<5
4-methyl-2-pentanone	<5
Acetone	<10.0
Acrylonitrile	<5
Antimony, total	<2
Arsenic, total	<4
Barium, total	51.6
Benzene	<1
Beryllium, total	<4
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Cadmium, total	<.8
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chromium, total	<8
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	.6
Copper, total	<4
Dibromochloromethane	<1
Dibromomethane	<1
Ethylbenzene	<1
Lead, total	<4
Methyl iodide	<1
Methylene chloride	<5
Nickel, total	<4.0
Selenium, total	<4
Silver, total	<4
Solids, total suspended	
Styrene	<1
Tetrachloroethene	<1
Thallium, total	<2
Toluene	<1
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20
Vinyl acetate	<5
Vinyl chloride	<1
Xylenes, total	<2
Zinc, total	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
(3 4)-methylphenol	ug/L								Δ
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,1-dichloropropene	ug/L								<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2,4,5-tetrachlorobenzene	ug/L								Δ
1,2,4-trichlorobenzene	ug/L								Δ
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1		<1
1,2-dinitrobenzene	ug/L								Δ
1,3,5-trinitrobenzene	ug/L								Δ
1,3-dichlorobenzene	ug/L								Δ
1,3-dichloropropane	ug/L								Δ
1,3-dinitrobenzene	ug/L								Δ
1,4-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<1
1,4-naphthoquinone	ug/L								Δ
1,4-phenylenediamine	ug/L								Δ
1-naphthylamine	ug/L								Δ
2,2-dichloropropane	ug/L								Δ
2,3,4,6-tetrachlorophenol	ug/L								Δ
2,4,5-t	ug/L								Δ
2,4,5-tp (silvex)	ug/L								Δ
2,4,5-trichlorophenol	ug/L								Δ
2,4,6-trichlorophenol	ug/L								Δ
2,4-d	ug/L								Δ
2,4-dichlorophenol	ug/L								Δ
2,4-dimethylphenol	ug/L								Δ
2,4-dinitrophenol	ug/L								Δ
2,4-dinitrotoluene	ug/L								Δ
2,6-dichlorophenol	ug/L								Δ
2,6-dinitrotoluene	ug/L								Δ
2-acetylaminofluorene	ug/L								Δ
2-butanone	ug/L	<5	<5	<5	<5	<5	<5		<5
2-chloronaphthalene	ug/L								Δ
2-chlorophenol	ug/L								Δ
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5		<5
2-methylnaphthalene	ug/L								Δ
2-methylphenol	ug/L								Δ
2-naphthylamine	ug/L								Δ
2-nitroaniline	ug/L								Δ
2-nitrophenol	ug/L								Δ
3,3'-dichlorobenzidine	ug/L								Δ
3,3'-dimethylbenzidine	ug/L								Δ
3-methylcholanthrene	ug/L								Δ
3-nitroaniline	ug/L								Δ
4,4'-ddd	ug/L								Δ
4,4'-dde	ug/L								Δ
4,4'-ddt	ug/L								Δ
4,6-dinitro-2-methylphenol	ug/L								Δ
4-aminobiphenyl	ug/L								Δ
4-bromophenyl phenyl ether	ug/L								Δ
4-chloro-3-methylphenol	ug/L								Δ
4-chloroaniline	ug/L								Δ
4-chlorophenyl phenyl ether	ug/L								Δ
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5		<5
4-nitroaniline	ug/L								Δ
4-nitrophenol	ug/L								Δ
5-nitro-o-toluidine	ug/L								Δ
7,12-dimethylbenz(a)anthracene	ug/L								Δ
Acenaphthene	ug/L								Δ
Acenaphthylene	ug/L								Δ
Acetone	ug/L	<10	<10	<10	<10	<10	<10		<10
Acetonitrile	ug/L								Δ
Acetophenone	ug/L								Δ
Acrolein	ug/L								Δ
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5		<5
Aldrin	ug/L								Δ
Allyl chloride	ug/L								Δ
Alpha-bhc	ug/L								Δ
Anthracene	ug/L								Δ

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
(3 4)-methylphenol		<8							
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene		<1							
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene		<8							
1,2,4-trichlorobenzene		<1							
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene		<8							
1,3,5-trinitrobenzene		<8							
1,3-dichlorobenzene		<1							
1,3-dichloropropane		<1							
1,3-dinitrobenzene		<8							
1,4-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,4-naphthoquinone		<8							
1,4-phenylenediamine		<8							
1-naphthylamine		<8							
2,2-dichloropropane		<1							
2,3,4,6-tetrachlorophenol		<8							
2,4,5-t		<.5							
2,4,5-tp (silvex)		<.5							
2,4,5-trichlorophenol		<8							
2,4,6-trichlorophenol		<8							
2,4-d		<2							
2,4-dichlorophenol		<8							
2,4-dimethylphenol		<8							
2,4-dinitrophenol		<8							
2,4-dinitrotoluene		<8							
2,6-dichlorophenol		<8							
2,6-dinitrotoluene		<8							
2-acetylaminofluorene		<8							
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene		<8							
2-chlorophenol		<8							
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene		<8							
2-methylphenol		<8							
2-naphthylamine		<8							
2-nitroaniline		<8							
2-nitrophenol		<8							
3,3'-dichlorobenzidine		<8							
3,3'-dimethylbenzidine		<8							
3-methylcholanthrene		<8							
3-nitroaniline		<8							
4,4'-ddd		<.05							
4,4'-dde		<.05							
4,4'-ddt		<.05							
4,6-dinitro-2-methylphenol		<8							
4-aminobiphenyl		<8							
4-bromophenyl phenyl ether		<8							
4-chloro-3-methylphenol		<8							
4-chloroaniline		<8							
4-chlorophenyl phenyl ether		<8							
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline		<8							
4-nitrophenol		<8							
5-nitro-o-toluidine		<8							
7,12-dimethylbenz(a)anthracene		<8							
Acenaphthene		<8							
Acenaphthylene		<8							
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile		<10							
Acetophenone		<8							
Acrolein		<10							
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin		<.05							
Allyl chloride		<1							
Alpha-bhc		<.05							
Anthracene		<8							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	4/6/2022
(3 4)-methylphenol	
1,1,1,2-tetrachloroethane	<1
1,1,1-trichloroethane	<1
1,1,2,2-tetrachloroethane	<1
1,1,2-trichloroethane	<1
1,1-dichloroethane	<1
1,1-dichloroethene	<1
1,1-dichloropropene	
1,2,3-trichloropropane	<1
1,2,4,5-tetrachlorobenzene	
1,2,4-trichlorobenzene	
1,2-dibromo-3-chloropropane	<5
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,2-dinitrobenzene	
1,3,5-trinitrobenzene	
1,3-dichlorobenzene	
1,3-dichloropropane	
1,3-dinitrobenzene	
1,4-dichlorobenzene	<1
1,4-naphthoquinone	
1,4-phenylenediamine	
1-naphthylamine	
2,2-dichloropropane	
2,3,4,6-tetrachlorophenol	
2,4,5-t	
2,4,5-tp (silvex)	
2,4,5-trichlorophenol	
2,4,6-trichlorophenol	
2,4-d	
2,4-dichlorophenol	
2,4-dimethylphenol	
2,4-dinitrophenol	
2,4-dinitrotoluene	
2,6-dichlorophenol	
2,6-dinitrotoluene	
2-acetylaminofluorene	
2-butanone	<10
2-chloronaphthalene	
2-chlorophenol	
2-hexanone	<5
2-methylnaphthalene	
2-methylphenol	
2-naphthylamine	
2-nitroaniline	
2-nitrophenol	
3,3'-dichlorobenzidine	
3,3'-dimethylbenzidine	
3-methylcholanthrene	
3-nitroaniline	
4,4'-ddd	
4,4'-dde	
4,4'-ddt	
4,6-dinitro-2-methylphenol	
4-aminobiphenyl	
4-bromophenyl phenyl ether	
4-chloro-3-methylphenol	
4-chloroaniline	
4-chlorophenyl phenyl ether	
4-methyl-2-pentanone	<5
4-nitroaniline	
4-nitrophenol	
5-nitro-o-toluidine	
7,12-dimethylbenz(a)anthracene	
Acenaphthene	
Acenaphthylene	
Acetone	<10
Acetonitrile	
Acetophenone	
Acrolein	
Acrylonitrile	<5
Aldrin	
Allyl chloride	
Alpha-bhc	
Anthracene	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2		<2
Arochlor 1016	ug/L								<.1
Arochlor 1221	ug/L								<.2
Arochlor 1232	ug/L								<.2
Arochlor 1242	ug/L								<.2
Arochlor 1248	ug/L								<.2
Arochlor 1254	ug/L								<.1
Arochlor 1260	ug/L								<.1
Arsenic, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	6.7	4.6	5.8
Azobenzene	ug/L								.8
Barium, total	ug/L	266	261	271	323	266	323	271	300
Benzene	ug/L	<1	<1	<1	<1	<1	<1		<.1
Benzo(a)anthracene	ug/L								.8
Benzo(a)pyrene	ug/L								.8
Benzo(b)fluoranthene	ug/L								.8
Benzo(g,h,i)perylene	ug/L								.8
Benzo(k)fluoranthene	ug/L								.8
Benzyl alcohol	ug/L								.8
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4		.4
Beta-bhc	ug/L								.05
Bis (2-chloroethoxy) methane	ug/L								.8
Bis(2-chloroethyl) ether	ug/L								.8
Bis(2-chloroisopropyl) ether	ug/L								.8
Bis(2-ethylhexyl) phthalate	ug/L								.8
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1		<.1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Butyl benzyl phthalate	ug/L								.8
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	1.0	.8		.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1		<.1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1		<.1
Chlordane	ug/L								.1
Chlorobenzene	ug/L	<1	<1	<1	<1	<1	<1		<.1
Chlorobenzilate	ug/L								.8
Chloroethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Chloroform	ug/L	<1	<1	<1	<1	<1	<1		<.1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Chloroprene	ug/L								.1
Chromium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8		.8
Chrysene	ug/L								.8
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		<.1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		<.1
Cobalt, total	ug/L	<4.0	<.8	<.8	1.0	<.8	.8		.8
Copper, total	ug/L	<4	<4	<4	<4	<4	<4		.4
Cyanide, total	mg/L								.005
Delta-bhc	ug/L								.05
Diallate	ug/L								.8
Dibenzo(a,h)anthracene	ug/L								.8
Dibenzofuran	ug/L								.8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1		<.1
Dichlorodifluoromethane	ug/L								.1
Dieldrin	ug/L								.05
Diethyl phthalate	ug/L								.8
Dimethoate	ug/L								.4
Dimethylphthalate	ug/L								.8
Di-n-butyl phthalate	ug/L								.8
Di-n-octyl phthalate	ug/L								.8
Dinoseb	ug/L								.5
Diphenylamine	ug/L								.8
Disulfoton	ug/L								.4
Endosulfan i	ug/L								.05
Endosulfan ii	ug/L								.05
Endosulfan sulfate	ug/L								.05
Endrin	ug/L								.05
Endrin aldehyde	ug/L								.05
Ethyl methacrylate	ug/L								.10
Ethyl methanesulfonate	ug/L								.8
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1		<.1
Famphur	ug/L								.4
Fluoranthene	ug/L								.8
Fluorene	ug/L								.8
Gamma-bhc (lindane)	ug/L								.05
Heptachlor	ug/L								.05
Heptachlor epoxide	ug/L								.05
Hexachlorobenzene	ug/L								.05

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016		<.1							
Arochlor 1221		<.2							
Arochlor 1232		<.2							
Arochlor 1242		<.2							
Arochlor 1248		<.2							
Arochlor 1254		<.1							
Arochlor 1260		<.1							
Arsenic, total	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Azobenzene		<8							
Barium, total	292	256	311	263	316	249	236	257	243
Benzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Benzo(a)anthracene		<8							
Benzo(a)pyrene		<8							
Benzo(b)fluoranthene		<8							
Benzo(g,h,i)perylene		<8							
Benzo(k)fluoranthene		<8							
Benzyl alcohol		<8							
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc		<.05							
Bis (2-chloroethoxy) methane		<8							
Bis(2-chloroethyl) ether		<8							
Bis(2-chloroisopropyl) ether		<8							
Bis(2-ethylhexyl) phthalate		<6							
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate		<8							
Cadmium, total	<.8	<.8	<.8	<.8	.9	.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane		<.1							
Chlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlorobenzilate		<8							
Chloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene		<1							
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene		<8							
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	1.2	<.8	2.3	<.8	2.1	<.4	<.4	<.4	<.4
Copper, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Cyanide, total		<.005							
Delta-bhc		<.05							
Diallate		<8							
Dibenzo(a,h)anthracene		<8							
Dibenzofuran		<8							
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane		<1							
Dieldrin		<.05							
Diethyl phthalate		<8							
Dimethoate		<.4							
Dimethylphthalate		<8							
Di-n-butyl phthalate		<8							
Di-n-octyl phthalate		<8							
Dinoseb		<.5							
Diphenylamine		<8							
Disulfoton		<.4							
Endosulfan i		<.05							
Endosulfan ii		<.05							
Endosulfan sulfate		<.05							
Endrin		<.05							
Endrin aldehyde		<.05							
Ethyl methacrylate		<10							
Ethyl methanesulfonate		<8							
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur		<.4							
Fluoranthene		<8							
Fluorene		<8							
Gamma-bhc (lindane)		<.05							
Heptachlor		<.05							
Heptachlor epoxide		<.05							
Hexachlorobenzene		<.05							

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	4/6/2022
Antimony, total	<2
Arochlor 1016	
Arochlor 1221	
Arochlor 1232	
Arochlor 1242	
Arochlor 1248	
Arochlor 1254	
Arochlor 1260	
Arsenic, total	<4.0
Azobenzene	
Barium, total	250
Benzene	<1
Benzo(a)anthracene	
Benzo(a)pyrene	
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Benzyl alcohol	
Beryllium, total	<4
Beta-bhc	
Bis (2-chloroethoxy) methane	
Bis(2-chloroethyl) ether	
Bis(2-chloroisopropyl) ether	
Bis(2-ethylhexyl) phthalate	
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Butyl benzyl phthalate	
Cadmium, total	<.8
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlordane	
Chlorobenzene	<1
Chlorobenzilate	
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
Chloroprene	
Chromium, total	<8
Chrysene	
Cis-1,2-dichloroethene	<1
Cis-1,3-dichloropropene	<1
Cobalt, total	.5
Copper, total	<4
Cyanide, total	
Delta-bhc	
Diallate	
Dibenzo(a,h)anthracene	
Dibenzofuran	
Dibromochloromethane	<1
Dibromomethane	<1
Dichlorodifluoromethane	
Dieldrin	
Diethyl phthalate	
Dimethoate	
Dimethylphthalate	
Di-n-butyl phthalate	
Di-n-octyl phthalate	
Dinoseb	
Diphenylamine	
Disulfoton	
Endosulfan i	
Endosulfan ii	
Endosulfan sulfate	
Endrin	
Endrin aldehyde	
Ethyl methacrylate	
Ethyl methanesulfonate	
Ethylbenzene	<1
Famphur	
Fluoranthene	
Fluorene	
Gamma-bhc (lindane)	
Heptachlor	
Heptachlor epoxide	
Hexachlorobenzene	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	1/9/2017	4/4/2017
Hexachlorobutadiene	ug/L								△△
Hexachlorocyclopentadiene	ug/L								△△
Hexachloroethane	ug/L								△△
Hexachloropropene	ug/L								△△
Indeno(1,2,3-cd)pyrene	ug/L								△△
Isobutanol	mg/L								△△
Isodrin	ug/L								△△
Isophorone	ug/L								△△
Isosafrole	ug/L								△△
Kepone	ug/L								△△
Lead, total	ug/L	<4	<4	<4	<4	<4	<4		△△
Mercury, total	ug/L								△.5
Methacrylonitrile	ug/L								△△
Methapyrilene	ug/L								△△
Methoxychlor	ug/L								△.05
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1		△△
Methyl methacrylate	ug/L								△△
Methyl methanesulfonate	ug/L								△△
Methyl parathion	ug/L								△.4
Methylene chloride	ug/L	<5	<5	<5	<5	<5	<5		△△
Naphthalene	ug/L								△△
Nickel, total	ug/L	<4.0	<4.0	<4.0	7.8	<4.0	<4.0		△.0
Nitrobenzene	ug/L								△△
N-nitrosodiethylamine	ug/L								△△
N-nitrosodimethylamine	ug/L								△△
N-nitrosodi-n-butylamine	ug/L								△△
N-nitroso-di-n-propylamine	ug/L								△△
N-nitrosodiphenylamine	ug/L								△△
N-nitrosomethylethylamine	ug/L								△△
N-nitrosopiperidine	ug/L								△△
N-nitrosopyrrolidine	ug/L								△△
O,o,o-triethyl phosphorothioate	ug/L								△.4
O-toluidine	ug/L								△△
Parathion	ug/L								△.4
P-dimethylaminoazobenzene	ug/L								△△
Pentachlorobenzene	ug/L								△△
Pentachloronitrobenzene (pcnb)	ug/L								△△
Pentachlorophenol	ug/L								△△
Phenacetin	ug/L								△△
Phenanthrene	ug/L								△△
Phenol	ug/L								△△
Phorate	ug/L								△.4
Pronamide	ug/L								△△
Propionitrile	ug/L								△.10
Pyrene	ug/L								△△
Safrole	ug/L								△△
Selenium, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0		△.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4		△.4
Solids, total suspended	mg/L		427	16					
Styrene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Sulfide, total	mg/L								△.1
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4		△.4
Thionazin	ug/L								△.4
Tin, total	ug/L								△.20
Toluene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Toxaphene	ug/L								△.2
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5		△.5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1		△.1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1		△.1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20		△.20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5		△.5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1	<1		△.1
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2		△.2
Zinc, total	ug/L	<8.0	<8.0	<8.0	<8.0	8.6	<8.0		△.8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Hexachlorobutadiene		<8							
Hexachlorocyclopentadiene		<8							
Hexachloroethane		<8							
Hexachloropropene		<8							
Indeno(1,2,3-cd)pyrene		<8							
Isobutanol		<1							
Isodrin		<8							
Isophorone		<8							
Isosafrole		<8							
Kepone		<8							
Lead, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total		<.5							
Methacrylonitrile		<1							
Methapyrilene		<8							
Methoxychlor		<.05							
Methyl iodide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate		<1							
Methyl methanesulfonate		<8							
Methyl parathion		<.4							
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene		<8							
Nickel, total	5.2	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Nitrobenzene		<8							
N-nitrosodiethylamine		<8							
N-nitrosodimethylamine		<8							
N-nitrosodi-n-butylamine		<8							
N-nitroso-di-n-propylamine		<8							
N-nitrosodiphenylamine		<8							
N-nitrosomethylethylamine		<8							
N-nitrosopiperidine		<8							
N-nitrosopyrrolidine		<8							
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine		<8							
Parathion		<.4							
P-dimethylaminoazobenzene		<8							
Pentachlorobenzene		<8							
Pentachloronitrobenzene (pcnb)		<8							
Pentachlorophenol		<8							
Phenacetin		<8							
Phenanthrene		<8							
Phenol		<8							
Phorate		<.4							
Pronamide		<8							
Propionitrile		<10							
Pyrene		<8							
Safrole		<8							
Selenium, total	<4.0	<4.0	6.8	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total		<1							
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2
Thionazin		<.4							
Tin, total		<20							
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene		<.2							
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	8.7	<8.0	22.0	20.3	16.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 12

Analytical Data Summary for MW-4

Constituents	4/6/2022
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Hexachloropropene	
Indeno(1,2,3-cd)pyrene	
Isobutanol	
Isodrin	
Isophorone	
Isosafrole	
Kepone	
Lead, total	<4
Mercury, total	
Methacrylonitrile	
Methapyrilene	
Methoxychlor	
Methyl iodide	<1
Methyl methacrylate	
Methyl methanesulfonate	
Methyl parathion	
Methylene chloride	<5
Naphthalene	
Nickel, total	<4.0
Nitrobenzene	
N-nitrosodiethylamine	
N-nitrosodimethylamine	
N-nitrosodi-n-butylamine	
N-nitroso-di-n-propylamine	
N-nitrosodiphenylamine	
N-nitrosomethylethylamine	
N-nitrosopiperidine	
N-nitrosopyrrolidine	
O,o,o-triethyl phosphorothioate	
O-toluidine	
Parathion	
P-dimethylaminoazobenzene	
Pentachlorobenzene	
Pentachloronitrobenzene (pcnb)	
Pentachlorophenol	
Phenacetin	
Phenanthrene	
Phenol	
Phorate	
Pronamide	
Propionitrile	
Pyrene	
Safrole	
Selenium, total	<4.0
Silver, total	<4
Solids, total suspended	
Styrene	<1
Sulfide, total	
Tetrachloroethene	<1
Thallium, total	<2
Thionazin	
Tin, total	
Toluene	<1
Toxaphene	
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20
Vinyl acetate	<5
Vinyl chloride	<1
Xylenes, total	<2
Zinc, total	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
(3 4)-methylphenol	ug/L		<8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L		<1						
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L		<8						
1,2,4-trichlorobenzene	ug/L		<1						
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L		<8						
1,3,5-trinitrobenzene	ug/L		<8						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<8						
1,4-dichlorobenzene	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9
1,4-naphthoquinone	ug/L		<8						
1,4-phenylenediamine	ug/L		<8						
1-naphthylamine	ug/L		<8						
2,2-dichloropropane	ug/L		<1						
2,3,4,6-tetrachlorophenol	ug/L		<8						
2,4,5-t	ug/L		<.5						
2,4,5-tp (silvex)	ug/L		<.5						
2,4,5-trichlorophenol	ug/L		<8						
2,4,6-trichlorophenol	ug/L		<8						
2,4-d	ug/L		<2						
2,4-dichlorophenol	ug/L		<8						
2,4-dimethylphenol	ug/L		<8						
2,4-dinitrophenol	ug/L		<8						
2,4-dinitrotoluene	ug/L		<8						
2,6-dichlorophenol	ug/L		<8						
2,6-dinitrotoluene	ug/L		<8						
2-acetylaminofluorene	ug/L		<8						
2-butanone	ug/L	9.6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-chloronaphthalene	ug/L		<8						
2-chlorophenol	ug/L		<8						
2-hexanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L		<8						
2-methylphenol	ug/L		<8						
2-naphthylamine	ug/L		<8						
2-nitroaniline	ug/L		<8						
2-nitrophenol	ug/L		<8						
3,3'-dichlorobenzidine	ug/L		<8						
3,3'-dimethylbenzidine	ug/L		<8						
3-methylcholanthrene	ug/L		<8						
3-nitroaniline	ug/L		<8						
4,4'-ddd	ug/L		<.05						
4,4'-dde	ug/L		<.05						
4,4'-ddt	ug/L		<.05						
4,6-dinitro-2-methylphenol	ug/L		<8						
4-aminobiphenyl	ug/L		<8						
4-bromophenyl phenyl ether	ug/L		<8						
4-chloro-3-methylphenol	ug/L		<8						
4-chloroaniline	ug/L		<8						
4-chlorophenyl phenyl ether	ug/L		<8						
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline	ug/L		<8						
4-nitrophenol	ug/L		<8						
5-nitro-o-toluidine	ug/L		<8						
7,12-dimethylbenz(a)anthracene	ug/L		<8						
Acenaphthene	ug/L		<8						
Acenaphthylene	ug/L		<8						
Acetone	ug/L	32.4	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<8						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		<.05						
Anthracene	ug/L		<8						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
(3 4)-methylphenol					<8				
1,1,1,2-tetrachloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene		<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene					<1				
1,2,3-trichloropropane		<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene					<8				
1,2,4-trichlorobenzene					<1				
1,2-dibromo-3-chloropropane		<1	<1	<1	<1	<5	<5	<5	<5
1,2-dibromoethane		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane		<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene					<8				
1,3,5-trinitrobenzene					<8				
1,3-dichlorobenzene					<1				
1,3-dichloropropane					<1				
1,3-dinitrobenzene					<8				
1,4-dichlorobenzene	<1.0	<1.0	<1.0	<1.0	6.4	<1.0	<1.0	2.4	1.9
1,4-naphthoquinone					<8				
1,4-phenylenediamine					<8				
1-naphthylamine					<8				
2,2-dichloropropane					<1				
2,3,4,6-tetrachlorophenol					<8				
2,4,5-t					<5				
2,4,5-tp (silvex)					<5				
2,4,5-trichlorophenol					<8				
2,4,6-trichlorophenol					<8				
2,4-d					<2				
2,4-dichlorophenol					<8				
2,4-dimethylphenol					<8				
2,4-dinitrophenol					<8				
2,4-dinitrotoluene					<8				
2,6-dichlorophenol					<8				
2,6-dinitrotoluene					<8				
2-acetylaminofluorene					<8				
2-butanone	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-chloronaphthalene					<8				
2-chlorophenol					<8				
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene					<8				
2-methylphenol					<8				
2-naphthylamine					<8				
2-nitroaniline					<8				
2-nitrophenol					<8				
3,3'-dichlorobenzidine					<8				
3,3'-dimethylbenzidine					<8				
3-methylcholanthrene					<8				
3-nitroaniline					<8				
4,4'-ddd					<.05				
4,4'-dde					<.05				
4,4'-ddt					<.05				
4,6-dinitro-2-methylphenol					<8				
4-aminobiphenyl					<8				
4-bromophenyl phenyl ether					<8				
4-chloro-3-methylphenol					<8				
4-chloroaniline					<8				
4-chlorophenyl phenyl ether					<8				
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline					<8				
4-nitrophenol					<8				
5-nitro-o-toluidine					<8				
7,12-dimethylbenz(a)anthracene					<8				
Acenaphthene					<8				
Acenaphthylene					<8				
Acetone	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Acetonitrile					<10				
Acetophenone					<8				
Acrolein					<10				
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin					<.05				
Allyl chloride					<1				
Alpha-bhc					<.05				
Anthracene					<8				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	4/6/2022
(3 4)-methylphenol	
1,1,1,2-tetrachloroethane	<1
1,1,1-trichloroethane	<1
1,1,2,2-tetrachloroethane	<1
1,1,2-trichloroethane	<1
1,1-dichloroethane	<1
1,1-dichloroethene	<1
1,1-dichloropropene	
1,2,3-trichloropropane	<1
1,2,4,5-tetrachlorobenzene	
1,2,4-trichlorobenzene	
1,2-dibromo-3-chloropropane	<5
1,2-dibromoethane	<1
1,2-dichlorobenzene	<1
1,2-dichloroethane	<1
1,2-dichloropropane	<1
1,2-dinitrobenzene	
1,3,5-trinitrobenzene	
1,3-dichlorobenzene	
1,3-dichloropropane	
1,3-dinitrobenzene	
1,4-dichlorobenzene	<1.0
1,4-naphthoquinone	
1,4-phenylenediamine	
1-naphthylamine	
2,2-dichloropropane	
2,3,4,6-tetrachlorophenol	
2,4,5-t	
2,4,5-tp (silvex)	
2,4,5-trichlorophenol	
2,4,6-trichlorophenol	
2,4-d	
2,4-dichlorophenol	
2,4-dimethylphenol	
2,4-dinitrophenol	
2,4-dinitrotoluene	
2,6-dichlorophenol	
2,6-dinitrotoluene	
2-acetylaminofluorene	
2-butanone	<10.0
2-chloronaphthalene	
2-chlorophenol	
2-hexanone	<5
2-methylnaphthalene	
2-methylphenol	
2-naphthylamine	
2-nitroaniline	
2-nitrophenol	
3,3'-dichlorobenzidine	
3,3'-dimethylbenzidine	
3-methylcholanthrene	
3-nitroaniline	
4,4'-ddd	
4,4'-dde	
4,4'-ddt	
4,6-dinitro-2-methylphenol	
4-aminobiphenyl	
4-bromophenyl phenyl ether	
4-chloro-3-methylphenol	
4-chloroaniline	
4-chlorophenyl phenyl ether	
4-methyl-2-pentanone	<5
4-nitroaniline	
4-nitrophenol	
5-nitro-o-toluidine	
7,12-dimethylbenz(a)anthracene	
Acenaphthene	
Acenaphthylene	
Acetone	<10.0
Acetonitrile	
Acetophenone	
Acrolein	
Acrylonitrile	<5
Aldrin	
Allyl chloride	
Alpha-bhc	
Anthracene	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Antimony, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016	ug/L		<.1						
Arochlor 1221	ug/L		<.2						
Arochlor 1232	ug/L		<.2						
Arochlor 1242	ug/L		<.2						
Arochlor 1248	ug/L		<.2						
Arochlor 1254	ug/L		<.1						
Arochlor 1260	ug/L		<.1						
Arsenic, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Azobenzene	ug/L		<8						
Barium, total	ug/L	386.0	252.0	319.0	94.4	80.8	79.9	79.7	275.0
Benzene	ug/L	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<8						
Benzo(a)pyrene	ug/L		<8						
Benzo(b)fluoranthene	ug/L		<8						
Benzo(g,h,i)perylene	ug/L		<8						
Benzo(k)fluoranthene	ug/L		<8						
Benzyl alcohol	ug/L		<8						
Beryllium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc	ug/L		<.05						
Bis (2-chloroethoxy) methane	ug/L		<8						
Bis(2-chloroethyl) ether	ug/L		<8						
Bis(2-chloroisopropyl) ether	ug/L		<8						
Bis(2-ethylhexyl) phthalate	ug/L		<8						
Bromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L		<8						
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane	ug/L		<.1						
Chlorobenzene	ug/L	7.3	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	15.7
Chlorobenzilate	ug/L		<8						
Chloroethane	ug/L	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene	ug/L		<8						
Cis-1,2-dichloroethene	ug/L	2.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	ug/L	9.6	5.4	19.1	1.5	<.8	<.8	<.8	8.2
Copper, total	ug/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L		<.005						
Delta-bhc	ug/L		<.05						
Diallate	ug/L		<8						
Dibenzo(a,h)anthracene	ug/L		<8						
Dibenzofuran	ug/L		<8						
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L		<1						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<8						
Dimethoate	ug/L		<.4	<.4	<.4				
Dimethylphthalate	ug/L		<8						
Di-n-butyl phthalate	ug/L		<8						
Di-n-octyl phthalate	ug/L		<8						
Dinoseb	ug/L		<.5						
Diphenylamine	ug/L		<8						
Disulfoton	ug/L		<.4	<.4	<.4				
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Ethyl methacrylate	ug/L		<10						
Ethyl methanesulfonate	ug/L		<8						
Ethylbenzene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Famphur	ug/L		<.4	<.4	<.4				
Fluoranthene	ug/L		<8						
Fluorene	ug/L		<8						
Gamma-bhc (lindane)	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<.05						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Antimony, total		<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016					<.1				
Arochlor 1221					<.2				
Arochlor 1232					<.2				
Arochlor 1242					<.2				
Arochlor 1248					<.2				
Arochlor 1254					<.1				
Arochlor 1260					<.1				
Arsenic, total		<4	<4	<4	<4	<4	<4	<4	<4
Azobenzene					<8				
Barium, total		103.0	78.2	93.5	259.0	98.5	143.0	432.0	215.0
Benzene		<1.0	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene					<8				
Benzo(a)pyrene					<8				
Benzo(b)fluoranthene					<8				
Benzo(g,h,i)perylene					<8				
Benzo(k)fluoranthene					<8				
Benzyl alcohol					<8				
Beryllium, total		<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc					<.05				
Bis (2-chloroethoxy) methane					<8				
Bis(2-chloroethyl) ether					<8				
Bis(2-chloroisopropyl) ether					<8				
Bis(2-ethylhexyl) phthalate					<6				
Bromochloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Bromoform		<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane		<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate					<8				
Cadmium, total		<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide		<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride		<1	<1	<1	<1	<1	<1	<1	<1
Chlordane					<.1				
Chlorobenzene	1.6	1.4	2.6	9.8	33.4	<1.0	3.4	12.1	7.3
Chlorobenzilate					<8				
Chloroethane		<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0
Chloroform		<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene					<1				
Chromium, total		<8	<8	<8	<8	<8	<8	<8	<8
Chrysene					<8				
Cis-1,2-dichloroethene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene		<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total		.9	<.8	<.8	4.1	<.4	1.1	16.5	6.0
Copper, total		<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	5.2
Cyanide, total					<.005				
Delta-bhc					<.05				
Diallate					<8				
Dibenzo(a,h)anthracene					<8				
Dibenzofuran					<8				
Dibromochloromethane		<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane		<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane					<1				
Dieldrin					<.05				
Diethyl phthalate					<8				
Dimethoate		<.4							
Dimethylphthalate					<8				
Di-n-butyl phthalate					<8				
Di-n-octyl phthalate					<8				
Dinoseb					<.5				
Diphenylamine					<8				
Disulfoton		<.4							
Endosulfan i					<.05				
Endosulfan ii					<.05				
Endosulfan sulfate					<.05				
Endrin					<.05				
Endrin aldehyde					<.05				
Ethyl methacrylate					<10				
Ethyl methanesulfonate					<8				
Ethylbenzene		<1	<1	<1	<1	<1	<1	<1	<1
Famphur		<.4							
Fluoranthene					<8				
Fluorene					<8				
Gamma-bhc (lindane)					<.05				
Heptachlor					<.05				
Heptachlor epoxide					<.05				
Hexachlorobenzene					<.05				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	4/6/2022
Antimony, total	<2
Arochlor 1016	
Arochlor 1221	
Arochlor 1232	
Arochlor 1242	
Arochlor 1248	
Arochlor 1254	
Arochlor 1260	
Arsenic, total	<4
Azobenzene	
Barium, total	121.0
Benzene	<1.0
Benzo(a)anthracene	
Benzo(a)pyrene	
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Benzyl alcohol	
Beryllium, total	<4
Beta-bhc	
Bis (2-chloroethoxy) methane	
Bis(2-chloroethyl) ether	
Bis(2-chloroisopropyl) ether	
Bis(2-ethylhexyl) phthalate	
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
Butyl benzyl phthalate	
Cadmium, total	<.8
Carbon disulfide	<1
Carbon tetrachloride	<1
Chlordane	
Chlorobenzene	<1.0
Chlorobenzilate	
Chloroethane	<1.0
Chloroform	<1
Chloromethane	<1
Chloroprene	
Chromium, total	<8
Chrysene	
Cis-1,2-dichloroethene	<1.0
Cis-1,3-dichloropropene	<1
Cobalt, total	.5
Copper, total	<4.0
Cyanide, total	
Delta-bhc	
Diallate	
Dibenzo(a,h)anthracene	
Dibenzofuran	
Dibromochloromethane	<1
Dibromomethane	<1
Dichlorodifluoromethane	
Dieldrin	
Diethyl phthalate	
Dimethoate	
Dimethylphthalate	
Di-n-butyl phthalate	
Di-n-octyl phthalate	
Dinoseb	
Diphenylamine	
Disulfoton	
Endosulfan i	
Endosulfan ii	
Endosulfan sulfate	
Endrin	
Endrin aldehyde	
Ethyl methacrylate	
Ethyl methanesulfonate	
Ethylbenzene	<1
Famphur	
Fluoranthene	
Fluorene	
Gamma-bhc (lindane)	
Heptachlor	
Heptachlor epoxide	
Hexachlorobenzene	

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	Units	4/24/2014	10/15/2014	4/1/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017	10/18/2017
Hexachlorobutadiene	ug/L		<.8						
Hexachlorocyclopentadiene	ug/L		<.8						
Hexachloroethane	ug/L		<.8						
Hexachloropropene	ug/L		<.8						
Indeno(1,2,3-cd)pyrene	ug/L		<.8						
Isobutanol	mg/L		<1						
Isodrin	ug/L		<.8						
Isophorone	ug/L		<.8						
Isosafrole	ug/L		<.8						
Kepone	ug/L		<.8						
Lead, total	ug/L	<4	<.4	<4	<4	<4	<4	<4	<4
Mercury, total	ug/L		<.5						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<.8						
Methoxychlor	ug/L		<.05						
Methyl iodide	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate	ug/L		<.1						
Methyl methanesulfonate	ug/L		<.8						
Methyl parathion	ug/L		<.4	<.4	<.4				
Methylene chloride	ug/L	<5	<.5	<5	<5	<5	<5	<5	<5
Naphthalene	ug/L		<.8						
Nickel, total	ug/L	19.1	14.6	19.7	10.8	<4.0	<4.0	<4.0	19.9
Nitrobenzene	ug/L		<.8						
N-nitrosodiethylamine	ug/L		<.8						
N-nitrosodimethylamine	ug/L		<.8						
N-nitrosodi-n-butylamine	ug/L		<.8						
N-nitroso-di-n-propylamine	ug/L		<.8						
N-nitrosodiphenylamine	ug/L		<.8						
N-nitrosomethylethylamine	ug/L		<.8						
N-nitrosopiperidine	ug/L		<.8						
N-nitrosopyrrolidine	ug/L		<.8						
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4	<.4				
O-toluidine	ug/L		<.8						
Parathion	ug/L		<.4	<.4	<.4				
P-dimethylaminoazobenzene	ug/L		<.8						
Pentachlorobenzene	ug/L		<.8						
Pentachloronitrobenzene (pcnb)	ug/L		<.8						
Pentachlorophenol	ug/L		<.8						
Phenacetin	ug/L		<.8						
Phenanthrene	ug/L		<.8						
Phenol	ug/L		<.8						
Phorate	ug/L		<.4	<.4	<.4				
Pronamide	ug/L		<.8						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<.8						
Safrole	ug/L		<.8						
Selenium, total	ug/L	<4.0	<4.0	<4.0	<4.0	4.5	4.5	5.2	<4.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended	mg/L		302	108					
Styrene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total	mg/L		<.1						
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	ug/L	<4	<4	<4	<4	<4	<4	<4	<4
Thionazin	ug/L		.7	<.4	<.4	<.4	<.4	<.4	<.4
Tin, total	ug/L		<20						
Toluene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene	ug/L		<.2						
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total	ug/L	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	ug/L	<8.0	<8.0	<8.0	<8.0	16.5	<8.0	<8.0	9.5

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	1/12/2018	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Hexachlorobutadiene					<8				
Hexachlorocyclopentadiene					<8				
Hexachloroethane					<8				
Hexachloropropene					<8				
Indeno(1,2,3-cd)pyrene					<8				
Isobutanol					<1				
Isodrin					<8				
Isophorone					<8				
Isosafrole					<8				
Kepone					<8				
Lead, total		<4	<4	<4	<4	<4	<4	<4	<4
Mercury, total					<.5				
Methacrylonitrile					<1				
Methapyrilene					<8				
Methoxychlor					<.05				
Methyl iodide		<1	<1	<1	<1	<1	<1	<1	<1
Methyl methacrylate					<1				
Methyl methanesulfonate					<8				
Methyl parathion		<.4							
Methylene chloride		<5	<5	<5	<5	<5	<5	<5	<5
Naphthalene					<8				
Nickel, total	15.9	4.1	<4.0	<4.0	17.9	<4.0	7.8	39.4	16.8
Nitrobenzene					<8				
N-nitrosodiethylamine					<8				
N-nitrosodimethylamine					<8				
N-nitrosodi-n-butylamine					<8				
N-nitroso-di-n-propylamine					<8				
N-nitrosodiphenylamine					<8				
N-nitrosomethylethylamine					<8				
N-nitrosopiperidine					<8				
N-nitrosopyrrolidine					<8				
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine					<8				
Parathion		<.4							
P-dimethylaminoazobenzene					<8				
Pentachlorobenzene					<8				
Pentachloronitrobenzene (pcnb)					<8				
Pentachlorophenol					<8				
Phenacetin					<8				
Phenanthrene					<8				
Phenol					<8				
Phorate		<.4			<.4				
Pronamide					<8				
Propionitrile					<10				
Pyrene					<8				
Safrole					<8				
Selenium, total		<4.0	6.5	<4.0	<4.0	4.5	4.6	<4.0	<4.0
Silver, total		<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene		<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total					<.1				
Tetrachloroethene		<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total		<4	<4	<2	<2	<2	<2	<2	<2
Thionazin		<.4	<.4	<.4	<.4				
Tin, total					<20				
Toluene		<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene					<.2				
Trans-1,2-dichloroethene		<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene		<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene		<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene		<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane		<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total		<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate		<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes, total		<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total		<8.0	13.8	<8.0	18.4	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 13

Analytical Data Summary for MW-5

Constituents	4/6/2022
Hexachlorobutadiene	
Hexachlorocyclopentadiene	
Hexachloroethane	
Hexachloropropene	
Indeno(1,2,3-cd)pyrene	
Isobutanol	
Isodrin	
Isophorone	
Isosafrole	
Kepone	
Lead, total	<4
Mercury, total	
Methacrylonitrile	
Methapyrilene	
Methoxychlor	
Methyl iodide	<1
Methyl methacrylate	
Methyl methanesulfonate	
Methyl parathion	
Methylene chloride	<5
Naphthalene	
Nickel, total	7.0
Nitrobenzene	
N-nitrosodiethylamine	
N-nitrosodimethylamine	
N-nitrosodi-n-butylamine	
N-nitroso-di-n-propylamine	
N-nitrosodiphenylamine	
N-nitrosomethylethylamine	
N-nitrosopiperidine	
N-nitrosopyrrolidine	
O,o,o-triethyl phosphorothioate	
O-toluidine	
Parathion	
P-dimethylaminoazobenzene	
Pentachlorobenzene	
Pentachloronitrobenzene (pcnb)	
Pentachlorophenol	
Phenacetin	
Phenanthrene	
Phenol	
Phorate	
Pronamide	
Propionitrile	
Pyrene	
Safrole	
Selenium, total	<4.0
Silver, total	<4
Solids, total suspended	
Styrene	<1
Sulfide, total	
Tetrachloroethene	<1
Thallium, total	<2
Thionazin	
Tin, total	
Toluene	<1
Toxaphene	
Trans-1,2-dichloroethene	<1
Trans-1,3-dichloropropene	<1
Trans-1,4-dichloro-2-butene	<5
Trichloroethene	<1
Trichlorofluoromethane	<1
Vanadium, total	<20
Vinyl acetate	<5
Vinyl chloride	<1.0
Xylenes, total	<2
Zinc, total	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
(3 4)-methylphenol	ug/L		<.8						
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
1,1-dichloropropene	ug/L		<1						
1,2,3-trichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L		<.8						
1,2,4-trichlorobenzene	ug/L		<1						
1,2-dibromo-3-chloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dibromoethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1		<1	<1	<1	<1
1,2-dinitrobenzene	ug/L		<.8						
1,3,5-trinitrobenzene	ug/L		<.8						
1,3-dichlorobenzene	ug/L		<1						
1,3-dichloropropane	ug/L		<1						
1,3-dinitrobenzene	ug/L		<.8						
1,4-dichlorobenzene	ug/L	1.4	<1.0	<1.0		1.2	<1.0	1.3	<1.0
1,4-naphthoquinone	ug/L		<.8						
1,4-phenylenediamine	ug/L		<.8						
1-naphthylamine	ug/L		<.8						
2,2-dichloropropane	ug/L		<1						
2,3,4,6-tetrachlorophenol	ug/L		<.8						
2,4,5-t	ug/L		<.5						
2,4,5-tp (silvex)	ug/L		<.5						
2,4,5-trichlorophenol	ug/L		<.8						
2,4,6-trichlorophenol	ug/L		<.8						
2,4-d	ug/L		<.2						
2,4-dichlorophenol	ug/L		<.8						
2,4-dimethylphenol	ug/L		<.8						
2,4-dinitrophenol	ug/L		<.8						
2,4-dinitrotoluene	ug/L		<.8						
2,6-dichlorophenol	ug/L		<.8						
2,6-dinitrotoluene	ug/L		<.8						
2-acetylaminofluorene	ug/L		<.8						
2-butanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
2-chloronaphthalene	ug/L		<.8						
2-chlorophenol	ug/L		<.8						
2-hexanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
2-methylnaphthalene	ug/L		<.8						
2-methylphenol	ug/L		<.8						
2-naphthylamine	ug/L		<.8						
2-nitroaniline	ug/L		<.8						
2-nitrophenol	ug/L		<.8						
3,3'-dichlorobenzidine	ug/L		<.8						
3,3'-dimethylbenzidine	ug/L		<.8						
3-methylcholanthrene	ug/L		<.8						
3-nitroaniline	ug/L		<.8						
4,4'-ddd	ug/L		<.05						
4,4'-dde	ug/L		<.05						
4,4'-ddt	ug/L		<.05						
4,6-dinitro-2-methylphenol	ug/L		<.8						
4-aminobiphenyl	ug/L		<.8						
4-bromophenyl phenyl ether	ug/L		<.8						
4-chloro-3-methylphenol	ug/L		<.8						
4-chloroaniline	ug/L		<.8						
4-chlorophenyl phenyl ether	ug/L		<.8						
4-methyl-2-pentanone	ug/L	<5	<.5	<5		<5	<5	<5	<5
4-nitroaniline	ug/L		<.8						
4-nitrophenol	ug/L		<.8						
5-nitro-o-toluidine	ug/L		<.8						
7,12-dimethylbenz(a)anthracene	ug/L		<.8						
Acenaphthene	ug/L		<.8						
Acenaphthylene	ug/L		<.8						
Acetone	ug/L	<10	<10	<10		<10	<10	<10	<10
Acetonitrile	ug/L		<10						
Acetophenone	ug/L		<.8						
Acrolein	ug/L		<10						
Acrylonitrile	ug/L	<5	<.5	<5		<5	<5	<5	<5
Aldrin	ug/L		<.05						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		<.05						
Anthracene	ug/L		<.8						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
(3 4)-methylphenol					<8				
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-dichloropropene					<1				
1,2,3-trichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene					<8				
1,2,4-trichlorobenzene					<1				
1,2-dibromo-3-chloropropane	<1	<1	<1	<1	<1	<5	<5	<5	<5
1,2-dibromoethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dichloropropane	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-dinitrobenzene					<8				
1,3,5-trinitrobenzene					<8				
1,3-dichlorobenzene					<1				
1,3-dichloropropane					<1				
1,3-dinitrobenzene					<8				
1,4-dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1
1,4-naphthoquinone					<8				
1,4-phenylenediamine					<8				
1-naphthylamine					<8				
2,2-dichloropropane					<1				
2,3,4,6-tetrachlorophenol					<8				
2,4,5-t					<5				
2,4,5-tp (silvex)					<5				
2,4,5-trichlorophenol					<8				
2,4,6-trichlorophenol					<8				
2,4-d					<2				
2,4-dichlorophenol					<8				
2,4-dimethylphenol					<8				
2,4-dinitrophenol					<8				
2,4-dinitrotoluene					<8				
2,6-dichlorophenol					<8				
2,6-dinitrotoluene					<8				
2-acetylaminofluorene					<8				
2-butanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-chloronaphthalene					<8				
2-chlorophenol					<8				
2-hexanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-methylnaphthalene					<8				
2-methylphenol					<8				
2-naphthylamine					<8				
2-nitroaniline					<8				
2-nitrophenol					<8				
3,3'-dichlorobenzidine					<8				
3,3'-dimethylbenzidine					<8				
3-methylcholanthrene					<8				
3-nitroaniline					<8				
4,4'-ddd					<.05				
4,4'-dde					<.05				
4,4'-ddt					<.05				
4,6-dinitro-2-methylphenol					<8				
4-aminobiphenyl					<8				
4-bromophenyl phenyl ether					<8				
4-chloro-3-methylphenol					<8				
4-chloroaniline					<8				
4-chlorophenyl phenyl ether					<8				
4-methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-nitroaniline					<8				
4-nitrophenol					<8				
5-nitro-o-toluidine					<8				
7,12-dimethylbenz(a)anthracene					<8				
Acenaphthene					<8				
Acenaphthylene					<8				
Acetone	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetonitrile					<10				
Acetophenone					<8				
Acrolein					<10				
Acrylonitrile	<5	<5	<5	<5	<5	<5	<5	<5	<5
Aldrin					<.05				
Allyl chloride					<1				
Alpha-bhc					<.05				
Anthracene					<8				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	4/6/2022	10/4/2023
(3 4)-methylphenol		
1,1,1,2-tetrachloroethane	<1	<1
1,1,1-trichloroethane	<1	<1
1,1,2,2-tetrachloroethane	<1	<1
1,1,2-trichloroethane	<1	<1
1,1-dichloroethane	<1	<1
1,1-dichloroethene	<1	<1
1,1-dichloropropene		
1,2,3-trichloropropane	<1	<1
1,2,4,5-tetrachlorobenzene		
1,2,4-trichlorobenzene		
1,2-dibromo-3-chloropropane	<5	<5
1,2-dibromoethane	<1	<1
1,2-dichlorobenzene	<1	<1
1,2-dichloroethane	<1	<1
1,2-dichloropropane	<1	<1
1,2-dinitrobenzene		
1,3,5-trinitrobenzene		
1,3-dichlorobenzene		
1,3-dichloropropane		
1,3-dinitrobenzene		
1,4-dichlorobenzene	1.2	1.4
1,4-naphthoquinone		
1,4-phenylenediamine		
1-naphthylamine		
2,2-dichloropropane		
2,3,4,6-tetrachlorophenol		
2,4,5-t		
2,4,5-tp (silvex)		
2,4,5-trichlorophenol		
2,4,6-trichlorophenol		
2,4-d		
2,4-dichlorophenol		
2,4-dimethylphenol		
2,4-dinitrophenol		
2,4-dinitrotoluene		
2,6-dichlorophenol		
2,6-dinitrotoluene		
2-acetylaminofluorene		
2-butanone	<10	<10
2-chloronaphthalene		
2-chlorophenol		
2-hexanone	<5	<5
2-methylnaphthalene		
2-methylphenol		
2-naphthylamine		
2-nitroaniline		
2-nitrophenol		
3,3'-dichlorobenzidine		
3,3'-dimethylbenzidine		
3-methylcholanthrene		
3-nitroaniline		
4,4'-ddd		
4,4'-dde		
4,4'-ddt		
4,6-dinitro-2-methylphenol		
4-aminobiphenyl		
4-bromophenyl phenyl ether		
4-chloro-3-methylphenol		
4-chloroaniline		
4-chlorophenyl phenyl ether		
4-methyl-2-pentanone	<5	<5
4-nitroaniline		
4-nitrophenol		
5-nitro-o-toluidine		
7,12-dimethylbenz(a)anthracene		
Acenaphthene		
Acenaphthylene		
Acetone	<10	<10
Acetonitrile		
Acetophenone		
Acrolein		
Acrylonitrile	<5	<5
Aldrin		
Allyl chloride		
Alpha-bhc		
Anthracene		

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
Antimony, total	ug/L	<2	<2	<2		<2	<2	<2	<2
Arochlor 1016	ug/L		<.1						
Arochlor 1221	ug/L		<.2						
Arochlor 1232	ug/L		<.2						
Arochlor 1242	ug/L		<.2						
Arochlor 1248	ug/L		<.2						
Arochlor 1254	ug/L		<.1						
Arochlor 1260	ug/L		<.1						
Arsenic, total	ug/L	<4.0	5.4	<4.0		5.0	14.9	<4.0	<4.0
Azobenzene	ug/L		<8						
Barium, total	ug/L	522	651	742	789	862	932	652	917
Benzene	ug/L	1.4	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/L		<8						
Benzo(a)pyrene	ug/L		<8						
Benzo(b)fluoranthene	ug/L		<8						
Benzo(g,h,i)perylene	ug/L		<8						
Benzo(k)fluoranthene	ug/L		<8						
Benzyl alcohol	ug/L		<8						
Beryllium, total	ug/L	<4	<4	<4		<4	<4	<4	<4
Beta-bhc	ug/L		<.05						
Bis (2-chloroethoxy) methane	ug/L		<8						
Bis(2-chloroethyl) ether	ug/L		<8						
Bis(2-chloroisopropyl) ether	ug/L		<8						
Bis(2-ethylhexyl) phthalate	ug/L	<10	<8	<10		<10	<10	<10	<10
Bromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1		<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Butyl benzyl phthalate	ug/L		<8						
Cadmium, total	ug/L	1.1	.9	<.8		<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1		<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1		<1	<1	<1	<1
Chlordane	ug/L		<.1						
Chlorobenzene	ug/L	6.2	3.8	<1.0		5.4	<1.0	5.9	2.6
Chlorobenzilate	ug/L		<8						
Chloroethane	ug/L	1.1	<1.0	<1.0		1.1	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1		<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Chloroprene	ug/L		<1						
Chromium, total	ug/L	<8	<8	<8		<8	<8	<8	<8
Chrysene	ug/L		<8						
Cis-1,2-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1
Cobalt, total	ug/L	<4.0	5.3	6.1		6.3	9.0	7.1	10.1
Copper, total	ug/L	<4.0	<4.0	<4.0		<4.0	<4.0	<4.0	<4.0
Cyanide, total	mg/L		<.005						
Delta-bhc	ug/L		<.05						
Diallate	ug/L		<8						
Dibenzo(a,h)anthracene	ug/L		<8						
Dibenzofuran	ug/L		<8						
Dibromochloromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Dichlorodifluoromethane	ug/L		<1						
Dieldrin	ug/L		<.05						
Diethyl phthalate	ug/L		<8						
Dimethoate	ug/L		<.4	<.4		<.4			
Dimethylphthalate	ug/L		<8						
Di-n-butyl phthalate	ug/L		<8						
Di-n-octyl phthalate	ug/L		<8						
Dinoseb	ug/L		<.5						
Diphenylamine	ug/L		<8						
Disulfoton	ug/L		<.4	<.4		<.4			
Endosulfan i	ug/L		<.05						
Endosulfan ii	ug/L		<.05						
Endosulfan sulfate	ug/L		<.05						
Endrin	ug/L		<.05						
Endrin aldehyde	ug/L		<.05						
Ethyl methacrylate	ug/L		<10						
Ethyl methanesulfonate	ug/L		<8						
Ethylbenzene	ug/L	<1	<1	<1		<1	<1	<1	<1
Famphur	ug/L		<.4	<.4		<.4			
Fluoranthene	ug/L		<8						
Fluorene	ug/L		<8						
Gamma-bhc (lindane)	ug/L		<.05						
Heptachlor	ug/L		<.05						
Heptachlor epoxide	ug/L		<.05						
Hexachlorobenzene	ug/L		<.05						

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Antimony, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Arochlor 1016					<.1				
Arochlor 1221					<.2				
Arochlor 1232					<.2				
Arochlor 1242					<.2				
Arochlor 1248					<.2				
Arochlor 1254					<.1				
Arochlor 1260					<.1				
Arsenic, total	<4.0	4.5	<4.0	<4.0	5.4	<4.0	5.9	4.8	7.8
Azobenzene					<8				
Barium, total	638	691	721	717	616	707	630	839	773
Benzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)anthracene					<8				
Benzo(a)pyrene					<8				
Benzo(b)fluoranthene					<8				
Benzo(g,h,i)perylene					<8				
Benzo(k)fluoranthene					<8				
Benzyl alcohol					<8				
Beryllium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Beta-bhc					<.05				
Bis (2-chloroethoxy) methane					<8				
Bis(2-chloroethyl) ether					<8				
Bis(2-chloroisopropyl) ether					<8				
Bis(2-ethylhexyl) phthalate		<6	<6	<6	<6				
Bromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Butyl benzyl phthalate					<8				
Cadmium, total	.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chlordane					<.1				
Chlorobenzene	3.9	<1.0	5.6	<1.0	2.4	1.4	3.0	3.6	5.4
Chlorobenzilate					<8				
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroprene					<1				
Chromium, total	<8	<8	<8	<8	<8	<8	<8	<8	<8
Chrysene					<8				
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Cobalt, total	5.8	5.9	4.8	5.1	6.2	6.6	4.0	6.6	5.6
Copper, total	<4.0	6.1	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Cyanide, total					<.005				
Delta-bhc					<.05				
Diallate					<8				
Dibenzo(a,h)anthracene					<8				
Dibenzofuran					<8				
Dibromochloromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dibromomethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dichlorodifluoromethane					<1				
Dieldrin					<.05				
Diethyl phthalate					<8				
Dimethoate		<.4							
Dimethylphthalate					<8				
Di-n-butyl phthalate					<8				
Di-n-octyl phthalate					<8				
Dinoseb					<.5				
Diphenylamine					<8				
Disulfoton		<.4							
Endosulfan i					<.05				
Endosulfan ii					<.05				
Endosulfan sulfate					<.05				
Endrin					<.05				
Endrin aldehyde					<.05				
Ethyl methacrylate					<10				
Ethyl methanesulfonate					<8				
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Famphur		<.4							
Fluoranthene					<8				
Fluorene					<8				
Gamma-bhc (lindane)					<.05				
Heptachlor					<.05				
Heptachlor epoxide					<.05				
Hexachlorobenzene					<.05				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	4/6/2022	10/4/2023
Antimony, total	<2	<2
Arochlor 1016		
Arochlor 1221		
Arochlor 1232		
Arochlor 1242		
Arochlor 1248		
Arochlor 1254		
Arochlor 1260		
Arsenic, total	17.8	16.2
Azobenzene		
Barium, total	1120	855
Benzene	<1.0	<1.0
Benzo(a)anthracene		
Benzo(a)pyrene		
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene		
Benzo(k)fluoranthene		
Benzyl alcohol		
Beryllium, total	<4	<4
Beta-bhc		
Bis (2-chloroethoxy) methane		
Bis(2-chloroethyl) ether		
Bis(2-chloroisopropyl) ether		
Bis(2-ethylhexyl) phthalate		
Bromochloromethane	<1	<1
Bromodichloromethane	<1	<1
Bromoform	<1	<1
Bromomethane	<1	<1
Butyl benzyl phthalate		
Cadmium, total	<.8	<.8
Carbon disulfide	<1	<1
Carbon tetrachloride	<1	<1
Chlordane		
Chlorobenzene	4.4	3.6
Chlorobenzilate		
Chloroethane	1.0	<1.0
Chloroform	<1	<1
Chloromethane	<1	<1
Chloroprene		
Chromium, total	<8	<8
Chrysene		
Cis-1,2-dichloroethene	<1	<1
Cis-1,3-dichloropropene	<1	<1
Cobalt, total	8.5	4.4
Copper, total	<4.0	<4.0
Cyanide, total		
Delta-bhc		
Diallate		
Dibenzo(a,h)anthracene		
Dibenzofuran		
Dibromochloromethane	<1	<1
Dibromomethane	<1	<1
Dichlorodifluoromethane		
Dieldrin		
Diethyl phthalate		
Dimethoate		
Dimethylphthalate		
Di-n-butyl phthalate		
Di-n-octyl phthalate		
Dinoseb		
Diphenylamine		
Disulfoton		
Endosulfan i		
Endosulfan ii		
Endosulfan sulfate		
Endrin		
Endrin aldehyde		
Ethyl methacrylate		
Ethyl methanesulfonate		
Ethylbenzene	<1	<1
Famphur		
Fluoranthene		
Fluorene		
Gamma-bhc (lindane)		
Heptachlor		
Heptachlor epoxide		
Hexachlorobenzene		

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	Units	4/24/2014	10/16/2014	4/1/2015	6/9/2015	10/2/2015	4/19/2016	10/10/2016	4/4/2017
Hexachlorobutadiene	ug/L		<.8						
Hexachlorocyclopentadiene	ug/L		<.8						
Hexachloroethane	ug/L		<.8						
Hexachloropropene	ug/L		<.8						
Indeno(1,2,3-cd)pyrene	ug/L		<.8						
Isobutanol	mg/L		<1						
Isodrin	ug/L		<.8						
Isophorone	ug/L		<.8						
Isosafrole	ug/L		<.8						
Kepone	ug/L		<.8						
Lead, total	ug/L	<4	<.4	<4		<4	<4	<4	<4
Mercury, total	ug/L		<.5						
Methacrylonitrile	ug/L		<1						
Methapyrilene	ug/L		<.8						
Methoxychlor	ug/L		<.05						
Methyl iodide	ug/L	<1	<1	<1		<1	<1	<1	<1
Methyl methacrylate	ug/L		<.1						
Methyl methanesulfonate	ug/L		<.8						
Methyl parathion	ug/L		<.4	<.4		<.4			
Methylene chloride	ug/L	<5	<.5	<5		<5	<5	<5	<5
Naphthalene	ug/L		<.8						
Nickel, total	ug/L	16.7	23.4	24.0		53.1	32.2	26.9	32.4
Nitrobenzene	ug/L		<.8						
N-nitrosodiethylamine	ug/L		<.8						
N-nitrosodimethylamine	ug/L		<.8						
N-nitrosodi-n-butylamine	ug/L		<.8						
N-nitroso-di-n-propylamine	ug/L		<.8						
N-nitrosodiphenylamine	ug/L		<.8						
N-nitrosomethylethylamine	ug/L		<.8						
N-nitrosopiperidine	ug/L		<.8						
N-nitrosopyrrolidine	ug/L		<.8						
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4		<.4			
O-toluidine	ug/L		<.8						
Parathion	ug/L		<.4	<.4		<.4			
P-dimethylaminoazobenzene	ug/L		<.8						
Pentachlorobenzene	ug/L		<.8						
Pentachloronitrobenzene (pcnb)	ug/L		<.8						
Pentachlorophenol	ug/L		<.8						
Phenacetin	ug/L		<.8						
Phenanthrene	ug/L		<.8						
Phenol	ug/L		<.8						
Phorate	ug/L		3.0	<.4		1.2	<.4	2.5	1.5
Pronamide	ug/L		<.8						
Propionitrile	ug/L		<10						
Pyrene	ug/L		<.8						
Safrole	ug/L		<.8						
Selenium, total	ug/L	<4	<.4	<4		<4	<4	<4	<4
Silver, total	ug/L	<4	<.4	<4		<4	<4	<4	<4
Solids, total suspended	mg/L		35	43					
Styrene	ug/L	<1	<1	<1		<1	<1	<1	<1
Sulfide, total	mg/L		<.1						
Tetrachloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Thallium, total	ug/L	<4	<.4	<4		<4	<4	<4	<4
Thionazin	ug/L		<.4	<.4		<.4			
Tin, total	ug/L		<20						
Toluene	ug/L	<1	<1	<1		<1	<1	<1	<1
Toxaphene	ug/L		<.2						
Trans-1,2-dichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<.5	<5		<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1		<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1		<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20		<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<.5	<5		<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1		<1	<1	<1	<1
Xylenes, total	ug/L	<2	<.2	<2		<2	<2	<2	<2
Zinc, total	ug/L	<8.0	13.2	<8.0		<8.0	12.5	<8.0	<8.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	10/18/2017	4/12/2018	10/23/2018	4/8/2019	10/4/2019	4/9/2020	10/1/2020	4/1/2021	10/4/2021
Hexachlorobutadiene						<8			
Hexachlorocyclopentadiene						<8			
Hexachloroethane						<8			
Hexachloropropene						<8			
Indeno(1,2,3-cd)pyrene						<8			
Isobutanol						<1			
Isodrin						<8			
Isophorone						<8			
Isosafrole						<8			
Kepone						<8			
Lead, total	<4	<4	<4	<4		<4	<4	<4	<4
Mercury, total						<.5			
Methacrylonitrile						<1			
Methapyrilene						<8			
Methoxychlor						<.05			
Methyl iodide	<1	<1	<1	<1		<1	<1	<1	<1
Methyl methacrylate						<1			
Methyl methanesulfonate						<8			
Methyl parathion		<.4							
Methylene chloride	<5	<5	<5	<5		<5	<5	<5	<5
Naphthalene						<8			
Nickel, total	25.2	25.8	23.7	24.7	20.3	22.8	17.1	22.5	21.9
Nitrobenzene						<8			
N-nitrosodiethylamine						<8			
N-nitrosodimethylamine						<8			
N-nitrosodi-n-butylamine						<8			
N-nitroso-di-n-propylamine						<8			
N-nitrosodiphenylamine						<8			
N-nitrosomethylethylamine						<8			
N-nitrosopiperidine						<8			
N-nitrosopyrrolidine						<8			
O,o,o-triethyl phosphorothioate		<.4							
O-toluidine						<8			
Parathion		<.4							
P-dimethylaminoazobenzene						<8			
Pentachlorobenzene						<8			
Pentachloronitrobenzene (pcnb)						<8			
Pentachlorophenol						<8			
Phenacetin						<8			
Phenanthrene						<8			
Phenol						<8			
Phorate	<.4	<.4	<.4	<.4		<.4			
Pronamide						<8			
Propionitrile						<10			
Pyrene						<8			
Safrole						<8			
Selenium, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Silver, total	<4	<4	<4	<4	<4	<4	<4	<4	<4
Solids, total suspended									
Styrene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sulfide, total						<.1			
Tetrachloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Thallium, total	<4	<4	<4	<2	<2	<2	<2	<2	<2
Thionazin		<.4				<.4			
Tin, total						<20			
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toxaphene						<.2			
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2	<2	<2	<2	<2
Zinc, total	8.3	<8.0	25.6	21.8	20.0	<20.0	<20.0	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Table 14

Analytical Data Summary for MW-9

Constituents	4/6/2022	10/4/2023
Hexachlorobutadiene		
Hexachlorocyclopentadiene		
Hexachloroethane		
Hexachloropropene		
Indeno(1,2,3-cd)pyrene		
Isobutanol		
Isodrin		
Isophorone		
Isosafrole		
Kepone		
Lead, total	<4	<4
Mercury, total		
Methacrylonitrile		
Methacrylone		
Methoxychlor		
Methyl iodide	<1	<1
Methyl methacrylate		
Methyl methanesulfonate		
Methyl parathion		
Methylene chloride	<5	<5
Naphthalene		
Nickel, total	30.9	19.1
Nitrobenzene		
N-nitrosodiethylamine		
N-nitrosodimethylamine		
N-nitrosodi-n-butylamine		
N-nitroso-di-n-propylamine		
N-nitrosodiphenylamine		
N-nitrosomethylethylamine		
N-nitrosopiperidine		
N-nitrosopyrrolidine		
O,o,o-triethyl phosphorothioate		
O-toluidine		
Parathion		
P-dimethylaminoazobenzene		
Pentachlorobenzene		
Pentachloronitrobenzene (pcnb)		
Pentachlorophenol		
Phenacetin		
Phenanthrene		
Phenol		
Phorate		
Pronamide		
Propionitrile		
Pyrene		
Safrole		
Selenium, total	<4	<4
Silver, total	<4	<4
Solids, total suspended		
Styrene	<1	<1
Sulfide, total		
Tetrachloroethene	<1	<1
Thallium, total	<2	<2
Thionazin		
Tin, total		
Toluene	<1	<1
Toxaphene		
Trans-1,2-dichloroethene	<1	<1
Trans-1,3-dichloropropene	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5
Trichloroethene	<1	<1
Trichlorofluoromethane	<1	<1
Vanadium, total	<20	<20
Vinyl acetate	<5	<5
Vinyl chloride	<1	<1
Xylenes, total	<2	<2
Zinc, total	<20.0	<20.0

* - The displayed value is the arithmetic mean of multiple database matches.

Appendix D
Statistical Reports

Appendix D.1 –Statistical Evaluation Report

GROUND WATER STATISTICS
FOR GRUNDY COUNTY LANDFILL

Annual Monitoring Event in 2023

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INTRODUCTION

This report summarizes the results of the statistical analysis used to evaluate the ground water quality data obtained during the annual monitoring event in 2023 at Grundy County Landfill in Grundy Center, Iowa. The statistical plan was designed to detect a release from the facility at the earliest indication so that it is protective of human health and the environment. The interwell methodology is described and then applied to the Grundy County Landfill data. The statistical plan conforms with IAC 567, Chapter 113.10, USEPA Guidance document (“*Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Unified Guidance*”, March 2009), and the American Society for Testing and Materials (ASTM) standard D6312-98, *Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs*.

Ground Water Monitoring Program

The groundwater monitoring network for Grundy County Landfill includes upgradient wells MW-15A and MW-18 and downgradient detection sample points MW-10, MW-11, MW-12, MW-13, MW-14, MW-16, MW-17, MW-19, MW-3, MW-4, MW-5, and MW-9. Each of the groundwater monitoring wells is to be sampled for now annually and analyzed for the detection monitoring parameters listed in 113.10(5), which includes 15 inorganic constituents and 47 organic compounds, summarized in Table 1 below.

Table 1: Detection monitoring constituents listed in Appendix I of IAC 567, Chapter 113.

Organic Compounds:

Acetone	<i>trans</i> -1,4-Dichloro-2-butene	Iodomethane
Acrylonitrile	1,1-Dichloroethane	4-Methyl-2-pentanone
Benzene	1,2-Dichloroethane	Styrene
Bromochloromethane	1,1-Dichloroethene	1,1,1,2-Tetrachloroethane
Bromodichloromethane	<i>cis</i> -1,2-Dichloroethene	1,1,2,2-Tetrachloroethane
Bromoform	<i>trans</i> -1,2-Dichloroethene	Tetrachloroethene
Carbon disulfide	1,2-Dichloropropane	Toluene
Carbon tetrachloride	<i>cis</i> -1,3-Dichloropropene	1,1,1-Trichloroethane
Chlorobenzene	<i>trans</i> -1,3-Dichloropropene	1,1,2-Trichloroethane
Chloroethane	Ethylbenzene	Trichloroethene
Chloroform	2-Hexanone	Trichlorofluoromethane
Dibromochloromethane	Bromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane	Chloromethane	Vinyl acetate
1,2-Dibromoethane	Dibromomethane	Vinyl chloride
1,2-Dichlorobenzene	Methylene chloride	Xylenes (Total)
1,4-Dichlorobenzene	2-Butanone	

Inorganic constituents:

Antimony, Total	Chromium, Total	Selenium, Total
Arsenic, Total	Cobalt, Total	Silver, Total
Barium, Total	Copper, Total	Thallium, Total
Beryllium, Total	Lead, Total	Vanadium, Total
Cadmium, Total	Nickel, Total	Zinc, Total

The ground water data obtained during the annual monitoring event in 2023 are summarized in Attachment A.

STATISTICAL METHODOLOGIES FOR DETECTION MONITORING

IAC 567, Chapter 113.10(4) provides several options for statistically evaluating the ground water data at those wells that monitor the open cells or contiguous MSWLF units. The preferred methods for comparing ground water data are using either prediction limits or using control charts. The prediction limit method was applied to the Grundy County Landfill data using the DUMPStat[®] statistical program. Ground water statistics are to be done on the inorganic constituents listed. The organic constituents are compared to maximum contaminant levels (MCLs) or practical quantitation limits (PQLs), in lieu of statistical comparisons to historical concentrations.

Interwell Statistics: Upgradient versus Downgradient Comparisons

Interwell statistics are appropriate when the upgradient and downgradient wells monitor the same ground water formation and there is similar variability in the upgradient and downgradient zones. Site prediction limits are determined by pooling the historical ground water data from hydraulically upgradient wells. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances. The type of prediction limit utilized (e.g., parametric or nonparametric) is based on the detection frequency and the data distribution of each parameter in the background data. The distribution of the background data is tested for normality using the Shapiro-Wilk test (Gibbons, 1994 and USEPA 1992). If the constituent is normally distributed, a normal prediction limit is used. If normality is rejected by the Shapiro-Wilk test, the background data is transformed by taking the natural logarithm. The Shapiro-Wilk test is then reapplied on the transformed data. If it is not rejected, lognormal prediction limits are used. If after transforming the data, normality is still rejected, nonparametric prediction limits are used for that analyte. The nonparametric prediction limit is the largest determination in the background measurements. For constituents where the background detection frequency is greater than 0% but less than 50%, nonparametric prediction limits will be used. If the detection frequency is 0% after thirteen samples have been collected, the practical quantitation limit (PQL) becomes the nonparametric prediction limit.

Results of the Interwell Statistics

The background data used in this statistical analysis includes the ground water data collected from ground water wells MW-15A and MW-18 during the period from October 2014 through the current data. A summary of the background data from monitoring wells MW-15A and MW-18 used to determine the site prediction limits, is listed in Attachment B, Table 1 “Upgradient Data”. This statistical method compares the current downgradient determinations to site prediction limits and checks for exceedances.

Table 2 “Most Current Downgradient Monitoring Data”, summarizes the current data from downgradient wells MW-11, MW-13, MW-14, and MW-9, compared to the site prediction limits. Prediction limit exceedances are flagged with asterisks. For the most current data, the site prediction limit exceedances detected are summarized in the Table below.

Summary of Prediction Limit Exceedances for the Annual Monitoring Event in 2023

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-13	Barium, µg/L	334	294.3691	Normal	Verified
	Nickel, µg/L	75.4	10.9000	Nonparametric	Verified
MW-14	Arsenic, µg/L	5.5	4.0000	Nonparametric	Awaiting Verification
	Barium, µg/L	843	294.3691	Normal	Verified
	Nickel, µg/L	33.8	10.9000	Nonparametric	Verified
MW-9	Arsenic, µg/L	16.2	4.0000	Nonparametric	Verified
	Barium, µg/L	855	294.3691	Normal	Verified
	Nickel, µg/L	19.1	10.9000	Nonparametric	Verified

The detection frequencies of the parameters in the up and down gradient monitoring wells are summarized in Table 3. For detection frequencies less than 50%, nonparametric site prediction limits are used for those trace metals.

Table 4 summarizes the results of the Shapiro-Wilk test. Table 5 is a summary of the statistics and prediction limits determined for the metals. Time series graphs of each of the parameters at each well with the corresponding prediction limits are attached.

A statistical power curve indicates the expected false assessments for the site as a whole. The false positive rate for interwell analyses is the percentage of failures when the upgradient versus downgradient true mean difference equals zero. False negative rate indicates the chance of missing contamination at a single well for a single constituent. The statistical power is a function of the number of wells included, the number of constituents compared, the detection frequencies, and the data distributions involved. For interwell analysis, the site-wide false positive rate is 2% and the test becomes sensitive to 3 standard deviation unit increases over background.

The verified exceedances and metals previously detected were evaluated against the ground water protection standards (GWPS) using confidence limits (Attachment C). The 95% lower confidence limit (LCL) for the mean of the historical data was used to evaluate whether the regulated unit is in compliance with the ground-water protection standards under 40 CFR 264 (e.g. whether the verified constituent is detected at a significant level above the GWPS). An exceedance is verified if the LCL is above the Regulatory GWPS.

The 95% LCL for cobalt at MW-11 (2.185 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (8.3 µg/L) is less than the site prediction limit of 11.6 µg/L.

The 95% LCL for cobalt at MW-14 (5.303 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (7.3 µg/L) is less than the site prediction limit of 11.6 µg/L.

The 95% LCL for cobalt at MW-9 (4.234 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (4.4 µg/L) is less than the site prediction limit of 11.6 µg/L.

The calculated LCLs for the remainder of the verified trace metals are below GWPS.

Volatil Organic Compounds

Volatil Organic Compounds (VOCs) are generally man-made compounds not present in ambient ground water. If VOCs are detected above their statistical limit (i.e., the laboratory PQL or reporting limit), a verification resample will be conducted at the next scheduled sampling event. A statistical exceedance will be indicated if the VOC detection is confirmed by the subsequent monitoring. VOCs detected in the ground water at Grundy County Landfill during the annual monitoring event in 2023 are summarized below. Historical VOC detections are summarized in Attachment D.

Organic compounds detected during the annual monitoring event in 2023

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-11	Bis(2-ethylhexyl)phthalate	9.0	6	Awaiting Verification	6 ^a
MW-13	1,4-Dichlorobenzene	2.6	1	Verified	75 ^a
	Chlorobenzene	1.1	1	Awaiting Verification	100 ^b
MW-9	1,4-Dichlorobenzene	1.4	1	Verified	75 ^a
	Chlorobenzene	3.6	1	Verified	100 ^b

a - USEPA MCL

b – Iowa Statewide Standard

Bis(2-ethylhexyl)phthalate was previously detected at MW-11 in April 2018. Chlorobenzene was previously detected at MW-13 in October 2018. The verified VOC detections were evaluated against the GWPS using confidence limits (Attachment E). The calculated LCLs for each of the VOCs are below GWPS.

CONCLUSIONS

This report summarizes the statistical analyses used to evaluate the ground water data obtained during the annual monitoring event in 2023 at Grundy County Landfill. The ground water data obtained during the annual monitoring event in 2023 was compared to background using prediction limits (interwell). For the most current data, there are verified site prediction limit exceedances detected for barium and nickel at MW-13, barium and nickel at MW-14, and arsenic, barium, and nickel at MW-9.

The VOCs were compared to MCLs or PQLs, in lieu of statistical comparisons to historical concentrations. There are verified detections of 1,4-dichlorobenzene at MW-13 and 1,4-dichlorobenzene and chlorobenzene at MW-9. The VOCs did not exceed GWPS.

Attachment A

Summary of the Data obtained during the Annual Monitoring Event in 2023

Table 1

Analytical Data Summary for 10/4/2023

Constituents	Units	MW-11	MW-13	MW-14	MW-15A	MW-9
(3 4)-methylphenol	ug/L	<8				
1,1,1,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1
1,1,1-trichloroethane	ug/L	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	ug/L	<1	<1	<1	<1	<1
1,1,2-trichloroethane	ug/L	<1	<1	<1	<1	<1
1,1-dichloroethane	ug/L	<1	<1	<1	<1	<1
1,1-dichloroethene	ug/L	<1	<1	<1	<1	<1
1,1-dichloropropene	ug/L	<1				
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L	<8				
1,2,4-trichlorobenzene	ug/L	<1				
1,2-dibromo-3-chloropropane	ug/L	<1	<5	<5	<5	<5
1,2-dibromoethane	ug/L	<1	<1	<1	<1	<1
1,2-dichlorobenzene	ug/L	<1	<1	<1	<1	<1
1,2-dichloroethane	ug/L	<1	<1	<1	<1	<1
1,2-dichloropropane	ug/L	<1	<1	<1	<1	<1
1,2-dinitrobenzene	ug/L	<8				
1,3,5-trinitrobenzene	ug/L	<8				
1,3-dichlorobenzene	ug/L	<1				
1,3-dichloropropane	ug/L	<1				
1,3-dinitrobenzene	ug/L	<8				
1,4-dichlorobenzene	ug/L	<1.0	2.6	<1.0	<1.0	1.4
1,4-naphthoquinone	ug/L	<8				
1,4-phenylenediamine	ug/L	<8				
1-naphthylamine	ug/L	<8				
2,2-dichloropropane	ug/L	<1				
2,3,4,6-tetrachlorophenol	ug/L	<8				
2,4,5-t	ug/L	<5				
2,4,5-tp (silvex)	ug/L	<5				
2,4,5-trichlorophenol	ug/L	<8				
2,4,6-trichlorophenol	ug/L	<8				
2,4-d	ug/L	<2				
2,4-dichlorophenol	ug/L	<8				
2,4-dimethylphenol	ug/L	<8				
2,4-dinitrophenol	ug/L	<8				
2,4-dinitrotoluene	ug/L	<8				
2,6-dichlorophenol	ug/L	<8				
2,6-dinitrotoluene	ug/L	<8				
2-acetylaminofluorene	ug/L	<8				
2-butanone	ug/L	<5	<10	<10	<10	<10
2-chloronaphthalene	ug/L	<8				
2-chlorophenol	ug/L	<8				
2-hexanone	ug/L	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L	<8				
2-methylphenol	ug/L	<8				
2-naphthylamine	ug/L	<8				
2-nitroaniline	ug/L	<8				
2-nitrophenol	ug/L	<8				
3,3'-dichlorobenzidine	ug/L	<8				
3,3'-dimethylbenzidine	ug/L	<8				
3-methylcholanthrene	ug/L	<8				
3-nitroaniline	ug/L	<8				
4,4'-ddd	ug/L	<.05				
4,4'-dde	ug/L	<.05				
4,4'-ddt	ug/L	<.05				
4,6-dinitro-2-methylphenol	ug/L	<8				
4-aminobiphenyl	ug/L	<8				
4-bromophenyl phenyl ether	ug/L	<8				
4-chloro-3-methylphenol	ug/L	<8				
4-chloroaniline	ug/L	<8				
4-chlorophenyl phenyl ether	ug/L	<8				
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5
4-nitroaniline	ug/L	<8				
4-nitrophenol	ug/L	<8				
5-nitro-o-toluidine	ug/L	<8				
7,12-dimethylbenz(a)anthracene	ug/L	<8				
Acenaphthene	ug/L	<8				
Acenaphthylene	ug/L	<8				
Acetone	ug/L	<10	<10	<10	<10	<10
Acetonitrile	ug/L	<10				
Acetophenone	ug/L	<8				
Acrolein	ug/L	<10				
Acrylonitrile	ug/L	<5	<5	<5	<5	<5
Aldrin	ug/L	<.05				
Allyl chloride	ug/L	<1				
Alpha-bhc	ug/L	<.05				
Anthracene	ug/L	<8				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/4/2023

Constituents	Units	MW-11	MW-13	MW-14	MW-15A	MW-9
Antimony, total	ug/L	<2	<2	<2	<2	<2
Arochlor 1016	ug/L	<2				
Arochlor 1221	ug/L	<2				
Arochlor 1232	ug/L	<2				
Arochlor 1242	ug/L	<2				
Arochlor 1248	ug/L	<2				
Arochlor 1254	ug/L	<2				
Arochlor 1260	ug/L	<2				
Arsenic, total	ug/L	<4.0	<4.0	5.5	<4.0	16.2
Azobenzene	ug/L	<8				
Barium, total	ug/L	243	334	843	166	855
Benzene	ug/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L	<8				
Benzo(a)pyrene	ug/L	<8				
Benzo(b)fluoranthene	ug/L	<8				
Benzo(g,h,i)perylene	ug/L	<8				
Benzo(k)fluoranthene	ug/L	<8				
Benzyl alcohol	ug/L	<8				
Beryllium, total	ug/L	<4	<4	<4	<4	<4
Beta-bhc	ug/L	<.05				
Bis (2-chloroethoxy) methane	ug/L	<8				
Bis(2-chloroethyl) ether	ug/L	<8				
Bis(2-chloroisopropyl) ether	ug/L	<8				
Bis(2-ethylhexyl) phthalate	ug/L	9				
Bromochloromethane	ug/L	<1	<1	<1	<1	<1
Bromodichloromethane	ug/L	<1	<1	<1	<1	<1
Bromoform	ug/L	<1	<1	<1	<1	<1
Bromomethane	ug/L	<1	<1	<1	<1	<1
Butyl benzyl phthalate	ug/L	<8				
Cadmium, total	ug/L	<.8	<.8	<.8	<.8	<.8
Carbon disulfide	ug/L	<1	<1	<1	<1	<1
Carbon tetrachloride	ug/L	<1	<1	<1	<1	<1
Chlordane	ug/L	<.1				
Chlorobenzene	ug/L	<1.0	1.1	<1.0	<1.0	3.6
Chlorobenzilate	ug/L	<8				
Chloroethane	ug/L	<1	<1	<1	<1	<1
Chloroform	ug/L	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1
Chloroprene	ug/L	<1				
Chromium, total	ug/L	<8	<8	<8	<8	<8
Chrysene	ug/L	<8				
Cis-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1
Cobalt, total	ug/L	8.3	10.6	7.3	<.4	4.4
Copper, total	ug/L	<4	<4	<4	<4	<4
Cyanide, total	mg/L	<.005				
Delta-bhc	ug/L	<.05				
Diallate	ug/L	<8				
Dibenzo(a,h)anthracene	ug/L	<8				
Dibenzofuran	ug/L	<8				
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L	<1				
Dieldrin	ug/L	<.05				
Diethyl phthalate	ug/L	<8				
Dimethoate	ug/L	<.4				
Dimethylphthalate	ug/L	<8				
Di-n-butyl phthalate	ug/L	<8				
Di-n-octyl phthalate	ug/L	<8				
Dinoseb	ug/L	<.5				
Diphenylamine	ug/L	<8				
Disulfoton	ug/L	<.4				
Endosulfan i	ug/L	<.05				
Endosulfan ii	ug/L	<.05				
Endosulfan sulfate	ug/L	<.05				
Endrin	ug/L	<.05				
Endrin aldehyde	ug/L	<.05				
Ethyl methacrylate	ug/L	<10				
Ethyl methanesulfonate	ug/L	<8				
Ethylbenzene	ug/L	<1	<1	<1	<1	<1
Famphur	ug/L	<.4				
Fluoranthene	ug/L	<8				
Fluorene	ug/L	<8				
Gamma-bhc (lindane)	ug/L	<.05				
Heptachlor	ug/L	<.05				
Heptachlor epoxide	ug/L	<.05				
Hexachlorobenzene	ug/L	<.05				

* - The displayed value is the arithmetic mean of multiple database matches.

Table 1

Analytical Data Summary for 10/4/2023

Constituents	Units	MW-11	MW-13	MW-14	MW-15A	MW-9
Hexachlorobutadiene	ug/L	<8				
Hexachlorocyclopentadiene	ug/L	<8				
Hexachloroethane	ug/L	<8				
Hexachloropropene	ug/L	<8				
Indeno(1,2,3-cd)pyrene	ug/L	<8				
Isobutanol	mg/L	<1				
Isodrin	ug/L	<8				
Isophorone	ug/L	<8				
Isosafrole	ug/L	<8				
Kepone	ug/L	<8				
Lead, total	ug/L	<4	<4	<4	<4	<4
Mercury, total	ug/L	<.5				
Methacrylonitrile	ug/L	<1				
Methapyrilene	ug/L	<8				
Methoxychlor	ug/L	<.05				
Methyl iodide	ug/L	<2	<1	<1	<1	<1
Methyl methacrylate	ug/L	<1				
Methyl methanesulfonate	ug/L	<8				
Methyl parathion	ug/L	<.4				
Methylene chloride	ug/L	<5	<5	<5	<5	<5
Naphthalene	ug/L	<8				
Nickel, total	ug/L	7.4	75.4	33.8	<4.0	19.1
Nitrobenzene	ug/L	<8				
N-nitrosodiethylamine	ug/L	<8				
N-nitrosodimethylamine	ug/L	<8				
N-nitrosodi-n-butylamine	ug/L	<8				
N-nitroso-di-n-propylamine	ug/L	<8				
N-nitrosodiphenylamine	ug/L	<8				
N-nitrosomethylethylamine	ug/L	<8				
N-nitrosopiperidine	ug/L	<8				
N-nitrosopyrrolidine	ug/L	<8				
O,o,o-triethyl phosphorothioate	ug/L	<.4				
O-toluidine	ug/L	<8				
Parathion	ug/L	<.4				
P-dimethylaminoazobenzene	ug/L	<8				
Pentachlorobenzene	ug/L	<8				
Pentachloronitrobenzene (pcnb)	ug/L	<8				
Pentachlorophenol	ug/L	<8				
Phenacetin	ug/L	<8				
Phenanthrene	ug/L	<8				
Phenol	ug/L	<8				
Phorate	ug/L	<.4				
Pronamide	ug/L	<8				
Propionitrile	ug/L	<10				
Pyrene	ug/L	<8				
Safrole	ug/L	<8				
Selenium, total	ug/L	<4	<4	<4	<4	<4
Silver, total	ug/L	<4	<4	<4	<4	<4
Styrene	ug/L	<1	<1	<1	<1	<1
Sulfide, total	mg/L	<.1				
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2	<2	<2	<2
Thionazin	ug/L	<.4				
Tin, total	ug/L	<20				
Toluene	ug/L	<1	<1	<1	<1	<1
Toxaphene	ug/L	<.2				
Trans-1,2-dichloroethene	ug/L	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	ug/L	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	ug/L	<5	<5	<5	<5	<5
Trichloroethene	ug/L	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	<1	<1	<1	<1	<1
Vanadium, total	ug/L	<20	<20	<20	<20	<20
Vinyl acetate	ug/L	<5	<5	<5	<5	<5
Vinyl chloride	ug/L	<1	<1	<1	<1	<1
Xylenes, total	ug/L	<2	<2	<2	<2	<2
Zinc, total	ug/L	<20	<20	<20	<20	<20

* - The displayed value is the arithmetic mean of multiple database matches.

Attachment B

Summary Tables and Graphs for the Interwell Comparisons

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Antimony, total	ug/L	MW-15A	10/15/2014	ND	2.0000	
Antimony, total	ug/L	MW-15A	01/08/2015	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/01/2015	ND	2.0000	
Antimony, total	ug/L	MW-15A	06/09/2015	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/02/2015	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/19/2016	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/10/2016	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/04/2017	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/18/2017	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/12/2018	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/23/2018		2.8000	
Antimony, total	ug/L	MW-15A	04/08/2019	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/04/2019	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/09/2020	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/01/2020	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/01/2021	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/04/2021	ND	2.0000	
Antimony, total	ug/L	MW-15A	04/06/2022	ND	2.0000	
Antimony, total	ug/L	MW-15A	10/04/2023	ND	2.0000	
Arsenic, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Arsenic, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Arsenic, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/02/2015	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Arsenic, total	ug/L	MW-15A	04/06/2022	ND	4.0000	
Arsenic, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Barium, total	ug/L	MW-15A	10/15/2014		210.0000	
Barium, total	ug/L	MW-15A	01/08/2015		154.0000	
Barium, total	ug/L	MW-15A	04/01/2015		99.4000	
Barium, total	ug/L	MW-15A	06/09/2015		157.0000	
Barium, total	ug/L	MW-15A	10/02/2015		243.0000	
Barium, total	ug/L	MW-15A	04/19/2016		185.0000	
Barium, total	ug/L	MW-15A	10/10/2016		237.0000	
Barium, total	ug/L	MW-15A	04/04/2017		199.0000	
Barium, total	ug/L	MW-15A	10/18/2017		249.0000	
Barium, total	ug/L	MW-15A	04/12/2018		190.0000	
Barium, total	ug/L	MW-15A	10/23/2018		239.0000	
Barium, total	ug/L	MW-15A	04/08/2019		212.0000	
Barium, total	ug/L	MW-15A	10/04/2019		270.0000	
Barium, total	ug/L	MW-15A	04/09/2020		205.0000	
Barium, total	ug/L	MW-15A	10/01/2020		225.0000	
Barium, total	ug/L	MW-15A	04/01/2021		154.0000	
Barium, total	ug/L	MW-15A	10/04/2021		202.0000	
Barium, total	ug/L	MW-15A	04/06/2022		289.0000	
Barium, total	ug/L	MW-15A	10/04/2023		166.0000	
Beryllium, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Beryllium, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Beryllium, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/02/2015	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Beryllium, total	ug/L	MW-15A	10/04/2021	ND	4.0000	

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Beryllium, total	ug/L	MW-15A	04/06/2022	ND	4.0000		
Beryllium, total	ug/L	MW-15A	10/04/2023	ND	4.0000		
Cadmium, total	ug/L	MW-15A	10/15/2014	ND	0.8000		
Cadmium, total	ug/L	MW-15A	01/08/2015	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/01/2015	ND	0.8000		
Cadmium, total	ug/L	MW-15A	06/09/2015	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/02/2015	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/19/2016	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/10/2016	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/04/2017		1.3000		
Cadmium, total	ug/L	MW-15A	10/18/2017	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/12/2018	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/23/2018	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/08/2019	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/04/2019	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/09/2020	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/01/2020	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/01/2021	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/04/2021	ND	0.8000		
Cadmium, total	ug/L	MW-15A	04/06/2022	ND	0.8000		
Cadmium, total	ug/L	MW-15A	10/04/2023	ND	0.8000		
Chromium, total	ug/L	MW-15A	10/15/2014	ND	8.0000		
Chromium, total	ug/L	MW-15A	01/08/2015	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/01/2015	ND	8.0000		
Chromium, total	ug/L	MW-15A	06/09/2015	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/02/2015	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/19/2016	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/10/2016	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/04/2017	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/18/2017	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/23/2018	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/08/2019	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/04/2019	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/09/2020	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/01/2020	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/01/2021	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/04/2021	ND	8.0000		
Chromium, total	ug/L	MW-15A	04/06/2022	ND	8.0000		
Chromium, total	ug/L	MW-15A	10/04/2023	ND	8.0000		
Cobalt, total	ug/L	MW-15A	10/15/2014	ND	0.8000		
Cobalt, total	ug/L	MW-15A	01/08/2015	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/01/2015	ND	0.8000		
Cobalt, total	ug/L	MW-15A	06/09/2015	ND	0.8000		
Cobalt, total	ug/L	MW-15A	10/02/2015	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/19/2016	ND	0.8000		
Cobalt, total	ug/L	MW-15A	10/10/2016	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/04/2017	ND	0.8000		
Cobalt, total	ug/L	MW-15A	10/18/2017	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-15A	10/23/2018	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/08/2019	ND	0.8000		
Cobalt, total	ug/L	MW-15A	10/04/2019	ND	0.8000		
Cobalt, total	ug/L	MW-15A	04/09/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-15A	10/01/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-15A	04/01/2021		0.5000		
Cobalt, total	ug/L	MW-15A	10/04/2021		1.7000		
Cobalt, total	ug/L	MW-15A	04/06/2022		4.7000		
Cobalt, total	ug/L	MW-15A	10/04/2023	ND	0.4000	0.8000	**
Copper, total	ug/L	MW-15A	10/15/2014	ND	4.0000		
Copper, total	ug/L	MW-15A	01/08/2015	ND	4.0000		
Copper, total	ug/L	MW-15A	04/01/2015	ND	4.0000		
Copper, total	ug/L	MW-15A	06/09/2015	ND	4.0000		
Copper, total	ug/L	MW-15A	10/02/2015	ND	4.0000		
Copper, total	ug/L	MW-15A	04/19/2016	ND	4.0000		
Copper, total	ug/L	MW-15A	10/10/2016	ND	4.0000		
Copper, total	ug/L	MW-15A	04/04/2017	ND	4.0000		
Copper, total	ug/L	MW-15A	10/18/2017	ND	4.0000		
Copper, total	ug/L	MW-15A	04/12/2018	ND	4.0000		
Copper, total	ug/L	MW-15A	10/23/2018	ND	4.0000		
Copper, total	ug/L	MW-15A	04/08/2019	ND	4.0000		
Copper, total	ug/L	MW-15A	10/04/2019	ND	4.0000		
Copper, total	ug/L	MW-15A	04/09/2020	ND	4.0000		
Copper, total	ug/L	MW-15A	10/01/2020		4.1000		

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Copper, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Copper, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Copper, total	ug/L	MW-15A	04/06/2022	ND	4.0000	
Copper, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Lead, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Lead, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Lead, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Lead, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Lead, total	ug/L	MW-15A	10/02/2015	ND	4.0000	
Lead, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Lead, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Lead, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Lead, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Lead, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Lead, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Lead, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Lead, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Lead, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Lead, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Lead, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Lead, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Lead, total	ug/L	MW-15A	04/06/2022	ND	4.0000	
Lead, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Nickel, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Nickel, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/02/2015		9.4000	
Nickel, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Nickel, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Nickel, total	ug/L	MW-15A	04/06/2022		8.2000	
Nickel, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Selenium, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Selenium, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/02/2015	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/06/2022	ND	4.0000	
Selenium, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Silver, total	ug/L	MW-15A	10/15/2014	ND	4.0000	
Silver, total	ug/L	MW-15A	01/08/2015	ND	4.0000	
Silver, total	ug/L	MW-15A	04/01/2015	ND	4.0000	
Silver, total	ug/L	MW-15A	06/09/2015	ND	4.0000	
Silver, total	ug/L	MW-15A	10/02/2015	ND	4.0000	
Silver, total	ug/L	MW-15A	04/19/2016	ND	4.0000	
Silver, total	ug/L	MW-15A	10/10/2016	ND	4.0000	
Silver, total	ug/L	MW-15A	04/04/2017	ND	4.0000	
Silver, total	ug/L	MW-15A	10/18/2017	ND	4.0000	
Silver, total	ug/L	MW-15A	04/12/2018	ND	4.0000	
Silver, total	ug/L	MW-15A	10/23/2018	ND	4.0000	
Silver, total	ug/L	MW-15A	04/08/2019	ND	4.0000	
Silver, total	ug/L	MW-15A	10/04/2019	ND	4.0000	
Silver, total	ug/L	MW-15A	04/09/2020	ND	4.0000	
Silver, total	ug/L	MW-15A	10/01/2020	ND	4.0000	
Silver, total	ug/L	MW-15A	04/01/2021	ND	4.0000	
Silver, total	ug/L	MW-15A	10/04/2021	ND	4.0000	
Silver, total	ug/L	MW-15A	04/06/2022	ND	4.0000	
Silver, total	ug/L	MW-15A	10/04/2023	ND	4.0000	

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Silver, total	ug/L	MW-15A	04/09/2020	ND	4.0000		
Silver, total	ug/L	MW-15A	10/01/2020	ND	4.0000		
Silver, total	ug/L	MW-15A	04/01/2021	ND	4.0000		
Silver, total	ug/L	MW-15A	10/04/2021	ND	4.0000		
Silver, total	ug/L	MW-15A	04/06/2022	ND	4.0000		
Silver, total	ug/L	MW-15A	10/04/2023	ND	4.0000		
Thallium, total	ug/L	MW-15A	10/15/2014	ND	4.0000		
Thallium, total	ug/L	MW-15A	01/08/2015	ND	4.0000		
Thallium, total	ug/L	MW-15A	04/01/2015	ND	4.0000		
Thallium, total	ug/L	MW-15A	06/09/2015	ND	4.0000		
Thallium, total	ug/L	MW-15A	10/02/2015	ND	4.0000		
Thallium, total	ug/L	MW-15A	04/19/2016	ND	4.0000		
Thallium, total	ug/L	MW-15A	10/10/2016	ND	4.0000		
Thallium, total	ug/L	MW-15A	04/04/2017	ND	4.0000		
Thallium, total	ug/L	MW-15A	10/18/2017	ND	4.0000		
Thallium, total	ug/L	MW-15A	04/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-15A	10/23/2018	ND	4.0000		
Thallium, total	ug/L	MW-15A	04/08/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	10/04/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	04/09/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	10/01/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	04/01/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	10/04/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	04/06/2022	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-15A	10/04/2023	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-15A	10/15/2014	ND	20.0000		
Vanadium, total	ug/L	MW-15A	01/08/2015	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/01/2015	ND	20.0000		
Vanadium, total	ug/L	MW-15A	06/09/2015	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/02/2015	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/19/2016	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/10/2016	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/04/2017	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/18/2017	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/23/2018	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/08/2019	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/04/2019	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/09/2020	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/01/2020	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/01/2021	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/04/2021	ND	20.0000		
Vanadium, total	ug/L	MW-15A	04/06/2022	ND	20.0000		
Vanadium, total	ug/L	MW-15A	10/04/2023	ND	20.0000		
Zinc, total	ug/L	MW-15A	10/15/2014	ND	8.0000		
Zinc, total	ug/L	MW-15A	01/08/2015	ND	8.0000		
Zinc, total	ug/L	MW-15A	04/01/2015	ND	8.0000		
Zinc, total	ug/L	MW-15A	06/09/2015	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	10/02/2015	ND	8.0000		
Zinc, total	ug/L	MW-15A	04/19/2016	ND	12.2000		
Zinc, total	ug/L	MW-15A	10/10/2016	ND	8.0000		
Zinc, total	ug/L	MW-15A	04/04/2017	ND	8.0000		
Zinc, total	ug/L	MW-15A	10/18/2017	ND	8.0000		
Zinc, total	ug/L	MW-15A	04/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-15A	10/23/2018	ND	9.0000		
Zinc, total	ug/L	MW-15A	04/08/2019	ND	8.0000		
Zinc, total	ug/L	MW-15A	10/04/2019	ND	8.7000		
Zinc, total	ug/L	MW-15A	04/09/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	10/01/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	04/01/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	10/04/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	04/06/2022	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-15A	10/04/2023	ND	20.0000	8.0000	**
Antimony, total	ug/L	MW-18	10/16/2014	ND	2.0000		
Antimony, total	ug/L	MW-18	04/01/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	06/09/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	10/02/2015	ND	2.0000		
Antimony, total	ug/L	MW-18	04/19/2016	ND	2.0000		
Antimony, total	ug/L	MW-18	10/10/2016	ND	2.0000		
Antimony, total	ug/L	MW-18	04/04/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	10/18/2017	ND	2.0000		
Antimony, total	ug/L	MW-18	04/12/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	10/23/2018	ND	2.0000		
Antimony, total	ug/L	MW-18	04/08/2019	ND	2.0000		

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted
Antimony, total	ug/L	MW-18	10/04/2019	ND	2.0000	
Antimony, total	ug/L	MW-18	04/09/2020	ND	2.0000	
Antimony, total	ug/L	MW-18	10/01/2020	ND	2.0000	
Antimony, total	ug/L	MW-18	04/01/2021	ND	2.0000	
Antimony, total	ug/L	MW-18	10/04/2021	ND	2.0000	
Antimony, total	ug/L	MW-18	04/06/2022	ND	2.0000	
Arsenic, total	ug/L	MW-18	10/16/2014	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/01/2015	ND	4.0000	
Arsenic, total	ug/L	MW-18	06/09/2015	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/02/2015	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/19/2016	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/10/2016	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/04/2017	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/18/2017	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/12/2018	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/23/2018	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/08/2019	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/04/2019	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/09/2020	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/01/2020	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/01/2021	ND	4.0000	
Arsenic, total	ug/L	MW-18	10/04/2021	ND	4.0000	
Arsenic, total	ug/L	MW-18	04/06/2022	ND	4.0000	
Barium, total	ug/L	MW-18	10/16/2014		144.0000	
Barium, total	ug/L	MW-18	04/01/2015		121.0000	
Barium, total	ug/L	MW-18	06/09/2015		141.0000	
Barium, total	ug/L	MW-18	10/02/2015		178.0000	
Barium, total	ug/L	MW-18	04/19/2016		130.0000	
Barium, total	ug/L	MW-18	10/10/2016		170.0000	
Barium, total	ug/L	MW-18	04/04/2017		144.0000	
Barium, total	ug/L	MW-18	10/18/2017		168.0000	
Barium, total	ug/L	MW-18	04/12/2018		95.6000	
Barium, total	ug/L	MW-18	10/23/2018		148.0000	
Barium, total	ug/L	MW-18	04/08/2019		136.0000	
Barium, total	ug/L	MW-18	10/04/2019		186.0000	
Barium, total	ug/L	MW-18	04/09/2020		107.0000	
Barium, total	ug/L	MW-18	10/01/2020		172.0000	
Barium, total	ug/L	MW-18	04/01/2021		188.0000	
Barium, total	ug/L	MW-18	10/04/2021		179.0000	
Barium, total	ug/L	MW-18	04/06/2022		171.0000	
Beryllium, total	ug/L	MW-18	10/16/2014	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/01/2015	ND	4.0000	
Beryllium, total	ug/L	MW-18	06/09/2015	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/02/2015	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/19/2016	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/10/2016	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/04/2017	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/18/2017	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/12/2018	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/23/2018	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/08/2019	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/04/2019	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/09/2020	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/01/2020	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/01/2021	ND	4.0000	
Beryllium, total	ug/L	MW-18	10/04/2021	ND	4.0000	
Beryllium, total	ug/L	MW-18	04/06/2022	ND	4.0000	
Cadmium, total	ug/L	MW-18	10/16/2014		2.2000	
Cadmium, total	ug/L	MW-18	04/01/2015	ND	0.8000	
Cadmium, total	ug/L	MW-18	06/09/2015	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/02/2015	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/19/2016		1.8000	
Cadmium, total	ug/L	MW-18	10/10/2016		1.6000	
Cadmium, total	ug/L	MW-18	04/04/2017	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/18/2017	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/12/2018	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/23/2018	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/08/2019	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/04/2019	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/09/2020	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/01/2020	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/01/2021	ND	0.8000	
Cadmium, total	ug/L	MW-18	10/04/2021	ND	0.8000	
Cadmium, total	ug/L	MW-18	04/06/2022	ND	0.8000	

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Chromium, total	ug/L	MW-18	10/16/2014	ND	8.0000		
Chromium, total	ug/L	MW-18	04/01/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	06/09/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	10/02/2015	ND	8.0000		
Chromium, total	ug/L	MW-18	04/19/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	10/10/2016	ND	8.0000		
Chromium, total	ug/L	MW-18	04/04/2017	ND	8.0000		
Chromium, total	ug/L	MW-18	10/18/2017	ND	8.0000		
Chromium, total	ug/L	MW-18	04/12/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	10/23/2018	ND	8.0000		
Chromium, total	ug/L	MW-18	04/08/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	10/04/2019	ND	8.0000		
Chromium, total	ug/L	MW-18	04/09/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	10/01/2020	ND	8.0000		
Chromium, total	ug/L	MW-18	04/01/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	10/04/2021	ND	8.0000		
Chromium, total	ug/L	MW-18	04/06/2022	ND	8.0000		
Cobalt, total	ug/L	MW-18	10/16/2014		11.6000		
Cobalt, total	ug/L	MW-18	04/01/2015	ND	0.8000		
Cobalt, total	ug/L	MW-18	06/09/2015	ND	0.8000		
Cobalt, total	ug/L	MW-18	10/02/2015	ND	0.8000		
Cobalt, total	ug/L	MW-18	04/19/2016	ND	0.8000		
Cobalt, total	ug/L	MW-18	10/10/2016	ND	0.8000		
Cobalt, total	ug/L	MW-18	04/04/2017	ND	0.8000		
Cobalt, total	ug/L	MW-18	10/18/2017	ND	0.8000		
Cobalt, total	ug/L	MW-18	04/12/2018	ND	0.8000		
Cobalt, total	ug/L	MW-18	10/23/2018	ND	0.8000		
Cobalt, total	ug/L	MW-18	04/08/2019	ND	0.8000		
Cobalt, total	ug/L	MW-18	10/04/2019	ND	0.8000		
Cobalt, total	ug/L	MW-18	04/09/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-18	10/01/2020	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-18	04/01/2021	ND	0.4000	0.8000	**
Cobalt, total	ug/L	MW-18	10/04/2021		0.4000		
Cobalt, total	ug/L	MW-18	04/06/2022		0.4000		
Copper, total	ug/L	MW-18	10/16/2014	ND	4.0000		
Copper, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Copper, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Copper, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Copper, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Copper, total	ug/L	MW-18	10/10/2016	ND	4.0000		
Copper, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Copper, total	ug/L	MW-18	10/18/2017	ND	4.0000		
Copper, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Copper, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Copper, total	ug/L	MW-18	04/08/2019	ND	4.0000		
Copper, total	ug/L	MW-18	10/04/2019	ND	4.0000		
Copper, total	ug/L	MW-18	04/09/2020	ND	4.0000		
Copper, total	ug/L	MW-18	10/01/2020	ND	4.0000		
Copper, total	ug/L	MW-18	04/01/2021	ND	4.0000		
Copper, total	ug/L	MW-18	10/04/2021	ND	4.0000		
Copper, total	ug/L	MW-18	04/06/2022	ND	4.0000		
Lead, total	ug/L	MW-18	10/16/2014	ND	4.0000		
Lead, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Lead, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Lead, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Lead, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Lead, total	ug/L	MW-18	10/10/2016	ND	4.0000		
Lead, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Lead, total	ug/L	MW-18	10/18/2017	ND	4.0000		
Lead, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Lead, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Lead, total	ug/L	MW-18	04/08/2019	ND	4.0000		
Lead, total	ug/L	MW-18	10/04/2019	ND	4.0000		
Lead, total	ug/L	MW-18	04/09/2020	ND	4.0000		
Lead, total	ug/L	MW-18	10/01/2020	ND	4.0000		
Lead, total	ug/L	MW-18	04/01/2021	ND	4.0000		
Lead, total	ug/L	MW-18	10/04/2021	ND	4.0000		
Lead, total	ug/L	MW-18	04/06/2022	ND	4.0000		
Nickel, total	ug/L	MW-18	10/16/2014		10.9000		
Nickel, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Nickel, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Nickel, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Nickel, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Nickel, total	ug/L	MW-18	10/10/2016	ND	4.0000		

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Nickel, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Nickel, total	ug/L	MW-18	10/18/2017		4.5000		
Nickel, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Nickel, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Nickel, total	ug/L	MW-18	04/08/2019	ND	4.0000		
Nickel, total	ug/L	MW-18	10/04/2019		5.4000		
Nickel, total	ug/L	MW-18	04/09/2020	ND	4.0000		
Nickel, total	ug/L	MW-18	10/01/2020	ND	4.0000		
Nickel, total	ug/L	MW-18	04/01/2021	ND	4.0000		
Nickel, total	ug/L	MW-18	10/04/2021		5.4000		
Nickel, total	ug/L	MW-18	04/06/2022	ND	4.0000		
Selenium, total	ug/L	MW-18	10/16/2014	ND	4.0000		
Selenium, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Selenium, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	10/10/2016	ND	4.0000		
Selenium, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	10/18/2017	ND	4.0000		
Selenium, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Selenium, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Selenium, total	ug/L	MW-18	04/08/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	10/04/2019	ND	4.0000		
Selenium, total	ug/L	MW-18	04/09/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	10/01/2020	ND	4.0000		
Selenium, total	ug/L	MW-18	04/01/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	10/04/2021	ND	4.0000		
Selenium, total	ug/L	MW-18	04/06/2022	ND	4.0000		
Silver, total	ug/L	MW-18	10/16/2014	ND	4.0000		
Silver, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Silver, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Silver, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Silver, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Silver, total	ug/L	MW-18	10/10/2016	ND	4.0000		
Silver, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Silver, total	ug/L	MW-18	10/18/2017	ND	4.0000		
Silver, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Silver, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Silver, total	ug/L	MW-18	04/08/2019	ND	4.0000		
Silver, total	ug/L	MW-18	10/04/2019	ND	4.0000		
Silver, total	ug/L	MW-18	04/09/2020	ND	4.0000		
Silver, total	ug/L	MW-18	10/01/2020	ND	4.0000		
Silver, total	ug/L	MW-18	04/01/2021	ND	4.0000		
Silver, total	ug/L	MW-18	10/04/2021	ND	4.0000		
Silver, total	ug/L	MW-18	04/06/2022	ND	4.0000		
Thallium, total	ug/L	MW-18	10/16/2014	ND	4.0000		
Thallium, total	ug/L	MW-18	04/01/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	06/09/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	10/02/2015	ND	4.0000		
Thallium, total	ug/L	MW-18	04/19/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	10/10/2016	ND	4.0000		
Thallium, total	ug/L	MW-18	04/04/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	10/18/2017	ND	4.0000		
Thallium, total	ug/L	MW-18	04/12/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	10/23/2018	ND	4.0000		
Thallium, total	ug/L	MW-18	04/08/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	10/04/2019	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	04/09/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	10/01/2020	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	04/01/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	10/04/2021	ND	2.0000	4.0000	**
Thallium, total	ug/L	MW-18	04/06/2022	ND	2.0000	4.0000	**
Vanadium, total	ug/L	MW-18	10/16/2014	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/01/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	06/09/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/02/2015	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/19/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/10/2016	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/04/2017	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/18/2017	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/12/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/23/2018	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/08/2019	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/04/2019	ND	20.0000		

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 1

Upgradient Data

Constituent	Units	Well	Date		Result	Adjusted	
Vanadium, total	ug/L	MW-18	04/09/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/01/2020	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/01/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	10/04/2021	ND	20.0000		
Vanadium, total	ug/L	MW-18	04/06/2022	ND	20.0000		
Zinc, total	ug/L	MW-18	10/16/2014		12.8000		
Zinc, total	ug/L	MW-18	04/01/2015	ND	8.0000		
Zinc, total	ug/L	MW-18	06/09/2015	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	10/02/2015	ND	8.0000		
Zinc, total	ug/L	MW-18	04/19/2016		8.3000		
Zinc, total	ug/L	MW-18	10/10/2016	ND	8.0000		
Zinc, total	ug/L	MW-18	04/04/2017	ND	8.0000		
Zinc, total	ug/L	MW-18	10/18/2017	ND	8.0000		
Zinc, total	ug/L	MW-18	04/12/2018	ND	8.0000		
Zinc, total	ug/L	MW-18	10/23/2018		11.2000		
Zinc, total	ug/L	MW-18	04/08/2019		29.4000		
Zinc, total	ug/L	MW-18	10/04/2019		19.7000		
Zinc, total	ug/L	MW-18	04/09/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	10/01/2020	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	04/01/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	10/04/2021	ND	20.0000	8.0000	**
Zinc, total	ug/L	MW-18	04/06/2022	ND	20.0000	8.0000	**

* - Outlier for that well and constituent.
 ** - ND value replaced with median RL.
 *** - ND value replaced with manual RL.
 ND = Not detected, Result = detection limit.

Table 2

Most Current Downgradient Monitoring Data

Constituent	Units	Well	Date		Result		Pred. Limit
Antimony, total	ug/L	MW-11	10/04/2023	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW-11	10/04/2023		243.0000	**	294.3691
Beryllium, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-11	10/04/2023	ND	0.8000	**	2.2000
Chromium, total	ug/L	MW-11	10/04/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-11	10/04/2023		8.3000		11.6000
Copper, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.1000
Lead, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW-11	10/04/2023		7.4000		10.9000
Selenium, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-11	10/04/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-11	10/04/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-11	10/04/2023	ND	20.0000		20.0000
Zinc, total	ug/L	MW-11	10/04/2023	ND	20.0000		29.4000
Antimony, total	ug/L	MW-13	10/04/2023	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.0000
Barium, total	ug/L	MW-13	10/04/2023		334.0000	***	294.3691
Beryllium, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-13	10/04/2023	ND	0.8000		2.2000
Chromium, total	ug/L	MW-13	10/04/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-13	10/04/2023		10.6000		11.6000
Copper, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.1000
Lead, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW-13	10/04/2023		75.4000	***	10.9000
Selenium, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-13	10/04/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-13	10/04/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-13	10/04/2023	ND	20.0000		20.0000
Zinc, total	ug/L	MW-13	10/04/2023	ND	20.0000		29.4000
Antimony, total	ug/L	MW-14	10/04/2023	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-14	10/04/2023		5.0000	*	4.0000
Barium, total	ug/L	MW-14	10/04/2023		843.0000	***	294.3691
Beryllium, total	ug/L	MW-14	10/04/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14	10/04/2023	ND	0.8000		2.2000
Chromium, total	ug/L	MW-14	10/04/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-14	10/04/2023		7.3000	**	11.6000
Copper, total	ug/L	MW-14	10/04/2023	ND	4.0000		4.1000
Lead, total	ug/L	MW-14	10/04/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW-14	10/04/2023		33.8000	***	10.9000
Selenium, total	ug/L	MW-14	10/04/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-14	10/04/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14	10/04/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-14	10/04/2023	ND	20.0000		20.0000
Zinc, total	ug/L	MW-14	10/04/2023	ND	20.0000		29.4000
Antimony, total	ug/L	MW-9	10/04/2023	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-9	10/04/2023		16.2000	***	4.0000
Barium, total	ug/L	MW-9	10/04/2023		855.0000	***	294.3691
Beryllium, total	ug/L	MW-9	10/04/2023	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-9	10/04/2023	ND	0.8000		2.2000
Chromium, total	ug/L	MW-9	10/04/2023	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-9	10/04/2023		4.4000		11.6000
Copper, total	ug/L	MW-9	10/04/2023	ND	4.0000		4.1000
Lead, total	ug/L	MW-9	10/04/2023	ND	4.0000		4.0000
Nickel, total	ug/L	MW-9	10/04/2023		19.1000	***	10.9000
Selenium, total	ug/L	MW-9	10/04/2023	ND	4.0000		4.0000
Silver, total	ug/L	MW-9	10/04/2023	ND	4.0000		4.0000
Thallium, total	ug/L	MW-9	10/04/2023	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-9	10/04/2023	ND	20.0000		20.0000
Zinc, total	ug/L	MW-9	10/04/2023	ND	20.0000		29.4000

* - Current value failed - awaiting verification.
 ** - Current value passed - previous exceedance not verified.
 *** - Current value failed - exceedance verified.
 **** - Current value passed - awaiting one more verification.
 ***** - Insufficient background data to compute prediction limit.
 ND = Not Detected, Result = detection limit.

Table 3

Detection Frequencies in Upgradient and Downgradient Wells

Constituent	Upgradient			Downgradient		
	Detect	N	Proportion	Detect	N	Proportion
Antimony, total	1	36	0.028	1	129	0.008
Arsenic, total	0	36	0.000	40	127	0.315
Barium, total	36	36	1.000	150	150	1.000
Beryllium, total	0	36	0.000	0	95	0.000
Cadmium, total	4	36	0.111	29	119	0.244
Chromium, total	0	36	0.000	22	127	0.173
Cobalt, total	6	36	0.167	94	139	0.676
Copper, total	1	36	0.028	59	146	0.404
Lead, total	0	36	0.000	28	131	0.214
Nickel, total	6	36	0.167	145	150	0.967
Selenium, total	0	36	0.000	16	118	0.136
Silver, total	0	36	0.000	0	95	0.000
Thallium, total	0	36	0.000	2	125	0.016
Vanadium, total	0	36	0.000	15	126	0.119
Zinc, total	8	36	0.222	81	145	0.559

N = Total number of measurements in all wells.
 Detect = Total number of detections in all wells.
 Proportion = Detect/N.

Table 4

Shapiro-Wilk Multiple Group Test of Normality

Constituent	Detect	N	Detect Freq	G raw	G log	G cbrt	G sqrt	G sqr	G cub	Crit Value	Dist Form	Model Type
Antimony, total	1	36	0.028									nonpar
Arsenic, total	0	36	0.000									nonpar
Barium, total	36	36	1.000	0.704	1.548					2.326	normal	normal
Beryllium, total	0	36	0.000									nonpar
Cadmium, total	4	36	0.111	0.346	0.570					2.326	normal	nonpar
Chromium, total	0	36	0.000									nonpar
Cobalt, total	6	36	0.167	0.285	0.547					2.326	normal	nonpar
Copper, total	1	36	0.028									nonpar
Lead, total	0	36	0.000									nonpar
Nickel, total	6	36	0.167	1.753	1.220					2.326	normal	nonpar
Selenium, total	0	36	0.000									nonpar
Silver, total	0	36	0.000									nonpar
Thallium, total	0	36	0.000									nonpar
Vanadium, total	0	36	0.000									nonpar
Zinc, total	8	36	0.222	0.849	0.082					2.326	normal	nonpar

* - Distribution override for that constituent.
 Fit to distribution is confirmed if G <= critical value.
 Model type may not match distributional form when detection frequency < 50%.

Table 5

Summary Statistics and Prediction Limits

Constituent	Units	Detect	N	Mean	SD	alpha	Factor	Pred Limit	Type	Conf
Antimony, total	ug/L	1	36					2.8000	nonpar	0.99
Arsenic, total	ug/L	0	36					4.0000	nonpar	***
Barium, total	ug/L	36	36	179.5556	46.4609	0.0100	2.4712	294.3691	normal	0.99
Beryllium, total	ug/L	0	36					4.0000	nonpar	***
Cadmium, total	ug/L	4	36					2.2000	nonpar	0.99
Chromium, total	ug/L	0	36					8.0000	nonpar	***
Cobalt, total	ug/L	6	36					11.6000	nonpar	0.99
Copper, total	ug/L	1	36					4.1000	nonpar	0.99
Lead, total	ug/L	0	36					4.0000	nonpar	***
Nickel, total	ug/L	6	36					10.9000	nonpar	0.99
Selenium, total	ug/L	0	36					4.0000	nonpar	***
Silver, total	ug/L	0	36					4.0000	nonpar	***
Thallium, total	ug/L	0	36					4.0000	nonpar	***
Vanadium, total	ug/L	0	36					20.0000	nonpar	***
Zinc, total	ug/L	8	36					29.4000	nonpar	0.99

Conf = confidence level for passing initial test or one verification resample at all downgradient wells for a single constituent (nonparametric test only).

* - Insufficient Data.

** - Calculated limit raised to Manual Reporting Limit.

*** - Nonparametric limit based on ND value.

For transformed data, mean and SD in transformed units and prediction limit in original units.

All sample sizes and statistics are based on outlier free data.

For nonparametric limits, median reporting limits are substituted for extreme reporting limit values.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result	Pred. Limit
Barium, total	ug/L	MW-11	04/14/2009		63.0000	294.3691
Barium, total	ug/L	MW-11	04/17/2009		387.0000	294.3691
Barium, total	ug/L	MW-11	06/25/2009		466.0000	294.3691
Barium, total	ug/L	MW-11	07/20/2009		391.0000	294.3691
Barium, total	ug/L	MW-11	10/12/2009		327.0000	294.3691
Barium, total	ug/L	MW-11	10/28/2009		423.0000	294.3691
Barium, total	ug/L	MW-11	04/14/2010		555.0000	294.3691
Barium, total	ug/L	MW-11	07/13/2010		688.0000	294.3691
Barium, total	ug/L	MW-11	09/23/2010		377.0000	294.3691
Barium, total	ug/L	MW-11	04/21/2011		499.0000	294.3691
Barium, total	ug/L	MW-11	11/03/2011		395.0000	294.3691
Barium, total	ug/L	MW-11	04/24/2012		564.0000	294.3691
Barium, total	ug/L	MW-11	09/19/2012		283.0000	294.3691
Barium, total	ug/L	MW-11	04/24/2013		124.0000	294.3691
Barium, total	ug/L	MW-11	10/08/2013		236.0000	294.3691
Barium, total	ug/L	MW-11	04/24/2014		155.0000	294.3691
Barium, total	ug/L	MW-11	10/15/2014		204.0000	294.3691
Barium, total	ug/L	MW-11	04/01/2015		224.0000	294.3691
Barium, total	ug/L	MW-11	10/02/2015		472.0000	294.3691
Barium, total	ug/L	MW-11	04/19/2016		154.0000	294.3691
Barium, total	ug/L	MW-11	10/10/2016		152.0000	294.3691
Barium, total	ug/L	MW-11	04/04/2017		282.0000	294.3691
Barium, total	ug/L	MW-11	10/18/2017		236.0000	294.3691
Barium, total	ug/L	MW-11	04/12/2018		162.0000	294.3691
Barium, total	ug/L	MW-11	10/23/2018		118.0000	294.3691
Barium, total	ug/L	MW-11	04/08/2019		444.0000	294.3691
Barium, total	ug/L	MW-11	10/04/2019		279.0000	294.3691
Barium, total	ug/L	MW-11	04/09/2020		227.0000	294.3691
Barium, total	ug/L	MW-11	10/01/2020		293.0000	294.3691
Barium, total	ug/L	MW-11	04/01/2021		203.0000	294.3691
Barium, total	ug/L	MW-11	10/04/2021		270.0000	294.3691
Barium, total	ug/L	MW-11	04/06/2022		342.0000	294.3691
Barium, total	ug/L	MW-11	10/04/2023		243.0000	294.3691
Cadmium, total	ug/L	MW-11	04/14/2009	ND	1.0000	2.2000
Cadmium, total	ug/L	MW-11	04/17/2009	ND	1.0000	2.2000
Cadmium, total	ug/L	MW-11	04/24/2012	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	09/19/2012		0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/24/2013	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/08/2013	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/24/2014		1.4000	2.2000
Cadmium, total	ug/L	MW-11	10/15/2014		1.5000	2.2000
Cadmium, total	ug/L	MW-11	04/01/2015	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/02/2015		1.9000	2.2000
Cadmium, total	ug/L	MW-11	04/19/2016		1.2000	2.2000
Cadmium, total	ug/L	MW-11	10/10/2016	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/04/2017	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/18/2017	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/12/2018	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/23/2018	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/08/2019	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/04/2019	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/09/2020	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	10/01/2020	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/01/2021		0.9000	2.2000
Cadmium, total	ug/L	MW-11	10/04/2021	ND	0.8000	2.2000
Cadmium, total	ug/L	MW-11	04/06/2022		5.8000	2.2000
Cadmium, total	ug/L	MW-11	10/04/2023	ND	0.8000	2.2000
Barium, total	ug/L	MW-13	10/17/2006		244.0000	294.3691
Barium, total	ug/L	MW-13	04/18/2007		178.0000	294.3691
Barium, total	ug/L	MW-13	10/03/2007		284.0000	294.3691
Barium, total	ug/L	MW-13	04/21/2008		16.6000	294.3691
Barium, total	ug/L	MW-13	10/06/2008		284.0000	294.3691
Barium, total	ug/L	MW-13	04/17/2009		171.0000	294.3691
Barium, total	ug/L	MW-13	06/25/2009		247.0000	294.3691
Barium, total	ug/L	MW-13	07/20/2009		366.0000	294.3691
Barium, total	ug/L	MW-13	10/12/2009		264.0000	294.3691
Barium, total	ug/L	MW-13	10/28/2009		227.0000	294.3691
Barium, total	ug/L	MW-13	04/14/2010		191.0000	294.3691
Barium, total	ug/L	MW-13	07/13/2010		315.0000	294.3691
Barium, total	ug/L	MW-13	09/23/2010		328.0000	294.3691
Barium, total	ug/L	MW-13	04/21/2011		119.0000	294.3691

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
 *** - Manual exclusion.
 ND = Not Detected, Result = detection limit.

Table 8

Historical Downgradient Data for Constituent-Well Combinations that Failed the Current Statistical Evaluation or are in Verification Resampling Mode

Constituent	Units	Well	Date		Result	Pred. Limit
Barium, total	ug/L	MW-13	11/03/2011		280.0000	294.3691
Barium, total	ug/L	MW-13	04/24/2012		216.0000	294.3691
Barium, total	ug/L	MW-13	09/19/2012		275.0000	294.3691
Barium, total	ug/L	MW-13	04/24/2013		193.0000	294.3691
Barium, total	ug/L	MW-13	10/08/2013		325.0000 *	294.3691
Barium, total	ug/L	MW-13	04/24/2014		288.0000	294.3691
Barium, total	ug/L	MW-13	10/15/2014		355.0000 *	294.3691
Barium, total	ug/L	MW-13	04/01/2015		321.0000 *	294.3691
Barium, total	ug/L	MW-13	10/02/2015		359.0000 *	294.3691
Barium, total	ug/L	MW-13	04/19/2016		434.0000 *	294.3691
Barium, total	ug/L	MW-13	10/10/2016		291.0000	294.3691
Barium, total	ug/L	MW-13	04/04/2017		130.0000	294.3691
Barium, total	ug/L	MW-13	10/18/2017		341.0000 *	294.3691
Barium, total	ug/L	MW-13	01/12/2018		337.0000 *	294.3691
Barium, total	ug/L	MW-13	04/12/2018		259.0000	294.3691
Barium, total	ug/L	MW-13	10/23/2018		392.0000 *	294.3691
Barium, total	ug/L	MW-13	04/08/2019		280.0000	294.3691
Barium, total	ug/L	MW-13	10/04/2019		403.0000 *	294.3691
Barium, total	ug/L	MW-13	04/09/2020		253.0000	294.3691
Barium, total	ug/L	MW-13	10/01/2020		384.0000 *	294.3691
Barium, total	ug/L	MW-13	04/01/2021		141.0000	294.3691
Barium, total	ug/L	MW-13	10/04/2021		358.0000 *	294.3691
Barium, total	ug/L	MW-13	04/06/2022		352.0000 *	294.3691
Barium, total	ug/L	MW-13	10/04/2023		334.0000 *	294.3691
Nickel, total	ug/L	MW-13	10/17/2006		58.0000 *	10.9000
Nickel, total	ug/L	MW-13	04/18/2007		17.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/03/2007		22.0000 *	10.9000
Nickel, total	ug/L	MW-13	04/21/2008		5.0000	10.9000
Nickel, total	ug/L	MW-13	10/06/2008		42.0000 *	10.9000
Nickel, total	ug/L	MW-13	04/17/2009		17.0000 *	10.9000
Nickel, total	ug/L	MW-13	06/25/2009		33.7000 *	10.9000
Nickel, total	ug/L	MW-13	07/20/2009		57.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/12/2009		14.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/28/2009		11.9000 *	10.9000
Nickel, total	ug/L	MW-13	04/14/2010		15.2000 *	10.9000
Nickel, total	ug/L	MW-13	07/13/2010		39.5000 *	10.9000
Nickel, total	ug/L	MW-13	09/23/2010		33.1000 *	10.9000
Nickel, total	ug/L	MW-13	04/21/2011		14.2000 *	10.9000
Nickel, total	ug/L	MW-13	11/03/2011		47.1000 *	10.9000
Nickel, total	ug/L	MW-13	04/24/2012		28.7000 *	10.9000
Nickel, total	ug/L	MW-13	09/19/2012		37.1000 *	10.9000
Nickel, total	ug/L	MW-13	04/24/2013		14.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/08/2013		70.4000 *	10.9000
Nickel, total	ug/L	MW-13	04/24/2014		67.6000 *	10.9000
Nickel, total	ug/L	MW-13	10/15/2014		85.7000 *	10.9000
Nickel, total	ug/L	MW-13	04/01/2015		76.7000 *	10.9000
Nickel, total	ug/L	MW-13	10/02/2015		67.3000 *	10.9000
Nickel, total	ug/L	MW-13	04/19/2016		67.6000 *	10.9000
Nickel, total	ug/L	MW-13	10/10/2016		38.8000 *	10.9000
Nickel, total	ug/L	MW-13	04/04/2017	ND	4.0000	10.9000
Nickel, total	ug/L	MW-13	10/18/2017		47.1000 *	10.9000
Nickel, total	ug/L	MW-13	01/12/2018		65.8000 *	10.9000
Nickel, total	ug/L	MW-13	04/12/2018		55.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/23/2018		46.7000 *	10.9000
Nickel, total	ug/L	MW-13	04/08/2019		60.8000 *	10.9000
Nickel, total	ug/L	MW-13	10/04/2019		79.6000 *	10.9000
Nickel, total	ug/L	MW-13	04/09/2020		43.1000 *	10.9000
Nickel, total	ug/L	MW-13	10/01/2020		75.9000 *	10.9000
Nickel, total	ug/L	MW-13	04/01/2021		12.7000 *	10.9000
Nickel, total	ug/L	MW-13	10/04/2021		67.8000 *	10.9000
Nickel, total	ug/L	MW-13	04/06/2022		106.0000 *	10.9000
Nickel, total	ug/L	MW-13	10/04/2023		75.4000 *	10.9000
Arsenic, total	ug/L	MW-14	10/17/2006		8.0000 *	4.0000
Arsenic, total	ug/L	MW-14	04/18/2007		11.0000 *	4.0000
Arsenic, total	ug/L	MW-14	10/03/2007		15.0000 *	4.0000
Arsenic, total	ug/L	MW-14	04/21/2008		7.0000 *	4.0000
Arsenic, total	ug/L	MW-14	10/06/2008		8.5000 *	4.0000
Arsenic, total	ug/L	MW-14	04/14/2009		119.0000 *	4.0000
Arsenic, total	ug/L	MW-14	04/17/2009		22.4000 *	4.0000
Arsenic, total	ug/L	MW-14	06/25/2009		9.6000 *	4.0000
Arsenic, total	ug/L	MW-14	07/20/2009	ND	20.0000	4.0000

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
 *** - Manual exclusion.
 ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result	Pred. Limit
Arsenic, total	ug/L	MW-14	10/12/2009	ND	20.0000	4.0000
Arsenic, total	ug/L	MW-14	10/28/2009		11.6000	4.0000
Arsenic, total	ug/L	MW-14	04/14/2010		4.1000	4.0000
Arsenic, total	ug/L	MW-14	07/13/2010		13.7000	4.0000
Arsenic, total	ug/L	MW-14	09/23/2010		13.1000	4.0000
Arsenic, total	ug/L	MW-14	04/21/2011	ND	10.0000	4.0000
Arsenic, total	ug/L	MW-14	11/03/2011		16.4000	4.0000
Arsenic, total	ug/L	MW-14	04/24/2012		14.7000	4.0000
Arsenic, total	ug/L	MW-14	09/19/2012		10.1000	4.0000
Arsenic, total	ug/L	MW-14	04/24/2013		5.8000	4.0000
Arsenic, total	ug/L	MW-14	10/08/2013	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/24/2014	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/15/2014	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/01/2015	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/02/2015	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/19/2016	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/10/2016	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/04/2017	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/18/2017	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/12/2018	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/23/2018	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/08/2019		4.1000	4.0000
Arsenic, total	ug/L	MW-14	10/04/2019	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/09/2020		10.2000	4.0000
Arsenic, total	ug/L	MW-14	10/01/2020	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	04/01/2021	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/04/2021		30.5000	4.0000
Arsenic, total	ug/L	MW-14	04/06/2022	ND	4.0000	4.0000
Arsenic, total	ug/L	MW-14	10/04/2023		5.5000	4.0000
Barium, total	ug/L	MW-14	10/17/2006		883.0000	294.3691
Barium, total	ug/L	MW-14	04/18/2007		632.0000	294.3691
Barium, total	ug/L	MW-14	10/03/2007		1590.0000	294.3691
Barium, total	ug/L	MW-14	04/21/2008		366.0000	294.3691
Barium, total	ug/L	MW-14	10/06/2008		1090.0000	294.3691
Barium, total	ug/L	MW-14	04/14/2009		2320.0000	294.3691
Barium, total	ug/L	MW-14	04/17/2009		1560.0000	294.3691
Barium, total	ug/L	MW-14	06/25/2009		960.0000	294.3691
Barium, total	ug/L	MW-14	07/20/2009		1120.0000	294.3691
Barium, total	ug/L	MW-14	10/12/2009		1190.0000	294.3691
Barium, total	ug/L	MW-14	10/28/2009		959.0000	294.3691
Barium, total	ug/L	MW-14	04/14/2010		754.0000	294.3691
Barium, total	ug/L	MW-14	07/13/2010		885.0000	294.3691
Barium, total	ug/L	MW-14	09/23/2010		1020.0000	294.3691
Barium, total	ug/L	MW-14	04/21/2011		572.0000	294.3691
Barium, total	ug/L	MW-14	11/03/2011		1180.0000	294.3691
Barium, total	ug/L	MW-14	04/24/2012		1110.0000	294.3691
Barium, total	ug/L	MW-14	09/19/2012		917.0000	294.3691
Barium, total	ug/L	MW-14	04/24/2013		349.0000	294.3691
Barium, total	ug/L	MW-14	10/08/2013		533.0000	294.3691
Barium, total	ug/L	MW-14	04/24/2014		290.0000	294.3691
Barium, total	ug/L	MW-14	10/15/2014		711.0000	294.3691
Barium, total	ug/L	MW-14	04/01/2015		747.0000	294.3691
Barium, total	ug/L	MW-14	06/09/2015		419.0000	294.3691
Barium, total	ug/L	MW-14	10/02/2015		818.0000	294.3691
Barium, total	ug/L	MW-14	04/19/2016		671.0000	294.3691
Barium, total	ug/L	MW-14	10/10/2016		483.0000	294.3691
Barium, total	ug/L	MW-14	04/04/2017		76.3000	294.3691
Barium, total	ug/L	MW-14	10/18/2017		1110.0000	294.3691
Barium, total	ug/L	MW-14	01/12/2018		692.0000	294.3691
Barium, total	ug/L	MW-14	04/12/2018		1130.0000	294.3691
Barium, total	ug/L	MW-14	10/23/2018		368.0000	294.3691
Barium, total	ug/L	MW-14	04/08/2019		809.0000	294.3691
Barium, total	ug/L	MW-14	10/04/2019		903.0000	294.3691
Barium, total	ug/L	MW-14	04/09/2020		986.0000	294.3691
Barium, total	ug/L	MW-14	10/01/2020		717.0000	294.3691
Barium, total	ug/L	MW-14	04/01/2021		714.0000	294.3691
Barium, total	ug/L	MW-14	10/04/2021		1530.0000	294.3691
Barium, total	ug/L	MW-14	04/06/2022		1360.0000	294.3691
Barium, total	ug/L	MW-14	10/04/2023		843.0000	294.3691
Cobalt, total	ug/L	MW-14	10/17/2006		23.0000	11.6000
Cobalt, total	ug/L	MW-14	04/18/2007		17.0000	11.6000

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
 *** - Manual exclusion.
 ND = Not Detected, Result = detection limit.

Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

Constituent	Units	Well	Date		Result		Pred. Limit
Cobalt, total	ug/L	MW-14	10/03/2007		26.0000	*	11.6000
Cobalt, total	ug/L	MW-14	04/21/2008		21.0000	*	11.6000
Cobalt, total	ug/L	MW-14	10/06/2008		20.1000	*	11.6000
Cobalt, total	ug/L	MW-14	04/14/2009		15.6000	*	11.6000
Cobalt, total	ug/L	MW-14	04/17/2009		51.7000	*	11.6000
Cobalt, total	ug/L	MW-14	06/25/2009		69.0000	*	11.6000
Cobalt, total	ug/L	MW-14	07/20/2009		59.0000	*	11.6000
Cobalt, total	ug/L	MW-14	10/12/2009		39.9000	*	11.6000
Cobalt, total	ug/L	MW-14	10/28/2009		76.0000	*	11.6000
Cobalt, total	ug/L	MW-14	04/14/2010		43.4000	*	11.6000
Cobalt, total	ug/L	MW-14	07/13/2010		36.2000	*	11.6000
Cobalt, total	ug/L	MW-14	09/23/2010		37.8000	*	11.6000
Cobalt, total	ug/L	MW-14	04/21/2011		18.5000	*	11.6000
Cobalt, total	ug/L	MW-14	11/03/2011		35.5000	*	11.6000
Cobalt, total	ug/L	MW-14	04/24/2012		14.9000	*	11.6000
Cobalt, total	ug/L	MW-14	09/19/2012		15.7000	*	11.6000
Cobalt, total	ug/L	MW-14	04/24/2013		13.1000	*	11.6000
Cobalt, total	ug/L	MW-14	10/08/2013		10.9000	*	11.6000
Cobalt, total	ug/L	MW-14	04/24/2014	ND	4.0000		11.6000
Cobalt, total	ug/L	MW-14	10/15/2014		8.6000	*	11.6000
Cobalt, total	ug/L	MW-14	04/01/2015		5.6000	*	11.6000
Cobalt, total	ug/L	MW-14	10/02/2015		7.4000	*	11.6000
Cobalt, total	ug/L	MW-14	04/19/2016		4.4000	*	11.6000
Cobalt, total	ug/L	MW-14	10/10/2016		3.4000	*	11.6000
Cobalt, total	ug/L	MW-14	04/04/2017	ND	0.8000		11.6000
Cobalt, total	ug/L	MW-14	10/18/2017		13.4000	*	11.6000
Cobalt, total	ug/L	MW-14	01/12/2018		7.5000	*	11.6000
Cobalt, total	ug/L	MW-14	04/12/2018		14.3000	*	11.6000
Cobalt, total	ug/L	MW-14	10/23/2018		4.1000	*	11.6000
Cobalt, total	ug/L	MW-14	04/08/2019		3.8000	*	11.6000
Cobalt, total	ug/L	MW-14	10/04/2019		8.2000	*	11.6000
Cobalt, total	ug/L	MW-14	04/09/2020		5.5000	*	11.6000
Cobalt, total	ug/L	MW-14	10/01/2020		2.9000	*	11.6000
Cobalt, total	ug/L	MW-14	04/01/2021		7.4000	*	11.6000
Cobalt, total	ug/L	MW-14	10/04/2021		19.2000	*	11.6000
Cobalt, total	ug/L	MW-14	04/06/2022		15.0000	*	11.6000
Cobalt, total	ug/L	MW-14	10/04/2023		7.3000	*	11.6000
Nickel, total	ug/L	MW-14	10/17/2006		68.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/18/2007		53.0000	*	10.9000
Nickel, total	ug/L	MW-14	10/03/2007		134.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/21/2008		27.0000	*	10.9000
Nickel, total	ug/L	MW-14	10/06/2008		83.3000	*	10.9000
Nickel, total	ug/L	MW-14	04/14/2009		39.8000	*	10.9000
Nickel, total	ug/L	MW-14	04/17/2009		153.0000	*	10.9000
Nickel, total	ug/L	MW-14	06/25/2009		130.0000	*	10.9000
Nickel, total	ug/L	MW-14	07/20/2009		109.0000	*	10.9000
Nickel, total	ug/L	MW-14	10/12/2009		108.0000	*	10.9000
Nickel, total	ug/L	MW-14	10/28/2009		159.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/14/2010		97.7000	*	10.9000
Nickel, total	ug/L	MW-14	07/13/2010		105.0000	*	10.9000
Nickel, total	ug/L	MW-14	09/23/2010		111.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/21/2011		60.5000	*	10.9000
Nickel, total	ug/L	MW-14	11/03/2011		123.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/24/2012		68.8000	*	10.9000
Nickel, total	ug/L	MW-14	09/19/2012		53.7000	*	10.9000
Nickel, total	ug/L	MW-14	04/24/2013		57.5000	*	10.9000
Nickel, total	ug/L	MW-14	10/08/2013		58.7000	*	10.9000
Nickel, total	ug/L	MW-14	04/24/2014		22.2000	*	10.9000
Nickel, total	ug/L	MW-14	10/15/2014		69.2000	*	10.9000
Nickel, total	ug/L	MW-14	04/01/2015		54.2000	*	10.9000
Nickel, total	ug/L	MW-14	06/09/2015		31.8000	*	10.9000
Nickel, total	ug/L	MW-14	10/02/2015		76.9000	*	10.9000
Nickel, total	ug/L	MW-14	04/19/2016		67.7000	*	10.9000
Nickel, total	ug/L	MW-14	10/10/2016		33.0000	*	10.9000
Nickel, total	ug/L	MW-14	04/04/2017	ND	4.0000		10.9000
Nickel, total	ug/L	MW-14	10/18/2017		44.4000	*	10.9000
Nickel, total	ug/L	MW-14	01/12/2018		61.3000	*	10.9000
Nickel, total	ug/L	MW-14	04/12/2018		46.3000	*	10.9000
Nickel, total	ug/L	MW-14	10/23/2018		19.4000	*	10.9000
Nickel, total	ug/L	MW-14	04/08/2019		55.8000	*	10.9000
Nickel, total	ug/L	MW-14	10/04/2019		42.5000	*	10.9000

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
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Table 8

**Historical Downgradient Data for Constituent-Well Combinations
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Constituent	Units	Well	Date		Result		Pred. Limit
Nickel, total	ug/L	MW-14	04/09/2020		61.0000	*	10.9000
Nickel, total	ug/L	MW-14	10/01/2020		50.6000	*	10.9000
Nickel, total	ug/L	MW-14	04/01/2021		23.3000	*	10.9000
Nickel, total	ug/L	MW-14	10/04/2021		52.6000	*	10.9000
Nickel, total	ug/L	MW-14	04/06/2022		50.6000	*	10.9000
Nickel, total	ug/L	MW-14	10/04/2023		33.8000	*	10.9000
Arsenic, total	ug/L	MW-9	10/17/2006		10.0000	*	4.0000
Arsenic, total	ug/L	MW-9	04/18/2007		8.0000	*	4.0000
Arsenic, total	ug/L	MW-9	10/03/2007	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	04/21/2008	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	10/06/2008	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	04/13/2009	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/17/2009	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	06/25/2009	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	07/20/2009	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	10/12/2009	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	10/28/2009	ND	20.0000		4.0000
Arsenic, total	ug/L	MW-9	04/24/2012		6.9000	*	4.0000
Arsenic, total	ug/L	MW-9	09/19/2012		11.8000	*	4.0000
Arsenic, total	ug/L	MW-9	04/24/2013		9.4000	*	4.0000
Arsenic, total	ug/L	MW-9	10/08/2013		6.9000	*	4.0000
Arsenic, total	ug/L	MW-9	04/24/2014	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/16/2014		5.4000	*	4.0000
Arsenic, total	ug/L	MW-9	04/01/2015	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/02/2015		5.0000	*	4.0000
Arsenic, total	ug/L	MW-9	04/19/2016		14.9000	*	4.0000
Arsenic, total	ug/L	MW-9	10/10/2016	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/04/2017	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/18/2017	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/12/2018		4.5000	*	4.0000
Arsenic, total	ug/L	MW-9	10/23/2018	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	04/08/2019	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/04/2019		5.4000	*	4.0000
Arsenic, total	ug/L	MW-9	04/09/2020	ND	4.0000		4.0000
Arsenic, total	ug/L	MW-9	10/01/2020		5.9000	*	4.0000
Arsenic, total	ug/L	MW-9	04/01/2021		4.8000	*	4.0000
Arsenic, total	ug/L	MW-9	10/04/2021		7.8000	*	4.0000
Arsenic, total	ug/L	MW-9	04/06/2022		17.8000	*	4.0000
Arsenic, total	ug/L	MW-9	10/04/2023		16.2000	*	4.0000
Barium, total	ug/L	MW-9	10/17/2006		923.0000	*	294.3691
Barium, total	ug/L	MW-9	04/18/2007		671.0000	*	294.3691
Barium, total	ug/L	MW-9	10/03/2007		609.0000	*	294.3691
Barium, total	ug/L	MW-9	04/21/2008		554.0000	*	294.3691
Barium, total	ug/L	MW-9	10/06/2008		555.0000	*	294.3691
Barium, total	ug/L	MW-9	04/13/2009		157.0000	*	294.3691
Barium, total	ug/L	MW-9	04/17/2009		596.0000	*	294.3691
Barium, total	ug/L	MW-9	06/25/2009		687.0000	*	294.3691
Barium, total	ug/L	MW-9	07/20/2009		579.0000	*	294.3691
Barium, total	ug/L	MW-9	10/12/2009		618.0000	*	294.3691
Barium, total	ug/L	MW-9	10/28/2009		622.0000	*	294.3691
Barium, total	ug/L	MW-9	04/14/2010		599.0000	*	294.3691
Barium, total	ug/L	MW-9	07/13/2010		719.0000	*	294.3691
Barium, total	ug/L	MW-9	09/23/2010		627.0000	*	294.3691
Barium, total	ug/L	MW-9	04/21/2011		212.0000	*	294.3691
Barium, total	ug/L	MW-9	11/03/2011		581.0000	*	294.3691
Barium, total	ug/L	MW-9	04/24/2012		619.0000	*	294.3691
Barium, total	ug/L	MW-9	09/19/2012		665.0000	*	294.3691
Barium, total	ug/L	MW-9	04/24/2013		597.0000	*	294.3691
Barium, total	ug/L	MW-9	10/08/2013		604.0000	*	294.3691
Barium, total	ug/L	MW-9	04/24/2014		522.0000	*	294.3691
Barium, total	ug/L	MW-9	10/16/2014		651.0000	*	294.3691
Barium, total	ug/L	MW-9	04/01/2015		742.0000	*	294.3691
Barium, total	ug/L	MW-9	06/09/2015		789.0000	*	294.3691
Barium, total	ug/L	MW-9	10/02/2015		862.0000	*	294.3691
Barium, total	ug/L	MW-9	04/19/2016		932.0000	*	294.3691
Barium, total	ug/L	MW-9	10/10/2016		652.0000	*	294.3691
Barium, total	ug/L	MW-9	04/04/2017		917.0000	*	294.3691
Barium, total	ug/L	MW-9	10/18/2017		638.0000	*	294.3691
Barium, total	ug/L	MW-9	04/12/2018		691.0000	*	294.3691
Barium, total	ug/L	MW-9	10/23/2018		721.0000	*	294.3691
Barium, total	ug/L	MW-9	04/08/2019		717.0000	*	294.3691

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
 *** - Manual exclusion.
 ND = Not Detected, Result = detection limit.

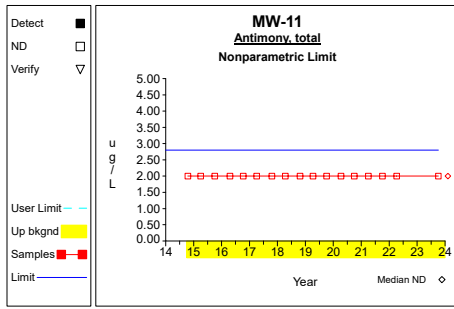
Table 8

**Historical Downgradient Data for Constituent-Well Combinations
that Failed the Current Statistical Evaluation or
are in Verification Resampling Mode**

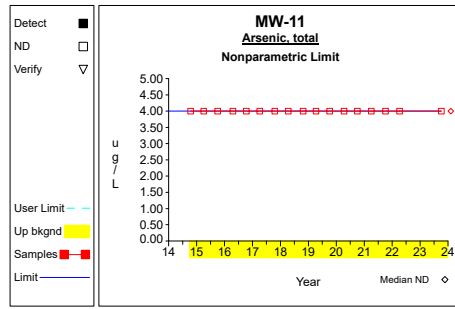
Constituent	Units	Well	Date	Result	Pred. Limit
Barium, total	ug/L	MW-9	10/04/2019	616.0000 *	294.3691
Barium, total	ug/L	MW-9	04/09/2020	707.0000 *	294.3691
Barium, total	ug/L	MW-9	10/01/2020	630.0000 *	294.3691
Barium, total	ug/L	MW-9	04/01/2021	839.0000 *	294.3691
Barium, total	ug/L	MW-9	10/04/2021	773.0000 *	294.3691
Barium, total	ug/L	MW-9	04/06/2022	1120.0000 *	294.3691
Barium, total	ug/L	MW-9	10/04/2023	855.0000 *	294.3691
Nickel, total	ug/L	MW-9	10/17/2006	41.0000 *	10.9000
Nickel, total	ug/L	MW-9	04/18/2007	23.0000 *	10.9000
Nickel, total	ug/L	MW-9	10/03/2007	39.0000 *	10.9000
Nickel, total	ug/L	MW-9	04/21/2008	19.0000 *	10.9000
Nickel, total	ug/L	MW-9	10/06/2008	19.0000 *	10.9000
Nickel, total	ug/L	MW-9	04/13/2009	21.9000 *	10.9000
Nickel, total	ug/L	MW-9	04/17/2009	21.8000 *	10.9000
Nickel, total	ug/L	MW-9	06/25/2009	24.4000 *	10.9000
Nickel, total	ug/L	MW-9	07/20/2009	21.0000 *	10.9000
Nickel, total	ug/L	MW-9	10/12/2009	16.8000 *	10.9000
Nickel, total	ug/L	MW-9	10/28/2009	19.2000 *	10.9000
Nickel, total	ug/L	MW-9	04/14/2010	19.1000 *	10.9000
Nickel, total	ug/L	MW-9	07/13/2010	25.2000 *	10.9000
Nickel, total	ug/L	MW-9	09/23/2010	19.8000 *	10.9000
Nickel, total	ug/L	MW-9	04/21/2011	33.0000 *	10.9000
Nickel, total	ug/L	MW-9	11/03/2011	17.7000 *	10.9000
Nickel, total	ug/L	MW-9	04/24/2012	23.6000 *	10.9000
Nickel, total	ug/L	MW-9	09/19/2012	16.3000 *	10.9000
Nickel, total	ug/L	MW-9	04/24/2013	31.6000 *	10.9000
Nickel, total	ug/L	MW-9	10/08/2013	21.7000 *	10.9000
Nickel, total	ug/L	MW-9	04/24/2014	16.7000 *	10.9000
Nickel, total	ug/L	MW-9	10/16/2014	23.4000 *	10.9000
Nickel, total	ug/L	MW-9	04/01/2015	24.0000 *	10.9000
Nickel, total	ug/L	MW-9	10/02/2015	53.1000 *	10.9000
Nickel, total	ug/L	MW-9	04/19/2016	32.2000 *	10.9000
Nickel, total	ug/L	MW-9	10/10/2016	26.9000 *	10.9000
Nickel, total	ug/L	MW-9	04/04/2017	32.4000 *	10.9000
Nickel, total	ug/L	MW-9	10/18/2017	25.2000 *	10.9000
Nickel, total	ug/L	MW-9	04/12/2018	25.8000 *	10.9000
Nickel, total	ug/L	MW-9	10/23/2018	23.7000 *	10.9000
Nickel, total	ug/L	MW-9	04/08/2019	24.7000 *	10.9000
Nickel, total	ug/L	MW-9	10/04/2019	20.3000 *	10.9000
Nickel, total	ug/L	MW-9	04/09/2020	22.8000 *	10.9000
Nickel, total	ug/L	MW-9	10/01/2020	17.1000 *	10.9000
Nickel, total	ug/L	MW-9	04/01/2021	22.5000 *	10.9000
Nickel, total	ug/L	MW-9	10/04/2021	21.9000 *	10.9000
Nickel, total	ug/L	MW-9	04/06/2022	30.9000 *	10.9000
Nickel, total	ug/L	MW-9	10/04/2023	19.1000 *	10.9000

* - Significantly increased over background.
 ** - Detect at limit for 100% NDs in background (NPPL only).
 *** - Manual exclusion.
 ND = Not Detected, Result = detection limit.

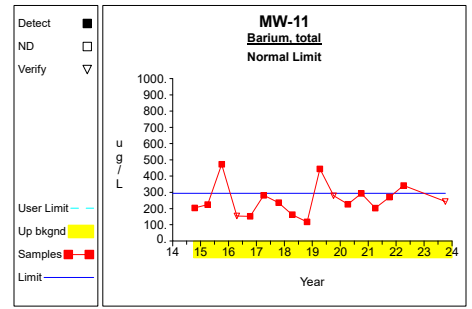
Up vs. Down Prediction Limits



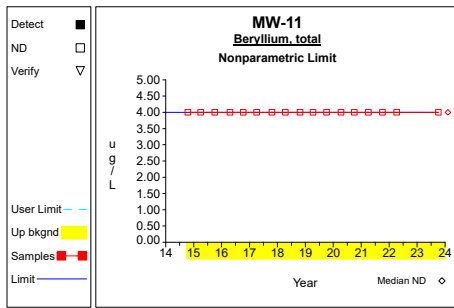
Graph 1



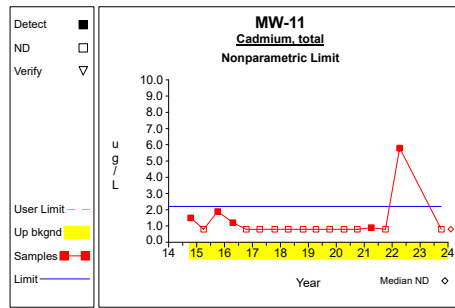
Graph 2



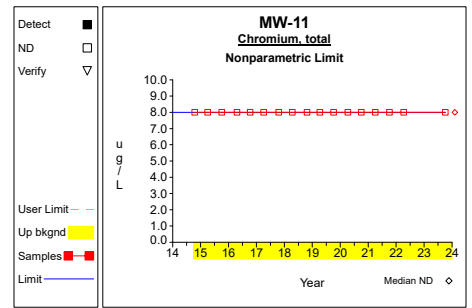
Graph 3



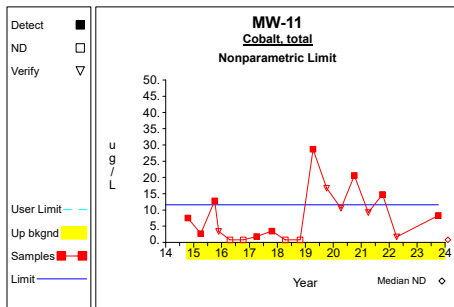
Graph 4



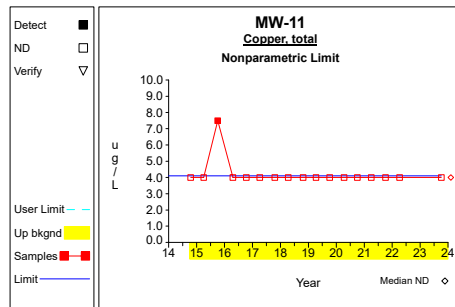
Graph 5



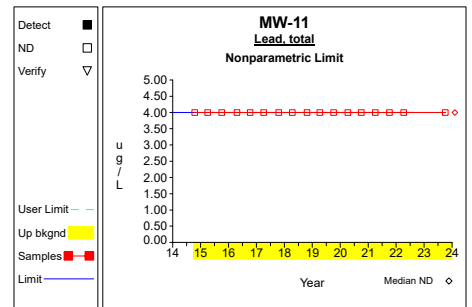
Graph 6



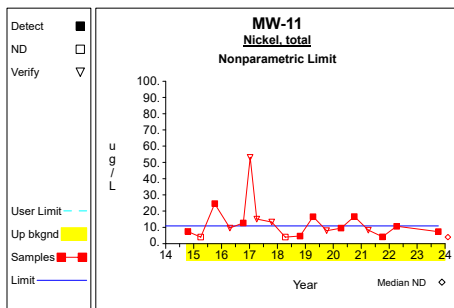
Graph 7



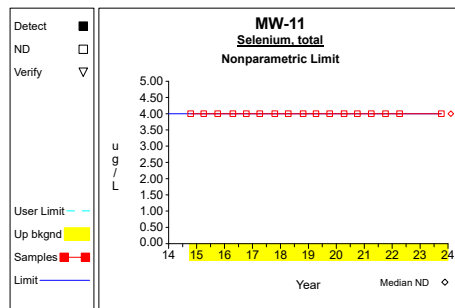
Graph 8



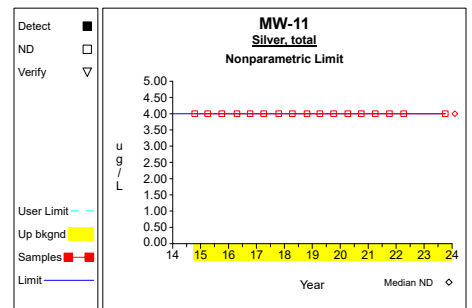
Graph 9



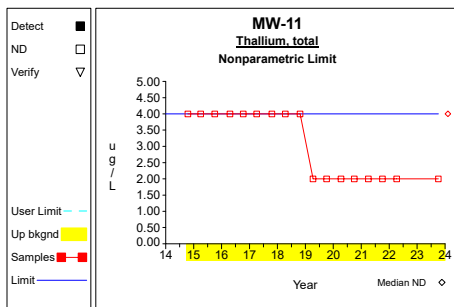
Graph 10



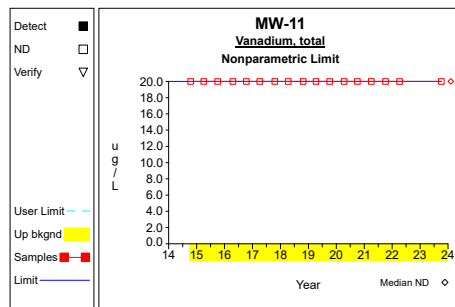
Graph 11



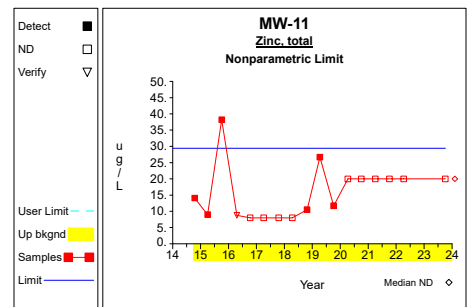
Graph 12



Graph 13

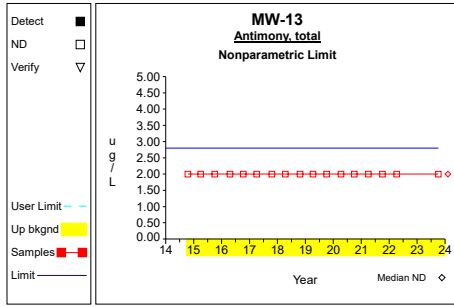


Graph 14

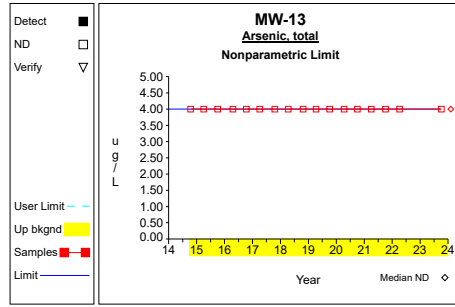


Graph 15

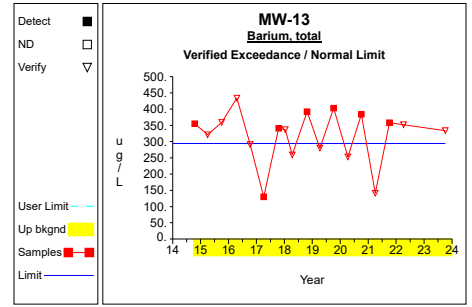
Up vs. Down Prediction Limits



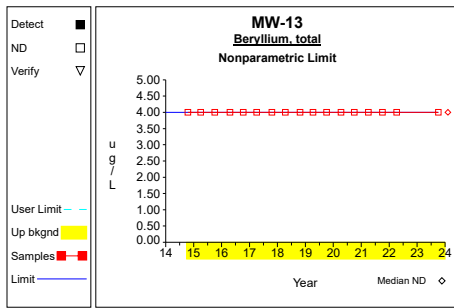
Graph 16



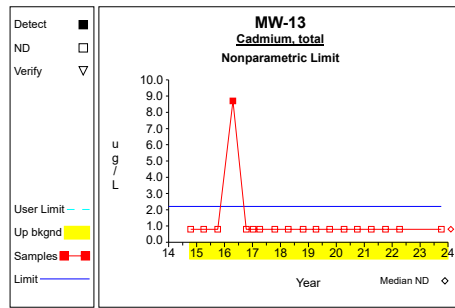
Graph 17



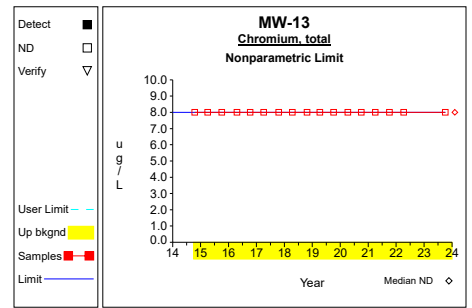
Graph 18



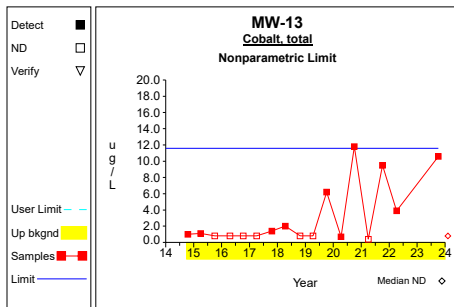
Graph 19



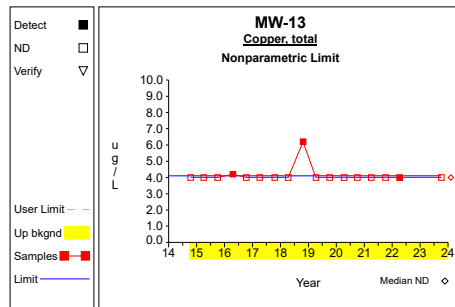
Graph 20



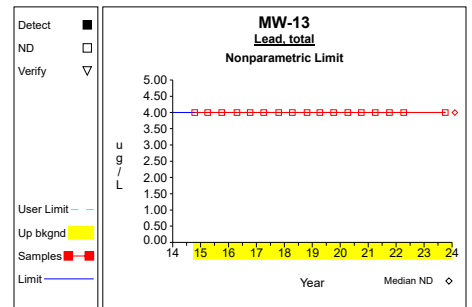
Graph 21



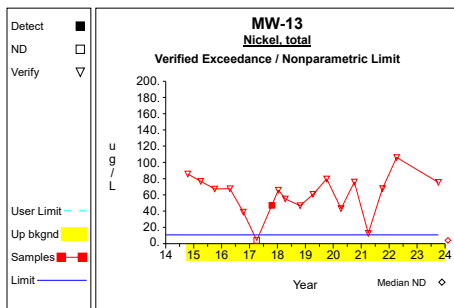
Graph 22



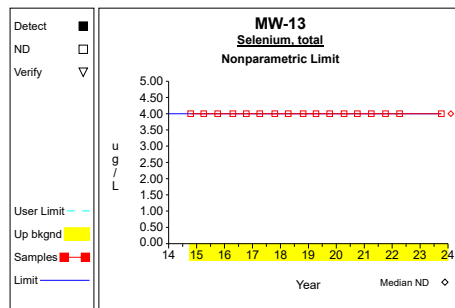
Graph 23



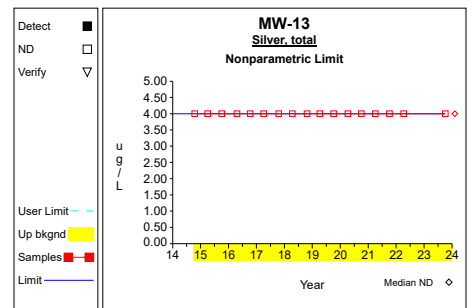
Graph 24



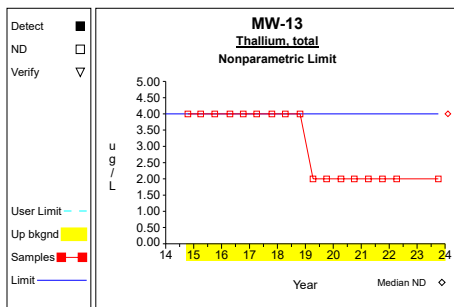
Graph 25



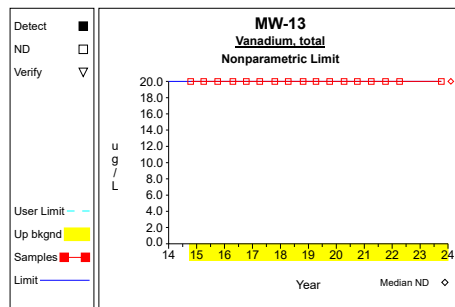
Graph 26



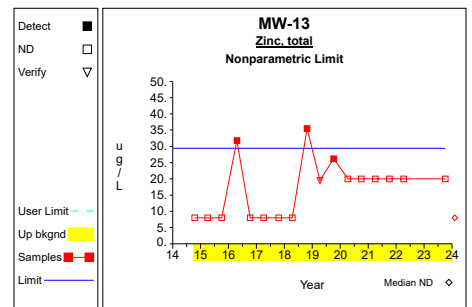
Graph 27



Graph 28

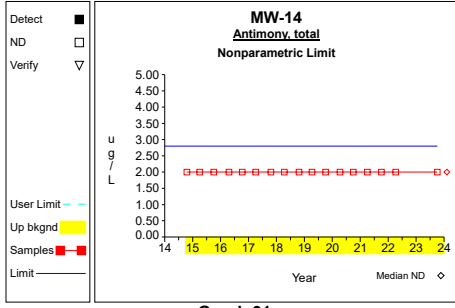


Graph 29

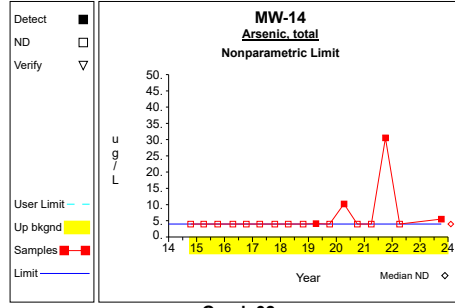


Graph 30

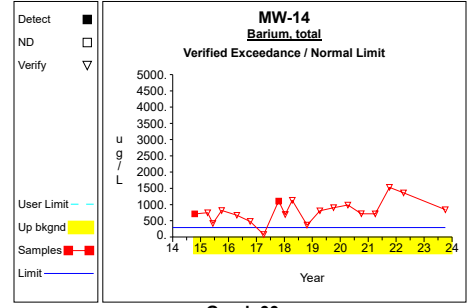
Up vs. Down Prediction Limits



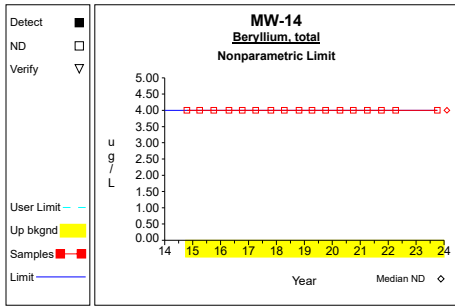
Graph 31



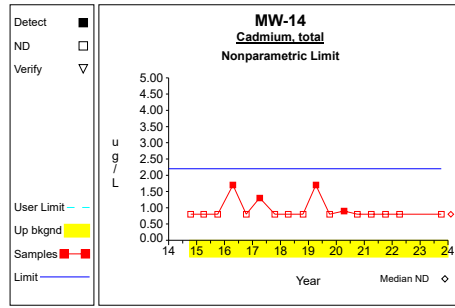
Graph 32



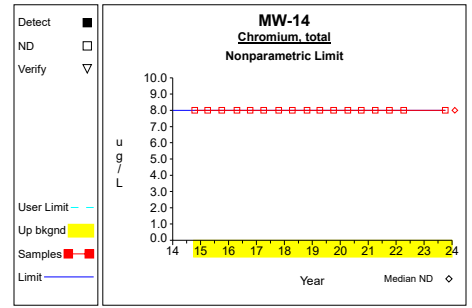
Graph 33



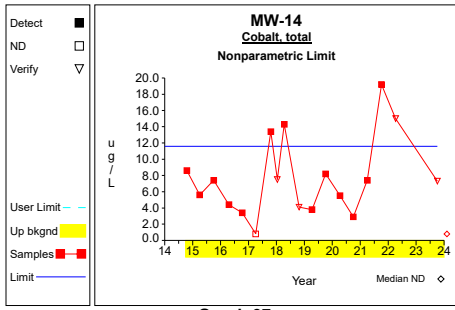
Graph 34



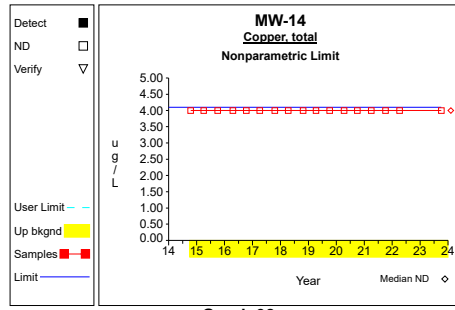
Graph 35



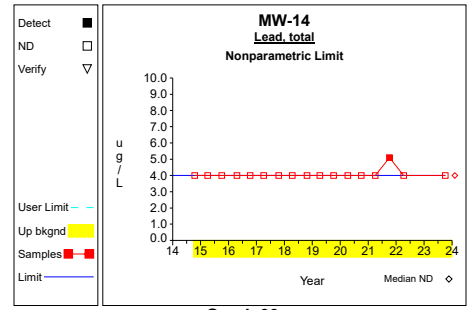
Graph 36



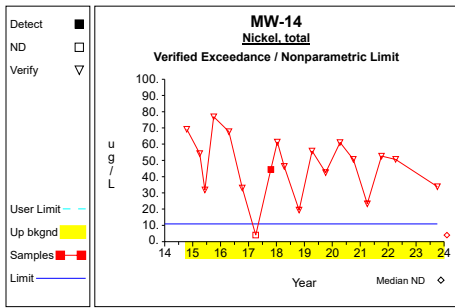
Graph 37



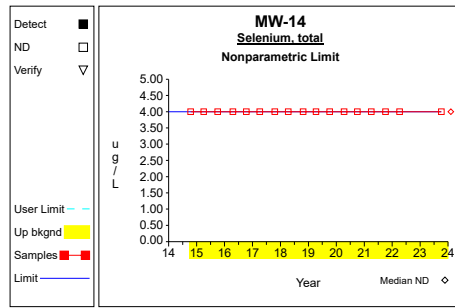
Graph 38



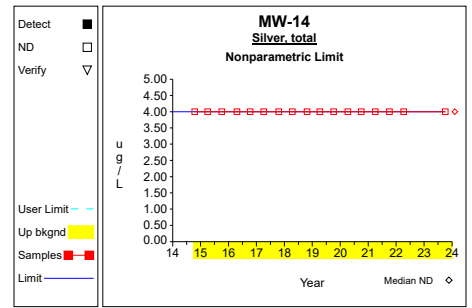
Graph 39



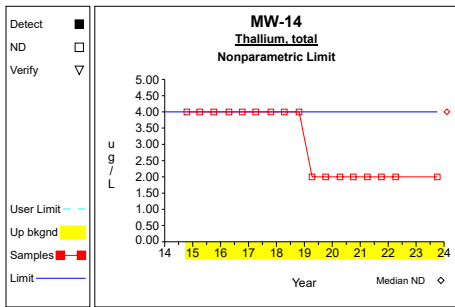
Graph 40



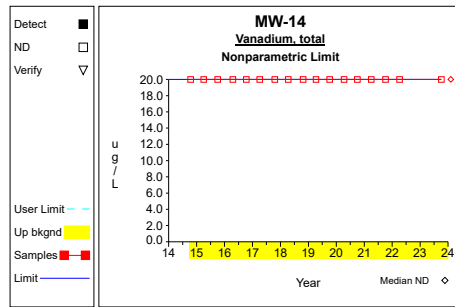
Graph 41



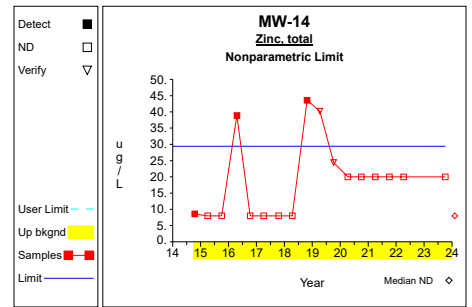
Graph 42



Graph 43

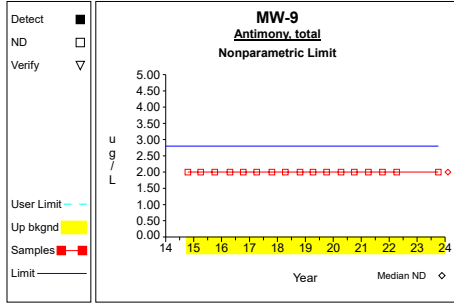


Graph 44

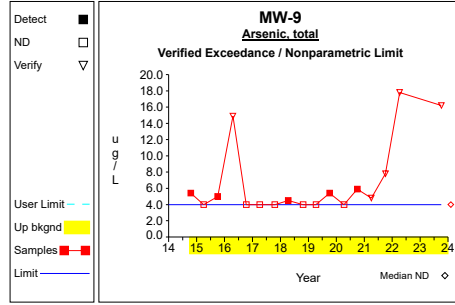


Graph 45

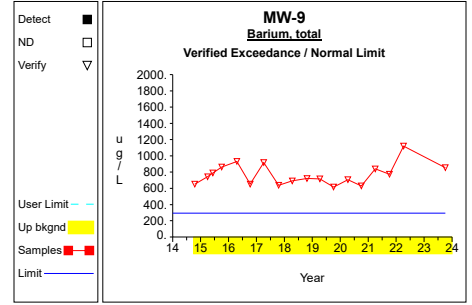
Up vs. Down Prediction Limits



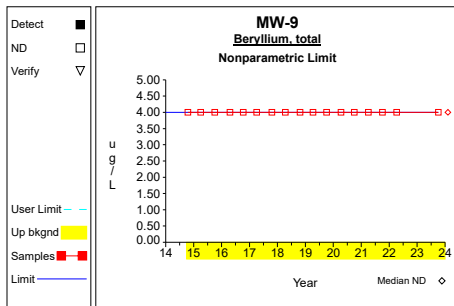
Graph 46



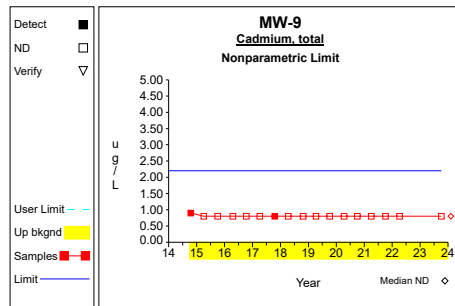
Graph 47



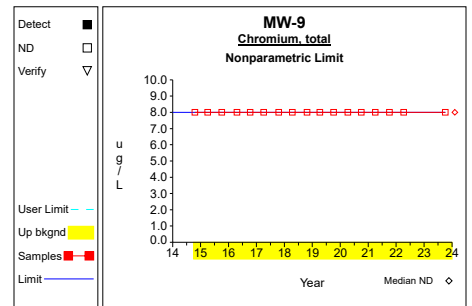
Graph 48



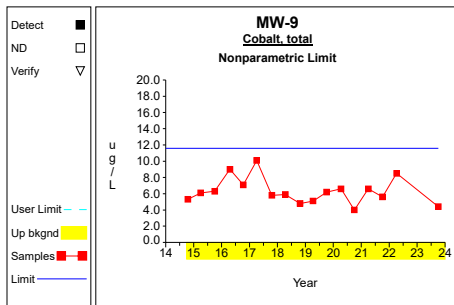
Graph 49



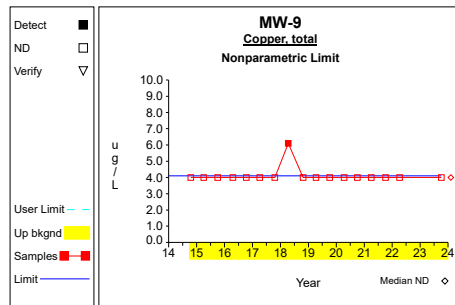
Graph 50



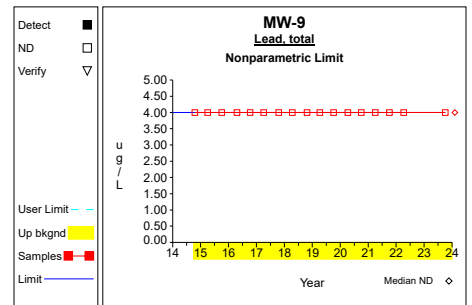
Graph 51



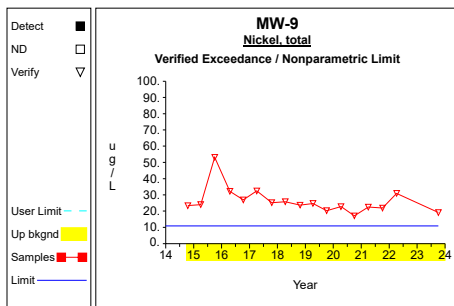
Graph 52



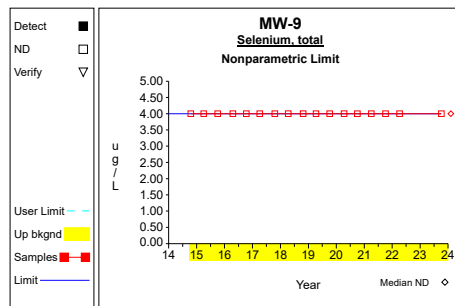
Graph 53



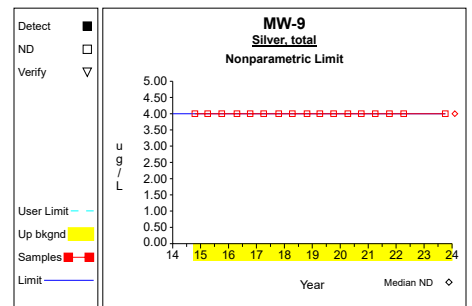
Graph 54



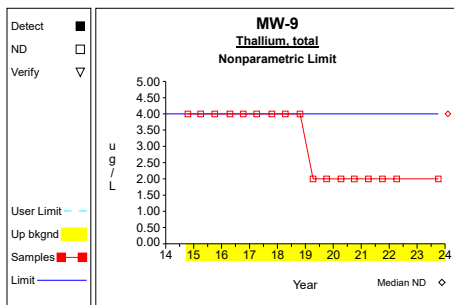
Graph 55



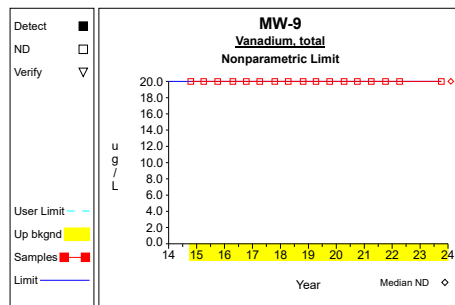
Graph 56



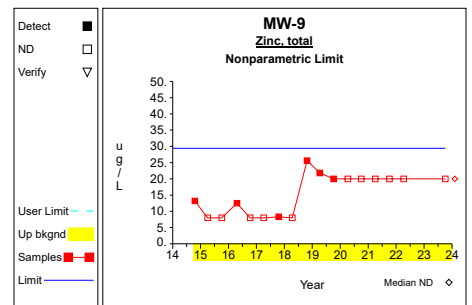
Graph 57



Graph 58

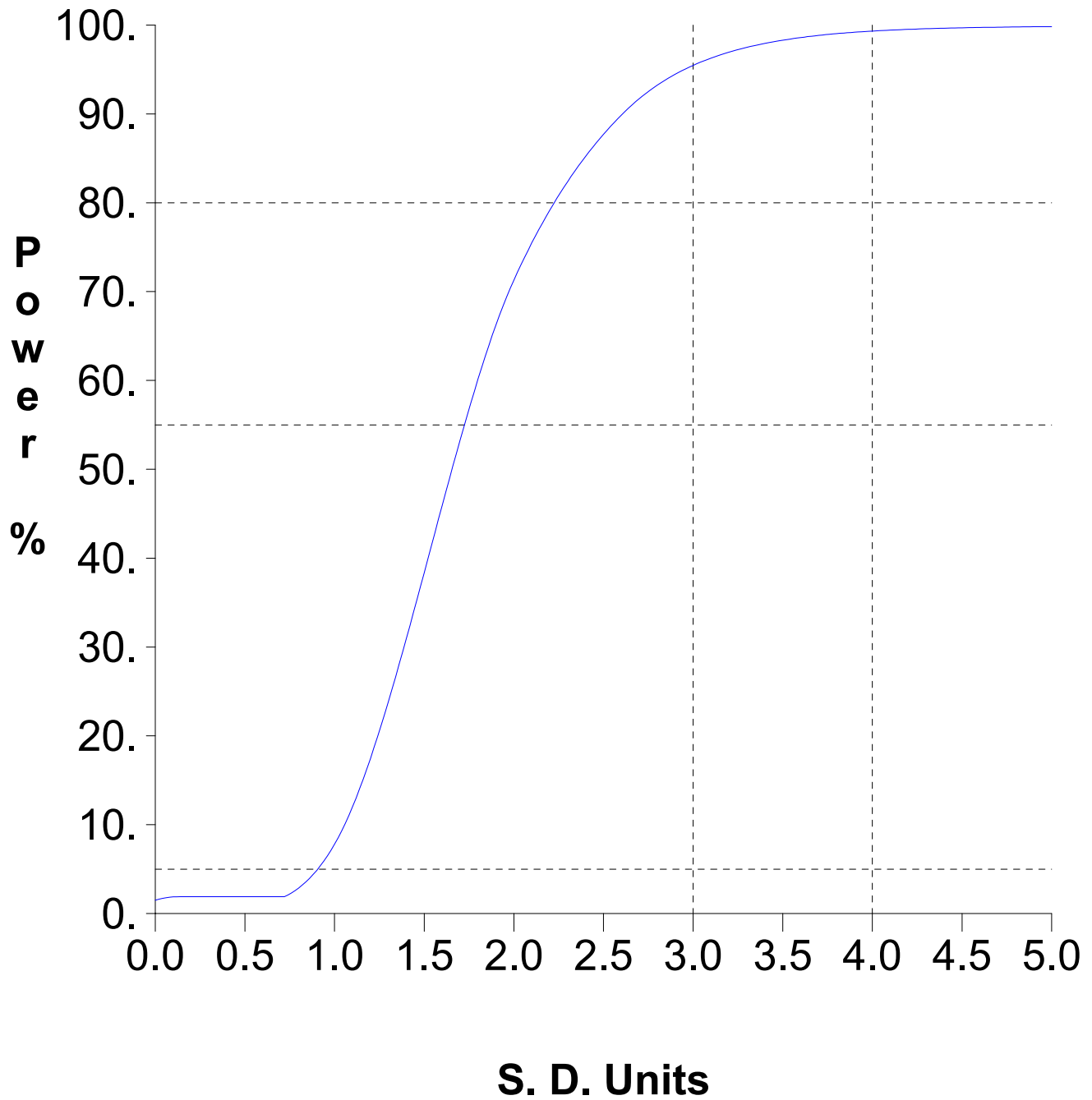


Graph 59



Graph 60

False Positive and False Negative Rates for Current Upgradient vs. Downgradient Monitoring Program



Attachment C

Assessment Statistics for Trace Metals

Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
Arsenic, total	ug/L	MW-11	4	2.000	0.000	1.176	2.000	2.000	10.000	
Barium, total	ug/L	MW-11	4	264.500	58.541	1.176	195.639	333.361	2000.000	
Cadmium, total	ug/L	MW-11	4	1.875	2.627	1.176	0.000	4.965	5.000	
Cobalt, total	ug/L	MW-11	4	8.500	5.368	1.176	2.185	14.815	2.100	**
Nickel, total	ug/L	MW-11	4	7.650	2.689	1.176	4.487	10.813	100.000	
Arsenic, total	ug/L	MW-13	4	2.000	0.000	1.176	2.000	2.000	10.000	
Barium, total	ug/L	MW-13	4	296.250	104.001	1.176	173.915	418.585	2000.000	
Cadmium, total	ug/L	MW-13	4	0.400	0.000	1.176	0.400	0.400	5.000	
Cobalt, total	ug/L	MW-13	4	6.100	4.801	1.176	0.453	11.747	2.100	
Nickel, total	ug/L	MW-13	4	65.475	38.865	1.176	19.759	111.191	100.000	
Arsenic, total	ug/L	MW-14	4	10.000	13.766	1.176	0.000	26.193	10.000	
Barium, total	ug/L	MW-14	4	1111.750	394.543	1.176	647.653	1575.847	2000.000	
Cadmium, total	ug/L	MW-14	4	0.400	0.000	1.176	0.400	0.400	5.000	
Cobalt, total	ug/L	MW-14	4	12.225	5.885	1.176	5.303	19.147	2.100	**
Nickel, total	ug/L	MW-14	4	40.075	14.005	1.176	23.601	56.549	100.000	
Arsenic, total	ug/L	MW-9	4	11.650	6.332	1.176	4.202	19.098	10.000	
Barium, total	ug/L	MW-9	4	896.750	153.006	1.176	716.770	1076.730	2000.000	
Cadmium, total	ug/L	MW-9	4	0.400	0.000	1.176	0.400	0.400	5.000	
Cobalt, total	ug/L	MW-9	4	6.275	1.735	1.176	4.234	8.316	2.100	**
Nickel, total	ug/L	MW-9	4	23.600	5.087	1.176	17.616	29.584	100.000	

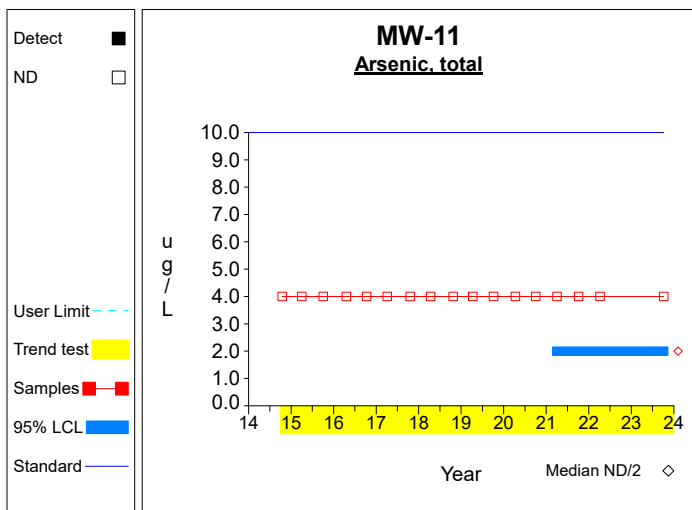
* - Insufficient Data

** - Significant Exceedance

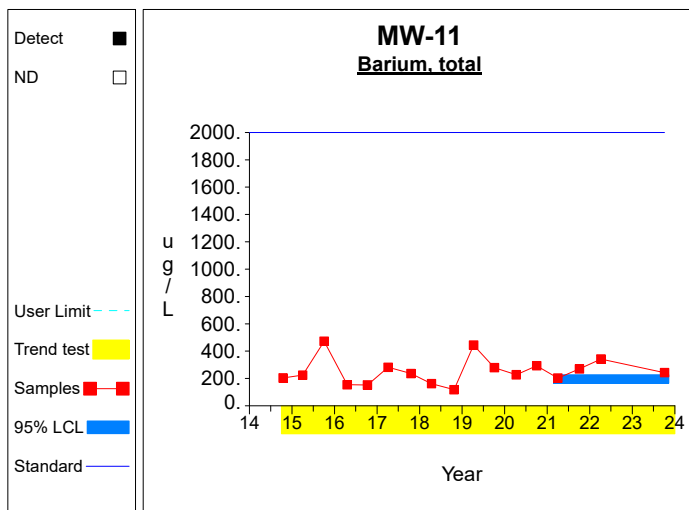
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

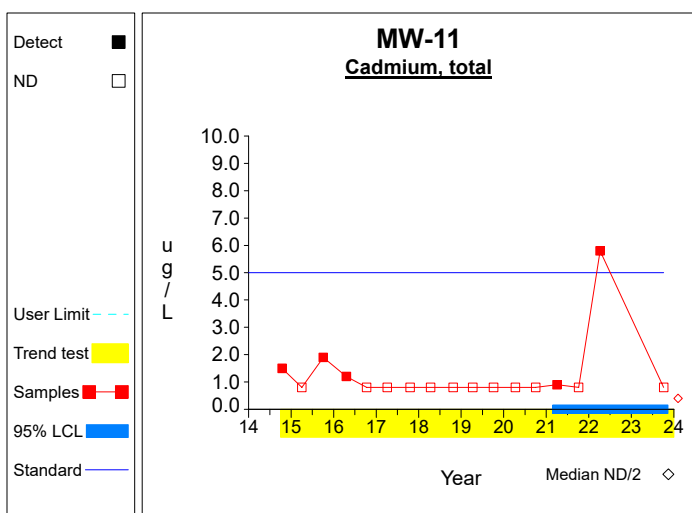
Confidence Limits (Assessment)



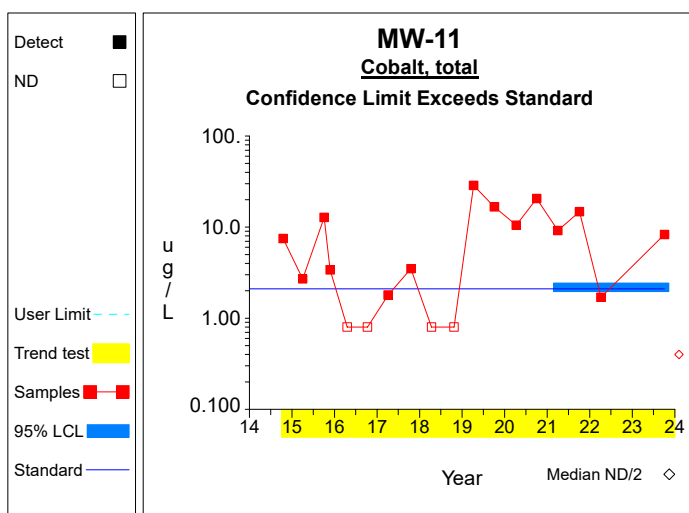
Graph 1



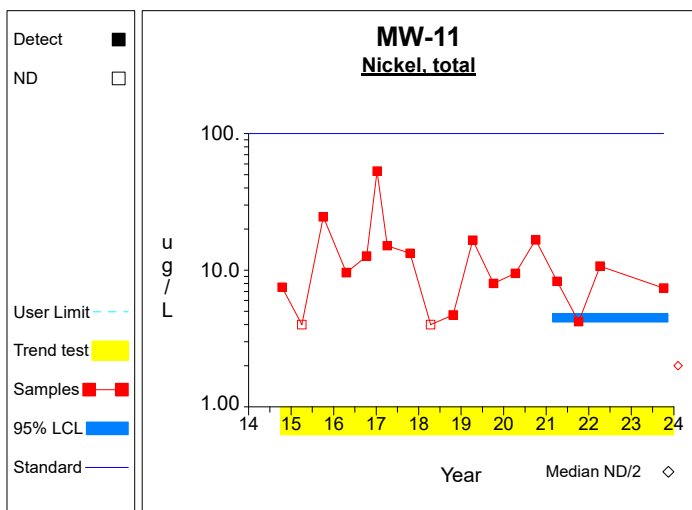
Graph 2



Graph 3

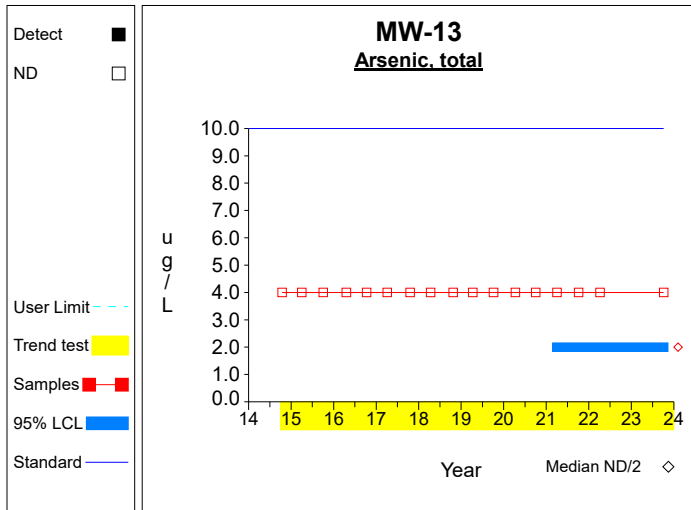


Graph 4

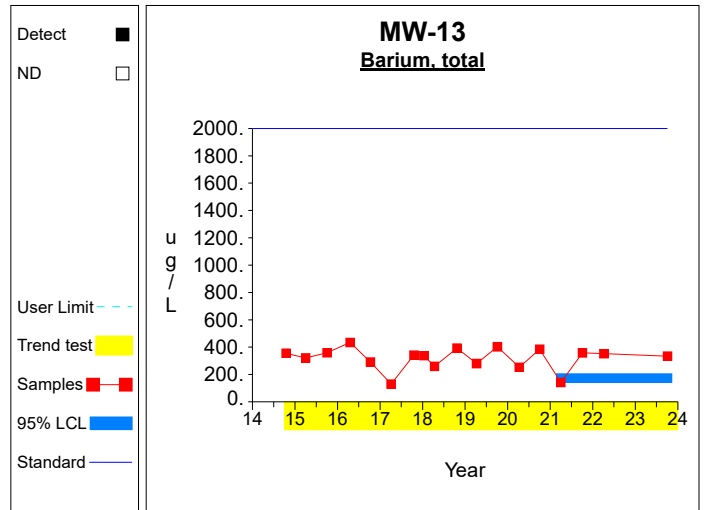


Graph 5

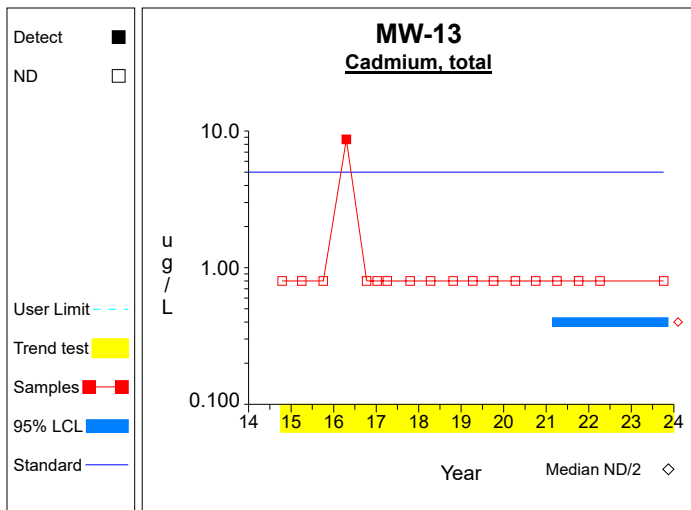
Confidence Limits (Assessment)



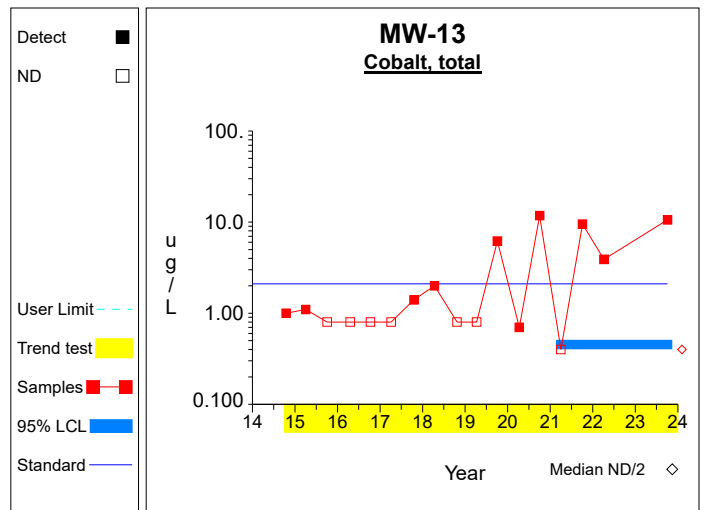
Graph 6



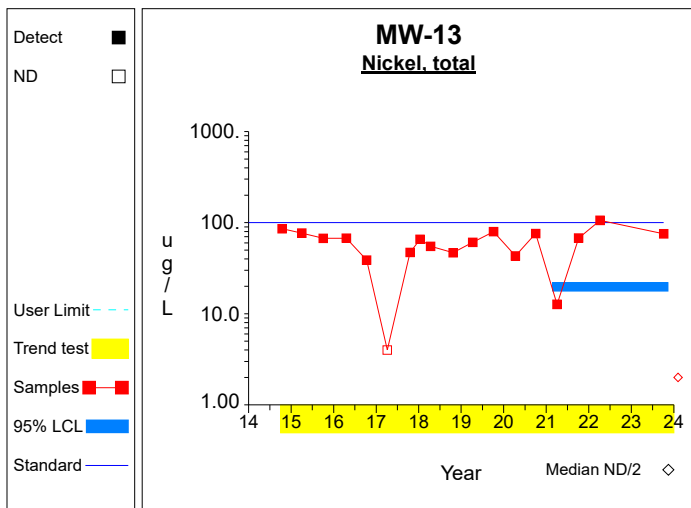
Graph 7



Graph 8

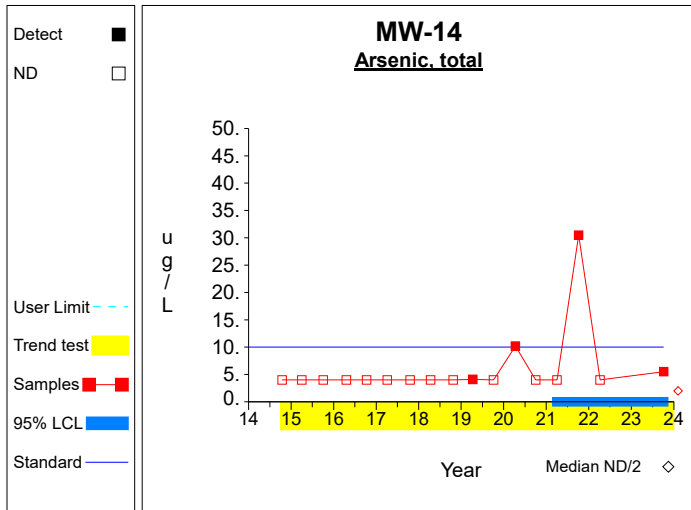


Graph 9

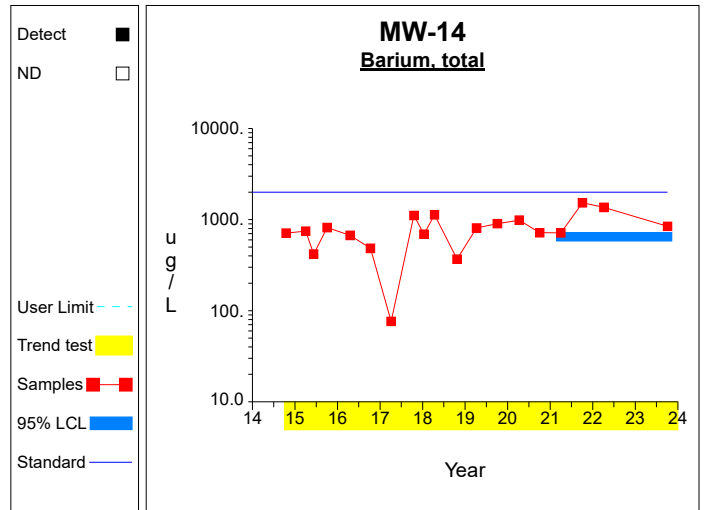


Graph 10

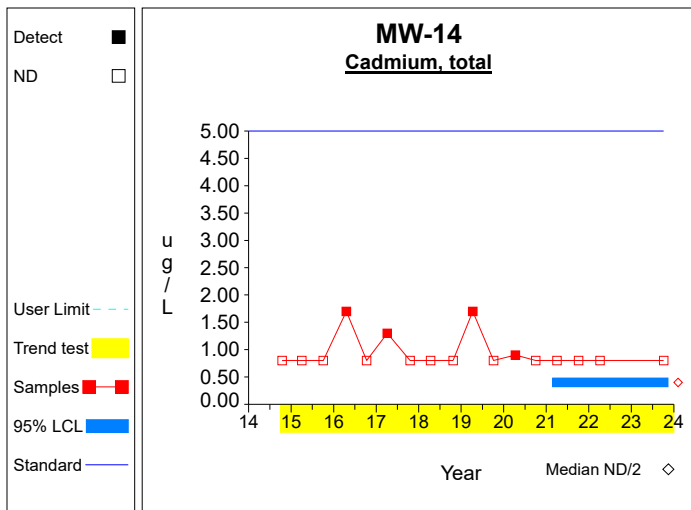
Confidence Limits (Assessment)



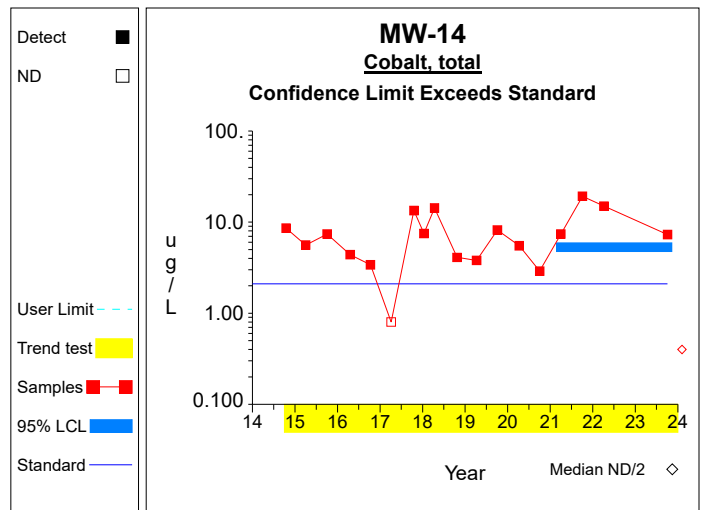
Graph 11



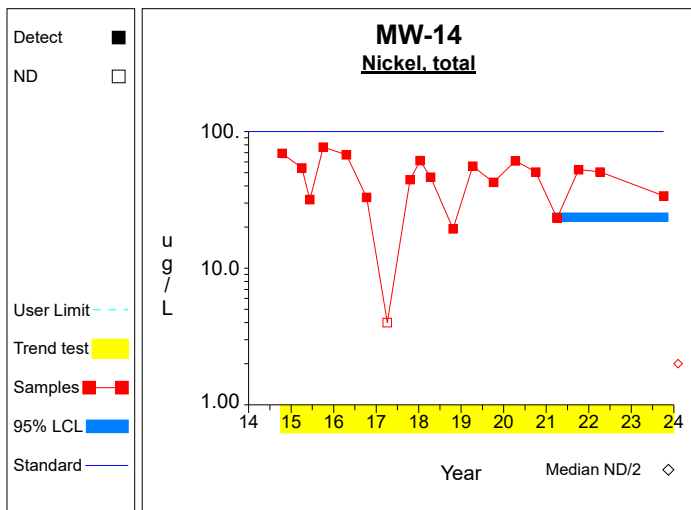
Graph 12



Graph 13

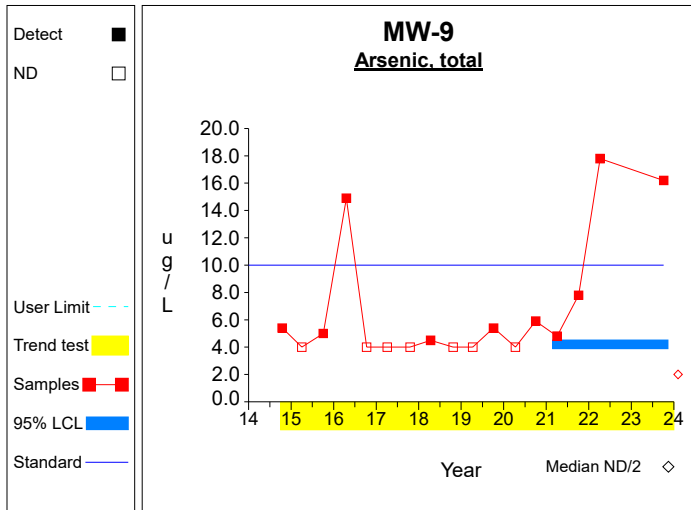


Graph 14

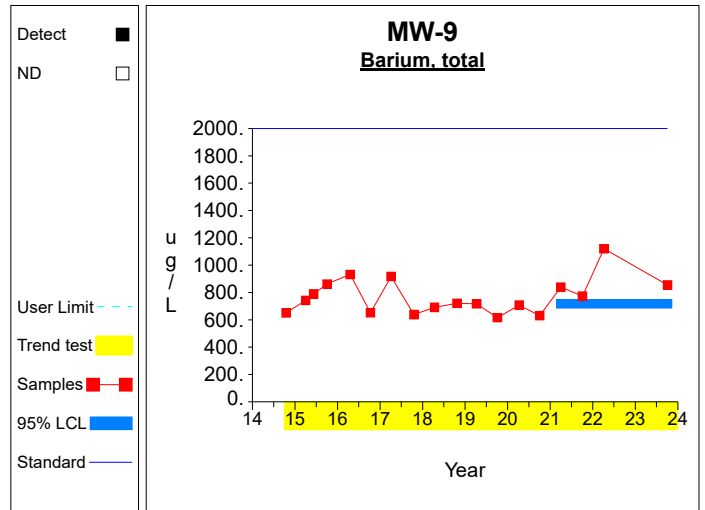


Graph 15

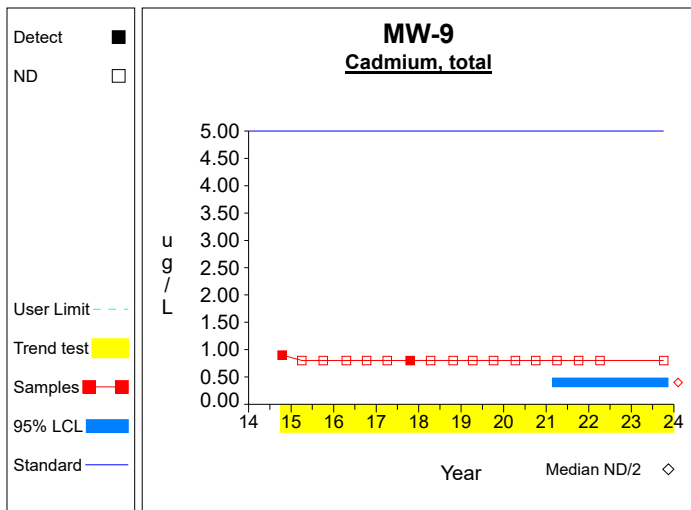
Confidence Limits (Assessment)



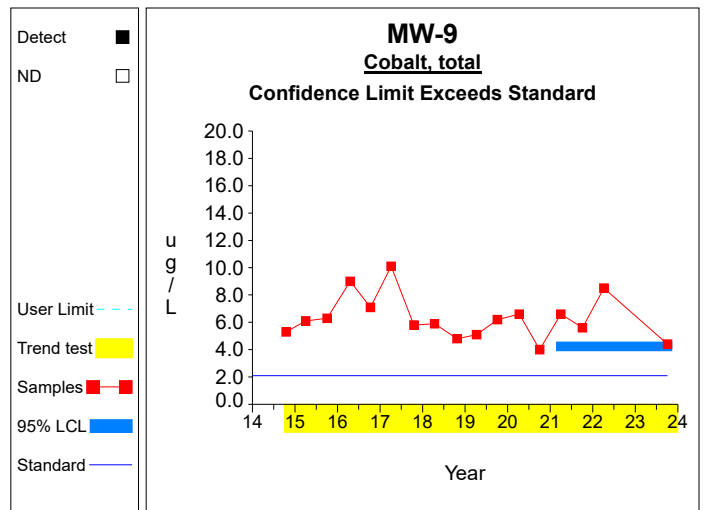
Graph 16



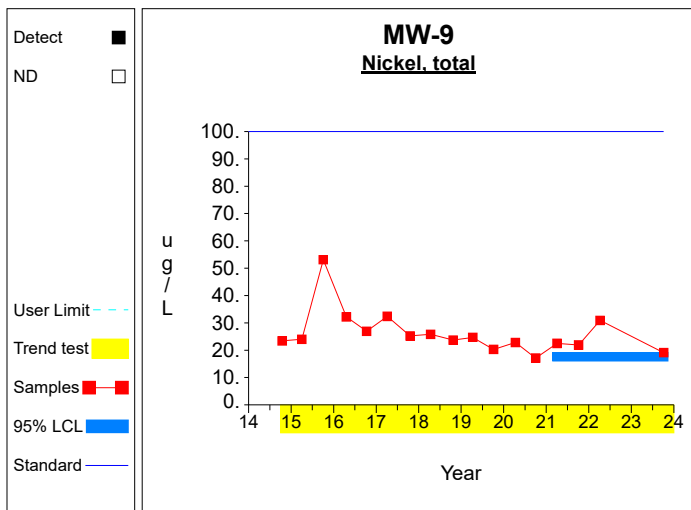
Graph 17



Graph 18



Graph 19



Graph 20

Attachment D

Summary Table of Historical VOC Detections

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Bis(2-ethylhexyl) phthalate	MW-10	4/12/2018		13	6	ug/L
Phorate	MW-10	4/04/2017		.5	.4	ug/L
Bis(2-ethylhexyl) phthalate	MW-11	4/12/2018		23	6	ug/L
Bis(2-ethylhexyl) phthalate	MW-11	10/04/2023		9	6	ug/L
Chlorobenzene	MW-11	4/17/2009		1.0	1.0	ug/L
Chlorobenzene	MW-11	10/28/2009		1.0	1.0	ug/L
Chlorobenzene	MW-11	4/14/2010		1.6	1.0	ug/L
Chlorobenzene	MW-11	7/13/2010		1.4	1.0	ug/L
Chlorobenzene	MW-11	4/21/2011		1.6	1.0	ug/L
Chlorobenzene	MW-11	4/24/2012		1.2	1.0	ug/L
Chlorobenzene	MW-11	10/18/2017		2.1	1.0	ug/L
Phorate	MW-11	4/04/2017		2.4	.4	ug/L
1,1-dichloroethane	MW-13	10/17/2006		3.0	1.0	ug/L
1,1-dichloroethane	MW-13	10/03/2007		1.0	1.0	ug/L
1,1-dichloroethane	MW-13	11/03/2011		1.2	1.0	ug/L
1,1-dichloroethane	MW-13	9/19/2012		1.0	1.0	ug/L
1,1-dichloroethane	MW-13	10/08/2013		1.3	1.0	ug/L
1,1-dichloroethane	MW-13	4/24/2014		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/02/2015		2.7	1.0	ug/L
1,4-dichlorobenzene	MW-13	4/19/2016		3.5	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/10/2016		2.5	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/18/2017		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/23/2018		5.9	1.0	ug/L
1,4-dichlorobenzene	MW-13	4/08/2019		3.7	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/04/2019		4.1	1.0	ug/L
1,4-dichlorobenzene	MW-13	4/09/2020		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/01/2020		2.7	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/04/2021		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-13	4/06/2022		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-13	10/04/2023		2.6	1.0	ug/L
Acetone	MW-13	10/18/2017		17.7	10.0	ug/L
Benzene	MW-13	10/23/2018		1.8	1.0	ug/L
Chlorobenzene	MW-13	10/23/2018		2.0	1.0	ug/L
Chlorobenzene	MW-13	10/04/2023		1.1	1.0	ug/L
Chloroethane	MW-13	10/17/2006		1.0	1.0	ug/L
Chloroethane	MW-13	10/03/2007		3.1	1.0	ug/L
Chloroethane	MW-13	9/23/2010		1.6	1.0	ug/L
Chloroethane	MW-13	11/03/2011		1.8	1.0	ug/L
Chloroethane	MW-13	9/19/2012		1.5	1.0	ug/L
Chloroethane	MW-13	10/08/2013		2.7	1.0	ug/L
Chloroethane	MW-13	10/02/2015		1.1	1.0	ug/L
Chloroethane	MW-13	10/10/2016		1.0	1.0	ug/L
Chloroethane	MW-13	10/18/2017		2.1	1.0	ug/L
Chloroethane	MW-13	10/23/2018		2.0	1.0	ug/L
Chloroethane	MW-13	10/04/2019		3.1	1.0	ug/L
Chloroethane	MW-13	10/01/2020		2.0	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	10/17/2006		2.0	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	10/03/2007		2.3	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	9/23/2010		1.0	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	11/03/2011		1.4	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	10/08/2013		1.2	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	10/15/2014		1.2	1.0	ug/L
Cis-1,2-dichloroethene	MW-13	4/19/2016		1.1	1.0	ug/L
Phorate	MW-13	10/15/2014		2.0	.4	ug/L
Phorate	MW-13	10/02/2015		.4	.4	ug/L
Phorate	MW-13	10/10/2016		.8	.4	ug/L
1,4-dichlorobenzene	MW-14	10/18/2017		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-14	4/09/2020		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-14	4/01/2021		1.3	1.0	ug/L
1,4-dichlorobenzene	MW-14	10/04/2021		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-14	4/06/2022		1.0	1.0	ug/L
Acetone	MW-14	4/24/2013		10.2	10.0	ug/L
Acetone	MW-14	10/18/2017		18.6	10.0	ug/L
Benzene	MW-14	10/03/2007		1.1	1.0	ug/L
Benzene	MW-14	4/14/2009		2.2	1.0	ug/L
Benzene	MW-14	10/15/2014		1.6	1.0	ug/L
Benzene	MW-14	10/02/2015		1.8	1.0	ug/L
Benzene	MW-14	4/19/2016		1.9	1.0	ug/L
Benzene	MW-14	10/10/2016		1.3	1.0	ug/L
Benzene	MW-14	10/18/2017		1.5	1.0	ug/L
Benzene	MW-14	4/12/2018		1.2	1.0	ug/L
Benzene	MW-14	10/23/2018		2.7	1.0	ug/L
Benzene	MW-14	4/08/2019		1.9	1.0	ug/L
Benzene	MW-14	10/04/2019		1.6	1.0	ug/L
Benzene	MW-14	4/09/2020		1.6	1.0	ug/L
Benzene	MW-14	10/01/2020		2.3	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
 The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Chlorobenzene	MW-14	10/03/2007		2.8	1.0	ug/L
Chlorobenzene	MW-14	4/14/2009		1.0	1.0	ug/L
Chlorobenzene	MW-14	4/16/2009		1.6	1.0	ug/L
Chlorobenzene	MW-14	4/17/2009		1.6	1.0	ug/L
Chlorobenzene	MW-14	7/20/2009		1.2	1.0	ug/L
Chlorobenzene	MW-14	10/12/2009		3.4	1.0	ug/L
Chlorobenzene	MW-14	10/28/2009		1.3	1.0	ug/L
Chlorobenzene	MW-14	4/14/2010		1.0	1.0	ug/L
Chlorobenzene	MW-14	4/14/2010		1.0	1.0	ug/L
Chlorobenzene	MW-14	7/13/2010		1.6	1.0	ug/L
Chlorobenzene	MW-14	7/13/2010		1.6	1.0	ug/L
Chlorobenzene	MW-14	9/23/2010		2.1	1.0	ug/L
Chlorobenzene	MW-14	9/23/2010		2.1	1.0	ug/L
Chlorobenzene	MW-14	11/03/2011		1.9	1.0	ug/L
Chlorobenzene	MW-14	4/24/2012		2.0	1.0	ug/L
Chlorobenzene	MW-14	9/19/2012		2.5	1.0	ug/L
Chlorobenzene	MW-14	10/08/2013		3.0	1.0	ug/L
Chlorobenzene	MW-14	10/15/2014		4.7	1.0	ug/L
Chlorobenzene	MW-14	4/01/2015		1.1	1.0	ug/L
Chlorobenzene	MW-14	10/02/2015		5.3	1.0	ug/L
Chlorobenzene	MW-14	4/19/2016		6.1	1.0	ug/L
Chlorobenzene	MW-14	10/10/2016		4.4	1.0	ug/L
Chlorobenzene	MW-14	10/18/2017		6.8	1.0	ug/L
Chlorobenzene	MW-14	4/12/2018		5.7	1.0	ug/L
Chlorobenzene	MW-14	10/23/2018		8.2	1.0	ug/L
Chlorobenzene	MW-14	4/08/2019		9.3	1.0	ug/L
Chlorobenzene	MW-14	10/04/2019		7.5	1.0	ug/L
Chlorobenzene	MW-14	4/09/2020		8.7	1.0	ug/L
Chlorobenzene	MW-14	10/01/2020		9.1	1.0	ug/L
Chlorobenzene	MW-14	4/01/2021		6.2	1.0	ug/L
Chlorobenzene	MW-14	10/04/2021		3.9	1.0	ug/L
Chlorobenzene	MW-14	4/06/2022		5.3	1.0	ug/L
Chloroethane	MW-14	10/03/2007		2.8	1.0	ug/L
Chloroethane	MW-14	4/14/2009		1.2	1.0	ug/L
Chloroethane	MW-14	4/16/2009		1.3	1.0	ug/L
Chloroethane	MW-14	4/17/2009		1.3	1.0	ug/L
Chloroethane	MW-14	10/12/2009		1.4	1.0	ug/L
Chloroethane	MW-14	10/28/2009		1.5	1.0	ug/L
Chloroethane	MW-14	7/13/2010		1.4	1.0	ug/L
Chloroethane	MW-14	7/13/2010		1.4	1.0	ug/L
Chloroethane	MW-14	9/23/2010		1.2	1.0	ug/L
Chloroethane	MW-14	9/23/2010		1.2	1.0	ug/L
Chloroethane	MW-14	10/10/2016		1.2	1.0	ug/L
Chloroethane	MW-14	10/18/2017		1.3	1.0	ug/L
Chloroethane	MW-14	10/04/2019		1.7	1.0	ug/L
Cis-1,2-dichloroethene	MW-14	10/03/2007		1.4	1.0	ug/L
Cis-1,2-dichloroethene	MW-14	6/25/2009		1.1	1.0	ug/L
Dichlorodifluoromethane	MW-14	10/04/2019		1.2	1.0	ug/L
Ethylbenzene	MW-14	4/14/2009		12.6	1.0	ug/L
Phorate	MW-14	10/15/2014		7.1	.4	ug/L
Phorate	MW-14	10/02/2015		2.8	.4	ug/L
Phorate	MW-14	10/10/2016		2.7	.4	ug/L
Tetrachloroethene	MW-14	10/23/2018		1	1	ug/L
Thionazin	MW-14	10/15/2014		.5	.4	ug/L
Vinyl chloride	MW-14	4/14/2009		1.3	1.0	ug/L
Xylenes, total	MW-14	4/14/2009		2.4	2.0	ug/L
Acetone	MW-15A	10/18/2017		17.2	10.0	ug/L
Acetone	MW-16	10/18/2017		18.3	10.0	ug/L
Benzene	MW-16	4/24/2012		1	1	ug/L
Carbon disulfide	MW-16	10/17/2006		2	1	ug/L
Chlorobenzene	MW-16	10/12/2009		5.2	1.0	ug/L
Chlorobenzene	MW-16	11/03/2011		3.3	1.0	ug/L
Chlorobenzene	MW-16	4/24/2012		3.8	1.0	ug/L
Chlorobenzene	MW-16	9/19/2012		2.2	1.0	ug/L
Chlorobenzene	MW-16	10/18/2017		1.7	1.0	ug/L
Chloroethane	MW-16	10/12/2009		1.8	1.0	ug/L
Chloroethane	MW-16	11/03/2011		1.1	1.0	ug/L
Chloroethane	MW-16	4/24/2012		1.1	1.0	ug/L
Cis-1,2-dichloroethene	MW-16	10/12/2009		2.1	1.0	ug/L
Cis-1,2-dichloroethene	MW-16	11/03/2011		1.5	1.0	ug/L
Cis-1,2-dichloroethene	MW-16	4/24/2012		1.0	1.0	ug/L
Cis-1,2-dichloroethene	MW-16	9/19/2012		1.3	1.0	ug/L
Phorate	MW-16	10/02/2015		.7	.4	ug/L
Phorate	MW-16	10/10/2016		.7	.4	ug/L
1,4-dichlorobenzene	MW-18	4/24/2012		2.1	1.0	ug/L
Acetone	MW-18	10/18/2017		16.3	10.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
 The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Benzene	MW-18	4/24/2012		1.2	1.0	ug/L
Chlorobenzene	MW-18	4/21/2008		11	1	ug/L
Chlorobenzene	MW-18	4/24/2012		9	1	ug/L
Chloroethane	MW-18	4/24/2012		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/17/2006		1.3	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/18/2007		1.5	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/03/2007		1.5	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/16/2009		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/14/2010		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-19	9/23/2010		1.3	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/21/2011		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-19	9/19/2012		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/08/2013		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/02/2015		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/19/2016		1.7	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/10/2016		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-19	4/04/2017		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-19	10/18/2017		2.1	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-19	10/16/2014		21	8	ug/L
Bis(2-ethylhexyl) phthalate	MW-19	4/01/2015		11	10	ug/L
Chlorobenzene	MW-19	10/17/2006		2.7	1.0	ug/L
Chlorobenzene	MW-19	4/18/2007		6.4	1.0	ug/L
Chlorobenzene	MW-19	10/03/2007		6.4	1.0	ug/L
Chlorobenzene	MW-19	4/21/2008		2.6	1.0	ug/L
Chlorobenzene	MW-19	10/06/2008		5.9	1.0	ug/L
Chlorobenzene	MW-19	4/16/2009		1.3	1.0	ug/L
Chlorobenzene	MW-19	4/16/2009		1.3	1.0	ug/L
Chlorobenzene	MW-19	6/25/2009		1.5	1.0	ug/L
Chlorobenzene	MW-19	7/20/2009		3.6	1.0	ug/L
Chlorobenzene	MW-19	10/12/2009		4.0	1.0	ug/L
Chlorobenzene	MW-19	10/28/2009		5.4	1.0	ug/L
Chlorobenzene	MW-19	4/14/2010		8.2	1.0	ug/L
Chlorobenzene	MW-19	4/14/2010		8.2	1.0	ug/L
Chlorobenzene	MW-19	7/13/2010		3.5	1.0	ug/L
Chlorobenzene	MW-19	7/13/2010		3.5	1.0	ug/L
Chlorobenzene	MW-19	9/23/2010		7.2	1.0	ug/L
Chlorobenzene	MW-19	9/23/2010		7.2	1.0	ug/L
Chlorobenzene	MW-19	4/21/2011		3.8	1.0	ug/L
Chlorobenzene	MW-19	4/21/2011		3.8	1.0	ug/L
Chlorobenzene	MW-19	11/03/2011		4.4	1.0	ug/L
Chlorobenzene	MW-19	9/19/2012		9.8	1.0	ug/L
Chlorobenzene	MW-19	4/24/2013		3.6	1.0	ug/L
Chlorobenzene	MW-19	10/08/2013		7.4	1.0	ug/L
Chlorobenzene	MW-19	4/24/2014		1.9	1.0	ug/L
Chlorobenzene	MW-19	10/16/2014		5.8	1.0	ug/L
Chlorobenzene	MW-19	4/01/2015		3.4	1.0	ug/L
Chlorobenzene	MW-19	10/02/2015		6.9	1.0	ug/L
Chlorobenzene	MW-19	10/10/2016		8.6	1.0	ug/L
Chlorobenzene	MW-19	4/04/2017		8.1	1.0	ug/L
Chlorobenzene	MW-19	10/18/2017		9.3	1.0	ug/L
Chloroethane	MW-19	10/17/2006		1.3	1.0	ug/L
Chloroethane	MW-19	4/18/2007		2.0	1.0	ug/L
Chloroethane	MW-19	10/03/2007		2.7	1.0	ug/L
Chloroethane	MW-19	4/16/2009		1.0	1.0	ug/L
Chloroethane	MW-19	4/14/2010		1.3	1.0	ug/L
Chloroethane	MW-19	9/23/2010		1.4	1.0	ug/L
Chloroethane	MW-19	9/19/2012		1.1	1.0	ug/L
Chloroethane	MW-19	10/10/2016		1.1	1.0	ug/L
Phorate	MW-19	10/16/2014		3.3	.4	ug/L
Phorate	MW-19	10/02/2015		1.0	.4	ug/L
Phorate	MW-19	10/10/2016		2.2	.4	ug/L
Phorate	MW-19	4/04/2017		2.5	.4	ug/L
Acetone	MW-3	10/18/2017		15.6	10.0	ug/L
1,1-dichloroethane	MW-5	4/24/2012		1.2	1.0	ug/L
1,1-dichloroethane	MW-5	9/19/2012		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/24/2012		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-5	9/19/2012		2.3	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/08/2013		1.3	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/18/2017		1.9	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/04/2019		6.4	1.0	ug/L
1,4-dichlorobenzene	MW-5	4/01/2021		2.4	1.0	ug/L
1,4-dichlorobenzene	MW-5	10/04/2021		1.9	1.0	ug/L
2-butanone	MW-5	4/24/2014		9.6	5.0	ug/L
Acetone	MW-5	4/24/2014		32.4	10.0	ug/L
Benzene	MW-5	9/19/2012		2.2	1.0	ug/L
Benzene	MW-5	10/08/2013		1.7	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
 The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Benzene	MW-5	4/24/2014		1.5	1.0	ug/L
Benzene	MW-5	10/04/2019		2.7	1.0	ug/L
Chlorobenzene	MW-5	4/16/2009		1.4	1.0	ug/L
Chlorobenzene	MW-5	4/16/2009		1.4	1.0	ug/L
Chlorobenzene	MW-5	10/12/2009		2.9	1.0	ug/L
Chlorobenzene	MW-5	9/23/2010		3.4	1.0	ug/L
Chlorobenzene	MW-5	9/23/2010		3.4	1.0	ug/L
Chlorobenzene	MW-5	11/03/2011		7.5	1.0	ug/L
Chlorobenzene	MW-5	4/24/2012		12.2	1.0	ug/L
Chlorobenzene	MW-5	9/19/2012		36.1	1.0	ug/L
Chlorobenzene	MW-5	4/24/2013		4.6	1.0	ug/L
Chlorobenzene	MW-5	10/08/2013		17.5	1.0	ug/L
Chlorobenzene	MW-5	4/24/2014		7.3	1.0	ug/L
Chlorobenzene	MW-5	10/15/2014		1.2	1.0	ug/L
Chlorobenzene	MW-5	10/18/2017		15.7	1.0	ug/L
Chlorobenzene	MW-5	1/12/2018		1.6	1.0	ug/L
Chlorobenzene	MW-5	4/12/2018		1.4	1.0	ug/L
Chlorobenzene	MW-5	10/23/2018		2.6	1.0	ug/L
Chlorobenzene	MW-5	4/08/2019		9.8	1.0	ug/L
Chlorobenzene	MW-5	10/04/2019		33.4	1.0	ug/L
Chlorobenzene	MW-5	10/01/2020		3.4	1.0	ug/L
Chlorobenzene	MW-5	4/01/2021		12.1	1.0	ug/L
Chlorobenzene	MW-5	10/04/2021		7.3	1.0	ug/L
Chloroethane	MW-5	4/16/2009		1.1	1.0	ug/L
Chloroethane	MW-5	4/16/2009		1.1	1.0	ug/L
Chloroethane	MW-5	10/12/2009		1.9	1.0	ug/L
Chloroethane	MW-5	11/03/2011		1.9	1.0	ug/L
Chloroethane	MW-5	4/24/2012		2.2	1.0	ug/L
Chloroethane	MW-5	9/19/2012		3.4	1.0	ug/L
Chloroethane	MW-5	10/08/2013		1.2	1.0	ug/L
Chloroethane	MW-5	4/24/2014		2.4	1.0	ug/L
Chloroethane	MW-5	10/04/2019		1.8	1.0	ug/L
Cis-1,2-dichloroethene	MW-5	4/24/2012		5.5	1.0	ug/L
Cis-1,2-dichloroethene	MW-5	9/19/2012		5.1	1.0	ug/L
Cis-1,2-dichloroethene	MW-5	4/24/2013		1.8	1.0	ug/L
Cis-1,2-dichloroethene	MW-5	4/24/2014		2.3	1.0	ug/L
Thionazin	MW-5	10/15/2014		.7	.4	ug/L
Vinyl chloride	MW-5	4/16/2009		1.5	1.0	ug/L
Vinyl chloride	MW-5	4/16/2009		1.5	1.0	ug/L
Vinyl chloride	MW-5	10/12/2009		3.4	1.0	ug/L
Vinyl chloride	MW-5	9/23/2010		1.7	1.0	ug/L
Vinyl chloride	MW-5	9/23/2010		1.7	1.0	ug/L
Vinyl chloride	MW-5	11/03/2011		2.0	1.0	ug/L
Vinyl chloride	MW-5	4/24/2012		2.8	1.0	ug/L
Vinyl chloride	MW-5	9/19/2012		4.2	1.0	ug/L
Vinyl chloride	MW-5	10/08/2013		1.1	1.0	ug/L
Vinyl chloride	MW-5	4/24/2014		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/17/2006		1.6	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/18/2007		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/21/2008		1.6	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/16/2009		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/14/2010		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/21/2011		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/24/2013		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/24/2014		1.4	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/02/2015		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/10/2016		1.3	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/18/2017		1.0	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/04/2021		1.1	1.0	ug/L
1,4-dichlorobenzene	MW-9	4/06/2022		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-9	10/04/2023		1.4	1.0	ug/L
Benzene	MW-9	4/24/2014		1.4	1.0	ug/L
Bis(2-ethylhexyl) phthalate	MW-9	4/24/2013		8	8	ug/L
Chlorobenzene	MW-9	10/17/2006		4.4	1.0	ug/L
Chlorobenzene	MW-9	4/18/2007		3.7	1.0	ug/L
Chlorobenzene	MW-9	10/03/2007		4.0	1.0	ug/L
Chlorobenzene	MW-9	4/21/2008		3.7	1.0	ug/L
Chlorobenzene	MW-9	10/06/2008		3.9	1.0	ug/L
Chlorobenzene	MW-9	4/16/2009		1.0	1.0	ug/L
Chlorobenzene	MW-9	4/17/2009		1.0	1.0	ug/L
Chlorobenzene	MW-9	6/25/2009		3.0	1.0	ug/L
Chlorobenzene	MW-9	7/20/2009		2.0	1.0	ug/L
Chlorobenzene	MW-9	10/12/2009		2.3	1.0	ug/L
Chlorobenzene	MW-9	10/28/2009		1.8	1.0	ug/L
Chlorobenzene	MW-9	4/14/2010		1.3	1.0	ug/L
Chlorobenzene	MW-9	4/14/2010		1.3	1.0	ug/L

Detections are shown for the constituents and sample points selected for the analysis
 The Limit column refers to the laboratory reporting limit

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Chlorobenzene	MW-9	7/13/2010		3.3	1.0	ug/L
Chlorobenzene	MW-9	7/13/2010		3.3	1.0	ug/L
Chlorobenzene	MW-9	9/23/2010		4.1	1.0	ug/L
Chlorobenzene	MW-9	9/23/2010		4.1	1.0	ug/L
Chlorobenzene	MW-9	4/21/2011		2.1	1.0	ug/L
Chlorobenzene	MW-9	4/21/2011		2.1	1.0	ug/L
Chlorobenzene	MW-9	11/03/2011		3.2	1.0	ug/L
Chlorobenzene	MW-9	4/24/2012		2.8	1.0	ug/L
Chlorobenzene	MW-9	9/19/2012		2.4	1.0	ug/L
Chlorobenzene	MW-9	4/24/2013		1.9	1.0	ug/L
Chlorobenzene	MW-9	10/08/2013		2.8	1.0	ug/L
Chlorobenzene	MW-9	4/24/2014		6.2	1.0	ug/L
Chlorobenzene	MW-9	10/16/2014		3.8	1.0	ug/L
Chlorobenzene	MW-9	10/02/2015		5.4	1.0	ug/L
Chlorobenzene	MW-9	10/10/2016		5.9	1.0	ug/L
Chlorobenzene	MW-9	4/04/2017		2.6	1.0	ug/L
Chlorobenzene	MW-9	10/18/2017		3.9	1.0	ug/L
Chlorobenzene	MW-9	10/23/2018		5.6	1.0	ug/L
Chlorobenzene	MW-9	10/04/2019		2.4	1.0	ug/L
Chlorobenzene	MW-9	4/09/2020		1.4	1.0	ug/L
Chlorobenzene	MW-9	10/01/2020		3.0	1.0	ug/L
Chlorobenzene	MW-9	4/01/2021		3.6	1.0	ug/L
Chlorobenzene	MW-9	10/04/2021		5.4	1.0	ug/L
Chlorobenzene	MW-9	4/06/2022		4.4	1.0	ug/L
Chlorobenzene	MW-9	10/04/2023		3.6	1.0	ug/L
Chloroethane	MW-9	10/17/2006		1.8	1.0	ug/L
Chloroethane	MW-9	4/18/2007		1.4	1.0	ug/L
Chloroethane	MW-9	10/03/2007		2.0	1.0	ug/L
Chloroethane	MW-9	4/21/2008		1.4	1.0	ug/L
Chloroethane	MW-9	9/23/2010		1.1	1.0	ug/L
Chloroethane	MW-9	11/03/2011		1.0	1.0	ug/L
Chloroethane	MW-9	4/24/2012		1.2	1.0	ug/L
Chloroethane	MW-9	4/24/2014		1.1	1.0	ug/L
Chloroethane	MW-9	10/02/2015		1.1	1.0	ug/L
Chloroethane	MW-9	4/06/2022		1.0	1.0	ug/L
Phorate	MW-9	10/16/2014		3.0	.4	ug/L
Phorate	MW-9	10/02/2015		1.2	.4	ug/L
Phorate	MW-9	10/10/2016		2.5	.4	ug/L
Phorate	MW-9	4/04/2017		1.5	.4	ug/L

Detections are shown for the constituents and sample points selected for the analysis
 The Limit column refers to the laboratory reporting limit

Attachment E

Assessment Statistics for Detected VOCs

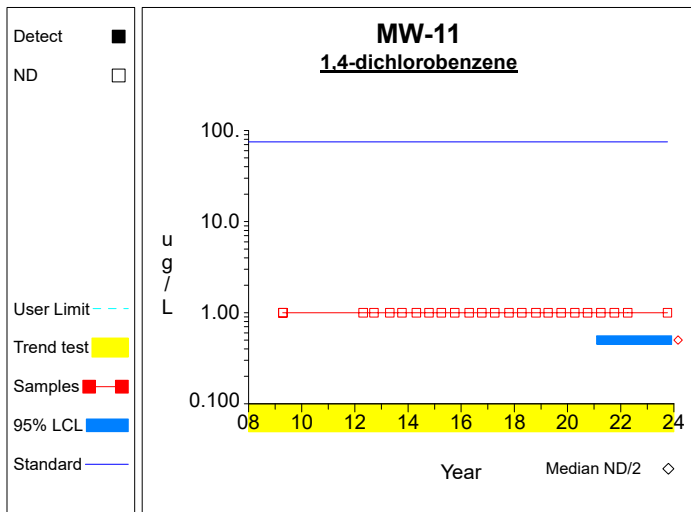
Table 1

Confidence Intervals for Comparing the Mean of the Last 4 Measurements to an Assessment Monitoring Standard

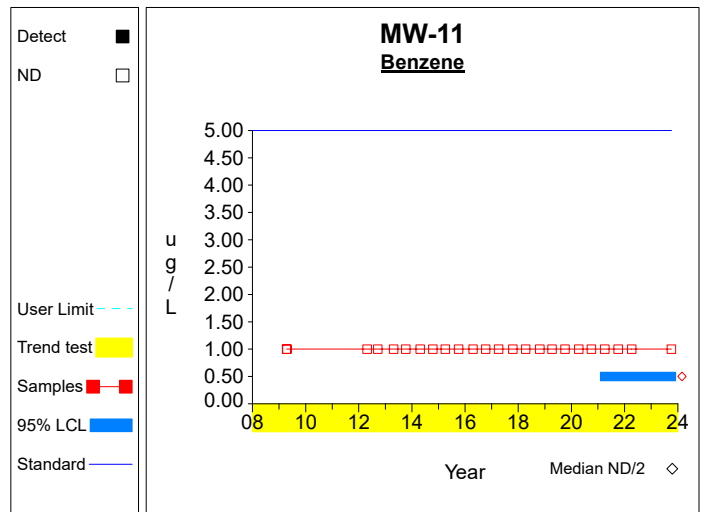
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,4-dichlorobenzene	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-11	4	10.000	8.981	1.176	0.000	20.565	6.000	
Chlorobenzene	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	100.000	
Chloroethane	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	2800.000	
1,4-dichlorobenzene	ug/L	MW-13	4	1.700	0.949	1.176	0.584	2.816	75.000	
Benzene	ug/L	MW-13	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-13	4	4.000	0.000	1.176	4.000	4.000	6.000	
Chlorobenzene	ug/L	MW-13	4	0.650	0.300	1.176	0.297	1.003	100.000	
Chloroethane	ug/L	MW-13	4	0.500	0.000	1.176	0.500	0.500	2800.000	
1,4-dichlorobenzene	ug/L	MW-14	4	0.950	0.332	1.176	0.560	1.340	75.000	
Benzene	ug/L	MW-14	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-14	4	4.000	0.000	1.176	4.000	4.000	6.000	
Chlorobenzene	ug/L	MW-14	4	3.975	2.502	1.176	1.031	6.919	100.000	inc
Chloroethane	ug/L	MW-14	4	0.500	0.000	1.176	0.500	0.500	2800.000	
1,4-dichlorobenzene	ug/L	MW-9	4	1.050	0.387	1.176	0.594	1.506	75.000	
Benzene	ug/L	MW-9	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-9	4	5.000	0.000	1.176	5.000	5.000	6.000	
Chlorobenzene	ug/L	MW-9	4	4.250	0.854	1.176	3.245	5.255	100.000	
Chloroethane	ug/L	MW-9	4	0.625	0.250	1.176	0.331	0.919	2800.000	

* - Insufficient Data
 ** - Significant Exceedance
 LCL = Lower Confidence Limit
 UCL = Upper Confidence Limit

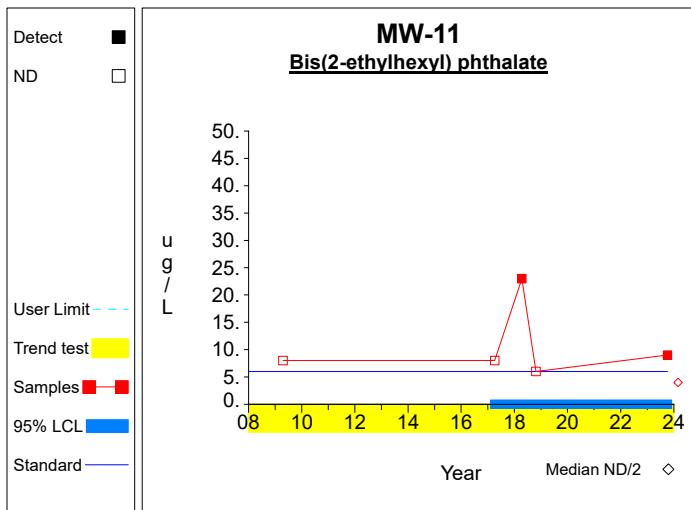
Confidence Limits (Assessment)



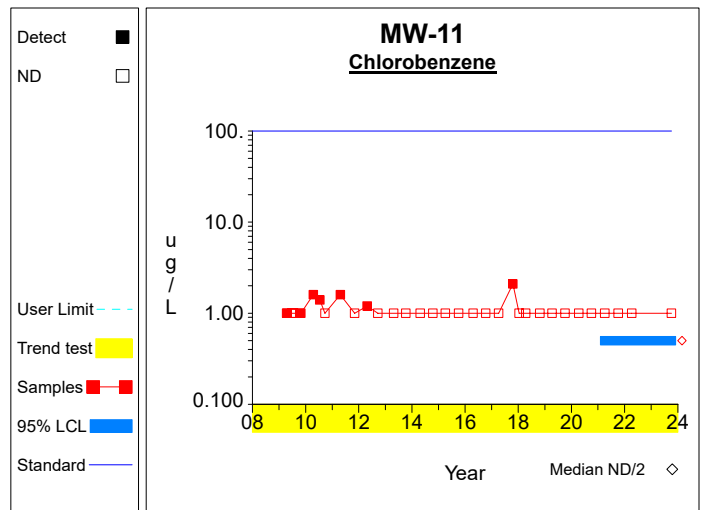
Graph 1



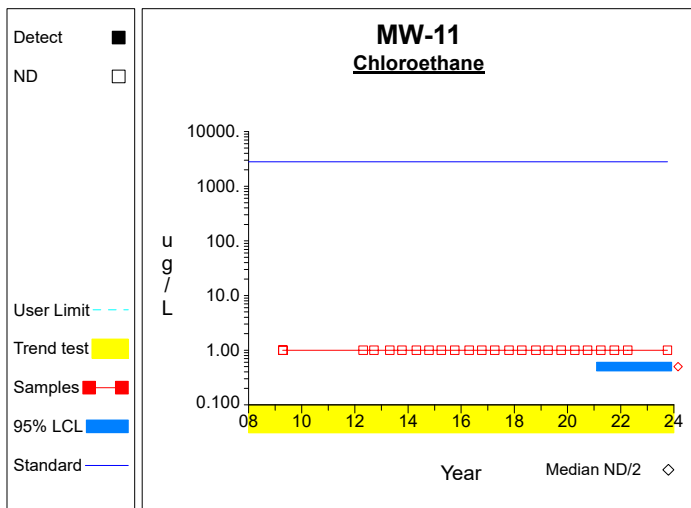
Graph 2



Graph 3

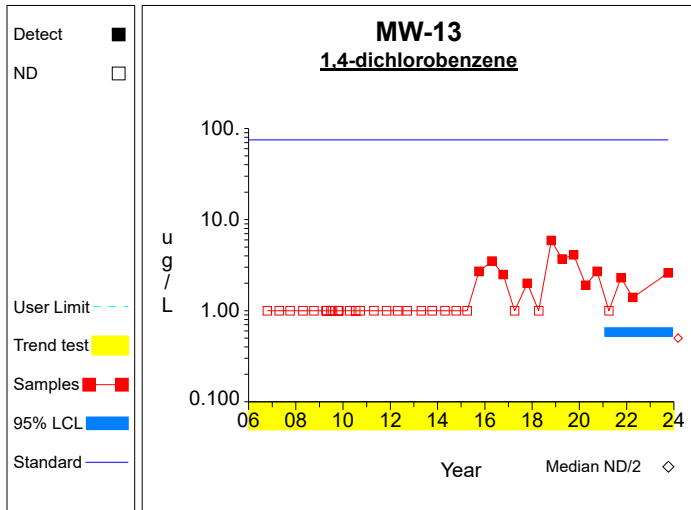


Graph 4

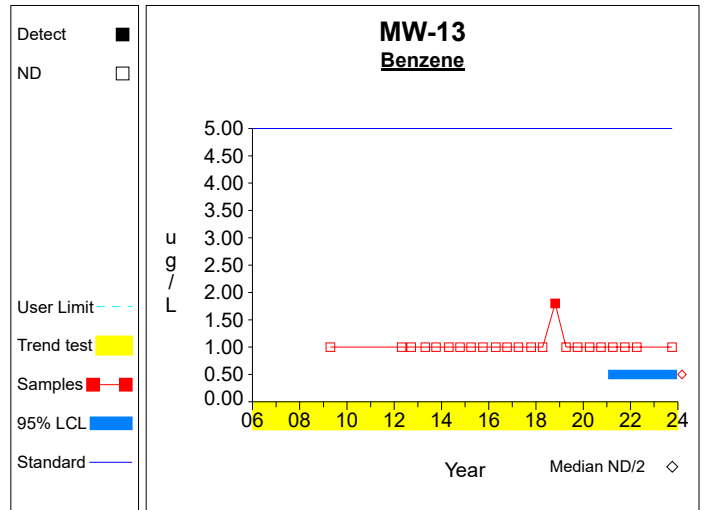


Graph 5

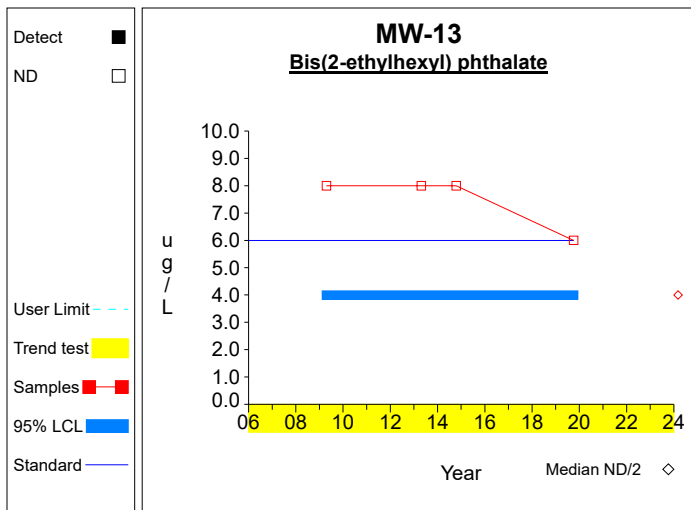
Confidence Limits (Assessment)



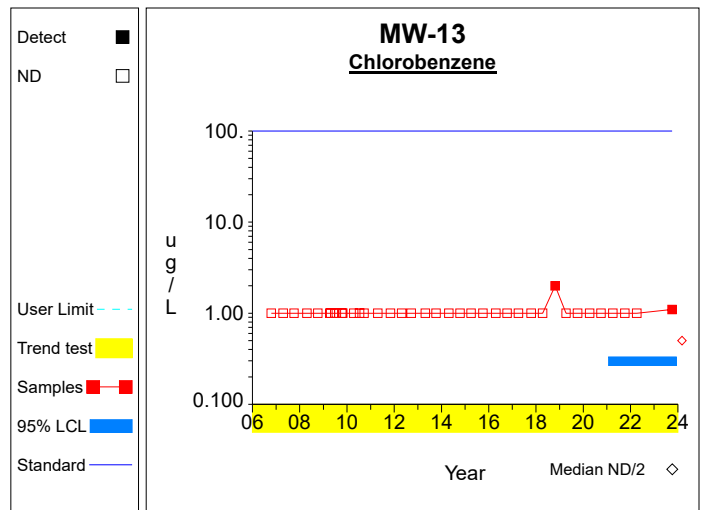
Graph 6



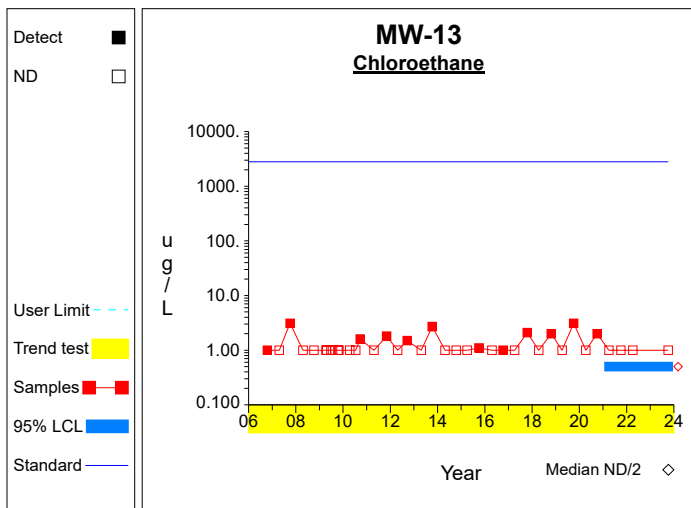
Graph 7



Graph 8

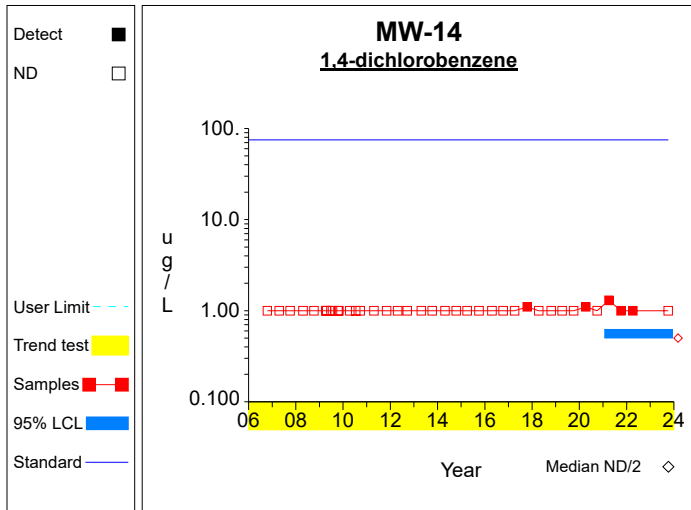


Graph 9

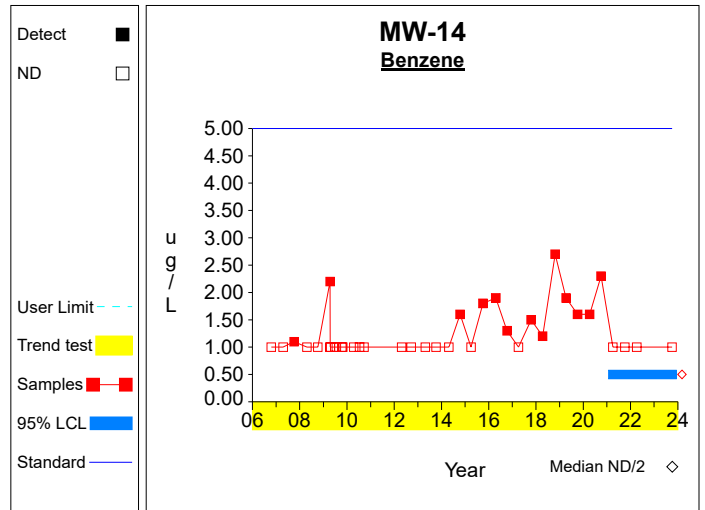


Graph 10

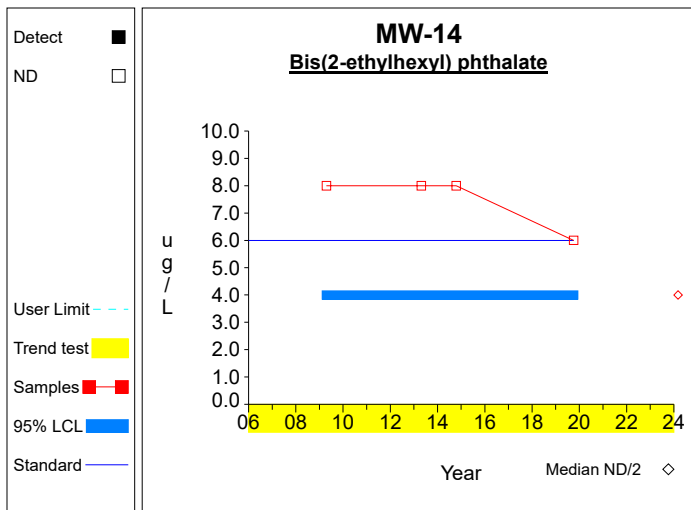
Confidence Limits (Assessment)



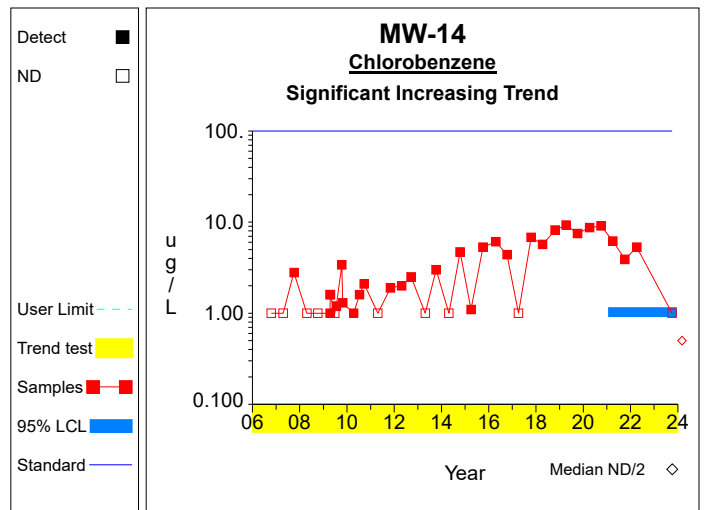
Graph 11



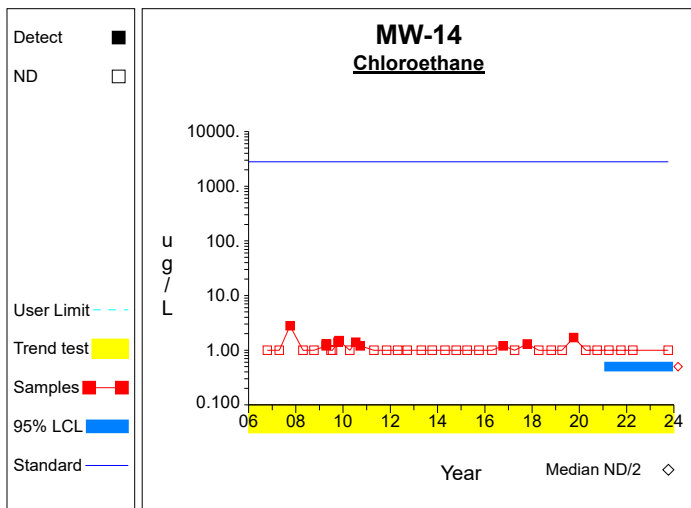
Graph 12



Graph 13

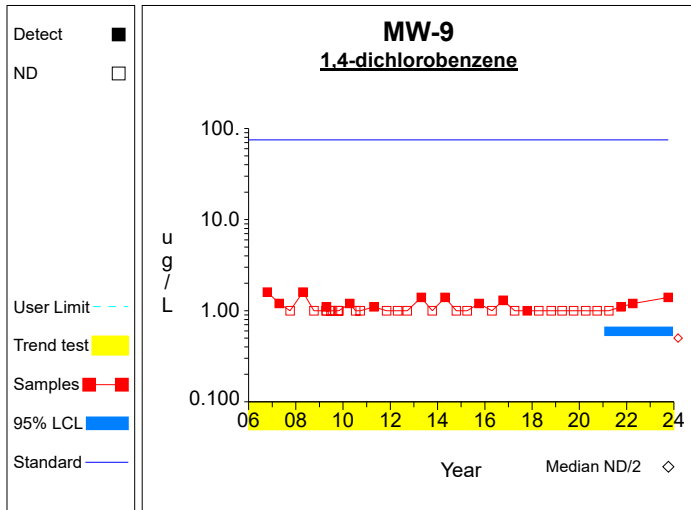


Graph 14

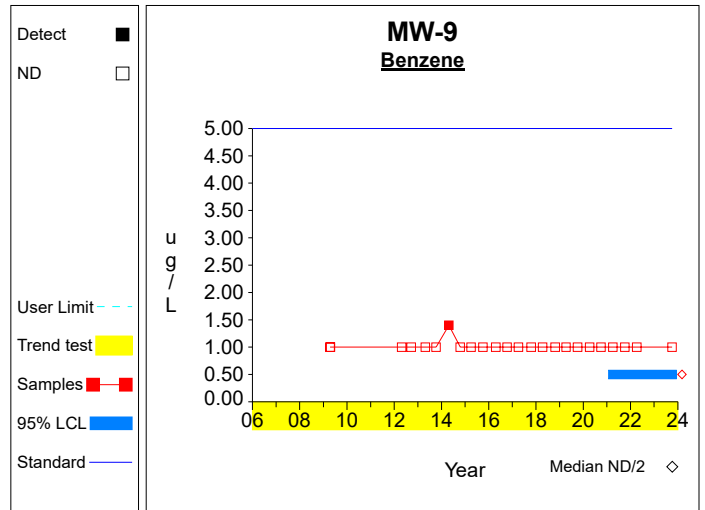


Graph 15

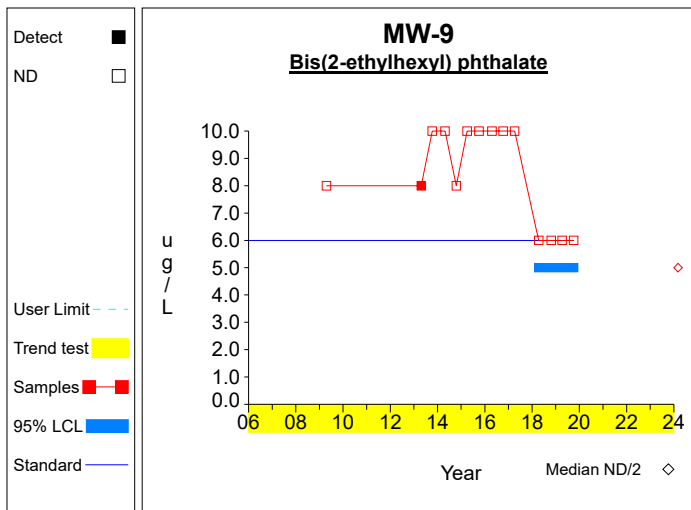
Confidence Limits (Assessment)



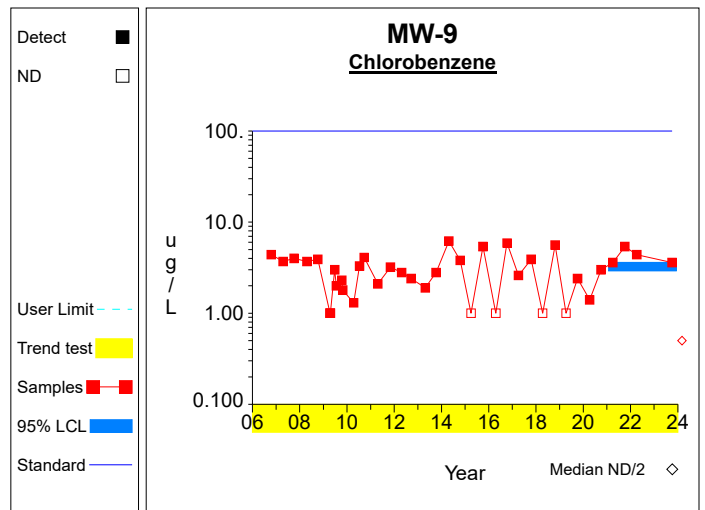
Graph 16



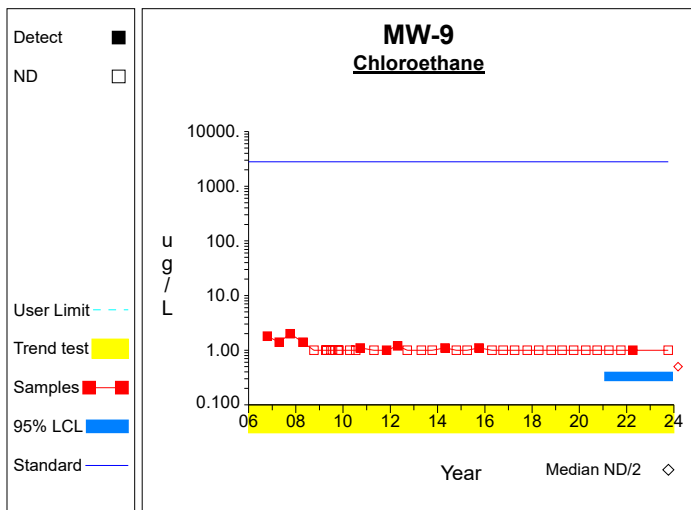
Graph 17



Graph 18



Graph 19



Graph 20

Appendix D.2 – Field Turbidity Summary

Grundy County Sanitary Landfill

Field Turbidity Over Time

No-Purge Sampling

	10/15/14	1/8/15	4/1/15	6/9/15	10/2/15	11/24/15	4/19/16	10/10/16	1/9/17	4/4/17	10/11/17	1/12/18	4/12/18	10/23/18	1/15/19	4/8/19	10/4/19	4/9/20	10/1/20	4/1/21	10/4/21	4/6/22	10/4/23	Max	Min	Ave	Std Dev	
Well	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU	NTU					
3	4.21		1.2		1.82		1.7	1.97		16.5	1.04		0.47	1.19	8.52	2.9	0.55	0.49	1.87	0.69	1.08	4.84		16.50	0.47	3.00	4.04	
4	5.51		3.2		0.96		22	1.37	28.5	7.5	79		19.28	1.57		1.97	0.6	2.54	2.03	1.9	1.71	1.48		79.00	0.60	10.65	19.53	
5	1.38		5.16		2.11		2.61	1.45		0.67	1.33	9.61	0.58	0.97		1.05	1.26	1.29	1.18	1.53	1.06	1.22		9.61	0.58	2.03	2.22	
9	2.25		16.6	4.13	2.87		88.1	1.84		16.3	1.13		86.19	0.86		2.14	0.52	24.5	4.91	41.1	1.92	344	78.08	344.00	0.52	39.86	81.86	
10	3.09		3.22		0.61		7.69	2.58		1.59	4.11		2.78	3.65		10	5.78	7.46	7.62	7.82	8.86	5.83		10.00	0.61	5.17	2.83	
11	3.57		2.38		6.02		1.36	0.77	6.5	0.89	3.96	24.41	0.97	1.56		24.2	4.73	43.2	6.7	31.7	9.96	1.9	4.19	43.20	0.77	9.42	12.19	
12	1.55		43.2		21.8	19.02	22.4	2.52		20.6	2.69	4.23	1.04	0.8	34.82	1.69	7.17	4.58	5.04	4.7	1.34	12.6		43.20	0.80	11.15	12.47	
13	2.13		2.47		1.24		2.73	1.02	3.17	1.5	0.91	1.57	0.79	1.25		0.89	0.45	1.15	1.09	0.86	0.98	2.34	1.68	3.17	0.45	1.49	0.75	
14	1.39		2.8	2.13	1.3		1.51	0.85		4	4.25	27.71	4.41	0.45		1.75	0.98	92.2	5.44	7.77	149.9	11.5	33.36	149.90	0.45	18.62	38.42	
15A (b)	0.76	4.34	1.65	0.6	10.3		9.93	1.28		0.42	8.38		0.37	0.48		0.62	0.7	4.3	1.27	9.63	4.14	271	2.63	271.00	0.37	17.52	61.49	
18 (b)	1.87		1.89	0.29	0.94		0.91	0.89		0.96	1.48		1.2	0.55		1.56	0.85	0.67	0.9	0.89	0.86	1.27		1.89	0.29	1.06	0.44	
Max	16.60	4.34	43.20	4.13	21.80	19.02	88.10	3.56	28.50	20.60	79.00	27.71	86.19	3.65	34.82	24.20	7.17	92.20	7.62	41.10	149.90	344.00	78.08					
Min	0.76	4.34	1.03	0.29	0.61	19.02	0.91	0.77	3.17	0.36	0.91	1.57	0.37	0.45	8.52	0.62	0.45	0.49	0.90	0.69	0.86	1.22	1.68					
Median	2.00	4.34	3.00	1.37	1.65	19.02	2.67	1.37	9.10	1.64	1.41	10.14	1.04	0.97	21.67	1.75	0.85	4.30	2.03	4.70	1.71	4.84	4.19					
Average	3.33	4.34	8.86	1.79	3.87	19.02	15.67	1.60	12.47	5.64	8.01	13.03	10.73	1.21	21.67	4.43	2.14	16.58	3.46	9.87	16.53	59.82	23.99					

Appendix D.3 – Running Summary of Prediction Limit Exceedances

Spring 2014†		Fall 2014†	
MW-5**	2-butanone	MW-5**	Chlorobenzene
	Acetone		
	Benzene		
	Chlorobenzene		
	Chloroethane		
	cis-1,2-dichloroethene		
	Vinyl chloride		
MW-9**	1,4-dichlorobenzene	MW-9**	Chlorobenzene
	Benzene		Barium
	Chlorobenzene		
	Chloroethane		
MW-13**	1,1-dichloroethane	MW-13**	cis-1,2-dichloroethene
			Nickel
MW-14**	None	MW-14**	Benzene
			Chlorobenzene
			Barium
			Nickel

Spring 2015†		Fall 2015†	
MW-9**	Barium	MW-9**	Barium
			Nickel
			1,4-dichlorobenzene
			Chlorobenzene
			Chloroethane
MW-13**	Nickel	MW-13**	Nickel
			1,4-dichlorobenzene
			Chloroethane
MW-14**	Chlorobenzene	MW-14**	Barium
			Nickel
			Benzene
			Chlorobenzene

Spring 2016†		Fall 2016	
MW-4	None	MW-4	Arsenic
MW-5**	None.	MW-5**	Selenium
MW-9**	Barium	MW-9**	Barium
	Cobalt		Nickel
	Nickel		1,4-dichlorobenzene
			Chlorobenzene
			Phorate
MW-10	None	MW-10**	Nickel
MW-11	None	MW-11	Nickel
MW-13**	Cadmium	MW-13**	Barium
	Nickel		Nickel
	1,4-dichlorobenzene		1,4-dichlorobenzene
	Cis-1,2-dichloroethene		Chloroethane
			Phorate
MW-14**	Barium	MW-14**	Barium
	Nickel		Nickel
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
			Chloroethane
			Phorate

Spring 2017		Fall 2017	
MW-4**	Arsenic	MW-4**	Barium
	Barium		
MW-5**	Selenium	MW-5**	Nickel*
			Chlorobenzene*
MW-9**	Barium	MW-9**	Barium
	Nickel		Nickel
	Chlorobenzene		1,4-dichlorobenzene
	Phorate		Chlorobenzene
MW-10**	Nickel	MW-10**	Nickel
	Phorate		
MW-11**	Nickel	MW-11**	Nickel
MW-13**	None	MW-13**	Barium*
			Nickel*
			1,4-dichlorobenzene
			Chloroethane
MW-14**	None	MW-14**	Barium*
			Nickel*
			1,4-dichlorobenzene
			Benzene
			Chlorobenzene
			Chloroethane

Spring 2018		Fall 2018	
MW-5**	Chlorobenzene	MW-5**	Chlorobenzene
			Selenium
MW-9**	Arsenic	MW-9**	Barium
	Barium		Nickel
	Copper		Zinc
	Nickel		Chlorobenzene
MW-10**	Nickel	MW-10**	Barium
	bis (2-ethylhexyl)phthalate		Nickel
			Zinc
MW-11**	bis (2-ethylhexyl)phthalate	MW-11**	None
MW-13**	Nickel	MW-13**	Barium
			Copper
			Nickel
			Zinc
			1,4-dichlorobenzene
			Benzene
			Chlorobenzene
			Chloroethane
MW-14**	Barium	MW-14**	Barium
	Cobalt		Nickel*
	Nickel		Zinc
	Benzene		Benzene
	Chlorobenzene		Chlorobenzene
			Tetrachloroethene

†Predates validated background data.

* verified by resample.

** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits.

Spring 2019		Fall 2019	
MW-4**	None	MW-4**	Barium
MW-5**	Chlorobenzene	MW-5**	Nickel
			1,4-dichlorobenzene
			Benzene
			Chlorobenzene
			Chloroethane
MW-9**	Barium	MW-9**	Arsenic
	Nickel		Barium
			Nickel
			Chlorobenzene
MW-10**	Nickel	MW-10**	Nickel
	Zinc		
MW-11**	Barium	MW-11**	Cobalt
	Cobalt		
	Nickel		
MW-13**	Nickel	MW-13**	Barium
	1,4-dichlorobenzene		Nickel
			1,4-dichlorobenzene
			Chloroethane
MW-14**	Arsenic	MW-14**	Barium
	Barium		Nickel
	Nickel		Benzene
	Zinc		Chlorobenzene
	Benzene		Chloroethane
	Chlorobenzene		Dichlorodifluoromethane

Spring 2020		Fall 2020	
MW-4**	None	MW-4**	None
MW-5**	Selenium	MW-5**	Selenium
			Chlorobenzene
MW-9**	Barium	MW-9**	Arsenic
	Nickel		Barium
	Chlorobenzene		Nickel
			Chlorobenzene
MW-10**	Nickel	MW-10**	Barium
			Nickel
MW-11**	None	MW-11**	Cobalt
			Nickel
MW-13**	Nickel	MW-13**	Barium
	1,4-dichlorobenzene		Cobalt
			Nickel
			1,4-dichlorobenzene
			Chloroethane
MW-14**	Arsenic	MW-14**	Barium
	Barium		Nickel
	Nickel		Benzene
	1,4-dichlorobenzene		Chlorobenzene
	Benzene		
	Chlorobenzene		

* verified by resample.

** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits

Spring 2021		Fall 2021	
MW-4**	None	MW-4**	None
MW-5**	Barium	MW-5**	Copper
	Cobalt		Nickel
	Nickel		1,4-dichlorobenzene
	1,4-dichlorobenzene		Chlorobenzene
	Chlorobenzene		
MW-9**	Arsenic	MW-9**	Arsenic
	Barium		Barium
	Nickel		Nickel
	Chlorobenzene		1,4-dichlorobenzene
			Chlorobenzene
MW-10**	Barium	MW-10**	Barium
	Nickel		Nickel
MW-11**	None	MW-11**	Cobalt
MW-13**	Nickel	MW-13**	Barium
			Nickel
			1,4-dichlorobenzene
MW-14**	Barium	MW-14**	Arsenic
	Nickel		Barium
	1,4-dichlorobenzene		Cobalt
	Chlorobenzene		Lead
			Nickel
			1,4-dichlorobenzene
			Chlorobenzene

* verified by resample.

** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits

Spring 2022	
MW-5**	None
MW-9**	Arsenic
	Barium
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene
	Chloroethane
MW-10**	Nickel
MW-11**	Barium
	Cadmium
MW-13**	Barium
	Nickel
	1,4-dichlorobenzene
MW-14**	Barium
	Cobalt
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene

** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits.

Fall 2023	
MW-9**	Arsenic
	Barium
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene
MW-11**	bis (2-ethylhexyl)phthalate
MW-13**	Barium
	Nickel
	1,4-dichlorobenzene
	Chlorobenzene
MW-14**	Arsenic
	Barium
	Nickel

*** Monitoring well is an Assessment monitoring point and water quality is compared to GWPS, rather than site prediction limits.*

Appendix E

Laboratory Reports for Reporting Period *With Chain of Custody*



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Project Description

Grundy Co. Landfill - New Regs

For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248

A handwritten signature in black ink that reads "Heather Murphy". The signature is written in a cursive style and is contained within a light grey rectangular box.

Heather Murphy

Customer Relationship Specialist

Tuesday, October 31, 2023

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Keystone Laboratories - Newton. If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed above.

I certify that all test results meet all of the requirements of the accrediting authority listed within this report. Analytical results are reported on a 'as received' basis unless specified otherwise. Analytical results for solids with units ending in (dry) are reported on a dry weight basis. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

Microbac Laboratories, Inc.

600 East 17th Street South | Newton, IA 50208 | 641-792-8451 p | www.microbac.com



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

HLW Engineering

Todd Whipple
PO Box 314
Story City, IA 50248

Project Name: Grundy Co. Landfill - New Regs

Project / PO Number: / 6033
Received: 10/05/2023
Reported: 10/31/2023

Sample Summary Report

<u>Sample Name</u>	<u>Laboratory ID</u>	<u>Client Matrix</u>	<u>Sample Type</u>	<u>Sample Begin</u>	<u>Sample Taken</u>	<u>Lab Received</u>
92MW-15	1GJ0597-01	Water	GRAB		10/04/23 09:30	10/05/23 09:49
MW-9	1GJ0597-02	Water	GRAB		10/04/23 09:50	10/05/23 09:49
MW-13	1GJ0597-03	Water	GRAB		10/04/23 10:46	10/05/23 09:49
MW-11	1GJ0597-04	Water	GRAB		10/04/23 10:23	10/05/23 09:49
MW-14	1GJ0597-05	Water	GRAB		10/04/23 11:05	10/05/23 09:49
Duplicate	1GJ0597-06	Water	GRAB		10/04/23 00:00	10/05/23 09:49

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Analytical Testing Parameters

Client Sample ID:	92MW-15	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023 9:30
Lab Sample ID:	1GJ0597-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Bromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Acetone	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/10/23 0000	10/10/23 1707	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Chloroform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Benzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Toluene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Styrene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: 92MW-15	Collected By: Whipple, Todd
Sample Matrix: Water	Collection Date: 10/04/2023 9:30
Lab Sample ID: 1GJ0597-01	

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: Dibromofluoromethane	122	Limit: 75-136	% Rec	1		10/10/23 0000	10/10/23 1707	LNH
Surrogate: Dibromofluoromethane	96.2	Limit: 75-136	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: Dibromofluoromethane	96.2	Limit: 80-126	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 61-142	% Rec	1		10/10/23 0000	10/10/23 1707	LNH
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: Toluene-d8	99.9	Limit: 82-121	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: Toluene-d8	106	Limit: 82-121	% Rec	1		10/10/23 0000	10/10/23 1707	LNH
Surrogate: Toluene-d8	99.9	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec	1		10/09/23 0000	10/09/23 1012	LJS
Surrogate: 4-Bromofluorobenzene	116	Limit: 80-116	% Rec	1		10/10/23 0000	10/10/23 1707	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1012	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Barium, total	0.166	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1733	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1733	RVV

Keystone Laboratories - Newton
CERTIFICATE OF ANALYSIS
1GJ0597

Client Sample ID: MW-9
Sample Matrix: Water
Lab Sample ID: 1GJ0597-02

Collected By: Whipple, Todd
Collection Date: 10/04/2023 9:50

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Bromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Acetone	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/10/23 0000	10/10/23 1733	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Chloroform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Benzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Toluene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Chlorobenzene	3.6	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Styrene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Bromoform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS

Keystone Laboratories - Newton
CERTIFICATE OF ANALYSIS
1GJ0597

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023 9:50
Lab Sample ID:	1GJ0597-02		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,4-Dichlorobenzene	1.4	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: Dibromofluoromethane	97.1	Limit: 75-136	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: Dibromofluoromethane	124	Limit: 75-136	% Rec	1		10/10/23 0000	10/10/23 1733	LNH
Surrogate: Dibromofluoromethane	97.1	Limit: 80-126	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: 1,2-Dichloroethane-d4	105	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: 1,2-Dichloroethane-d4	105	Limit: 61-142	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: 1,2-Dichloroethane-d4	108	Limit: 61-142	% Rec	1		10/10/23 0000	10/10/23 1733	LNH
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: Toluene-d8	100	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: Toluene-d8	107	Limit: 82-121	% Rec	1		10/10/23 0000	10/10/23 1733	LNH
Surrogate: 4-Bromofluorobenzene	116	Limit: 80-116	% Rec	1		10/10/23 0000	10/10/23 1733	LNH
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 80-116	% Rec	1		10/09/23 0000	10/09/23 1035	LJS
Surrogate: 4-Bromofluorobenzene	99.7	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1035	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Arsenic, total	0.0162	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Barium, total	0.855	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Cobalt, total	0.0044	0.0004	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Nickel, total	0.0191	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/16/23 1104	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/16/23 1104	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: MW-13
Sample Matrix: Water
Lab Sample ID: 1GJ0597-03

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:46

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Bromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Acetone	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/10/23 0000	10/10/23 1800	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Chloroform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Benzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Toluene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Chlorobenzene	1.1	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Styrene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Bromoform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: MW-13
Sample Matrix: Water
Lab Sample ID: 1GJ0597-03

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:46

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,4-Dichlorobenzene	2.6	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Dibromofluoromethane	97.5	Limit: 75-136	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Dibromofluoromethane	97.5	Limit: 80-126	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Dibromofluoromethane	121	Limit: 75-136	% Rec	1		10/10/23 0000	10/10/23 1800	LNH
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 61-142	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: 1,2-Dichloroethane-d4	108	Limit: 61-142	% Rec	1		10/10/23 0000	10/10/23 1800	LNH
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Toluene-d8	100	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Toluene-d8	100	Limit: 82-121	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: Toluene-d8	106	Limit: 82-121	% Rec	1		10/10/23 0000	10/10/23 1800	LNH
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec	1		10/09/23 0000	10/09/23 1058	LJS
Surrogate: 4-Bromofluorobenzene	117	Limit: 80-116	% Rec	1	S-GC	10/10/23 0000	10/10/23 1800	LNH
Surrogate: 4-Bromofluorobenzene	100	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1058	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Barium, total	0.334	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Cobalt, total	0.0106	0.0004	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Nickel, total	0.0754	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1816	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1816	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: MW-11
Sample Matrix: Water
Lab Sample ID: 1GJ0597-04

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:23

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Dichlorodifluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Chloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/11/23 0000	10/11/23 1332	LNH
Bromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Acrolein	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Acetone	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Acetonitrile	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/11/23 0000	10/11/23 1332	LNH
2,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Chloroform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Benzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Toluene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: MW-11
Sample Matrix: Water
Lab Sample ID: 1GJ0597-04

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:23

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/11/23 0000	10/11/23 1332	LNH
Styrene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Bromoform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1121	LJS
Allyl chloride	<1.0	1.0	ug/L	1		10/17/23 0000	10/17/23 1307	LNH
Chloroprene	<1.0	1.0	ug/L	1		10/17/23 0000	10/17/23 1307	LNH
Methacrylonitrile	<1.0	1.0	ug/L	1		10/17/23 0000	10/17/23 1307	LNH
Methyl Methacrylate	<1.0	1.0	ug/L	1		10/17/23 0000	10/17/23 1307	LNH
Propionitrile	<10.0	10.0	ug/L	1		10/17/23 0000	10/17/23 1307	LNH
Surrogate: Dibromofluoromethane	126	Limit: 80-126	% Rec	1		10/17/23 0000	10/17/23 1307	LNH
Surrogate: Dibromofluoromethane	99.3	Limit: 80-126	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: Dibromofluoromethane	90.3	Limit: 80-126	% Rec	1		10/11/23 0000	10/11/23 1332	LNH
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: 1,2-Dichloroethane-d4	111	Limit: 63-138	% Rec	1		10/17/23 0000	10/17/23 1307	LNH
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: 1,2-Dichloroethane-d4	77.2	Limit: 63-138	% Rec	1		10/11/23 0000	10/11/23 1332	LNH
Surrogate: Toluene-d8	106	Limit: 87-116	% Rec	1		10/17/23 0000	10/17/23 1307	LNH
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: Toluene-d8	102	Limit: 87-116	% Rec	1		10/11/23 0000	10/11/23 1332	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: 4-Bromofluorobenzene	102	Limit: 85-111	% Rec	1		10/17/23 0000	10/17/23 1307	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1121	LJS
Surrogate: 4-Bromofluorobenzene	114	Limit: 85-111	% Rec	1	S-GC	10/11/23 0000	10/11/23 1332	LNH

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		10/18/23 1219	10/18/23 1802	PDS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
N-Nitrosodimethylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID:	MW-11	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023 10:23
Lab Sample ID:	1GJ0597-04		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
N-Nitrosodiethylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Phenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Chlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzyl Alcohol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Acetophenone	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
o-Toluidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Hexachloroethane	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Nitrobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Isophorone	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Nitrophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Naphthalene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Chloroaniline	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Hexachloropropene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Hexachlorobutadiene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Methylnaphthalene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Isosafrole	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Safrole	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Chloronaphthalene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Nitroaniline	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Dimethylphthalate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID: MW-11
Sample Matrix: Water
Lab Sample ID: 1GJ0597-04

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:23

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,6-Dinitrotoluene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Acenaphthylene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
3-Nitroaniline	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Acenaphthene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4-Dinitrophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Nitrophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Dibenzofuran	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Pentachlorobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1-Naphthylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Naphthylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Diethyl Phthalate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Fluorene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Nitroaniline	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Diphenylamine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Azobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Diallate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Phenacetin	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
4-Aminobiphenyl	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Pentachlorophenol	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Pronamide	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Phenanthrene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Anthracene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Methapyrilene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Fluoranthene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Isodrin	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Chlorobenzilate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Pyrene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzo(a)anthracene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Chrysene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Bis(2-Ethylhexyl) Phthalate	9	6	ug/L	1		10/10/23 1548	10/23/23 1432	EPP

Keystone Laboratories - Newton
CERTIFICATE OF ANALYSIS
1GJ0597

Client Sample ID: MW-11
Sample Matrix: Water
Lab Sample ID: 1GJ0597-04

Collected By: Whipple, Todd
Collection Date: 10/04/2023 10:23

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Kepone	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
2-Acetylaminofluorene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzo(b)Fluoranthene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
3-Methylcholanthrene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: 2-Fluorophenol	59.0	Limit: 24-136	% Rec	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: Phenol-d6	60.0	Limit: 15-140	% Rec	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: Nitrobenzene-d5	79.9	Limit: 29-130	% Rec	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: 2-Fluorobiphenyl	74.6	Limit: 23-113	% Rec	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: 2,4,6-Tribromophenol	50.3	Limit: 15-139	% Rec	1		10/10/23 1548	10/23/23 1432	EPP
Surrogate: Terphenyl-dl4	93.5	Limit: 27-141	% Rec	1		10/10/23 1548	10/23/23 1432	EPP

Determination of Organophosphorus Insecticides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8141								
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Thionazin	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Phorate	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Dimethoate	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Disulfoton	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Parathion	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Famphur	<0.4	0.4	ug/L	1		10/11/23 1343	10/19/23 2246	EPP
Surrogate: 2-Nitro-m-xylene	69.6	Limit: 38-122	% Rec	1		10/11/23 1343	10/19/23 2246	EPP

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8151A								
2,4-D	<2.0	2.0	ug/L	1		10/11/23 0858	10/24/23 1806	EPP
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		10/11/23 0858	10/24/23 1806	EPP
2,4,5-T	<0.5	0.5	ug/L	1		10/11/23 0858	10/24/23 1806	EPP
Dinoseb	<0.5	0.5	ug/L	1		10/11/23 0858	10/24/23 1806	EPP
Surrogate: 2,5-Dichlorobenzoic Acid	134	Limit: 31-116	% Rec	1	S-07	10/11/23 0858	10/24/23 1806	EPP

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8081								

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID:	MW-11	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023 10:23
Lab Sample ID:	1GJ0597-04		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Alpha-BHC	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Beta-BHC	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Heptachlor	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Delta-BHC	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Aldrin	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Endosulfan I	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
4,4'-DDE	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Dieldrin	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Endrin	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
4,4'-DDD	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Endosulfan II	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
4,4'-DDT	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Methoxychlor	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Chlordane	<0.10	0.10	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Toxaphene	<0.20	0.20	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		10/11/23 1344	10/16/23 1807	EPP
Surrogate: Tetrachloro-m-xylene	77.9	Limit: 10-121	% Rec	1		10/11/23 1344	10/16/23 1807	EPP

Determination of Polychlorinated Biphenyls (PCB)	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3510C/EPA 8082								
Arochlor 1016	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		10/11/23 1341	10/17/23 1007	EPP
Surrogate: Tetrachloro-m-xylene	75.8	Limit: 38-121	% Rec	1		10/11/23 1341	10/17/23 1007	EPP
Surrogate: Decachlorobiphenyl	44.2	Limit: 25-119	% Rec	1		10/11/23 1341	10/17/23 1007	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
4500CN-E								
Cyanide, total	<0.005	0.005	mg/L	1		10/17/23 0911	10/17/23 1454	CHP
EPA 376.2								
Sulfide, total	<0.10	0.10	mg/L	1		10/10/23 0902	10/10/23 1405	AKK

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
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Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID:	MW-11	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023 10:23
Lab Sample ID:	1GJ0597-04		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Barium, total	0.243	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Cobalt, total	0.0083	0.0004	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Nickel, total	0.0074	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Tin, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/16/23 1110	RVV
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		10/06/23 1407	10/09/23 1622	JAR

Keystone Laboratories - Newton
CERTIFICATE OF ANALYSIS
1GJ0597

Client Sample ID: MW-14	Collected By: Whipple, Todd
Sample Matrix: Water	Collection Date: 10/04/2023 11:05
Lab Sample ID: 1GJ0597-05	

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260B								
Chloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Bromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Chloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Acetone	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		10/10/23 0000	10/10/23 1827	LNH
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Chloroform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Benzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Dibromomethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Toluene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Xylenes, total	<2.0	2.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Styrene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Bromoform	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS

Keystone Laboratories - Newton
CERTIFICATE OF ANALYSIS
1GJ0597

Client Sample ID: MW-14
Sample Matrix: Water
Lab Sample ID: 1GJ0597-05

Collected By: Whipple, Todd
Collection Date: 10/04/2023 11:05

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: Dibromofluoromethane	124	Limit: 75-136	% Rec	1		10/10/23 0000	10/10/23 1827	LNH
Surrogate: Dibromofluoromethane	97.9	Limit: 80-126	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: Dibromofluoromethane	97.9	Limit: 75-136	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 63-138	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: 1,2-Dichloroethane-d4	107	Limit: 61-142	% Rec	1		10/10/23 0000	10/10/23 1827	LNH
Surrogate: 1,2-Dichloroethane-d4	106	Limit: 61-142	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: Toluene-d8	101	Limit: 87-116	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: Toluene-d8	101	Limit: 82-121	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: Toluene-d8	106	Limit: 82-121	% Rec	1		10/10/23 0000	10/10/23 1827	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 80-116	% Rec	1		10/09/23 0000	10/09/23 1144	LJS
Surrogate: 4-Bromofluorobenzene	117	Limit: 80-116	% Rec	1	S-GC	10/10/23 0000	10/10/23 1827	LNH
Surrogate: 4-Bromofluorobenzene	101	Limit: 85-111	% Rec	1		10/09/23 0000	10/09/23 1144	LJS

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Arsenic, total	0.0055	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Barium, total	0.843	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Cobalt, total	0.0073	0.0004	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Nickel, total	0.0338	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1828	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1828	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Client Sample ID:	Duplicate	Collected By:	Whipple, Todd
Sample Matrix:	Water	Collection Date:	10/04/2023
Lab Sample ID:	1GJ0597-06		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A								
Antimony, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Arsenic, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Barium, total	0.160	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Beryllium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Cadmium, total	<0.0008	0.0008	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Chromium, total	<0.0080	0.0080	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Cobalt, total	<0.0004	0.0004	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Copper, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Lead, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Nickel, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Selenium, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Silver, total	<0.0040	0.0040	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Thallium, total	<0.0020	0.0020	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Vanadium, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1834	RVV
Zinc, total	<0.0200	0.0200	mg/L	4		10/12/23 0910	10/13/23 1834	RVV

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1GJ0428	1GJ0428-BLK1	
		1GJ0428-BS1	
		1GJ0428-MS1	1GJ0129-06
		1GJ0428-MSD1	1GJ0129-06
		1GJ0597-04	MW-11

Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1GJ0527	1GJ0527-MSD1	1GJ0597-04
		1GJ0527-BLK1	
		1GJ0597-04	MW-11
		1GJ0527-MS1	1GJ0597-04
		1GJ0527-BS1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ0532	1GJ0532-BS1	
		1GJ0532-BSD1	
		1GJ0532-BLK1	
		1GJ0597-01	92MW-15
		1GJ0597-02	MW-9
		1GJ0597-03	MW-13
		1GJ0597-04	MW-11
		1GJ0597-05	MW-14
		1GJ0532-MS1	1GJ0597-01
		1GJ0532-MSD1	1GJ0597-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1GJ0596	1GJ0596-BLK1	
		1GJ0597-04	MW-11
		1GJ0596-BS1	
		1GJ0596-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ0606	1GJ0606-BS1	
		1GJ0606-BSD1	
		1GJ0606-BLK1	
		1GJ0597-01RE1	92MW-15
		1GJ0597-02RE1	MW-9
		1GJ0597-03RE1	MW-13
		1GJ0597-05RE1	MW-14
		1GJ0606-MS1	1GJ0308-02
		1GJ0606-MSD1	1GJ0308-02

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1GJ0622	1GJ0622-BLK1	MW-11
		1GJ0597-04	
		1GJ0622-BS1	
		1GJ0622-BSD1	
		1GJ0622-SRM1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082	1GJ0665	1GJ0665-BLK1	MW-11
		1GJ0597-04	
		1GJ0665-BS1	
		1GJ0665-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1GJ0666	1GJ0666-BLK1	MW-11
		1GJ0597-04	
		1GJ0666-BS1	
		1GJ0666-BSD1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8081	1GJ0667	1GJ0667-BLK1	MW-11
		1GJ0667-BS1	
		1GJ0667-BSD1	
		1GJ0597-04	

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1GJ0726	1GJ0726-BS1	MW-11
		1GJ0726-BSD1	
		1GJ0726-BLK1	
		1GJ0597-04RE1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1GJ0730	1GJ0730-BLK1	92MW-15 1GJ0597-01 1GJ0597-01 1GJ0597-01 MW-13 MW-14 Duplicate 1GJ0597-01 1GJ0597-01
		1GJ0730-BLK1	
		1GJ0730-BS1	
		1GJ0730-BS1	
		1GJ0597-01	
		1GJ0730-MS1	
		1GJ0730-MS1	
		1GJ0597-03	
		1GJ0597-05	
		1GJ0597-06	
		1GJ0730-MSD1	
		1GJ0730-MSD1	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

EPA 6020A	1GJ0730	1GJ0730-PS1	1GJ0597-01
		1GJ0730-PS1	1GJ0597-01
		1GJ0597-02	MW-9
		1GJ0597-04	MW-11
		1GJ0597-04	MW-11

Method	Batch	Laboratory ID	Client / Source ID
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4500CN-E	1GJ0979	1GJ0979-MSD1	1GJ0944-03
		1GJ0979-BLK1	
		1GJ0979-MS1	1GJ0944-03
		1GJ0597-04	MW-11
		1GJ0979-BS1	

Method	Batch	Laboratory ID	Client / Source ID
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EPA 8260B	1GJ1069	1GJ1069-BS1	
		1GJ1069-BSD1	
		1GJ1069-BLK1	
		1GJ0597-04	MW-11

Method	Batch	Laboratory ID	Client / Source ID
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EPA 8015C	1GJ1105	1GJ1105-BS1	
		1GJ1105-BLK1	
		1GJ0597-04	MW-11
		1GJ1105-MS1	1GJ0597-04
		1GJ1105-MSD1	1GJ0597-04
		1GJ1105-BS2	
		1GJ1105-BLK2	
		1GJ1105-MS2	1GJ1452-08
		1GJ1105-MSD2	1GJ1452-08

Batch Quality Control Summary: Keystone Laboratories - Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Blank (1GJ0532-BLK1)										
Dichlorodifluoromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							

Prepared: 10/09/23 00:00 Analyzed: 10/09/23 09:27



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Blank (1GJ0532-BLK1)										
				Prepared: 10/09/23 00:00 Analyzed: 10/09/23 09:27						
Trichlorofluoromethane	<1.0	1.0	ug/L							
Trichlorofluoromethane	<1.0	1.0	ug/L							
Acrolein	<10.0	10.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Methyl Iodide	<2.0	2.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Acetonitrile	<10.0	10.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
2,2-Dichloropropane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
2-Butanone (MEK)	<5.0	5.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Bromochloromethane	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
1,1-Dichloropropene	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Blank (1GJ0532-BLK1)										
				Prepared: 10/09/23 00:00 Analyzed: 10/09/23 09:27						
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
Toluene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
Ethyl Methacrylate	<10.0	10.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
1,3-Dichloropropane	<1.0	1.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
1,2,3-Trichloropropane	<1.0	1.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
1,3-Dichlorobenzene	<1.0	1.0	ug/L							
1,4-Dichlorobenzene	<1.0	1.0	ug/L							

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Blank (1GJ0532-BLK1)										
Prepared: 10/09/23 00:00 Analyzed: 10/09/23 09:27										
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L							
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
<hr/>										
Surrogate: Dibromofluoromethane	47.5		ug/L	50.4		94.3	80-126			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.4		94.3	75-136			
Surrogate: Dibromofluoromethane	47.5		ug/L	50.4		94.3	80-126			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.4		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.4		101	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.4		101	61-142			
Surrogate: 1,2-Dichloroethane-d4	51.0		ug/L	50.4		101	63-138			
Surrogate: Toluene-d8	50.2		ug/L	50.2		99.8	87-116			
Surrogate: Toluene-d8	50.2		ug/L	50.2		99.8	87-116			
Surrogate: Toluene-d8	50.2		ug/L	50.2		99.8	82-121			
Surrogate: Toluene-d8	50.2		ug/L	50.2		99.8	87-116			
Surrogate: 4-Bromofluorobenzene	50.4		ug/L	50.4		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.4		ug/L	50.4		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.4		ug/L	50.4		100	80-116			
Surrogate: 4-Bromofluorobenzene	50.4		ug/L	50.4		100	85-111			
<hr/>										
LCS (1GJ0532-BS1)										
Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:19										
Dichlorodifluoromethane	26.09	1.0	ug/L	30.0		87.0	44-139			
Chloromethane	26.47	1.0	ug/L	30.0		88.2	56-152			
Chloromethane	26.47	1.0	ug/L	30.0		88.2	63-155			
Vinyl Chloride	29.30	1.0	ug/L	30.0		97.7	62-151			
Vinyl Chloride	29.30	1.0	ug/L	30.0		97.7	70-154			
Bromomethane	29.93	1.0	ug/L	30.0		99.8	61-162			
Bromomethane	29.93	1.0	ug/L	30.0		99.8	52-176			
Chloroethane	34.63	1.0	ug/L	30.0		115	69-138			
Chloroethane	34.63	1.0	ug/L	30.0		115	72-148			
Trichlorofluoromethane	29.78	1.0	ug/L	30.0		99.3	70-143			
Trichlorofluoromethane	29.78	1.0	ug/L	30.0		99.3	70-152			
Acrolein	52.24	10.0	ug/L	100		52.1	27-144			
1,1-Dichloroethylene	58.13	1.0	ug/L	50.0		116	76-140			
1,1-Dichloroethylene	58.13	1.0	ug/L	50.0		116	70-148			
Acetone	97.07	10.0	ug/L	102		95.2	51-156			
Acetone	97.07	10.0	ug/L	102		95.2	43-172			
Methyl Iodide	108.3	2.0	ug/L	99.7		109	81-166			
Methyl Iodide	108.3	1.0	ug/L	99.7		109	69-170			
Carbon Disulfide	115.8	1.0	ug/L	101		115	76-147			
Carbon Disulfide	115.8	1.0	ug/L	101		115	72-162			
Acetonitrile	110.9	10.0	ug/L	101		110	46-156			
Methylene Chloride	50.79	5.0	ug/L	50.0		102	67-139			



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
LCS (1GJ0532-BS1)										
				Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:19						
Methylene Chloride	50.79	5.0	ug/L	50.0		102	68-142			
Acrylonitrile	101.2	5.0	ug/L	100		101	67-144			
Acrylonitrile	101.2	5.0	ug/L	100		101	67-144			
trans-1,2-Dichloroethylene	57.50	1.0	ug/L	50.0		115	72-135			
trans-1,2-Dichloroethylene	57.50	1.0	ug/L	50.0		115	66-148			
1,1-Dichloroethane	54.24	1.0	ug/L	50.0		108	72-129			
1,1-Dichloroethane	54.24	1.0	ug/L	50.0		108	66-143			
2,2-Dichloropropane	51.91	1.0	ug/L	50.0		104	64-131			
cis-1,2-Dichloroethylene	64.96	1.0	ug/L	49.5		131	81-137			
cis-1,2-Dichloroethylene	64.96	1.0	ug/L	49.5		131	71-149			
2-Butanone (MEK)	110.4	5.0	ug/L	103		107	47-149			
2-Butanone (MEK)	110.4	10.0	ug/L	103		107	52-159			
Bromochloromethane	51.62	1.0	ug/L	50.0		103	75-138			
Bromochloromethane	51.62	1.0	ug/L	50.0		103	69-143			
Chloroform	54.65	1.0	ug/L	50.0		109	78-131			
Chloroform	54.65	1.0	ug/L	50.0		109	69-144			
1,1,1-Trichloroethane	51.76	1.0	ug/L	50.0		104	67-121			
1,1,1-Trichloroethane	51.76	1.0	ug/L	50.0		104	62-129			
1,1-Dichloropropene	54.72	1.0	ug/L	50.0		109	80-131			
Carbon Tetrachloride	56.37	1.0	ug/L	50.0		113	71-131			
Carbon Tetrachloride	56.37	1.0	ug/L	50.0		113	63-141			
Benzene	54.74	1.0	ug/L	50.0		109	77-130			
Benzene	54.74	1.0	ug/L	50.0		109	71-134			
1,2-Dichloroethane	50.00	1.0	ug/L	50.0		100	76-126			
1,2-Dichloroethane	50.00	1.0	ug/L	50.0		100	72-132			
Trichloroethylene	56.92	1.0	ug/L	50.0		114	80-124			
Trichloroethylene	56.92	1.0	ug/L	50.0		114	71-135			
1,2-Dichloropropane	55.13	1.0	ug/L	50.0		110	81-125			
1,2-Dichloropropane	55.13	1.0	ug/L	50.0		110	69-136			
Dibromomethane	55.17	1.0	ug/L	50.0		110	84-134			
Dibromomethane	55.17	1.0	ug/L	50.0		110	73-147			
Bromodichloromethane	51.93	1.0	ug/L	50.0		104	78-121			
Bromodichloromethane	51.93	1.0	ug/L	50.0		104	68-129			
cis-1,3-Dichloropropene	53.04	1.0	ug/L	50.3		105	78-120			
cis-1,3-Dichloropropene	53.04	1.0	ug/L	50.3		105	65-134			
4-Methyl-2-pentanone (MIBK)	113.5	5.0	ug/L	101		112	67-143			
4-Methyl-2-pentanone (MIBK)	113.5	5.0	ug/L	101		112	58-147			
Toluene	54.82	1.0	ug/L	50.0		110	77-130			
Toluene	54.82	1.0	ug/L	50.0		110	72-133			
trans-1,3-Dichloropropene	50.68	1.0	ug/L	50.4		101	77-123			
trans-1,3-Dichloropropene	50.68	1.0	ug/L	50.4		101	67-130			
Ethyl Methacrylate	103.5	10.0	ug/L	101		103	52-148			
1,1,2-Trichloroethane	50.86	1.0	ug/L	50.0		102	78-124			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
LCS (1GJ0532-BS1)										
Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:19										
1,1,2-Trichloroethane	50.86	1.0	ug/L	50.0		102	69-135			
Tetrachloroethylene	54.55	1.0	ug/L	50.0		109	73-124			
Tetrachloroethylene	54.55	1.0	ug/L	50.0		109	69-130			
1,3-Dichloropropane	53.91	1.0	ug/L	50.0		108	78-131			
2-Hexanone (MBK)	119.1	5.0	ug/L	103		115	57-145			
2-Hexanone (MBK)	119.1	5.0	ug/L	103		115	55-144			
Dibromochloromethane	50.79	1.0	ug/L	49.5		103	78-126			
Dibromochloromethane	50.79	1.0	ug/L	49.5		103	73-127			
1,2-Dibromoethane	50.73	1.0	ug/L	50.0		101	69-126			
1,2-Dibromoethane	50.73	1.0	ug/L	50.0		101	67-132			
Chlorobenzene	53.92	1.0	ug/L	50.0		108	76-120			
Chlorobenzene	53.92	1.0	ug/L	50.0		108	72-123			
1,1,1,2-Tetrachloroethane	54.06	1.0	ug/L	50.0		108	81-122			
1,1,1,2-Tetrachloroethane	54.06	1.0	ug/L	50.0		108	73-127			
Ethylbenzene	55.88	1.0	ug/L	50.0		112	74-121			
Ethylbenzene	55.88	1.0	ug/L	50.0		112	71-127			
Xylenes, total	166.9	2.0	ug/L	150		111	75-122			
Xylenes, total	166.9	2.0	ug/L	150		111	74-127			
Styrene	53.34	1.0	ug/L	50.0		107	76-119			
Styrene	53.34	1.0	ug/L	50.0		107	66-126			
Bromoform	48.46	1.0	ug/L	50.0		96.9	74-127			
Bromoform	48.46	1.0	ug/L	50.0		96.9	68-130			
1,2,3-Trichloropropane	53.21	1.0	ug/L	50.0		106	73-125			
1,2,3-Trichloropropane	53.21	1.0	ug/L	50.0		106	63-136			
trans-1,4-Dichloro-2-butene	99.85	5.0	ug/L	104		96.1	55-135			
trans-1,4-Dichloro-2-butene	99.85	5.0	ug/L	104		96.1	54-134			
1,1,2,2-Tetrachloroethane	51.25	1.0	ug/L	49.8		103	58-133			
1,1,2,2-Tetrachloroethane	51.25	1.0	ug/L	49.8		103	61-131			
1,3-Dichlorobenzene	52.00	1.0	ug/L	50.0		104	70-125			
1,4-Dichlorobenzene	53.79	1.0	ug/L	50.0		108	69-128			
1,4-Dichlorobenzene	53.79	1.0	ug/L	50.0		108	70-129			
1,2-Dichlorobenzene	49.93	1.0	ug/L	50.0		99.9	70-125			
1,2-Dichlorobenzene	49.93	1.0	ug/L	50.0		99.9	69-126			
1,2-Dibromo-3-chloropropane	49.67	1.0	ug/L	50.0		99.3	54-147			
1,2-Dibromo-3-chloropropane	49.67	5.0	ug/L	50.0		99.3	50-143			
1,2,4-Trichlorobenzene	45.07	1.0	ug/L	50.0		90.1	55-149			
Surrogate: Dibromofluoromethane	48.0		ug/L	50.4		95.3	80-126			
Surrogate: Dibromofluoromethane	48.0		ug/L	50.4		95.3	80-126			
Surrogate: Dibromofluoromethane	48.0		ug/L	50.4		95.3	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.5	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.5	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.5	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.5	61-142			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
LCS (1GJ0532-BS1)										
Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:19										
Surrogate: Toluene-d8	50.8		ug/L	50.2		101	87-116			
Surrogate: Toluene-d8	50.8		ug/L	50.2		101	87-116			
Surrogate: Toluene-d8	50.8		ug/L	50.2		101	87-116			
Surrogate: Toluene-d8	50.8		ug/L	50.2		101	82-121			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.4		99.2	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.4		99.2	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.4		99.2	85-111			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.4		99.2	80-116			
LCS Dup (1GJ0532-BSD1)										
Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:41										
Dichlorodifluoromethane	25.28	1.0	ug/L	30.0		84.3	44-139	3.15	30	
Chloromethane	25.33	1.0	ug/L	30.0		84.4	56-152	4.40	30	
Chloromethane	25.33	1.0	ug/L	30.0		84.4	63-155	4.40	24	
Vinyl Chloride	28.54	1.0	ug/L	30.0		95.1	62-151	2.63	28	
Vinyl Chloride	28.54	1.0	ug/L	30.0		95.1	70-154	2.63	25	
Bromomethane	29.52	1.0	ug/L	30.0		98.4	61-162	1.38	28	
Bromomethane	29.52	1.0	ug/L	30.0		98.4	52-176	1.38	27	
Chloroethane	33.84	1.0	ug/L	30.0		113	69-138	2.31	29	
Chloroethane	33.84	1.0	ug/L	30.0		113	72-148	2.31	25	
Trichlorofluoromethane	28.86	1.0	ug/L	30.0		96.2	70-143	3.14	27	
Trichlorofluoromethane	28.86	1.0	ug/L	30.0		96.2	70-152	3.14	26	
Acrolein	54.79	10.0	ug/L	100		54.6	27-144	4.77	30	
1,1-Dichloroethylene	56.56	1.0	ug/L	50.0		113	76-140	2.74	30	
1,1-Dichloroethylene	56.56	1.0	ug/L	50.0		113	70-148	2.74	24	
Acetone	101.1	10.0	ug/L	102		99.1	51-156	4.05	30	
Acetone	101.1	10.0	ug/L	102		99.1	43-172	4.05	30	
Methyl Iodide	106.8	2.0	ug/L	99.7		107	81-166	1.39	29	
Methyl Iodide	106.8	1.0	ug/L	99.7		107	69-170	1.39	30	
Carbon Disulfide	112.1	1.0	ug/L	101		111	76-147	3.25	27	
Carbon Disulfide	112.1	1.0	ug/L	101		111	72-162	3.25	24	
Acetonitrile	107.8	10.0	ug/L	101		107	46-156	2.86	30	
Methylene Chloride	50.47	5.0	ug/L	50.0		101	67-139	0.632	26	
Methylene Chloride	50.47	5.0	ug/L	50.0		101	68-142	0.632	21	
Acrylonitrile	100.4	5.0	ug/L	100		100	67-144	0.714	24	
Acrylonitrile	100.4	5.0	ug/L	100		100	67-144	0.714	24	
trans-1,2-Dichloroethylene	55.95	1.0	ug/L	50.0		112	72-135	2.73	28	
trans-1,2-Dichloroethylene	55.95	1.0	ug/L	50.0		112	66-148	2.73	27	
1,1-Dichloroethane	53.56	1.0	ug/L	50.0		107	72-129	1.26	26	
1,1-Dichloroethane	53.56	1.0	ug/L	50.0		107	66-143	1.26	24	
2,2-Dichloropropane	50.13	1.0	ug/L	50.0		100	64-131	3.49	26	
cis-1,2-Dichloroethylene	63.82	1.0	ug/L	49.5		129	81-137	1.77	27	
cis-1,2-Dichloroethylene	63.82	1.0	ug/L	49.5		129	71-149	1.77	26	
2-Butanone (MEK)	111.3	5.0	ug/L	103		108	47-149	0.857	30	
2-Butanone (MEK)	111.3	10.0	ug/L	103		108	52-159	0.857	27	

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
LCS Dup (1GJ0532-BSD1)										
				Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:41						
Bromochloromethane	51.20	1.0	ug/L	50.0		102	75-138	0.817	24	
Bromochloromethane	51.20	1.0	ug/L	50.0		102	69-143	0.817	23	
Chloroform	54.29	1.0	ug/L	50.0		109	78-131	0.661	27	
Chloroform	54.29	1.0	ug/L	50.0		109	69-144	0.661	23	
1,1,1-Trichloroethane	50.53	1.0	ug/L	50.0		101	67-121	2.40	28	
1,1,1-Trichloroethane	50.53	1.0	ug/L	50.0		101	62-129	2.40	24	
1,1-Dichloropropene	53.59	1.0	ug/L	50.0		107	80-131	2.09	30	
Carbon Tetrachloride	54.58	1.0	ug/L	50.0		109	71-131	3.23	28	
Carbon Tetrachloride	54.58	1.0	ug/L	50.0		109	63-141	3.23	25	
Benzene	54.18	1.0	ug/L	50.0		108	77-130	1.03	25	
Benzene	54.18	1.0	ug/L	50.0		108	71-134	1.03	24	
1,2-Dichloroethane	49.77	1.0	ug/L	50.0		99.5	76-126	0.461	24	
1,2-Dichloroethane	49.77	1.0	ug/L	50.0		99.5	72-132	0.461	24	
Trichloroethylene	56.16	1.0	ug/L	50.0		112	80-124	1.34	27	
Trichloroethylene	56.16	1.0	ug/L	50.0		112	71-135	1.34	24	
1,2-Dichloropropane	55.10	1.0	ug/L	50.0		110	81-125	0.0544	25	
1,2-Dichloropropane	55.10	1.0	ug/L	50.0		110	69-136	0.0544	24	
Dibromomethane	55.43	1.0	ug/L	50.0		111	84-134	0.470	23	
Dibromomethane	55.43	1.0	ug/L	50.0		111	73-147	0.470	25	
Bromodichloromethane	51.62	1.0	ug/L	50.0		103	78-121	0.599	25	
Bromodichloromethane	51.62	1.0	ug/L	50.0		103	68-129	0.599	22	
cis-1,3-Dichloropropene	52.77	1.0	ug/L	50.3		105	78-120	0.510	26	
cis-1,3-Dichloropropene	52.77	1.0	ug/L	50.3		105	65-134	0.510	23	
4-Methyl-2-pentanone (MIBK)	114.1	5.0	ug/L	101		113	67-143	0.527	26	
4-Methyl-2-pentanone (MIBK)	114.1	5.0	ug/L	101		113	58-147	0.527	27	
Toluene	53.96	1.0	ug/L	50.0		108	77-130	1.58	27	
Toluene	53.96	1.0	ug/L	50.0		108	72-133	1.58	24	
trans-1,3-Dichloropropene	50.37	1.0	ug/L	50.4		99.9	77-123	0.614	28	
trans-1,3-Dichloropropene	50.37	1.0	ug/L	50.4		99.9	67-130	0.614	24	
Ethyl Methacrylate	103.2	10.0	ug/L	101		103	52-148	0.290	30	
1,1,2-Trichloroethane	51.48	1.0	ug/L	50.0		103	78-124	1.21	24	
1,1,2-Trichloroethane	51.48	1.0	ug/L	50.0		103	69-135	1.21	23	
Tetrachloroethylene	52.99	1.0	ug/L	50.0		106	73-124	2.90	26	
Tetrachloroethylene	52.99	1.0	ug/L	50.0		106	69-130	2.90	25	
1,3-Dichloropropane	53.55	1.0	ug/L	50.0		107	78-131	0.670	24	
2-Hexanone (MBK)	119.2	5.0	ug/L	103		115	57-145	0.0755	30	
2-Hexanone (MBK)	119.2	5.0	ug/L	103		115	55-144	0.0755	25	
Dibromochloromethane	50.22	1.0	ug/L	49.5		101	78-126	1.13	23	
Dibromochloromethane	50.22	1.0	ug/L	49.5		101	73-127	1.13	22	
1,2-Dibromoethane	50.45	1.0	ug/L	50.0		101	69-126	0.553	22	
1,2-Dibromoethane	50.45	1.0	ug/L	50.0		101	67-132	0.553	24	
Chlorobenzene	52.55	1.0	ug/L	50.0		105	76-120	2.57	25	
Chlorobenzene	52.55	1.0	ug/L	50.0		105	72-123	2.57	23	



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
LCS Dup (1GJ0532-BSD1)										
				Prepared: 10/09/23 00:00 Analyzed: 10/09/23 08:41						
1,1,1,2-Tetrachloroethane	52.95	1.0	ug/L	50.0		106	81-122	2.07	23	
1,1,1,2-Tetrachloroethane	52.95	1.0	ug/L	50.0		106	73-127	2.07	24	
Ethylbenzene	54.69	1.0	ug/L	50.0		109	74-121	2.15	27	
Ethylbenzene	54.69	1.0	ug/L	50.0		109	71-127	2.15	26	
Xylenes, total	163.2	2.0	ug/L	150		109	75-122	2.24	26	
Xylenes, total	163.2	2.0	ug/L	150		109	74-127	2.24	25	
Styrene	52.53	1.0	ug/L	50.0		105	76-119	1.53	26	
Styrene	52.53	1.0	ug/L	50.0		105	66-126	1.53	23	
Bromoform	48.49	1.0	ug/L	50.0		97.0	74-127	0.0619	22	
Bromoform	48.49	1.0	ug/L	50.0		97.0	68-130	0.0619	23	
1,2,3-Trichloropropane	53.33	1.0	ug/L	50.0		107	73-125	0.225	20	
1,2,3-Trichloropropane	53.33	1.0	ug/L	50.0		107	63-136	0.225	24	
trans-1,4-Dichloro-2-butene	98.72	5.0	ug/L	104		95.0	55-135	1.14	26	
trans-1,4-Dichloro-2-butene	98.72	5.0	ug/L	104		95.0	54-134	1.14	27	
1,1,2,2-Tetrachloroethane	51.63	1.0	ug/L	49.8		104	58-133	0.739	28	
1,1,2,2-Tetrachloroethane	51.63	1.0	ug/L	49.8		104	61-131	0.739	29	
1,3-Dichlorobenzene	51.46	1.0	ug/L	50.0		103	70-125	1.04	27	
1,4-Dichlorobenzene	53.43	1.0	ug/L	50.0		107	69-128	0.672	29	
1,4-Dichlorobenzene	53.43	1.0	ug/L	50.0		107	70-129	0.672	24	
1,2-Dichlorobenzene	49.86	1.0	ug/L	50.0		99.7	70-125	0.140	25	
1,2-Dichlorobenzene	49.86	1.0	ug/L	50.0		99.7	69-126	0.140	26	
1,2-Dibromo-3-chloropropane	49.92	1.0	ug/L	50.0		99.8	54-147	0.502	29	
1,2-Dibromo-3-chloropropane	49.92	5.0	ug/L	50.0		99.8	50-143	0.502	30	
1,2,4-Trichlorobenzene	44.66	1.0	ug/L	50.0		89.3	55-149	0.914	30	

Surrogate: Dibromofluoromethane	47.8		ug/L	50.4		94.9	80-126			
Surrogate: Dibromofluoromethane	47.8		ug/L	50.4		94.9	80-126			
Surrogate: Dibromofluoromethane	47.8		ug/L	50.4		94.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.4	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.4	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.4	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.6		ug/L	50.4		98.4	61-142			
Surrogate: Toluene-d8	51.4		ug/L	50.2		102	87-116			
Surrogate: Toluene-d8	51.4		ug/L	50.2		102	87-116			
Surrogate: Toluene-d8	51.4		ug/L	50.2		102	87-116			
Surrogate: Toluene-d8	51.4		ug/L	50.2		102	82-121			
Surrogate: 4-Bromofluorobenzene	49.8		ug/L	50.4		98.8	85-111			
Surrogate: 4-Bromofluorobenzene	49.8		ug/L	50.4		98.8	85-111			
Surrogate: 4-Bromofluorobenzene	49.8		ug/L	50.4		98.8	85-111			
Surrogate: 4-Bromofluorobenzene	49.8		ug/L	50.4		98.8	80-116			

Matrix Spike (1GJ0532-MS1)	Source: 1GJ0597-01	Prepared: 10/09/23 00:00 Analyzed: 10/09/23 17:48								
Dichlorodifluoromethane	276.3	10.0	ug/L	300	ND	92.1	47-137			
Chloromethane	295.3	10.0	ug/L	300	ND	98.4	49-154			
Chloromethane	295.3	10.0	ug/L	300	ND	98.4	61-152			
Vinyl Chloride	306.4	10.0	ug/L	300	ND	102	61-152			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike (1GJ0532-MS1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 17:48						
Vinyl Chloride	306.4	10.0	ug/L	300	ND	102	66-149			
Bromomethane	285.9	10.0	ug/L	300	ND	95.3	47-168			
Bromomethane	285.9	10.0	ug/L	300	ND	95.3	43-171			
Chloroethane	363.1	10.0	ug/L	300	ND	121	61-148			
Chloroethane	363.1	10.0	ug/L	300	ND	121	69-148			
Trichlorofluoromethane	310.6	10.0	ug/L	300	ND	104	73-147			
Trichlorofluoromethane	310.6	10.0	ug/L	300	ND	104	62-163			
Acrolein	515.6	100	ug/L	1000	ND	51.4	20-164			
1,1-Dichloroethylene	605.0	10.0	ug/L	500	ND	121	68-153			
1,1-Dichloroethylene	605.0	10.0	ug/L	500	ND	121	70-148			
Acetone	1105	100	ug/L	1020	ND	108	45-175			
Acetone	1105	100	ug/L	1020	ND	108	45-173			
Methyl Iodide	1084	20.0	ug/L	997	ND	109	79-167			
Methyl Iodide	1084	10.0	ug/L	997	ND	109	62-167			
Carbon Disulfide	1169	10.0	ug/L	1010	ND	116	72-156			
Carbon Disulfide	1169	10.0	ug/L	1010	ND	116	71-163			
Acetonitrile	1143	100	ug/L	1010	ND	114	38-166			
Methylene Chloride	524.5	50.0	ug/L	500	ND	105	64-143			
Methylene Chloride	524.5	50.0	ug/L	500	ND	105	69-140			
Acrylonitrile	1067	50.0	ug/L	1000	ND	106	58-151			
Acrylonitrile	1067	50.0	ug/L	1000	ND	106	58-151			
trans-1,2-Dichloroethylene	599.4	10.0	ug/L	500	ND	120	65-145			
trans-1,2-Dichloroethylene	599.4	10.0	ug/L	500	ND	120	69-144			
1,1-Dichloroethane	569.2	10.0	ug/L	500	ND	114	68-136			
1,1-Dichloroethane	569.2	10.0	ug/L	500	ND	114	70-138			
2,2-Dichloropropane	499.4	10.0	ug/L	500	ND	99.9	50-118			
cis-1,2-Dichloroethylene	670.7	10.0	ug/L	495	ND	136	67-153			
cis-1,2-Dichloroethylene	670.7	10.0	ug/L	495	ND	136	68-151			
2-Butanone (MEK)	1173	50.0	ug/L	1030	ND	114	52-159			
2-Butanone (MEK)	1173	100	ug/L	1030	ND	114	50-160			
Bromochloromethane	548.4	10.0	ug/L	500	ND	110	61-151			
Bromochloromethane	548.4	10.0	ug/L	500	ND	110	65-143			
Chloroform	570.6	10.0	ug/L	500	ND	114	77-132			
Chloroform	570.6	10.0	ug/L	500	ND	114	71-143			
1,1,1-Trichloroethane	535.7	10.0	ug/L	500	ND	107	71-118			
1,1,1-Trichloroethane	535.7	10.0	ug/L	500	ND	107	63-133			
1,1-Dichloropropene	569.0	10.0	ug/L	500	ND	114	82-128			
Carbon Tetrachloride	571.1	10.0	ug/L	500	ND	114	71-133			
Carbon Tetrachloride	571.1	10.0	ug/L	500	ND	114	63-142			
Benzene	547.3	10.0	ug/L	500	ND	109	81-125			
Benzene	547.3	10.0	ug/L	500	ND	109	69-133			
1,2-Dichloroethane	509.2	10.0	ug/L	500	ND	102	75-125			
1,2-Dichloroethane	509.2	10.0	ug/L	500	ND	102	63-138			



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike (1GJ0532-MS1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 17:48						
Trichloroethylene	565.7	10.0	ug/L	500	ND	113	83-120			
Trichloroethylene	565.7	10.0	ug/L	500	ND	113	71-133			
1,2-Dichloropropane	555.5	10.0	ug/L	500	ND	111	80-124			
1,2-Dichloropropane	555.5	10.0	ug/L	500	ND	111	69-132			
Dibromomethane	549.2	10.0	ug/L	500	ND	110	84-131			
Dibromomethane	549.2	10.0	ug/L	500	ND	110	70-147			
Bromodichloromethane	514.5	10.0	ug/L	500	ND	103	79-118			
Bromodichloromethane	514.5	10.0	ug/L	500	ND	103	67-130			
cis-1,3-Dichloropropene	517.7	10.0	ug/L	503	ND	103	75-116			
cis-1,3-Dichloropropene	517.7	10.0	ug/L	503	ND	103	61-126			
4-Methyl-2-pentanone (MIBK)	1156	50.0	ug/L	1010	ND	114	65-149			
4-Methyl-2-pentanone (MIBK)	1156	50.0	ug/L	1010	ND	114	55-147			
Toluene	546.7	10.0	ug/L	500	ND	109	82-123			
Toluene	546.7	10.0	ug/L	500	ND	109	71-133			
trans-1,3-Dichloropropene	490.4	10.0	ug/L	504	ND	97.3	75-117			
trans-1,3-Dichloropropene	490.4	10.0	ug/L	504	ND	97.3	63-124			
Ethyl Methacrylate	1038	100	ug/L	1010	ND	103	73-135			
1,1,2-Trichloroethane	510.4	10.0	ug/L	500	ND	102	77-122			
1,1,2-Trichloroethane	510.4	10.0	ug/L	500	ND	102	69-133			
Tetrachloroethylene	528.6	10.0	ug/L	500	ND	106	74-120			
Tetrachloroethylene	528.6	10.0	ug/L	500	ND	106	70-124			
1,3-Dichloropropane	535.4	10.0	ug/L	500	ND	107	80-127			
2-Hexanone (MBK)	1201	50.0	ug/L	1030	ND	116	57-150			
2-Hexanone (MBK)	1201	50.0	ug/L	1030	ND	116	53-141			
Dibromochloromethane	490.6	10.0	ug/L	495	ND	99.1	80-120			
Dibromochloromethane	490.6	10.0	ug/L	495	ND	99.1	74-122			
1,2-Dibromoethane	497.4	10.0	ug/L	500	ND	99.5	67-125			
1,2-Dibromoethane	497.4	10.0	ug/L	500	ND	99.5	66-127			
Chlorobenzene	527.1	10.0	ug/L	500	ND	105	81-113			
Chlorobenzene	527.1	10.0	ug/L	500	ND	105	76-116			
1,1,1,2-Tetrachloroethane	535.2	10.0	ug/L	500	ND	107	80-119			
1,1,1,2-Tetrachloroethane	535.2	10.0	ug/L	500	ND	107	77-121			
Ethylbenzene	552.5	10.0	ug/L	500	ND	110	78-114			
Ethylbenzene	552.5	10.0	ug/L	500	ND	110	73-124			
Xylenes, total	1645	20.0	ug/L	1500	ND	110	77-116			
Xylenes, total	1645	20.0	ug/L	1500	ND	110	75-123			
Styrene	521.5	10.0	ug/L	500	ND	104	78-114			
Styrene	521.5	10.0	ug/L	500	ND	104	70-120			
Bromoform	464.0	10.0	ug/L	500	ND	92.8	69-125			
Bromoform	464.0	10.0	ug/L	500	ND	92.8	70-124			
1,2,3-Trichloropropane	527.7	10.0	ug/L	500	ND	106	72-125			
1,2,3-Trichloropropane	527.7	10.0	ug/L	500	ND	106	62-135			
trans-1,4-Dichloro-2-butene	959.7	50.0	ug/L	1040	ND	92.4	48-131			

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike (1GJ0532-MS1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 17:48						
trans-1,4-Dichloro-2-butene	959.7	50.0	ug/L	1040	ND	92.4	50-120			
1,1,2,2-Tetrachloroethane	512.0	10.0	ug/L	498	ND	103	51-138			
1,1,2,2-Tetrachloroethane	512.0	10.0	ug/L	498	ND	103	63-126			
1,3-Dichlorobenzene	507.9	10.0	ug/L	500	ND	102	70-122			
1,4-Dichlorobenzene	532.1	10.0	ug/L	500	ND	106	70-124			
1,4-Dichlorobenzene	532.1	10.0	ug/L	500	ND	106	72-119			
1,2-Dichlorobenzene	499.0	10.0	ug/L	500	ND	99.8	68-123			
1,2-Dichlorobenzene	499.0	10.0	ug/L	500	ND	99.8	71-117			
1,2-Dibromo-3-chloropropane	482.9	10.0	ug/L	500	ND	96.6	46-149			
1,2-Dibromo-3-chloropropane	482.9	50.0	ug/L	500	ND	96.6	49-134			
1,2,4-Trichlorobenzene	460.1	10.0	ug/L	500	ND	92.0	60-137			
<i>Surrogate: Dibromofluoromethane</i>	499		ug/L	504		99.2	80-126			
<i>Surrogate: Dibromofluoromethane</i>	499		ug/L	504		99.2	80-126			
<i>Surrogate: Dibromofluoromethane</i>	499		ug/L	504		99.2	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	530		ug/L	504		105	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	530		ug/L	504		105	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	530		ug/L	504		105	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	530		ug/L	504		105	61-142			
<i>Surrogate: Toluene-d8</i>	515		ug/L	502		102	87-116			
<i>Surrogate: Toluene-d8</i>	515		ug/L	502		102	87-116			
<i>Surrogate: Toluene-d8</i>	515		ug/L	502		102	87-116			
<i>Surrogate: Toluene-d8</i>	515		ug/L	502		102	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	502		ug/L	504		99.6	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	502		ug/L	504		99.6	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	502		ug/L	504		99.6	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	502		ug/L	504		99.6	80-116			
Matrix Spike Dup (1GJ0532-MSD1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 18:11						
Dichlorodifluoromethane	284.3	10.0	ug/L	300	ND	94.8	47-137	2.85	20	
Chloromethane	289.7	10.0	ug/L	300	ND	96.6	49-154	1.91	25	
Chloromethane	289.7	10.0	ug/L	300	ND	96.6	61-152	1.91	26	
Vinyl Chloride	312.2	10.0	ug/L	300	ND	104	61-152	1.88	24	
Vinyl Chloride	312.2	10.0	ug/L	300	ND	104	66-149	1.88	23	
Bromomethane	314.7	10.0	ug/L	300	ND	105	47-168	9.59	30	
Bromomethane	314.7	10.0	ug/L	300	ND	105	43-171	9.59	29	
Chloroethane	367.9	10.0	ug/L	300	ND	123	61-148	1.31	29	
Chloroethane	367.9	10.0	ug/L	300	ND	123	69-148	1.31	25	
Trichlorofluoromethane	318.1	10.0	ug/L	300	ND	106	73-147	2.39	24	
Trichlorofluoromethane	318.1	10.0	ug/L	300	ND	106	62-163	2.39	25	
Acrolein	510.8	100	ug/L	1000	ND	50.9	20-164	0.935	24	
1,1-Dichloroethylene	623.3	10.0	ug/L	500	ND	125	68-153	2.98	21	
1,1-Dichloroethylene	623.3	10.0	ug/L	500	ND	125	70-148	2.98	22	
Acetone	1089	100	ug/L	1020	ND	107	45-175	1.52	23	
Acetone	1089	100	ug/L	1020	ND	107	45-173	1.52	30	
Methyl Iodide	1143	20.0	ug/L	997	ND	115	79-167	5.29	14	

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0532-MSD1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 18:11						
Methyl Iodide	1143	10.0	ug/L	997	ND	115	62-167	5.29	24	
Carbon Disulfide	1199	10.0	ug/L	1010	ND	119	72-156	2.52	19	
Carbon Disulfide	1199	10.0	ug/L	1010	ND	119	71-163	2.52	22	
Acetonitrile	1160	100	ug/L	1010	ND	115	38-166	1.42	20	
Methylene Chloride	527.2	50.0	ug/L	500	ND	105	64-143	0.513	19	
Methylene Chloride	527.2	50.0	ug/L	500	ND	105	69-140	0.513	19	
Acrylonitrile	1060	50.0	ug/L	1000	ND	106	58-151	0.658	15	
Acrylonitrile	1060	50.0	ug/L	1000	ND	106	58-151	0.658	15	
trans-1,2-Dichloroethylene	605.5	10.0	ug/L	500	ND	121	65-145	1.01	18	
trans-1,2-Dichloroethylene	605.5	10.0	ug/L	500	ND	121	69-144	1.01	22	
1,1-Dichloroethane	571.1	10.0	ug/L	500	ND	114	68-136	0.333	17	
1,1-Dichloroethane	571.1	10.0	ug/L	500	ND	114	70-138	0.333	20	
2,2-Dichloropropane	500.1	10.0	ug/L	500	ND	100	50-118	0.140	17	
cis-1,2-Dichloroethylene	676.2	10.0	ug/L	495	ND	137	67-153	0.817	22	
cis-1,2-Dichloroethylene	676.2	10.0	ug/L	495	ND	137	68-151	0.817	22	
2-Butanone (MEK)	1187	50.0	ug/L	1030	ND	115	52-159	1.20	28	
2-Butanone (MEK)	1187	100	ug/L	1030	ND	115	50-160	1.20	23	
Bromochloromethane	548.1	10.0	ug/L	500	ND	110	61-151	0.0547	27	
Bromochloromethane	548.1	10.0	ug/L	500	ND	110	65-143	0.0547	22	
Chloroform	579.2	10.0	ug/L	500	ND	116	77-132	1.50	17	
Chloroform	579.2	10.0	ug/L	500	ND	116	71-143	1.50	21	
1,1,1-Trichloroethane	545.0	10.0	ug/L	500	ND	109	71-118	1.72	15	
1,1,1-Trichloroethane	545.0	10.0	ug/L	500	ND	109	63-133	1.72	23	
1,1-Dichloropropene	579.6	10.0	ug/L	500	ND	116	82-128	1.85	16	
Carbon Tetrachloride	590.7	10.0	ug/L	500	ND	118	71-133	3.37	14	
Carbon Tetrachloride	590.7	10.0	ug/L	500	ND	118	63-142	3.37	22	
Benzene	560.6	10.0	ug/L	500	ND	112	81-125	2.40	12	
Benzene	560.6	10.0	ug/L	500	ND	112	69-133	2.40	18	
1,2-Dichloroethane	522.8	10.0	ug/L	500	ND	105	75-125	2.64	13	
1,2-Dichloroethane	522.8	10.0	ug/L	500	ND	105	63-138	2.64	20	
Trichloroethylene	587.4	10.0	ug/L	500	ND	117	83-120	3.76	11	
Trichloroethylene	587.4	10.0	ug/L	500	ND	117	71-133	3.76	23	
1,2-Dichloropropane	567.6	10.0	ug/L	500	ND	114	80-124	2.15	11	
1,2-Dichloropropane	567.6	10.0	ug/L	500	ND	114	69-132	2.15	20	
Dibromomethane	561.8	10.0	ug/L	500	ND	112	84-131	2.27	13	
Dibromomethane	561.8	10.0	ug/L	500	ND	112	70-147	2.27	22	
Bromodichloromethane	524.1	10.0	ug/L	500	ND	105	79-118	1.85	11	
Bromodichloromethane	524.1	10.0	ug/L	500	ND	105	67-130	1.85	21	
cis-1,3-Dichloropropene	527.9	10.0	ug/L	503	ND	105	75-116	1.95	11	
cis-1,3-Dichloropropene	527.9	10.0	ug/L	503	ND	105	61-126	1.95	21	
4-Methyl-2-pentanone (MIBK)	1162	50.0	ug/L	1010	ND	115	65-149	0.535	14	
4-Methyl-2-pentanone (MIBK)	1162	50.0	ug/L	1010	ND	115	55-147	0.535	23	
Toluene	558.8	10.0	ug/L	500	ND	112	82-123	2.19	12	

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0532-MSD1)	Source: 1GJ0597-01			Prepared: 10/09/23 00:00 Analyzed: 10/09/23 18:11						
Toluene	558.8	10.0	ug/L	500	ND	112	71-133	2.19	19	
trans-1,3-Dichloropropene	497.5	10.0	ug/L	504	ND	98.7	75-117	1.44	11	
trans-1,3-Dichloropropene	497.5	10.0	ug/L	504	ND	98.7	63-124	1.44	21	
Ethyl Methacrylate	1048	100	ug/L	1010	ND	104	73-135	1.03	10	
1,1,2-Trichloroethane	520.0	10.0	ug/L	500	ND	104	77-122	1.86	11	
1,1,2-Trichloroethane	520.0	10.0	ug/L	500	ND	104	69-133	1.86	19	
Tetrachloroethylene	540.4	10.0	ug/L	500	ND	108	74-120	2.21	17	
Tetrachloroethylene	540.4	10.0	ug/L	500	ND	108	70-124	2.21	24	
1,3-Dichloropropane	542.0	10.0	ug/L	500	ND	108	80-127	1.23	13	
2-Hexanone (MBK)	1189	50.0	ug/L	1030	ND	115	57-150	1.04	17	
2-Hexanone (MBK)	1189	50.0	ug/L	1030	ND	115	53-141	1.04	24	
Dibromochloromethane	495.5	10.0	ug/L	495	ND	100	80-120	0.994	12	
Dibromochloromethane	495.5	10.0	ug/L	495	ND	100	74-122	0.994	21	
1,2-Dibromoethane	496.2	10.0	ug/L	500	ND	99.2	67-125	0.242	12	
1,2-Dibromoethane	496.2	10.0	ug/L	500	ND	99.2	66-127	0.242	23	
Chlorobenzene	529.7	10.0	ug/L	500	ND	106	81-113	0.492	14	
Chlorobenzene	529.7	10.0	ug/L	500	ND	106	76-116	0.492	21	
1,1,1,2-Tetrachloroethane	540.3	10.0	ug/L	500	ND	108	80-119	0.948	15	
1,1,1,2-Tetrachloroethane	540.3	10.0	ug/L	500	ND	108	77-121	0.948	25	
Ethylbenzene	560.9	10.0	ug/L	500	ND	112	78-114	1.51	14	
Ethylbenzene	560.9	10.0	ug/L	500	ND	112	73-124	1.51	20	
Xylenes, total	1674	20.0	ug/L	1500	ND	112	77-116	1.78	13	
Xylenes, total	1674	20.0	ug/L	1500	ND	112	75-123	1.78	20	
Styrene	527.1	10.0	ug/L	500	ND	105	78-114	1.07	12	
Styrene	527.1	10.0	ug/L	500	ND	105	70-120	1.07	23	
Bromoform	467.4	10.0	ug/L	500	ND	93.5	69-125	0.730	14	
Bromoform	467.4	10.0	ug/L	500	ND	93.5	70-124	0.730	22	
1,2,3-Trichloropropane	537.8	10.0	ug/L	500	ND	108	72-125	1.90	18	
1,2,3-Trichloropropane	537.8	10.0	ug/L	500	ND	108	62-135	1.90	28	
trans-1,4-Dichloro-2-butene	963.4	50.0	ug/L	1040	ND	92.7	48-131	0.385	17	
trans-1,4-Dichloro-2-butene	963.4	50.0	ug/L	1040	ND	92.7	50-120	0.385	26	
1,1,2,2-Tetrachloroethane	512.3	10.0	ug/L	498	ND	103	51-138	0.0586	30	
1,1,2,2-Tetrachloroethane	512.3	10.0	ug/L	498	ND	103	63-126	0.0586	24	
1,3-Dichlorobenzene	515.8	10.0	ug/L	500	ND	103	70-122	1.54	30	
1,4-Dichlorobenzene	536.5	10.0	ug/L	500	ND	107	70-124	0.824	28	
1,4-Dichlorobenzene	536.5	10.0	ug/L	500	ND	107	72-119	0.824	24	
1,2-Dichlorobenzene	501.8	10.0	ug/L	500	ND	100	68-123	0.560	29	
1,2-Dichlorobenzene	501.8	10.0	ug/L	500	ND	100	71-117	0.560	24	
1,2-Dibromo-3-chloropropane	498.3	10.0	ug/L	500	ND	99.7	46-149	3.14	30	
1,2-Dibromo-3-chloropropane	498.3	50.0	ug/L	500	ND	99.7	49-134	3.14	28	
1,2,4-Trichlorobenzene	465.3	10.0	ug/L	500	ND	93.1	60-137	1.12	30	
Surrogate: Dibromofluoromethane	491		ug/L	504		97.5	80-126			



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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0532 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0532-MSD1)	Source: 1GJ0597-01		Prepared: 10/09/23 00:00 Analyzed: 10/09/23 18:11							
Surrogate: Dibromofluoromethane	491		ug/L	504		97.5	80-126			
Surrogate: Dibromofluoromethane	491		ug/L	504		97.5	75-136			
Surrogate: 1,2-Dichloroethane-d4	521		ug/L	504		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	521		ug/L	504		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	521		ug/L	504		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	521		ug/L	504		103	61-142			
Surrogate: Toluene-d8	514		ug/L	502		102	87-116			
Surrogate: Toluene-d8	514		ug/L	502		102	87-116			
Surrogate: Toluene-d8	514		ug/L	502		102	82-121			
Surrogate: 4-Bromofluorobenzene	503		ug/L	504		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	503		ug/L	504		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	503		ug/L	504		99.8	85-111			
Surrogate: 4-Bromofluorobenzene	503		ug/L	504		99.8	80-116			
Batch 1GJ0606 - EPA 5030B - EPA 8260B										
Blank (1GJ0606-BLK1)			Prepared: 10/10/23 00:00 Analyzed: 10/10/23 10:27							
Vinyl Acetate	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	62.9		ug/L	50.4		125	75-136			
Surrogate: 1,2-Dichloroethane-d4	55.2		ug/L	50.4		109	61-142			
Surrogate: Toluene-d8	54.1		ug/L	50.2		108	82-121			
Surrogate: 4-Bromofluorobenzene	59.6		ug/L	50.4		118	80-116			S-GC
LCS (1GJ0606-BS1)			Prepared: 10/10/23 00:00 Analyzed: 10/10/23 09:07							
Vinyl Acetate	162.2	5.0	ug/L	102		159	43-153			QS-02
Surrogate: Dibromofluoromethane	53.0		ug/L	50.4		105	75-136			
Surrogate: 1,2-Dichloroethane-d4	53.0		ug/L	50.4		105	61-142			
Surrogate: Toluene-d8	50.7		ug/L	50.2		101	82-121			
Surrogate: 4-Bromofluorobenzene	50.6		ug/L	50.4		100	80-116			
LCS Dup (1GJ0606-BSD1)			Prepared: 10/10/23 00:00 Analyzed: 10/10/23 09:34							
Vinyl Acetate	233.2	5.0	ug/L	102		229	43-153	35.9	30	QS-02
Surrogate: Dibromofluoromethane	53.8		ug/L	50.4		107	75-136			
Surrogate: 1,2-Dichloroethane-d4	53.8		ug/L	50.4		107	61-142			
Surrogate: Toluene-d8	51.2		ug/L	50.2		102	82-121			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.4		99.7	80-116			
Matrix Spike (1GJ0606-MS1)	Source: 1GJ0308-02		Prepared: 10/10/23 00:00 Analyzed: 10/10/23 22:53							
Vinyl Acetate	2123	50.0	ug/L	1020	ND	208	58-142			QS-02
Surrogate: Dibromofluoromethane	500		ug/L	504		99.3	75-136			
Surrogate: 1,2-Dichloroethane-d4	505		ug/L	504		100	61-142			
Surrogate: Toluene-d8	502		ug/L	502		99.9	82-121			
Surrogate: 4-Bromofluorobenzene	499		ug/L	504		99.0	80-116			
Matrix Spike Dup (1GJ0606-MSD1)	Source: 1GJ0308-02		Prepared: 10/10/23 00:00 Analyzed: 10/10/23 23:20							

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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0606 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1GJ0606-MSD1)	Source: 1GJ0308-02			Prepared: 10/10/23 00:00 Analyzed: 10/10/23 23:20						
Vinyl Acetate	1943	50.0	ug/L	1020	ND	191	58-142	8.89	24	QS-02
Surrogate: Dibromofluoromethane	500		ug/L	504		99.3	75-136			
Surrogate: 1,2-Dichloroethane-d4	504		ug/L	504		99.9	61-142			
Surrogate: Toluene-d8	502		ug/L	502		100	82-121			
Surrogate: 4-Bromofluorobenzene	508		ug/L	504		101	80-116			
Batch 1GJ0726 - EPA 5030B - EPA 8260B										
Blank (1GJ0726-BLK1)	Prepared: 10/11/23 00:00 Analyzed: 10/11/23 12:53									
Vinyl Acetate	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	45.9		ug/L	50.4		91.1	80-126			
Surrogate: 1,2-Dichloroethane-d4	40.7		ug/L	50.4		80.8	63-138			
Surrogate: Toluene-d8	50.9		ug/L	50.2		101	87-116			
Surrogate: 4-Bromofluorobenzene	47.9		ug/L	50.4		95.0	85-111			
LCS (1GJ0726-BS1)	Prepared: 10/11/23 00:00 Analyzed: 10/11/23 10:56									
Vinyl Acetate	79.50	5.0	ug/L	102		78.0	24-144			
Surrogate: Dibromofluoromethane	54.6		ug/L	50.4		108	80-126			
Surrogate: 1,2-Dichloroethane-d4	61.0		ug/L	50.4		121	63-138			
Surrogate: Toluene-d8	50.8		ug/L	50.2		101	87-116			
Surrogate: 4-Bromofluorobenzene	54.5		ug/L	50.4		108	85-111			
LCS Dup (1GJ0726-BSD1)	Prepared: 10/11/23 00:00 Analyzed: 10/11/23 11:35									
Vinyl Acetate	76.82	5.0	ug/L	102		75.4	24-144	3.43	30	
Surrogate: Dibromofluoromethane	50.3		ug/L	50.4		99.9	80-126			
Surrogate: 1,2-Dichloroethane-d4	53.0		ug/L	50.4		105	63-138			
Surrogate: Toluene-d8	49.0		ug/L	50.2		97.6	87-116			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.4		96.4	85-111			
Batch 1GJ1069 - EPA 5030B - EPA 8260B										
Blank (1GJ1069-BLK1)	Prepared: 10/17/23 00:00 Analyzed: 10/17/23 09:58									
Allyl chloride	<1.0	1.0	ug/L							
Chloroprene	<1.0	1.0	ug/L							
Methacrylonitrile	<1.0	1.0	ug/L							
Methyl Methacrylate	<1.0	1.0	ug/L							
Propionitrile	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	56.8		ug/L	50.4		113	80-126			
Surrogate: 1,2-Dichloroethane-d4	54.4		ug/L	50.4		108	63-138			
Surrogate: Toluene-d8	51.8		ug/L	50.2		103	87-116			
Surrogate: 4-Bromofluorobenzene	50.7		ug/L	50.4		101	85-111			
LCS (1GJ1069-BS1)	Prepared: 10/17/23 00:00 Analyzed: 10/17/23 08:38									
Allyl chloride	62.61	1.0	ug/L	50.1		125	76-134			



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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ1069 - EPA 5030B - EPA 8260B

LCS (1GJ1069-BS1)										
Prepared: 10/17/23 00:00 Analyzed: 10/17/23 08:38										
Chloroprene	29.44	1.0	ug/L	25.0		118	74-141			
Methacrylonitrile	53.87	1.0	ug/L	50.0		108	73-143			
Methyl Methacrylate	55.39	1.0	ug/L	50.1		111	72-123			
Propionitrile	54.35	10.0	ug/L	50.1		108	50-151			

Surrogate: Dibromofluoromethane	55.2		ug/L	50.4		110	80-126			
Surrogate: 1,2-Dichloroethane-d4	56.9		ug/L	50.4		113	63-138			
Surrogate: Toluene-d8	50.2		ug/L	50.2		99.9	87-116			
Surrogate: 4-Bromofluorobenzene	49.4		ug/L	50.4		98.0	85-111			

LCS Dup (1GJ1069-BSD1)										
Prepared: 10/17/23 00:00 Analyzed: 10/17/23 09:05										
Allyl chloride	62.47	1.0	ug/L	50.1		125	76-134	0.224	30	
Chloroprene	28.08	1.0	ug/L	25.0		112	74-141	4.73	30	
Methacrylonitrile	52.52	1.0	ug/L	50.0		105	73-143	2.54	30	
Methyl Methacrylate	56.24	1.0	ug/L	50.1		112	72-123	1.52	30	
Propionitrile	53.88	10.0	ug/L	50.1		108	50-151	0.869	30	

Surrogate: Dibromofluoromethane	53.7		ug/L	50.4		107	80-126			
Surrogate: 1,2-Dichloroethane-d4	55.8		ug/L	50.4		111	63-138			
Surrogate: Toluene-d8	50.0		ug/L	50.2		99.5	87-116			
Surrogate: 4-Bromofluorobenzene	49.6		ug/L	50.4		98.4	85-111			

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ1105 - Semi-Vol GC - EPA 8015C

Blank (1GJ1105-BLK1)										
Prepared: 10/18/23 12:19 Analyzed: 10/18/23 17:38										
Isobutanol	<1.0	1.0	mg/L							

Blank (1GJ1105-BLK2)										
Prepared: 10/18/23 12:19 Analyzed: 10/19/23 01:04										
Isobutanol	<1.0	1.0	mg/L							

LCS (1GJ1105-BS1)										
Prepared: 10/18/23 12:19 Analyzed: 10/18/23 16:48										
Isobutanol	27.01	1.0	mg/L	26.0		104	40-135			

LCS (1GJ1105-BS2)										
Prepared: 10/18/23 12:19 Analyzed: 10/19/23 00:14										
Isobutanol	24.61	1.0	mg/L	26.0		94.6	40-135			

Matrix Spike (1GJ1105-MS1)										
Source: 1GJ0597-04 Prepared: 10/18/23 12:19 Analyzed: 10/18/23 22:10										
Isobutanol	25.53	1.0	mg/L	26.0	ND	98.2	63-135			

Matrix Spike (1GJ1105-MS2)										
Source: 1GJ1452-08 Prepared: 10/18/23 12:19 Analyzed: 10/19/23 03:08										
Isobutanol	24.56	1.0	mg/L	26.0	ND	94.5	63-135			

Matrix Spike Dup (1GJ1105-MSD1)										
Source: 1GJ0597-04 Prepared: 10/18/23 12:19 Analyzed: 10/18/23 22:35										
Isobutanol	24.20	1.0	mg/L	26.0	ND	93.1	63-135	5.32	30	

Matrix Spike Dup (1GJ1105-MSD2)										
Source: 1GJ1452-08 Prepared: 10/18/23 12:19 Analyzed: 10/19/23 03:32										
Isobutanol	22.64	1.0	mg/L	26.0	ND	87.1	63-135	8.16	30	



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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1GJ0596-BLK1)	Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:07								
N-Nitrosodimethylamine	<8	8	ug/L						
Methyl Methanesulfonate	<8	8	ug/L						
N-Nitrosodiethylamine	<8	8	ug/L						
N-Nitrosomethylethylamine	<8	8	ug/L						
Ethyl Methanesulfonate	<8	8	ug/L						
Phenol	<8	8	ug/L						
Bis(2-Chloroethyl) Ether	<8	8	ug/L						
2-Chlorophenol	<8	8	ug/L						
Benzyl Alcohol	<8	8	ug/L						
2-Methylphenol (o-Cresol)	<8	8	ug/L						
Bis[2-Chloroisopropyl]ether	<8	8	ug/L						
n-Nitroso-di-n-propylamine	<8	8	ug/L						
N-Nitrosopyrrolidine	<8	8	ug/L						
Acetophenone	<8	8	ug/L						
o-Toluidine	<8	8	ug/L						
(3 & 4)-Methylphenol	<8	8	ug/L						
Hexachloroethane	<8	8	ug/L						
Nitrobenzene	<8	8	ug/L						
N-Nitrosopiperidine	<8	8	ug/L						
Isophorone	<8	8	ug/L						
2-Nitrophenol	<8	8	ug/L						
2,4-Dimethylphenol	<8	8	ug/L						
Bis (2-Chloroethoxy) Methane	<8	8	ug/L						
2,4-Dichlorophenol	<8	8	ug/L						
Naphthalene	<8	8	ug/L						
4-Chloroaniline	<8	8	ug/L						
2,6-Dichlorophenol	<8	8	ug/L						
Hexachloropropene	<8	8	ug/L						
Hexachlorobutadiene	<8	8	ug/L						
N-Nitrosodi-n-butylamine	<8	8	ug/L						
1,4-Phenylenediamine	<8	8	ug/L						
4-Chloro-3-methylphenol	<8	8	ug/L						
2-Methylnaphthalene	<8	8	ug/L						
Isosafrole	<8	8	ug/L						
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L						
Hexachlorocyclopentadiene	<8	8	ug/L						
2,4,6-Trichlorophenol	<8	8	ug/L						
2,4,5-Trichlorophenol	<8	8	ug/L						
Safrole	<8	8	ug/L						
2-Chloronaphthalene	<8	8	ug/L						
2-Nitroaniline	<8	8	ug/L						
1,4-Naphthoquinone	<8	8	ug/L						



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1GJ0596-BLK1)				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:07					
Dimethylphthalate	<8	8	ug/L						
1,3-Dinitrobenzene	<8	8	ug/L						
1,2-Dinitrobenzene	<8	8	ug/L						
2,6-Dinitrotoluene	<8	8	ug/L						
Acenaphthylene	<8	8	ug/L						
3-Nitroaniline	<8	8	ug/L						
Acenaphthene	<8	8	ug/L						
2,4-Dinitrophenol	<8	8	ug/L						
4-Nitrophenol	<8	8	ug/L						
Dibenzofuran	<8	8	ug/L						
2,4-Dinitrotoluene	<8	8	ug/L						
2,3,4,6-Tetrachlorophenol	<8	8	ug/L						
Pentachlorobenzene	<8	8	ug/L						
1-Naphthylamine	<8	8	ug/L						
2-Naphthylamine	<8	8	ug/L						
Diethyl Phthalate	<8	8	ug/L						
Fluorene	<8	8	ug/L						
4-Chlorophenyl Phenyl Ether	<8	8	ug/L						
4-Nitroaniline	<8	8	ug/L						
5-Nitro-o-toluidine	<8	8	ug/L						
4,6-Dinitro-2-methylphenol	<8	8	ug/L						
N-Nitrosodiphenylamine	<8	8	ug/L						
Diphenylamine	<8	8	ug/L						
Azobenzene	<8	8	ug/L						
Diallate	<8	8	ug/L						
1,3,5-Trinitrobenzene	<8	8	ug/L						
Phenacetin	<8	8	ug/L						
4-Bromophenyl Phenyl Ether	<8	8	ug/L						
4-Aminobiphenyl	<8	8	ug/L						
Pentachlorophenol	<8	8	ug/L						
Pronamide	<8	8	ug/L						
Pentachloronitrobenzene (PCNB)	<8	8	ug/L						
Phenanthrene	<8	8	ug/L						
Anthracene	<8	8	ug/L						
Di-n-butyl Phthalate	<8	8	ug/L						
Methapyrilene	<8	8	ug/L						
Fluoranthene	<8	8	ug/L						
Isodrin	<8	8	ug/L						
Chlorobenzilate	<8	8	ug/L						
Pyrene	<8	8	ug/L						
p-(Dimethylamino)azobenzene	<8	8	ug/L						
3,3-Dimethylbenzidine	<8	8	ug/L						

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1GJ0596-BLK1)									
					Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:07				
Butyl Benzyl Phthalate	<8	8	ug/L						
Benzo(a)anthracene	<8	8	ug/L						
Chrysene	<8	8	ug/L						
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L						
Kepone	<8	8	ug/L						
3,3'-Dichlorobenzidine	<8	8	ug/L						
2-Acetylaminofluorene	<8	8	ug/L						
Di-n-octyl Phthalate	<8	8	ug/L						
Benzo(b)Fluoranthene	<8	8	ug/L						
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L						
Benzo(k)Fluoranthene	<8	8	ug/L						
Benzo(a)Pyrene	<8	8	ug/L						
3-Methylcholanthrene	<8	8	ug/L						
Dibenzo(a,h)anthracene	<8	8	ug/L						
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L						
Benzo(g,h,i)perylene	<8	8	ug/L						
<i>Surrogate: 2-Fluorophenol</i>	53.2		ug/L	60.6		87.7	24-136		
<i>Surrogate: Phenol-d6</i>	55.1		ug/L	61.9		89.0	15-140		
<i>Surrogate: Nitrobenzene-d5</i>	60.1		ug/L	62.8		95.7	29-130		
<i>Surrogate: 2-Fluorobiphenyl</i>	53.4		ug/L	61.0		87.5	23-113		
<i>Surrogate: 2,4,6-Tribromophenol</i>	53.4		ug/L	62.2		85.7	15-139		
<i>Surrogate: Terphenyl-d14</i>	74.5		ug/L	65.1		114	27-141		
LCS (1GJ0596-BS1)									
					Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:56				
N-Nitrosodimethylamine	25.2	8	ug/L	41.7		60.5	36-138		
Methyl Methanesulfonate	32.0	8	ug/L	50.0		63.9	22-114		
N-Nitrosodiethylamine	35.6	8	ug/L	50.0		71.1	52-114		
N-Nitrosomethylethylamine	20.1	8	ug/L	50.0		40.2	36-120		
Ethyl Methanesulfonate	32.3	8	ug/L	50.0		64.6	46-110		
Phenol	28.9	8	ug/L	41.7		69.5	50-112		
Bis(2-Chloroethyl) Ether	36.7	8	ug/L	41.7		88.0	39-151		
2-Chlorophenol	30.8	8	ug/L	41.7		74.0	56-116		
Benzyl Alcohol	29.0	8	ug/L	41.7		69.6	13-158		
2-Methylphenol (o-Cresol)	30.4	8	ug/L	41.7		72.9	53-131		
Bis[2-Chloroisopropyl]ether	28.6	8	ug/L	41.7		68.7	50-121		
n-Nitroso-di-n-propylamine	33.5	8	ug/L	41.7		80.4	50-138		
N-Nitrosopyrrolidine	37.3	8	ug/L	50.0		74.6	31-118		
Acetophenone	38.3	8	ug/L	50.0		76.6	45-104		
o-Toluidine	30.3	8	ug/L	50.0		60.7	10-163		
(3 & 4)-Methylphenol	32.2	8	ug/L	41.7		77.2	30-164		
Hexachloroethane	14.1	8	ug/L	41.7		33.9	10-110		
Nitrobenzene	31.7	8	ug/L	41.7		76.0	47-134		
N-Nitrosopiperidine	36.5	8	ug/L	50.0		73.0	51-122		

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Base/Neutral/Acid Extractable Compounds										
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1GJ0596-BS1)										
										Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:56
Isophorone	32.6	8	ug/L	41.7		78.3	54-128			
2-Nitrophenol	31.8	8	ug/L	41.7		76.2	54-117			
2,4-Dimethylphenol	31.6	8	ug/L	41.7		75.8	52-118			
Bis (2-Chloroethoxy) Methane	29.7	8	ug/L	41.7		71.3	13-132			
2,4-Dichlorophenol	34.9	8	ug/L	41.7		83.7	58-114			
Naphthalene	24.3	8	ug/L	41.7		58.3	37-116			
4-Chloroaniline	30.4	8	ug/L	41.7		73.0	10-198			
2,6-Dichlorophenol	52.2	8	ug/L	50.0		104	52-129			
Hexachloropropene	16.4	8	ug/L	50.0		32.9	14-110			
Hexachlorobutadiene	15.9	8	ug/L	41.7		38.1	14-110			
N-Nitrosodi-n-butylamine	32.8	8	ug/L	50.0		65.7	40-135			
1,4-Phenylenediamine	<8	8	ug/L	50.0		11.9	10-103			
4-Chloro-3-methylphenol	36.2	8	ug/L	41.7		86.8	57-136			
2-Methylnaphthalene	28.1	8	ug/L	41.7		67.4	44-111			
Isosafrole	39.8	8	ug/L	50.0		79.7	49-107			
1,2,4,5-Tetrachlorobenzene	39.3	8	ug/L	50.0		78.7	42-110			
Hexachlorocyclopentadiene	21.0	8	ug/L	41.7		50.5	11-110			
2,4,6-Trichlorophenol	33.5	8	ug/L	41.7		80.3	55-120			
2,4,5-Trichlorophenol	34.6	8	ug/L	41.7		82.9	55-121			
Safrole	43.1	8	ug/L	50.0		86.2	40-118			
2-Chloronaphthalene	42.6	8	ug/L	41.7		102	47-127			
2-Nitroaniline	35.5	8	ug/L	41.7		85.1	36-143			
1,4-Naphthoquinone	51.0	8	ug/L	50.0		102	43-152			
Dimethylphthalate	37.0	8	ug/L	41.7		88.8	59-128			
1,3-Dinitrobenzene	36.1	8	ug/L	41.7		86.7	63-125			
1,2-Dinitrobenzene	36.3	8	ug/L	41.7		87.2	63-123			
2,6-Dinitrotoluene	36.6	8	ug/L	41.7		87.9	60-127			
Acenaphthylene	31.7	8	ug/L	41.7		76.1	49-113			
3-Nitroaniline	35.4	8	ug/L	41.7		84.9	10-162			
Acenaphthene	31.8	8	ug/L	41.7		76.3	50-119			
2,4-Dinitrophenol	25.2	8	ug/L	41.7		60.5	27-157			
4-Nitrophenol	32.7	8	ug/L	41.7		78.4	49-154			
Dibenzofuran	33.8	8	ug/L	41.7		81.1	56-121			
2,4-Dinitrotoluene	39.5	8	ug/L	41.7		94.8	53-138			
2,3,4,6-Tetrachlorophenol	32.1	8	ug/L	41.7		77.0	47-132			
Pentachlorobenzene	48.5	8	ug/L	50.0		97.0	41-125			
1-Naphthylamine	40.0	8	ug/L	50.0		80.0	10-152			
2-Naphthylamine	32.6	8	ug/L	50.0		65.3	19-128			
Diethyl Phthalate	36.7	8	ug/L	41.7		88.0	53-138			
Fluorene	35.5	8	ug/L	41.7		85.2	54-125			
4-Chlorophenyl Phenyl Ether	34.3	8	ug/L	41.7		82.4	51-122			
4-Nitroaniline	37.0	8	ug/L	41.7		88.7	10-136			



Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Base/Neutral/Acid Extractable Compounds										
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1GJ0596-BS1)										
				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 14:56						
5-Nitro-o-toluidine	51.6	8	ug/L	50.0		103	10-145			
4,6-Dinitro-2-methylphenol	31.3	8	ug/L	41.7		75.1	49-137			
Diphenylamine	35.5	8	ug/L	41.7		85.2	35-151			
Azobenzene	33.8	8	ug/L	41.7		81.1	16-156			
Diallate	42.2	8	ug/L	50.0		84.4	54-132			
1,3,5-Trinitrobenzene	52.7	8	ug/L	50.0		105	57-173			
Phenacetin	49.1	8	ug/L	50.0		98.1	55-121			
4-Bromophenyl Phenyl Ether	31.7	8	ug/L	41.7		76.0	53-122			
4-Aminobiphenyl	24.5	8	ug/L	50.0		49.1	10-178			
Pentachlorophenol	22.8	8	ug/L	41.7		54.8	18-152			
Pronamide	48.3	8	ug/L	50.0		96.7	42-122			
Pentachloronitrobenzene (PCNB)	52.9	8	ug/L	50.0		106	50-128			
Phenanthrene	35.6	8	ug/L	41.7		85.3	59-131			
Anthracene	35.1	8	ug/L	41.7		84.3	59-127			
Di-n-butyl Phthalate	36.8	8	ug/L	41.7		88.4	64-148			
Fluoranthene	36.5	8	ug/L	41.7		87.6	62-132			
Isodrin	43.2	8	ug/L	50.0		86.3	46-130			
Chlorobenzilate	48.3	8	ug/L	50.0		96.7	48-150			
Pyrene	38.0	8	ug/L	41.7		91.2	58-135			
p-(Dimethylamino)azobenzene	43.7	8	ug/L	50.0		87.3	28-146			
Butyl Benzyl Phthalate	38.8	8	ug/L	41.7		93.1	52-150			
Benzo(a)anthracene	35.9	8	ug/L	41.7		86.1	58-131			
Chrysene	36.1	8	ug/L	41.7		86.7	59-131			
Bis(2-Ethylhexyl) Phthalate	35.0	6	ug/L	41.7		84.0	33-184			
Kepone	34.6	8	ug/L	50.0		69.3	10-134			
2-Acetylaminofluorene	50.7	8	ug/L	50.0		101	47-166			
Di-n-octyl Phthalate	40.7	8	ug/L	41.7		97.6	48-162			
Benzo(b)Fluoranthene	39.7	8	ug/L	41.7		95.4	50-146			
7,12-Dimethylbenz [a] anthracene	47.2	8	ug/L	50.0		94.4	22-155			
Benzo(k)Fluoranthene	36.3	8	ug/L	41.7		87.1	54-144			
Benzo(a)Pyrene	36.4	8	ug/L	41.7		87.2	39-148			
3-Methylcholanthrene	44.2	8	ug/L	50.0		88.3	34-118			
Dibenzo(a,h)anthracene	31.5	8	ug/L	41.7		75.6	46-153			
Indeno(1,2,3-cd)Pyrene	31.5	8	ug/L	41.7		75.6	48-152			
Benzo(g,h,i)perylene	31.0	8	ug/L	41.7		74.3	47-161			
Surrogate: 2-Fluorophenol	44.2		ug/L	60.6		72.9	24-136			
Surrogate: Phenol-d6	44.1		ug/L	61.9		71.2	15-140			
Surrogate: Nitrobenzene-d5	46.3		ug/L	62.8		73.6	38-115			
Surrogate: 2-Fluorobiphenyl	45.6		ug/L	61.0		74.8	33-110			
Surrogate: 2,4,6-Tribromophenol	50.8		ug/L	62.2		81.5	15-139			
Surrogate: Terphenyl-d14	65.4		ug/L	65.1		101	30-142			
LCS Dup (1GJ0596-BSD1)										
				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 15:21						

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C									
LCS Dup (1GJ0596-BSD1)				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 15:21					
N-Nitrosodimethylamine	28.7	8	ug/L	41.7	68.9	36-138	13.0	30	
Methyl Methanesulfonate	35.4	8	ug/L	50.0	70.9	22-114	10.3	23	
N-Nitrosodiethylamine	39.7	8	ug/L	50.0	79.4	52-114	11.1	18	
N-Nitrosomethylethylamine	22.4	8	ug/L	50.0	44.8	36-120	10.8	22	
Ethyl Methanesulfonate	34.7	8	ug/L	50.0	69.5	46-110	7.25	24	
Phenol	32.4	8	ug/L	41.7	77.7	50-112	11.2	28	
Bis(2-Chloroethyl) Ether	41.6	8	ug/L	41.7	99.7	39-151	12.5	30	
2-Chlorophenol	32.8	8	ug/L	41.7	78.6	56-116	5.97	22	
Benzyl Alcohol	34.2	8	ug/L	41.7	82.1	13-158	16.4	30	
2-Methylphenol (o-Cresol)	32.8	8	ug/L	41.7	78.6	53-131	7.57	25	
Bis[2-Chloroisopropyl]ether	32.1	8	ug/L	41.7	77.1	50-121	11.5	25	
n-Nitroso-di-n-propylamine	36.3	8	ug/L	41.7	87.2	50-138	8.10	30	
N-Nitrosopyrrolidine	41.2	8	ug/L	50.0	82.3	31-118	9.87	30	
Acetophenone	41.2	8	ug/L	50.0	82.3	45-104	7.12	30	
o-Toluidine	12.2	8	ug/L	50.0	24.5	10-163	85.0	30	QR-02
(3 & 4)-Methylphenol	35.2	8	ug/L	41.7	84.5	30-164	8.99	30	
Hexachloroethane	19.8	8	ug/L	41.7	47.6	10-110	33.8	37	
Nitrobenzene	38.9	8	ug/L	41.7	93.4	47-134	20.5	28	
N-Nitrosopiperidine	44.3	8	ug/L	50.0	88.6	51-122	19.2	30	
Isophorone	39.4	8	ug/L	41.7	94.7	54-128	18.9	22	
2-Nitrophenol	38.6	8	ug/L	41.7	92.6	54-117	19.4	21	
2,4-Dimethylphenol	39.2	8	ug/L	41.7	94.2	52-118	21.6	23	
Bis (2-Chloroethoxy) Methane	17.0	8	ug/L	41.7	40.7	13-132	54.6	30	QR-02
2,4-Dichlorophenol	41.6	8	ug/L	41.7	99.8	58-114	17.5	20	
Naphthalene	31.0	8	ug/L	41.7	74.4	37-116	24.2	17	QR-02
4-Chloroaniline	<8	8	ug/L	41.7	14.1	10-198	135	30	QR-02
2,6-Dichlorophenol	60.8	8	ug/L	50.0	122	52-129	15.3	16	
Hexachloropropene	24.9	8	ug/L	50.0	49.8	14-110	40.9	29	QR-02
Hexachlorobutadiene	23.0	8	ug/L	41.7	55.2	14-110	36.7	29	QR-02
N-Nitrosodi-n-butylamine	39.7	8	ug/L	50.0	79.4	40-135	18.9	23	
1,4-Phenylenediamine	<8	8	ug/L	50.0	15.4	10-103	25.6	30	
4-Chloro-3-methylphenol	42.6	8	ug/L	41.7	102	57-136	16.2	18	
2-Methylnaphthalene	35.5	8	ug/L	41.7	85.2	44-111	23.2	20	QR-02
Isosafrole	43.4	8	ug/L	50.0	86.9	49-107	8.67	12	
1,2,4,5-Tetrachlorobenzene	45.0	8	ug/L	50.0	90.1	42-110	13.5	30	
Hexachlorocyclopentadiene	23.4	8	ug/L	41.7	56.2	11-110	10.7	29	
2,4,6-Trichlorophenol	34.4	8	ug/L	41.7	82.5	55-120	2.71	15	
2,4,5-Trichlorophenol	35.2	8	ug/L	41.7	84.5	55-121	1.89	16	
Safrole	29.8	8	ug/L	50.0	59.6	40-118	36.4	30	QR-02
2-Chloronaphthalene	46.2	8	ug/L	41.7	111	47-127	8.00	17	
2-Nitroaniline	36.3	8	ug/L	41.7	87.1	36-143	2.37	30	
1,4-Naphthoquinone	38.0	8	ug/L	50.0	76.1	43-152	29.0	30	

Keystone Laboratories - Newton

CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C									
LCS Dup (1GJ0596-BSD1)				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 15:21					
Dimethylphthalate	36.9	8	ug/L	41.7		88.6 59-128	0.189	15	
1,3-Dinitrobenzene	37.2	8	ug/L	41.7		89.2 63-125	2.84	14	
1,2-Dinitrobenzene	36.3	8	ug/L	41.7		87.1 63-123	0.0275	18	
2,6-Dinitrotoluene	36.9	8	ug/L	41.7		88.5 60-127	0.599	13	
Acenaphthylene	27.5	8	ug/L	41.7		66.1 49-113	14.1	23	
3-Nitroaniline	<8	8	ug/L	41.7		9.50 10-162	160	30	QS-03
Acenaphthene	33.1	8	ug/L	41.7		79.4 50-119	3.98	16	
2,4-Dinitrophenol	26.2	8	ug/L	41.7		62.8 27-157	3.81	23	
4-Nitrophenol	34.8	8	ug/L	41.7		83.4 49-154	6.14	28	
Dibenzofuran	34.9	8	ug/L	41.7		83.7 56-121	3.14	18	
2,4-Dinitrotoluene	40.1	8	ug/L	41.7		96.1 53-138	1.38	18	
2,3,4,6-Tetrachlorophenol	29.8	8	ug/L	41.7		71.6 47-132	7.24	29	
Pentachlorobenzene	50.9	8	ug/L	50.0		102 41-125	4.87	22	
Diethyl Phthalate	36.2	8	ug/L	41.7		86.9 53-138	1.32	18	
Fluorene	35.4	8	ug/L	41.7		85.0 54-125	0.226	14	
4-Chlorophenyl Phenyl Ether	34.8	8	ug/L	41.7		83.5 51-122	1.42	15	
4-Nitroaniline	17.0	8	ug/L	41.7		40.9 10-136	73.7	30	QR-02
5-Nitro-o-toluidine	12.0	8	ug/L	50.0		23.9 10-145	125	30	QR-02
4,6-Dinitro-2-methylphenol	31.1	8	ug/L	41.7		74.6 49-137	0.706	16	
Diphenylamine	31.5	8	ug/L	41.7		75.7 35-151	11.8	30	
Azobenzene	29.7	8	ug/L	41.7		71.4 16-156	12.8	30	
Diallate	42.8	8	ug/L	50.0		85.5 54-132	1.32	25	
1,3,5-Trinitrobenzene	51.4	8	ug/L	50.0		103 57-173	2.48	30	
Phenacetin	48.8	8	ug/L	50.0		97.6 55-121	0.593	30	
4-Bromophenyl Phenyl Ether	32.9	8	ug/L	41.7		79.0 53-122	3.87	16	
Pentachlorophenol	23.8	8	ug/L	41.7		57.2 18-152	4.33	30	
Pronamide	32.8	8	ug/L	50.0		65.7 42-122	38.2	30	QR-02
Pentachloronitrobenzene (PCNB)	53.4	8	ug/L	50.0		107 50-128	1.05	18	
Phenanthrene	36.4	8	ug/L	41.7		87.4 59-131	2.42	16	
Anthracene	32.2	8	ug/L	41.7		77.3 59-127	8.62	16	
Di-n-butyl Phthalate	37.2	8	ug/L	41.7		89.3 64-148	0.972	30	
Fluoranthene	36.7	8	ug/L	41.7		88.1 62-132	0.574	16	
Isodrin	43.4	8	ug/L	50.0		86.8 46-130	0.531	29	
Chlorobenzilate	47.6	8	ug/L	50.0		95.3 48-150	1.44	30	
Pyrene	38.1	8	ug/L	41.7		91.4 58-135	0.184	18	
p-(Dimethylamino)azobenzene	16.3	8	ug/L	50.0		32.7 28-146	91.1	30	QR-02
Butyl Benzyl Phthalate	37.2	8	ug/L	41.7		89.2 52-150	4.27	30	
Benzo(a)anthracene	36.5	8	ug/L	41.7		87.6 58-131	1.66	30	
Chrysene	37.4	8	ug/L	41.7		89.8 59-131	3.51	30	
Bis(2-Ethylhexyl) Phthalate	34.2	6	ug/L	41.7		82.0 33-184	2.40	30	
Kepone	31.8	8	ug/L	50.0		63.6 10-134	8.55	30	
2-Acetylaminofluorene	50.8	8	ug/L	50.0		102 47-166	0.197	30	



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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Base/Neutral/Acid Extractable Compounds										
Batch 1GJ0596 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1GJ0596-BSD1)										
				Prepared: 10/10/23 15:48 Analyzed: 10/23/23 15:21						
Di-n-octyl Phthalate	41.1	8	ug/L	41.7		98.6	48-162	0.978	30	
Benzo(b)Fluoranthene	40.0	8	ug/L	41.7		96.0	50-146	0.702	30	
7,12-Dimethylbenz [a] anthracene	40.5	8	ug/L	50.0		81.1	22-155	15.1	30	
Benzo(k)Fluoranthene	37.1	8	ug/L	41.7		89.1	54-144	2.29	30	
Benzo(a)Pyrene	33.2	8	ug/L	41.7		79.6	39-148	9.21	30	
3-Methylcholanthrene	31.6	8	ug/L	50.0		63.2	34-118	33.2	30	QR-02
Dibenzo(a,h)anthracene	31.7	8	ug/L	41.7		76.1	46-153	0.665	30	
Indeno(1,2,3-cd)Pyrene	31.5	8	ug/L	41.7		75.6	48-152	0.0317	30	
Benzo(g,h,i)perylene	30.4	8	ug/L	41.7		72.9	47-161	1.96	30	
Surrogate: 2-Fluorophenol 44.6 ug/L 60.6 73.5 24-136										
Surrogate: Phenol-d6 46.3 ug/L 61.9 74.9 15-140										
Surrogate: Nitrobenzene-d5 55.7 ug/L 62.8 88.6 38-115										
Surrogate: 2-Fluorobiphenyl 46.6 ug/L 61.0 76.4 33-110										
Surrogate: 2,4,6-Tribromophenol 49.6 ug/L 62.2 79.8 15-139										
Surrogate: Terphenyl-d14 66.3 ug/L 65.1 102 30-142										

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Organophosphorus Insecticides										
Batch 1GJ0666 - 3510C NP/OC Sep Fnl - EPA 8141										
Blank (1GJ0666-BLK1)										
				Prepared: 10/11/23 13:43 Analyzed: 10/19/23 21:52						
O,O,O-Triethyl phosphorothioate	<0.4	0.4	ug/L							
Thionazin	<0.4	0.4	ug/L							
Phorate	<0.4	0.4	ug/L							
Dimethoate	<0.4	0.4	ug/L							
Disulfoton	<0.4	0.4	ug/L							
Methyl Parathion	<0.4	0.4	ug/L							
Parathion	<0.4	0.4	ug/L							
Famphur	<0.4	0.4	ug/L							
Surrogate: 2-Nitro-m-xylene 23.9 ug/L 16.7 143 38-122 S-07										
LCS (1GJ0666-BS1)										
				Prepared: 10/11/23 13:43 Analyzed: 10/19/23 23:40						
O,O,O-Triethyl phosphorothioate	8.98	0.4	ug/L	8.05		112	42-115			
Thionazin	8.30	0.4	ug/L	8.07		103	28-118			
Phorate	7.33	0.4	ug/L	8.07		90.9	18-159			
Dimethoate	7.03	0.4	ug/L	8.06		87.3	43-155			
Disulfoton	7.61	0.4	ug/L	8.06		94.5	37-126			
Methyl Parathion	6.89	0.4	ug/L	8.08		85.3	28-145			
Parathion	6.63	0.4	ug/L	8.00		82.9	52-121			
Famphur	6.94	0.4	ug/L	8.04		86.3	44-144			



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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Organophosphorus Insecticides										
Batch 1GJ0666 - 3510C NP/OC Sep Fnl - EPA 8141										

LCS (1GJ0666-BS1) Prepared: 10/11/23 13:43 Analyzed: 10/19/23 23:40

Surrogate: 2-Nitro-m-xylene 15.3 ug/L 16.7 91.8 38-122

LCS Dup (1GJ0666-BSD1) Prepared: 10/11/23 13:43 Analyzed: 10/20/23 00:33

O,O,O-Triethyl phosphorothioate	8.68	0.4	ug/L	8.05	108	42-115	3.40	30		
Thionazin	8.26	0.4	ug/L	8.07	102	28-118	0.604	30		
Phorate	7.18	0.4	ug/L	8.07	88.9	18-159	2.14	30		
Dimethoate	6.73	0.4	ug/L	8.06	83.5	43-155	4.36	22		
Disulfoton	7.86	0.4	ug/L	8.06	97.5	37-126	3.17	30		
Methyl Parathion	7.01	0.4	ug/L	8.08	86.8	28-145	1.73	28		
Parathion	6.48	0.4	ug/L	8.00	80.9	52-121	2.37	26		
Famphur	6.80	0.4	ug/L	8.04	84.6	44-144	1.97	28		

Surrogate: 2-Nitro-m-xylene 12.9 ug/L 16.7 77.3 38-122

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ0622 - EPA 8151A - EPA 8151A

Blank (1GJ0622-BLK1) Prepared: 10/11/23 08:58 Analyzed: 10/24/23 17:33

2,4-D	<2.0	2.0	ug/L							
2,4,5-TP (Silvex)	<0.5	0.5	ug/L							
2,4,5-T	<0.5	0.5	ug/L							
Dinoseb	<0.5	0.5	ug/L							

Surrogate: 2,5-Dichlorobenzoic Acid 1.79 ug/L 2.02 88.6 31-116

LCS (1GJ0622-BS1) Prepared: 10/11/23 08:58 Analyzed: 10/24/23 18:38

2,4-D	<2.0	2.0	ug/L	1.15	100	16-161				
2,4,5-TP (Silvex)	0.58	0.5	ug/L	0.575	100	35-141				
2,4,5-T	0.62	0.5	ug/L	0.575	107	54-149				
Dinoseb	<0.5	0.5	ug/L	1.15	28.3	10-133				

Surrogate: 2,5-Dichlorobenzoic Acid 2.06 ug/L 2.02 102 31-116

LCS Dup (1GJ0622-BSD1) Prepared: 10/11/23 08:58 Analyzed: 10/24/23 19:11

2,4-D	<2.0	2.0	ug/L	1.15	105	16-161	4.24	30		
2,4,5-TP (Silvex)	0.58	0.5	ug/L	0.575	100	35-141	0.00	30		
2,4,5-T	0.60	0.5	ug/L	0.575	104	54-149	2.47	30		
Dinoseb	<0.5	0.5	ug/L	1.15	30.0	10-133	5.97	30		

Surrogate: 2,5-Dichlorobenzoic Acid 1.94 ug/L 2.02 96.0 31-116

Reference (1GJ0622-SRM1) Prepared: 10/11/23 08:58 Analyzed: 10/24/23 19:44

2,4-D	<2.0	2.0	ug/L	1.15	97.4	80-120				
2,4,5-TP (Silvex)	0.63	0.5	ug/L	0.575	110	80-120				

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Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0622 - EPA 8151A - EPA 8151A										

Reference (1GJ0622-SRM1)	Prepared: 10/11/23 08:58 Analyzed: 10/24/23 19:44									
2,4,5-T	0.61	0.5	ug/L	0.575		106	80-120			
Dinoseb	0.80	0.5	ug/L	1.15		69.6	80-120			QR-05
<i>Surrogate: 2,5-Dichlorobenzoic Acid</i>	1.96		ug/L	2.02		97.3	31-116			

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0667 - 3510C NP/OC Sep Fnl - EPA 8081										

Blank (1GJ0667-BLK1)	Prepared: 10/11/23 13:44 Analyzed: 10/16/23 17:18									
Alpha-BHC	<0.05	0.05	ug/L							
Gamma-BHC [Lindane]	<0.05	0.05	ug/L							
Beta-BHC	<0.05	0.05	ug/L							
Heptachlor	<0.05	0.05	ug/L							
Delta-BHC	<0.05	0.05	ug/L							
Aldrin	<0.05	0.05	ug/L							
Heptachlor Epoxide	<0.05	0.05	ug/L							
Endosulfan I	<0.05	0.05	ug/L							
4,4'-DDE	<0.05	0.05	ug/L							
Dieldrin	<0.05	0.05	ug/L							
Endrin	<0.05	0.05	ug/L							
4,4'-DDD	<0.05	0.05	ug/L							
Endosulfan II	<0.05	0.05	ug/L							
4,4'-DDT	<0.05	0.05	ug/L							
Endrin Aldehyde	<0.05	0.05	ug/L							
Endosulfan Sulfate	<0.05	0.05	ug/L							
Methoxychlor	<0.05	0.05	ug/L							
Chlordane	<0.10	0.10	ug/L							
Toxaphene	<0.20	0.20	ug/L							
Hexachlorobenzene	<0.05	0.05	ug/L							

<i>Surrogate: Tetrachloro-m-xylene</i>	0.466		ug/L	0.600		77.7	10-121			
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LCS (1GJ0667-BS1)	Prepared: 10/11/23 13:44 Analyzed: 10/16/23 17:34									
Alpha-BHC	0.205	0.05	ug/L	0.250		82.0	33-123			
Gamma-BHC [Lindane]	0.215	0.05	ug/L	0.250		86.0	34-120			
Beta-BHC	0.210	0.05	ug/L	0.250		83.9	33-125			
Heptachlor	0.227	0.05	ug/L	0.250		90.6	32-117			
Delta-BHC	0.219	0.05	ug/L	0.250		87.8	24-140			
Aldrin	0.197	0.05	ug/L	0.250		78.8	29-122			
Heptachlor Epoxide	0.224	0.05	ug/L	0.250		89.7	37-137			
Endosulfan I	0.229	0.05	ug/L	0.250		91.8	27-141			
4,4'-DDE	0.234	0.05	ug/L	0.250		93.4	38-147			



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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Organochlorine Insecticides & Metabolites										
Batch 1GJ0667 - 3510C NP/OC Sep Fnl - EPA 8081										

LCS (1GJ0667-BS1)										
Prepared: 10/11/23 13:44 Analyzed: 10/16/23 17:34										
Dieldrin	0.212	0.05	ug/L	0.250		84.9	32-137			
Endrin	0.248	0.05	ug/L	0.250		99.3	25-142			
4,4'-DDD	0.203	0.05	ug/L	0.250		81.4	43-146			
Endosulfan II	0.229	0.05	ug/L	0.250		91.6	36-140			
4,4'-DDT	0.283	0.05	ug/L	0.250		113	39-140			
Endrin Aldehyde	0.250	0.05	ug/L	0.250		100	17-150			
Endosulfan Sulfate	0.238	0.05	ug/L	0.250		95.3	41-135			
Methoxychlor	0.289	0.05	ug/L	0.250		115	40-148			

Surrogate: Tetrachloro-m-xylene 0.450 ug/L 0.600 75.0 10-121

LCS Dup (1GJ0667-BSD1)										
Prepared: 10/11/23 13:44 Analyzed: 10/16/23 17:51										
Alpha-BHC	0.233	0.05	ug/L	0.250		93.3	33-123	12.8	30	
Gamma-BHC [Lindane]	0.237	0.05	ug/L	0.250		94.9	34-120	9.75	30	
Beta-BHC	0.207	0.05	ug/L	0.250		82.8	33-125	1.30	30	
Heptachlor	0.233	0.05	ug/L	0.250		93.0	32-117	2.59	30	
Delta-BHC	0.225	0.05	ug/L	0.250		89.9	24-140	2.43	30	
Aldrin	0.204	0.05	ug/L	0.250		81.6	29-122	3.59	30	
Heptachlor Epoxide	0.232	0.05	ug/L	0.250		92.7	37-137	3.31	30	
Endosulfan I	0.344	0.05	ug/L	0.250		138	27-141	39.9	30	QR-02
4,4'-DDE	0.335	0.05	ug/L	0.250		134	38-147	35.7	30	QR-02
Dieldrin	0.218	0.05	ug/L	0.250		87.2	32-137	2.65	30	
Endrin	0.256	0.05	ug/L	0.250		102	25-142	2.93	30	
4,4'-DDD	0.211	0.05	ug/L	0.250		84.5	43-146	3.80	30	
Endosulfan II	0.235	0.05	ug/L	0.250		94.1	36-140	2.70	30	
4,4'-DDT	0.287	0.05	ug/L	0.250		115	39-140	1.63	30	
Endrin Aldehyde	0.221	0.05	ug/L	0.250		88.2	17-150	12.5	30	
Endosulfan Sulfate	0.250	0.05	ug/L	0.250		100	41-135	4.89	30	
Methoxychlor	0.293	0.05	ug/L	0.250		117	40-148	1.41	30	

Surrogate: Tetrachloro-m-xylene 0.465 ug/L 0.600 77.5 10-121

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Polychlorinated Biphenyls (PCB)										

Batch 1GJ0665 - 3510C NP/OC Sep Fnl - EPA 8082

Blank (1GJ0665-BLK1)										
Prepared: 10/11/23 13:41 Analyzed: 10/17/23 09:51										
Arochlor 1016	<0.20	0.20	ug/L							
Arochlor 1221	<0.20	0.20	ug/L							
Arochlor 1232	<0.20	0.20	ug/L							
Arochlor 1242	<0.20	0.20	ug/L							
Arochlor 1248	<0.20	0.20	ug/L							

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Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Polychlorinated Biphenyls (PCB)										
Batch 1GJ0665 - 3510C NP/OC Sep Fnl - EPA 8082										
Blank (1GJ0665-BLK1)										
				Prepared: 10/11/23 13:41 Analyzed: 10/17/23 09:51						
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							
Surrogate: Tetrachloro-m-xylene	0.440		ug/L	0.600		73.3	38-121			
Surrogate: Decachlorobiphenyl	0.185		ug/L	0.600		30.8	25-119			
LCS (1GJ0665-BS1)										
				Prepared: 10/11/23 13:41 Analyzed: 10/17/23 10:24						
Arochlor 1016	1.775	0.20	ug/L	2.80		63.4	25-126			
Arochlor 1260	1.835	0.20	ug/L	2.80		65.5	29-142			
Surrogate: Tetrachloro-m-xylene	0.435		ug/L	0.600		72.5	38-121			
Surrogate: Decachlorobiphenyl	0.250		ug/L	0.600		41.7	25-119			
LCS Dup (1GJ0665-BSD1)										
				Prepared: 10/11/23 13:41 Analyzed: 10/17/23 10:40						
Arochlor 1016	1.850	0.20	ug/L	2.80		66.1	25-126	4.14	30	
Arochlor 1260	2.005	0.20	ug/L	2.80		71.6	29-142	8.85	30	
Surrogate: Tetrachloro-m-xylene	0.425		ug/L	0.600		70.8	38-121			
Surrogate: Decachlorobiphenyl	0.280		ug/L	0.600		46.7	25-119			
Determination of Conventional Chemistry Parameters										
Batch 1GJ0527 - Wet Chem Preparation - EPA 376.2										
Blank (1GJ0527-BLK1)										
				Prepared: 10/10/23 09:02 Analyzed: 10/10/23 14:05						
Sulfide, total	<0.10	0.10	mg/L							
LCS (1GJ0527-BS1)										
				Prepared: 10/10/23 09:02 Analyzed: 10/10/23 14:05						
Sulfide, total	0.161	0.10	mg/L	0.19		83.4	59-110			
Matrix Spike (1GJ0527-MS1)										
				Prepared: 10/10/23 09:02 Analyzed: 10/10/23 14:05						
Sulfide, total	0.124	0.10	mg/L	0.19	ND	64.4	50-150			
Matrix Spike Dup (1GJ0527-MSD1)										
				Prepared: 10/10/23 09:02 Analyzed: 10/10/23 14:05						
Sulfide, total	0.107	0.10	mg/L	0.19	ND	55.3	50-150	15.2	30	
Batch 1GJ0979 - Wet Chem Preparation - 4500CN-E										
Blank (1GJ0979-BLK1)										
				Prepared: 10/17/23 09:11 Analyzed: 10/17/23 14:54						
Cyanide, total	<0.005	0.005	mg/L							
LCS (1GJ0979-BS1)										
				Prepared: 10/17/23 09:11 Analyzed: 10/17/23 14:54						
Cyanide, total	0.086	0.005	mg/L	0.100		85.6	62-110			
Matrix Spike (1GJ0979-MS1)										
				Prepared: 10/17/23 09:11 Analyzed: 10/17/23 14:54						
Cyanide, total	0.086	0.005	mg/L	0.100	ND	86.1	50-116			
Matrix Spike Dup (1GJ0979-MSD1)										
				Prepared: 10/17/23 09:11 Analyzed: 10/17/23 14:54						



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Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ0979 - Wet Chem Preparation - 4500CN-E

Matrix Spike Dup (1GJ0979-MSD1)	Source: 1GJ0944-03		Prepared: 10/17/23 09:11 Analyzed: 10/17/23 14:54							
Cyanide, total	0.083	0.005	mg/L	0.100	ND	82.6	50-116	4.21	30	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GJ0428 - EPA 7470A Hg Water - EPA 7470A

Blank (1GJ0428-BLK1)	Prepared: 10/06/23 14:07 Analyzed: 10/09/23 15:12									
Mercury, total	<0.00050	0.00050	mg/L							

LCS (1GJ0428-BS1)	Prepared: 10/06/23 14:07 Analyzed: 10/09/23 15:14									
Mercury, total	0.00254	0.00050	mg/L	0.00250		102	80-120			

Matrix Spike (1GJ0428-MS1)	Source: 1GJ0129-06		Prepared: 10/06/23 14:07 Analyzed: 10/09/23 15:19							
Mercury, total	0.00269	0.00050	mg/L	0.00250	ND	108	75-125			

Matrix Spike Dup (1GJ0428-MSD1)	Source: 1GJ0129-06		Prepared: 10/06/23 14:07 Analyzed: 10/09/23 15:22							
Mercury, total	0.00267	0.00050	mg/L	0.00250	ND	107	75-125	0.784	20	

Batch 1GJ0730 - EPA 3005A Total Recoverable Metals - EPA 6020A

Blank (1GJ0730-BLK1)	Prepared: 10/12/23 09:10 Analyzed: 10/13/23 17:21									
Antimony, total	<0.0020	0.0020	mg/L							
Arsenic, total	<0.0040	0.0040	mg/L							
Barium, total	<0.0040	0.0040	mg/L							
Beryllium, total	<0.0040	0.0040	mg/L							
Cadmium, total	<0.0008	0.0008	mg/L							
Chromium, total	<0.0080	0.0080	mg/L							
Cobalt, total	<0.0004	0.0004	mg/L							
Copper, total	<0.0040	0.0040	mg/L							
Lead, total	<0.0040	0.0040	mg/L							
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0040	0.0040	mg/L							
Thallium, total	<0.0020	0.0020	mg/L							
Tin, total	<0.0200	0.0200	mg/L							
Vanadium, total	<0.0200	0.0200	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							

LCS (1GJ0730-BS1)	Prepared: 10/12/23 09:10 Analyzed: 10/13/23 17:27									
Antimony, total	0.0986	0.0020	mg/L	0.100		98.6	80-120			
Arsenic, total	0.0965	0.0040	mg/L	0.100		96.5	80-120			
Barium, total	0.106	0.0040	mg/L	0.100		106	80-120			
Beryllium, total	0.100	0.0040	mg/L	0.100		100	80-120			
Cadmium, total	0.0990	0.0008	mg/L	0.100		99.0	80-120			
Chromium, total	0.0967	0.0080	mg/L	0.100		96.7	80-120			
Cobalt, total	0.102	0.0004	mg/L	0.100		102	80-120			



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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0730 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1GJ0730-BS1)				Prepared: 10/12/23 09:10 Analyzed: 10/13/23 17:27						
Copper, total	0.103	0.0040	mg/L	0.100		103	80-120			
Lead, total	0.0993	0.0040	mg/L	0.100		99.3	80-120			
Nickel, total	0.101	0.0040	mg/L	0.100		101	80-120			
Selenium, total	0.0940	0.0040	mg/L	0.100		94.0	80-120			
Silver, total	0.109	0.0040	mg/L	0.100		109	80-120			
Thallium, total	0.0985	0.0020	mg/L	0.100		98.5	80-120			
Tin, total	0.104	0.0200	mg/L	0.100		104	80-120			
Vanadium, total	0.0954	0.0200	mg/L	0.100		95.4	80-120			
Zinc, total	0.0987	0.0200	mg/L	0.100		98.7	80-120			
Matrix Spike (1GJ0730-MS1)				Source: 1GJ0597-01 Prepared: 10/12/23 09:10 Analyzed: 10/13/23 17:39						
Antimony, total	0.100	0.0020	mg/L	0.100	0.0005	99.4	75-125			
Arsenic, total	0.0982	0.0040	mg/L	0.100	0.0012	97.0	75-125			
Barium, total	0.269	0.0040	mg/L	0.100	0.166	103	75-125			
Beryllium, total	0.101	0.0040	mg/L	0.100	ND	101	75-125			
Cadmium, total	0.0968	0.0008	mg/L	0.100	0.0001	96.7	75-125			
Chromium, total	0.0961	0.0080	mg/L	0.100	ND	96.1	75-125			
Cobalt, total	0.0996	0.0004	mg/L	0.100	ND	99.6	75-125			
Copper, total	0.0975	0.0040	mg/L	0.100	0.0016	96.0	75-125			
Lead, total	0.0958	0.0040	mg/L	0.100	ND	95.8	75-125			
Nickel, total	0.0973	0.0040	mg/L	0.100	0.0014	95.9	75-125			
Selenium, total	0.0944	0.0040	mg/L	0.100	ND	94.4	75-125			
Silver, total	0.106	0.0040	mg/L	0.100	ND	106	75-125			
Thallium, total	0.0962	0.0020	mg/L	0.100	0.0002	96.0	75-125			
Tin, total	0.102	0.0200	mg/L	0.100	ND	102	75-125			
Vanadium, total	0.105	0.0200	mg/L	0.100	ND	105	75-125			
Zinc, total	0.0999	0.0200	mg/L	0.100	ND	99.9	75-125			
Matrix Spike Dup (1GJ0730-MSD1)				Source: 1GJ0597-01 Prepared: 10/12/23 09:10 Analyzed: 10/16/23 10:52						
Antimony, total	0.0983	0.0020	mg/L	0.100	0.0005	97.8	75-125	1.67	20	
Arsenic, total	0.0972	0.0040	mg/L	0.100	0.0012	96.0	75-125	1.07	20	
Barium, total	0.262	0.0040	mg/L	0.100	0.166	95.7	75-125	2.74	20	
Beryllium, total	0.0963	0.0040	mg/L	0.100	ND	96.3	75-125	4.54	20	
Cadmium, total	0.0955	0.0008	mg/L	0.100	0.0001	95.3	75-125	1.42	20	
Chromium, total	0.0988	0.0080	mg/L	0.100	ND	98.8	75-125	2.77	20	
Cobalt, total	0.0995	0.0004	mg/L	0.100	ND	99.5	75-125	0.108	20	
Copper, total	0.0985	0.0040	mg/L	0.100	0.0016	97.0	75-125	1.01	20	
Lead, total	0.0922	0.0040	mg/L	0.100	ND	92.2	75-125	3.76	20	
Nickel, total	0.0994	0.0040	mg/L	0.100	0.0014	98.0	75-125	2.14	20	
Selenium, total	0.0848	0.0040	mg/L	0.100	ND	84.8	75-125	10.7	20	
Silver, total	0.102	0.0040	mg/L	0.100	ND	102	75-125	3.49	20	
Thallium, total	0.0927	0.0020	mg/L	0.100	0.0002	92.5	75-125	3.70	20	
Tin, total	0.0992	0.0200	mg/L	0.100	ND	99.2	75-125	2.82	20	
Vanadium, total	0.105	0.0200	mg/L	0.100	ND	105	75-125	0.423	20	
Zinc, total	0.0976	0.0200	mg/L	0.100	ND	97.6	75-125	2.39	20	

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CERTIFICATE OF ANALYSIS

1GJ0597

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GJ0730 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1GJ0730-PS1)										
Source: 1GJ0597-01			Prepared: 10/12/23 09:10 Analyzed: 10/16/23 10:58							
Antimony, total	0.0760		mg/L	0.0800	0.0005	94.4	80-120			
Arsenic, total	0.0736		mg/L	0.0800	0.0012	90.6	80-120			
Barium, total	0.221		mg/L	0.0800	0.163	72.7	80-120			PS-01
Beryllium, total	0.0758		mg/L	0.0800	0.00002	94.7	80-120			
Cadmium, total	0.0734		mg/L	0.0800	0.0001	91.5	80-120			
Chromium, total	0.0735		mg/L	0.0800	0.0004	91.3	80-120			
Cobalt, total	0.0727		mg/L	0.0800	0.0002	90.7	80-120			
Copper, total	0.0728		mg/L	0.0800	0.0015	89.1	80-120			
Lead, total	0.0710		mg/L	0.0800	0.0004	88.3	80-120			
Nickel, total	0.0740		mg/L	0.0800	0.0014	90.8	80-120			
Selenium, total	0.0645		mg/L	0.0800	0.00002	80.6	80-120			
Silver, total	0.0787		mg/L	0.0800	0.0020	95.9	80-120			
Thallium, total	0.0721		mg/L	0.0800	0.0002	89.9	80-120			
Tin, total	0.0744		mg/L	0.0800	0.0005	92.3	75-125			
Vanadium, total	0.0827		mg/L	0.0800	0.0067	95.0	80-120			
Zinc, total	0.0736		mg/L	0.0800	0.0077	82.3	80-120			

Definitions

- PS-01:** The post spike recovery was below acceptance limits. However, all other QC was acceptable.
- QR-02:** The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-05:** The reference standard was outside of established control limits. The batch was accepted based on acceptable LCS, MS/MSD and RPD results.
- QS-02:** The spike recovery for this QC sample exceeded established acceptance limits. However, all samples were below the reporting and/or regulatory limit so the data is acceptable.
- QS-03:** The blank spike recovery was below established acceptance limits.
- RL:** Reporting Limit
- RPD:** Relative Percent Difference
- S-07:** The surrogate recovery for this sample is outside of established control limits.
- S-GC:** Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 5.0°C

Cooler Inspection Checklist

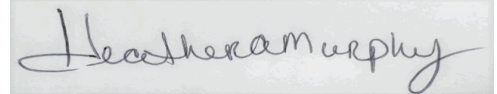
Custody Seals	No	Containers Intact	Yes
COC/Labels Agree	No	Preservation Confirmed	No
Received On Ice	Yes		

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1GJ0597

Report Comments

*The data and information on this, and other accompanying documents, represents only the sample(s) analyzed. This report is incomplete unless all pages indicated in the footnote are present and an authorized signature is included. **The services were provided under and subject to Microbac's standard terms and conditions which can be located and reviewed at <https://www.microbac.com/standard-terms-conditions>.***

Reviewed and Approved By:



Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
10/31/23 11:56



SITE INFORMATION

Sampler: TODD WHIPPLE
Project: Grundy Co. Landfill - New Regs
6033

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

INVOICE TO

Barbara Smith
Grundy County Landfill - Billing
20434 220th St
Grundy Center, IA 50638

SPECIAL INSTRUCTIONS

None

Turn Around Time

Standard RUSH, need by ___/___/___

LAB USE ONLY

Work Order 1GJ0597

Temperature 5.0

Turn-Cooler: No

- Custody Seal
- Containers Intact
- COC/Labels Agree
- Preservation Confirmed
- Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
01-001	92MW-15A	Water	GRAB	10/4/23	9:30	7	Indfil-app1-voc-group Indfil-app1-metals-6020	01
02-001	MW-9	Water	GRAB	10/4/23	9:50	7	Indfil-app1-voc-group Indfil-app1-metals-6020	02
03-001	MW-13	Water	GRAB	10/4/23	10:46	7	Indfil-app1-voc-group Indfil-app1-metals-6020	03
04-001	MW-11	Water	GRAB	10/4/23	10:23	17	Indfil-app2-inorg-6020 Indfil-app2-org	04
05-001	MW-14	Water	GRAB	10/4/23	11:05	7	Indfil-app1-voc-group Indfil-app1-metals-6020	05
06-001	XXXX DUPLICATE	Water	GRAB	10/4/23	✓	1	Indfil-app1-voc-group Indfil-app1-metals-6020	06
07-001	XXXX	Water	GRAB	11	—	0	Indfil-app2-inorg-6020 Indfil-app2-org	—

Relinquished By [Signature] Date/Time 10/5/23

Relinquished By Maher Date/Time 10/5/23 9:49

Remarks:

Received By _____ Date/Time _____

Received for Lab By _____ Date/Time _____

Original - Lab Copy Yellow - Sampler Copy

Appendix F

Summary Tables – SSI & Comparison of Confidence Interval to the GWPS

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW-9	4/19/16	Arsenic	14.9	4.0	3.365	14.285	10.0
MW-9	10/10/16	Arsenic	<4.0	4.0	5.221	14.729	10.0
MW-9	4/4/17	Arsenic	<4.0	4.0	5.221	14.729	10.0
MW-9	10/18/17	Arsenic	<4.0	4.0	0.000	12.812	10.0
MW-9	4/12/18	Arsenic	4.5	4.0	1.155	4.095	10.0
MW-9	10/23/18	Arsenic	<4.0	4.0	1.155	4.095	10.0
MW-9	4/8/2019	Arsenic	<4.0	4.0	1.155	4.095	10.0
MW-9	10/4/2019	Arsenic	5.4	4.0	1.425	5.525	10.0
MW-9	4/9/2020	Arsenic	<4.0	4.0	0.850	4.850	10.0
MW-9	10/1/2020	Arsenic	5.9	4.0	1.335	6.315	10.0
MW-9	4/1/2021	Arsenic	4.8	4.0	2.475	6.575	10.0
MW-9	10/4/2021	Arsenic	7.8	4.0	2.274	7.976	10.0
MW-9	4/6/2022	Arsenic	17.8	4.0	2.079	16.071	10.0
MW-9	10/4/2023	Arsenic	16.2	4.0	4.202	19.098	10.0
MW-9	4/19/16	Barium	932.0	290.2810	733.194	929.306	2000.0
MW-9	10/10/16	Barium	652.0	290.2810	667.944	949.556	2000.0
MW-9	4/4/17	Barium	917.0	290.2810	688.560	992.940	2000.0
MW-9	10/18/17	Barium	638.0	290.2810	594.677	974.823	2000.0
MW-9	4/12/18	Barium	691.0	290.2810	571.256	877.744	2000.0
MW-9	10/23/18	Barium	721.0	290.2810	598.515	884.985	2000.0
MW-9	4/8/2019	Barium	717.0	288.4665	646.790	736.710	2000.0
MW-9	10/4/2019	Barium	616.0	296.5237	628.982	743.518	2000.0
MW-9	4/9/2020	Barium	707.0	295.3072	631.613	748.887	2000.0
MW-9	10/1/2020	Barium	630.0	294.2483	606.495	728.505	2000.0
MW-9	4/1/2021	Barium	839.0	289.9072	577.830	818.170	2000.0
MW-9	10/4/2021	Barium	773.0	287.2576	631.933	842.567	2000.0
MW-9	4/6/2022	Barium	1120.0	296.4947	598.488	1082.512	2000.0
MW-9	10/4/2023	Barium	855.0	294.3691	716.770	1076.730	2000.0
MW-9	4/19/16	Cobalt	9.0	11.6	4.782	8.568	11.6
MW-9	10/10/16	Cobalt	7.1	11.6	5.569	8.681	11.6
MW-9	4/4/17	Cobalt	10.1	11.6	6.082	10.168	11.6
MW-9	10/18/17	Cobalt	5.8	11.6	5.741	10.259	11.6
MW-9	4/12/18	Cobalt	5.9	11.6	4.866	9.584	11.6
MW-9	10/23/18	Cobalt	4.8	11.6	3.882	9.418	11.6
MW-9	4/8/2019	Cobalt	5.1	11.6	4.770	6.030	11.6
MW-9	10/4/2019	Cobalt	6.2	11.6	4.726	6.274	11.6
MW-9	4/9/2020	Cobalt	6.6	11.6	4.661	6.689	11.6
MW-9	10/1/2020	Cobalt	4.0	11.6	4.099	6.851	11.6
MW-9	4/1/2021	Cobalt	6.6	11.6	4.382	7.318	11.6
MW-9	10/4/2021	Cobalt	5.6	11.6	4.256	7.144	11.6
MW-9	4/6/2022	Cobalt	8.5	11.6	3.959	8.391	11.6
MW-9	10/4/2023	Cobalt	4.4	11.6	4.234	8.316	11.6

MW-9	4/19/16	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	10/10/16	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	4/4/17	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	10/18/17	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	4/12/18	Copper	6.1	4.0	0.614	5.436	1300
MW-9	10/23/18	Copper	<4.0	4.0	0.614	5.436	1300
MW-9	4/8/2019	Copper	<4.0	4.0	0.614	5.436	1300
MW-9	10/4/2019	Copper	<4.0	4.0	0.614	5.436	1300
MW-9	4/9/2020	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	10/1/2020	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	4/1/2021	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	10/4/2021	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	4/6/2022	Copper	<4.0	4.0	2.000	2.000	1300
MW-9	10/4/2023	Copper	<4.0	4.1	2.000	2.000	1300
MW-9	4/19/16	Nickel	32.2	10.9	16.852	49.498	100.0
MW-9	10/10/16	Nickel	26.9	10.9	18.587	49.513	100.0
MW-9	4/4/17	Nickel	32.4	10.9	22.525	49.775	100.0
MW-9	10/18/17	Nickel	25.2	10.9	24.852	33.498	100.0
MW-9	4/12/18	Nickel	25.8	10.9	23.702	31.448	100.0
MW-9	10/23/18	Nickel	23.7	10.9	22.243	31.307	100.0
MW-9	4/8/2019	Nickel	24.7	10.9	23.804	25.896	100.0
MW-9	10/4/2019	Nickel	20.3	10.9	20.829	26.421	100.0
MW-9	4/9/2020	Nickel	22.8	10.9	20.659	25.091	100.0
MW-9	10/1/2020	Nickel	17.1	10.9	17.538	25.092	100.0
MW-9	4/1/2021	Nickel	22.5	10.9	17.580	23.77	100.0
MW-9	10/4/2021	Nickel	21.9	10.9	17.927	24.223	100.0
MW-9	4/6/2022	Nickel	30.9	10.9	16.355	29.845	100.0
MW-9	10/4/2023	Nickel	19.1	10.9	17.616	29.584	100.0
MW-9	4/19/16	Zinc	12.5	12.8	2.405	14.445	2000.0
MW-9	10/10/16	Zinc	<8.0	12.8	1.126	11.124	2000.0
MW-9	4/4/17	Zinc	<8.0	12.8	1.126	11.124	2000.0
MW-9	10/18/17	Zinc	8.3	12.8	2.408	11.992	2000.0
MW-9	4/12/18	Zinc	<8.0	12.8	2.546	7.604	2000.0
MW-9	10/23/18	Zinc	25.6	12.8	0.000	22.573	2000.0
MW-9	4/8/2019	Zinc	21.8	29.4	2.692	27.158	2000.0
MW-9	10/4/2019	Zinc	20.0	29.4	6.647	29.053	2000.0
MW-9	4/9/2020	Zinc	<20.0	29.4	6.647	29.053	2000.0
MW-9	10/1/2020	Zinc	<20.0	29.4	10.000	10.000	2000.0
MW-9	4/1/2021	Zinc	<20.0	29.4	10.000	10.000	2000.0
MW-9	10/4/2021	Zinc	<20.0	29.4	10.000	10.000	2000.0
MW-9	4/6/2022	Zinc	<20.0	29.4	10.000	10.000	2000.0
MW-9	10/4/2023	Zinc	<20.0	29.4	10.000	10.000	2000.0
MW-9	4/19/16	1,4 - dichlorobenzene	<1.0	1.0	0.263	1.087	75.0
MW-9	10/10/16	1,4 - dichlorobenzene	1.3	1.0	0.363	1.387	75.0

MW-9	4/4/17	1,4 - dichlorobenzene	<1.0	1.0	0.363	1.387	75.0
MW-9	10/18/17	1,4 - dichlorobenzene	1.0	1.0	0.361	1.289	75.0
MW-9	4/12/18	1,4 - dichlorobenzene	<1.0	1.0	0.361	1.289	75.0
MW-9	10/23/18	1,4 - dichlorobenzene	<1.0	1.0	0.331	0.919	75.0
MW-9	4/8/2019	1,4 - dichlorobenzene	<1.0	1.0	0.331	0.919	75.0
MW-9	10/4/2019	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-9	4/9/2020	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-9	10/1/2020	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-9	4/1/2021	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-9	10/4/2021	1,4 - dichlorobenzene	1.1	1.0	0.297	1.003	75.0
MW-9	4/6/2022	1,4 - dichlorobenzene	1.2	1.0	0.381	1.269	75.0
MW-9	10/4/2023	1,4 - dichlorobenzene	1.4	1.0	0.594	1.506	75.0
MW-9	4/19/16	chlorobenzene	<1.0	1.0	0.000	5.439	100.0
MW-9	10/10/16	chlorobenzene	5.9	1.0	0.000	6.581	100.0
MW-9	4/4/17	chlorobenzene	2.6	1.0	0.629	6.571	100.0
MW-9	10/18/17	chlorobenzene	3.9	1.0	0.558	5.892	100.0
MW-9	4/12/18	chlorobenzene	<1.0	1.0	0.558	5.892	100.0
MW-9	10/23/18	chlorobenzene	5.6	1.0	0.619	5.681	100.0
MW-9	4/8/2019	chlorobenzene	<1.0	1.0	0.000	5.625	100.0
MW-9	10/4/2019	chlorobenzene	2.4	1.0	0.000	5.080	100.0
MW-9	4/9/2020	chlorobenzene	1.4	1.0	0.000	5.090	100.0
MW-9	10/1/2020	chlorobenzene	3.0	1.0	0.528	3.122	100.0
MW-9	4/1/2021	chlorobenzene	3.6	1.0	1.497	3.703	100.0
MW-9	10/4/2021	chlorobenzene	5.4	1.0	1.406	5.294	100.0
MW-9	4/6/2022	chlorobenzene	4.4	1.0	2.878	5.322	100.0
MW-9	10/4/2023	chlorobenzene	3.6	1.0	3.245	5.255	100.0
MW-9	4/19/16	phorate	<0.4	0.4	0.000	2.703	1.4
MW-9	10/10/16	phorate	2.5	0.4	0.000	2.308	1.4
MW-9	4/4/17	phorate	1.5	0.4	0.236	2.464	1.4
MW-9	10/18/17	phorate	<0.4	0.4	0.000	2.413	1.4
MW-9	4/12/18	phorate	<0.4	0.4	0.000	2.413	1.4
MW-9	10/23/18	phorate	<0.4	0.4	0.000	1.290	1.4
MW-9	4/8/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-9	10/4/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-9	4/9/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-9	10/1/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-9	4/1/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-9	10/4/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-9	4/6/2022	phorate	NT	0.4	0.200	0.200	1.4
MW-9	10/4/2023	phorate	NT	0.4	0.200	0.200	1.4

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW-11	4/19/16	Barium	154.0	290.2810	96.369	430.631	2000.0
MW-11	10/10/16	Barium	152.0	290.2810	72.393	428.607	2000.0
MW-11	4/4/17	Barium	282.0	290.2810	87.608	442.392	2000.0
MW-11	10/18/17	Barium	236.0	290.2810	130.693	281.307	2000.0
MW-11	4/12/18	Barium	162.0	290.2810	135.133	280.867	2000.0
MW-11	10/23/18	Barium	118.0	290.2810	113.095	285.905	2000.0
MW-11	4/8/2019	Barium	444.0	288.4665	70.082	409.918	2000.0
MW-11	10/4/2019	Barium	279.0	296.5237	79.422	422.078	2000.0
MW-11	4/9/2020	Barium	227.0	295.3072	107.334	426.666	2000.0
MW-11	10/1/2020	Barium	293.0	294.2483	201.048	420.452	2000.0
MW-11	4/1/2021	Barium	203.0	289.9072	200.470	300.530	2000.0
MW-11	10/4/2021	Barium	270.0	287.2576	200.350	296.150	2000.0
MW-11	4/6/2022	Barium	342.0	296.4947	209.067	344.933	2000.0
MW-11	10/4/2023	Barium	243.0	294.3691	195.639	333.361	2000.0
MW-11	4/19/16	Cobalt	<0.8	11.6	0.000	11.203	11.6
MW-11	10/10/16	Cobalt	<0.8	11.6	0.000	11.177	11.6
MW-11	4/4/17	Cobalt	1.8	11.6	1.430	3.170	11.6
MW-11	10/18/17	Cobalt	3.5	11.6	1.397	3.253	11.6
MW-11	4/12/18	Cobalt	<0.8	11.6	1.397	3.253	11.6
MW-11	10/23/18	Cobalt	<0.8	11.6	1.397	3.253	11.6
MW-11	4/8/2019	Cobalt	28.7	11.6	0.000	24.482	11.6
MW-11	10/4/2019	Cobalt	16.7	11.6	0.000	27.543	11.6
MW-11	4/9/2020	Cobalt	10.5	11.6	0.148	28.002	11.6
MW-11	10/1/2020	Cobalt	20.6	11.6	10.163	28.087	11.6
MW-11	4/1/2021	Cobalt	9.2	11.6	7.956	20.544	11.6
MW-11	10/4/2021	Cobalt	14.8	11.6	7.728	19.822	11.6
MW-11	4/6/2022	Cobalt	1.7	11.6	2.091	21.059	11.6
MW-11	10/4/2023	Cobalt	8.3	11.6	2.185	14.815	11.6
MW-11	4/19/16	Nickel	9.6	10.9	0.000	22.292	100.0
MW-11	10/10/16	Nickel	12.7	10.9	1.174	23.276	100.0
MW-11	4/4/17	Nickel	15.1	10.9	0.000	46.670	100.0
MW-11	10/18/17	Nickel	13.3	10.9	0.346	46.754	100.0
MW-11	4/12/18	Nickel	<4.0	10.9	0.000	47.050	100.0
MW-11	10/23/18	Nickel	4.7	10.9	1.243	16.307	100.0
MW-11	4/8/2019	Nickel	16.6	10.9	1.010	17.290	100.0
MW-11	10/4/2019	Nickel	8.0	10.9	0.363	15.287	100.0
MW-11	4/9/2020	Nickel	9.5	10.9	3.797	15.603	100.0
MW-11	10/1/2020	Nickel	16.7	10.9	7.287	18.113	100.0
MW-11	4/1/2021	Nickel	8.3	10.9	5.800	15.450	100.0
MW-11	10/4/2021	Nickel	4.2	10.9	3.553	15.979	100.0
MW-11	4/6/2022	Nickel	10.7	10.9	3.829	16.121	100.0
MW-11	10/4/2023	Nickel	7.4	10.9	4.487	10.813	100.0

MW-11	4/19/16	Bis(2-ethylhexyl)phthalate	NT	6	---	---	6
MW-11	10/10/16	Bis(2-ethylhexyl)phthalate	NT	6	---	---	6
MW-11	4/4/17	Bis(2-ethylhexyl)phthalate	<8	6	---	---	6
MW-11	10/18/17	Bis(2-ethylhexyl)phthalate	NT	6	---	---	6
MW-11	4/12/18	Bis(2-ethylhexyl)phthalate	23.0	6	---	---	6
MW-11	10/23/18	Bis(2-ethylhexyl)phthalate	<6	6	0.000	19.925	6
MW-11	4/8/2019	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	10/4/2019	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	4/9/2020	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	10/1/2020	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	4/1/2021	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	10/4/2021	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	4/6/2022	Bis(2-ethylhexyl)phthalate	NT	6	0.000	19.925	6
MW-11	10/4/2023	Bis(2-ethylhexyl)phthalate	9.0	6	0.000	20.565	6
MW-11	4/19/16	phorate	NT	0.4	---	---	1.4
MW-11	10/10/16	phorate	NT	0.4	---	---	1.4
MW-11	4/4/17	phorate	2.4	0.4	Insufficient data	Insufficient data	1.4
MW-11	10/18/17	phorate	<0.4	0.4	Insufficient data	Insufficient data	1.4
MW-11	4/12/18	phorate	<0.4	0.4	0.000	2.044	1.4
MW-11	10/23/18	phorate	<0.4	0.4	0.000	2.044	1.4
MW-11	4/8/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-11	10/4/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-11	4/9/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-11	10/1/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-11	4/1/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-11	10/4/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-11	4/6/2022	phorate	NT	0.4	0.200	0.200	1.4
MW-11	4/6/2022	phorate	<0.4	0.4	0.200	0.200	1.4

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW-13	4/19/16	Barium	434.0	290.2810	311.195	423.305	2000.0
MW-13	10/10/16	Barium	291.0	290.2810	278.571	423.929	2000.0
MW-13	4/4/17	Barium	130.0	290.2810	151.082	455.918	2000.0
MW-13	10/18/17	Barium	341.0	290.2810	149.261	448.739	2000.0
MW-13	4/12/18	Barium	259.0	290.2810	150.683	382.817	2000.0
MW-13	10/23/18	Barium	392.0	290.2810	267.698	396.802	2000.0
MW-13	4/8/2019	Barium	280.0	288.4665	246.560	387.440	2000.0
MW-13	10/4/2019	Barium	403.0	296.5237	245.829	421.171	2000.0
MW-13	4/9/2020	Barium	253.0	295.3072	241.939	422.061	2000.0
MW-13	10/1/2020	Barium	384.0	294.2483	242.305	417.695	2000.0
MW-13	4/1/2021	Barium	141.0	289.9072	151.081	439.419	2000.0
MW-13	10/4/2021	Barium	358.0	287.2576	153.568	414.432	2000.0
MW-13	4/6/2022	Barium	352.0	296.4947	176.191	441.309	2000.0
MW-13	10/4/2023	Barium	334.0	294.3691	173.915	418.585	2000.0
MW-13	4/19/16	Cadmium	8.7	2.2	0.000	7.357	5.0
MW-13	10/10/16	Cadmium	<0.8	2.2	0.000	7.357	5.0
MW-13	4/4/17	Cadmium	<0.8	2.2	0.000	7.357	5.0
MW-13	10/18/17	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/12/18	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	10/23/18	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/8/2019	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	10/4/2019	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/9/2020	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	10/1/2020	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/1/2021	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	10/4/2021	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/6/2022	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	10/4/2023	Cadmium	<0.8	2.2	0.400	0.400	5.0
MW-13	4/19/16	Cobalt	<0.8	11.6	0.400	0.400	11.6
MW-13	10/10/16	Cobalt	<0.8	11.6	0.400	0.400	11.6
MW-13	4/4/17	Cobalt	<0.8	11.6	0.400	0.400	11.6
MW-13	10/18/17	Cobalt	1.4	11.6	1.497	2.203	11.6
MW-13	4/12/18	Cobalt	2.0	11.6	1.497	2.203	11.6
MW-13	10/23/18	Cobalt	<0.8	11.6	1.497	2.203	11.6
MW-13	4/8/2019	Cobalt	<0.8	11.6	1.497	2.203	11.6
MW-13	10/4/2019	Cobalt	6.2	11.6	0.580	5.520	11.6
MW-13	4/9/2020	Cobalt	0.7	11.6	0.000	5.282	11.6
MW-13	10/1/2020	Cobalt	11.8	11.6	0.000	11.114	11.6
MW-13	4/1/2021	Cobalt	<0.4	11.6	0.000	11.114	11.6
MW-13	10/4/2021	Cobalt	9.5	11.6	0.000	12.549	11.6
MW-13	4/6/2022	Cobalt	3.9	11.6	0.287	12.513	11.6
MW-13	10/4/2023	Cobalt	10.6	11.6	0.453	11.747	11.6

MW-13	4/19/16	Copper	4.2	4.0	1.256	3.844	1300
MW-13	10/10/16	Copper	<4.0	4.0	1.256	3.844	1300
MW-13	4/4/17	Copper	<4.0	4.0	1.256	3.844	1300
MW-13	10/18/17	Copper	<4.0	4.0	1.256	3.844	1300
MW-13	4/12/18	Copper	<4.0	4.0	2.0	2.0	1300
MW-13	10/23/18	Copper	6.2	4.0	0.580	5.520	1300
MW-13	4/8/2019	Copper	<4.0	4.0	0.580	5.520	1300
MW-13	10/4/2019	Copper	<4.0	4.0	0.580	5.520	1300
MW-13	4/9/2020	Copper	<4.0	4.0	0.580	5.520	1300
MW-13	10/1/2020	Copper	<4.0	4.0	2.000	2.000	1300
MW-13	4/1/2021	Copper	<4.0	4.0	2.000	2.000	1300
MW-13	10/4/2021	Copper	<4.0	4.0	2.000	2.000	1300
MW-13	4/6/2022	Copper	<4.0	4.0	2.000	2.000	1300
MW-13	10/4/2023	Copper	<4.0	4.0	2.000	2.000	1300
MW-13	4/19/16	Nickel	67.6	10.9	64.034	84.616	100.0
MW-13	10/10/16	Nickel	38.8	10.9	43.244	81.956	100.0
MW-13	4/4/17	Nickel	<4.0	10.9	7.410	80.440	100.0
MW-13	10/18/17	Nickel	47.1	10.9	6.643	71.107	100.0
MW-13	4/12/18	Nickel	55.0	10.9	9.479	75.471	100.0
MW-13	10/23/18	Nickel	46.7	10.9	43.115	64.185	100.0
MW-13	4/8/2019	Nickel	60.8	10.9	47.424	66.726	100.0
MW-13	10/4/2019	Nickel	79.6	10.9	44.091	76.959	100.0
MW-13	4/9/2020	Nickel	43.1	10.9	38.064	77.036	100.0
MW-13	10/1/2020	Nickel	75.9	10.9	45.295	84.405	100.0
MW-13	4/1/2021	Nickel	12.7	10.9	15.914	89.736	100.0
MW-13	10/4/2021	Nickel	67.8	10.9	16.421	83.329	100.0
MW-13	4/6/2022	Nickel	106.0	10.9	19.833	111.367	100.0
MW-13	10/4/2023	Nickel	75.4	10.9	19.759	111.191	100.0
MW-13	4/19/16	Zinc	31.8	12.8	0.000	27.300	2000.0
MW-13	10/10/16	Zinc	<8.0	12.8	0.000	27.300	2000.0
MW-13	4/4/17	Zinc	<8.0	12.8	0.000	27.300	2000.0
MW-13	10/18/17	Zinc	<8.0	12.8	0.000	27.300	2000.0
MW-13	4/12/18	Zinc	<8.0	12.8	4.000	4.000	2000.0
MW-13	10/23/18	Zinc	35.5	12.8	0.000	30.402	2000.0
MW-13	4/8/2019	Zinc	19.5	29.4	0.000	33.463	2000.0
MW-13	10/4/2019	Zinc	26.2	29.4	5.692	36.908	2000.0
MW-13	4/9/2020	Zinc	<20	29.4	5.692	36.908	2000.0
MW-13	10/1/2020	Zinc	<20	29.4	5.692	36.908	2000.0
MW-13	4/1/2021	Zinc	<20	29.4	5.692	36.908	2000.0
MW-13	10/4/2021	Zinc	<20	29.4	10.000	10.000	2000.0
MW-13	4/6/2022	Zinc	<20	29.4	10.000	10.000	2000.0
MW-13	10/4/2023	Zinc	<20	29.4	10.000	10.000	2000.0
MW-13	4/19/16	1,4 - dichlorobenzene	3.5	1.0	0.000	3.607	75.0
MW-13	10/10/16	1,4 - dichlorobenzene	2.5	1.0	0.800	3.800	75.0

MW-13	4/4/17	1,4 - dichlorobenzene	<1.0	1.0	0.800	3.800	75.0
MW-13	10/18/17	1,4 - dichlorobenzene	2.0	1.0	0.655	3.595	75.0
MW-13	4/12/18	1,4 - dichlorobenzene	<1.0	1.0	0.163	2.587	75.0
MW-13	10/23/18	1,4 - dichlorobenzene	5.9	1.0	0.000	5.225	75.0
MW-13	4/8/2019	1,4 - dichlorobenzene	3.7	1.0	0.296	5.754	75.0
MW-13	10/4/2019	1,4 - dichlorobenzene	4.1	1.0	0.907	6.193	75.0
MW-13	4/9/2020	1,4 - dichlorobenzene	1.9	1.0	1.970	5.830	75.0
MW-13	10/1/2020	1,4 - dichlorobenzene	2.7	1.0	1.932	4.268	75.0
MW-13	4/1/2021	1,4 - dichlorobenzene	<1.0	1.0	0.529	4.071	75.0
MW-13	10/4/2021	1,4 - dichlorobenzene	2.3	1.0	0.724	2.976	75.0
MW-13	4/6/2022	1,4 - dichlorobenzene	1.4	1.0	0.571	2.879	75.0
MW-13	10/4/2023	1,4 - dichlorobenzene	2.6	1.0	0.584	2.816	75.0
MW-13	4/19/16	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	10/10/16	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/4/17	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	10/18/17	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/12/18	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	10/23/18	Benzene	1.8	1.0	0.060	1.590	5.0
MW-13	4/8/2019	Benzene	<1.0	1.0	0.060	1.590	5.0
MW-13	10/4/2019	Benzene	<1.0	1.0	0.060	1.590	5.0
MW-13	4/9/2020	Benzene	<1.0	1.0	0.060	1.590	5.0
MW-13	10/1/2020	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/1/2021	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	10/4/2021	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/6/2022	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	10/4/2023	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/19/16	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	10/10/16	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	4/4/17	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	10/18/17	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	4/12/18	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	10/23/18	Chlorobenzene	2.0	1.0	0.000	1.757	100.0
MW-13	4/8/2019	Chlorobenzene	<1.0	1.0	0.000	1.757	100.0
MW-13	10/4/2019	Chlorobenzene	<1.0	1.0	0.000	1.757	100.0
MW-13	4/9/2020	Chlorobenzene	<1.0	1.0	0.000	1.757	100.0
MW-13	10/1/2020	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	4/1/2021	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	10/4/2021	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	4/6/2022	Chlorobenzene	<1.0	1.0	0.500	0.500	100.0
MW-13	10/4/2023	Chlorobenzene	1.1	1.0	0.297	1.003	100.0
MW-13	4/19/16	chloroethane	<1.0	1.0	0.297	1.003	2800.0
MW-13	10/10/16	chloroethane	1.0	1.0	0.398	1.152	2800.0
MW-13	4/4/17	chloroethane	<1.0	1.0	0.398	1.152	2,800.0
MW-13	10/18/17	chloroethane	2.1	1.0	0.138	1.912	2,800.0

MW-13	4/12/18	chloroethane	<1.0	1.0	0.138	1.912	2,800.0
MW-13	10/23/18	chloroethane	2.0	1.0	0.221	2.329	2,800.0
MW-13	4/8/2019	chloroethane	<1.0	1.0	0.221	2.329	2,800.0
MW-13	10/4/2019	chloroethane	3.1	1.0	0.036	3.014	2,800.0
MW-13	4/9/2020	chloroethane	<1.0	1.0	0.036	3.014	2,800.0
MW-13	10/1/2020	chloroethane	2.0	1.0	0.036	3.014	2,800.0
MW-13	4/1/2021	chloroethane	<1.0	1.0	0.036	3.014	2,800.0
MW-13	10/4/2021	chloroethane	<1.0	1.0	0.000	1.757	2,800.0
MW-13	4/6/2022	chloroethane	<1.0	1.0	0.000	1.757	2,800.0
MW-13	10/4/2023	chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-13	4/19/16	cis-1,2-dichloroethene	1.1	1.0	0.381	1.269	70.0
MW-13	10/10/16	cis-1,2-dichloroethene	<1.0	1.0	0.297	1.003	70.0
MW-13	4/4/17	cis-1,2-dichloroethene	<1.0	1.0	0.297	1.003	70.0
MW-13	10/18/17	cis-1,2-dichloroethene	<1.0	1.0	0.297	1.003	70.0
MW-13	4/12/18	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	10/23/18	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	4/8/2019	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	10/4/2019	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	4/9/2020	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	10/1/2020	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	4/1/2021	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	10/4/2021	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	4/6/2022	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	10/4/2023	cis-1,2-dichloroethene	<1.0	1.0	0.500	0.500	70.0
MW-13	4/19/16	phorate	<0.4	0.4	0.000	1.725	1.4
MW-13	10/10/16	phorate	0.8	0.4	0.067	0.733	1.4
MW-13	4/4/17	phorate	<0.4	0.4	0.067	0.733	1.4
MW-13	10/18/17	phorate	<0.4	0.4	0.000	0.703	1.4
MW-13	4/12/18	phorate	<0.4	0.4	0.000	0.703	1.4
MW-13	10/23/18	phorate	<0.4	0.4	0.200	0.200	1.4
MW-13	4/8/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-13	10/4/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-13	4/9/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-13	10/1/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-13	4/1/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-13	10/4/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-13	4/6/2022	phorate	NT	0.4	0.200	0.200	1.4
MW-13	10/4/2023	phorate	NT	0.4	0.200	0.200	1.4

Well	Date	Compound	Result (ug/L)	Prediction Limit (ug/L)	95% LCL (ug/L)	95% UCL (ug/L)	GWPS (ug/L)
MW-14	4/19/16	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	10/10/16	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	4/4/17	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	10/18/17	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	4/12/18	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	10/23/18	Arsenic	<4.0	4.0	2.000	2.000	10.0
MW-14	4/8/2019	Arsenic	4.1	4.0	1.290	3.760	10.0
MW-14	10/4/2019	Arsenic	<4.0	4.0	1.290	3.760	10.0
MW-14	4/9/2020	Arsenic	10.2	4.0	0.013	9.137	10.0
MW-14	10/1/2020	Arsenic	<4.0	4.0	0.013	9.137	10.0
MW-14	4/1/2021	Arsenic	<4.0	4.0	0.000	8.873	10.0
MW-14	10/4/2021	Arsenic	30.5	4.0	0.000	26.997	10.0
MW-14	4/6/2022	Arsenic	<4.0	4.0	0.000	25.887	10.0
MW-14	10/4/2023	Arsenic	5.5	4.0	0.000	26.193	10.0
MW-14	4/19/16	Barium	671.0	290.2810	459.244	868.256	2000.0
MW-14	10/10/16	Barium	483.0	290.2810	384.072	811.428	2000.0
MW-14	4/4/17	Barium	76.3	290.2810	134.200	889.950	2000.0
MW-14	10/18/17	Barium	1110.0	290.2810	80.412	1089.738	2000.0
MW-14	4/12/18	Barium	1130.0	290.2810	171.342	1332.808	2000.0
MW-14	10/23/18	Barium	368.0	290.2810	395.057	1254.943	2000.0
MW-14	4/8/2019	Barium	809.0	288.4665	379.534	1119.966	2000.0
MW-14	10/4/2019	Barium	903.0	296.5237	426.708	1178.292	2000.0
MW-14	4/9/2020	Barium	986.0	295.3072	442.632	1090.368	2000.0
MW-14	10/1/2020	Barium	717.0	294.2483	716.877	990.623	2000.0
MW-14	4/1/2021	Barium	714.0	289.9072	669.446	990.554	2000.0
MW-14	10/4/2021	Barium	1530.0	287.2576	535.101	1438.399	2000.0
MW-14	4/6/2022	Barium	1360.0	296.4947	578.141	1582.359	2000.0
MW-14	10/4/2023	Barium	843.0	294.3691	647.653	1575.847	2000.0
MW-14	4/19/16	Cobalt	4.4	11.6	4.306	8.694	11.6
MW-14	10/10/16	Cobalt	3.4	11.6	3.176	7.224	11.6
MW-14	4/4/17	Cobalt	<0.8	11.6	0.504	7.296	11.6
MW-14	10/18/17	Cobalt	13.4	11.6	0.000	11.984	11.6
MW-14	4/12/18	Cobalt	14.3	11.6	1.349	16.451	11.6
MW-14	10/23/18	Cobalt	4.1	11.6	4.103	15.547	11.6
MW-14	4/8/2019	Cobalt	3.8	11.6	1.684	13.166	11.6
MW-14	10/4/2019	Cobalt	8.2	11.6	1.840	13.360	11.6
MW-14	4/9/2020	Cobalt	5.5	11.6	3.038	7.762	11.6
MW-14	10/1/2020	Cobalt	2.9	11.6	2.358	7.842	11.6
MW-14	4/1/2021	Cobalt	7.4	11.6	3.228	8.772	11.6
MW-14	10/4/2021	Cobalt	19.2	11.6	0.273	17.227	11.6
MW-14	4/6/2022	Cobalt	15.0	11.6	2.488	19.762	11.6
MW-14	10/4/2023	Cobalt	7.3	11.6	5.303	19.147	11.6

MW-14	4/19/16	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/10/16	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	4/4/17	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/18/17	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	4/12/18	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/23/18	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	4/8/2019	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/4/2019	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	4/9/2020	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/1/2020	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	4/1/2021	Lead	<4.0	4.0	2.000	2.000	15.0
MW-14	10/4/2021	Lead	5.1	4.0	0.952	4.598	15.0
MW-14	4/6/2022	Lead	<4.0	4.0	0.952	4.598	15.0
MW-14	10/4/2023	Lead	<4.0	4.0	0.952	4.598	15.0
MW-14	4/19/16	Nickel	67.7	10.9	34.603	80.697	100.0
MW-14	10/10/16	Nickel	33.0	10.9	24.889	79.811	100.0
MW-14	4/4/17	Nickel	<4.0	10.9	4.574	85.226	100.0
MW-14	10/18/17	Nickel	44.4	10.9	4.647	68.903	100.0
MW-14	4/12/18	Nickel	46.3	10.9	8.528	68.472	100.0
MW-14	10/23/18	Nickel	19.4	10.9	22.424	63.276	100.0
MW-14	4/8/2019	Nickel	55.8	10.9	23.826	67.574	100.0
MW-14	10/4/2019	Nickel	42.5	10.9	22.828	59.172	100.0
MW-14	4/9/2020	Nickel	61.0	10.9	22.839	66.511	100.0
MW-14	10/1/2020	Nickel	50.6	10.9	43.194	61.756	100.0
MW-14	4/1/2021	Nickel	23.3	10.9	25.593	63.107	100.0
MW-14	10/4/2021	Nickel	52.6	10.9	27.643	66.107	100.0
MW-14	4/6/2022	Nickel	50.6	10.9	27.789	60.761	100.0
MW-14	10/4/2023	Nickel	33.8	10.9	23.601	56.594	100.0
MW-14	4/19/16	Zinc	38.9	12.8	0.000	33.664	2000.0
MW-14	10/10/16	Zinc	<8.0	12.8	0.000	33.251	2000.0
MW-14	4/4/17	Zinc	<8.0	12.8	0.000	33.251	2000.0
MW-14	10/18/17	Zinc	<8.0	12.8	0.000	33.251	2000.0
MW-14	4/12/18	Zinc	<8.0	12.8	4.000	4.000	2000.0
MW-14	10/23/18	Zinc	43.6	12.8	0.000	37.191	2000.0
MW-14	4/8/2019	Zinc	40.2	29.4	0.000	48.741	2000.0
MW-14	10/4/2019	Zinc	24.4	29.4	6.777	49.323	2000.0
MW-14	4/9/2020	Zinc	<20	29.4	6.777	49.323	2000.0
MW-14	10/1/2020	Zinc	<20	29.4	6.777	49.323	2000.0
MW-14	4/1/2021	Zinc	<20	29.4	6.777	49.323	2000.0
MW-14	10/4/2021	Zinc	<20	29.4	10.000	10.000	2000.0
MW-14	4/6/2022	Zinc	<20	29.4	10.000	10.000	2000.0
MW-14	10/4/2023	Zinc	<20	29.4	10.000	10.000	2000.0
MW-14	4/19/16	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-14	10/10/16	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0

MW-14	4/4/17	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-14	10/18/17	1,4 - dichlorobenzene	1.1	1.0	0.297	1.003	75.0
MW-14	4/12/18	1,4 - dichlorobenzene	<1.0	1.0	0.297	1.003	75.0
MW-14	10/23/18	1,4 - dichlorobenzene	<1.0	1.0	0.297	1.003	75.0
MW-14	4/8/2019	1,4 - dichlorobenzene	<1.0	1.0	0.297	1.003	75.0
MW-14	10/4/2019	1,4 - dichlorobenzene	<1.0	1.0	0.500	0.500	75.0
MW-14	4/9/2020	1,4 - dichlorobenzene	1.1	1.0	0.297	1.003	75.0
MW-14	10/1/2020	1,4 - dichlorobenzene	<1.0	1.0	0.297	1.003	75.0
MW-14	4/1/2021	1,4 - dichlorobenzene	1.3	1.0	0.365	1.335	75.0
MW-14	10/4/2021	1,4 - dichlorobenzene	1.0	1.0	0.575	1.375	75.0
MW-14	4/6/2022	1,4 - dichlorobenzene	1.0	1.0	0.560	1.340	75.0
MW-14	10/4/2023	1,4 - dichlorobenzene	<1.0	1.0	0.560	1.340	75.0
MW-14	4/19/16	benzene	1.9	1.0	0.691	2.209	5.0
MW-14	10/10/16	benzene	1.3	1.0	0.623	2.127	5.0
MW-14	4/4/17	benzene	<1.0	1.0	0.623	2.127	5.0
MW-14	10/18/17	benzene	1.5	1.0	0.607	1.993	5.0
MW-14	4/12/18	benzene	1.2	1.0	0.613	1.637	5.0
MW-14	10/23/18	benzene	2.7	1.0	0.395	2.555	5.0
MW-14	4/8/2019	benzene	1.9	1.0	1.060	2.590	5.0
MW-14	10/4/2019	benzene	1.6	1.0	1.013	2.597	5.0
MW-14	4/9/2020	benzene	1.6	1.0	1.339	2.561	5.0
MW-14	10/1/2020	benzene	2.3	1.0	1.460	2.240	5.0
MW-14	4/1/2021	benzene	<1.0	1.0	0.625	2.375	5.0
MW-14	10/4/2021	benzene	<1.0	1.0	0.184	2.266	5.0
MW-14	4/6/2022	benzene	<1.0	1.0	0.000	2.009	5.0
MW-14	10/4/2023	benzene	<1.0	1.0	0.500	0.500	5.0
MW-14	4/19/16	chlorobenzene	6.1	1.0	1.701	6.899	100.0
MW-14	10/10/16	chlorobenzene	4.4	1.0	1.642	6.808	100.0
MW-14	4/4/17	chlorobenzene	<1.0	1.0	1.155	6.995	100.0
MW-14	10/18/17	chlorobenzene	6.8	1.0	1.133	7.767	100.0
MW-14	4/12/18	chlorobenzene	5.7	1.0	1.118	7.582	100.0
MW-14	10/23/18	chlorobenzene	8.2	1.0	1.348	9.252	100.0
MW-14	4/8/2019	chlorobenzene	9.3	1.0	5.645	9.355	100.0
MW-14	10/4/2019	chlorobenzene	7.5	1.0	5.898	9.452	100.0
MW-14	4/9/2020	chlorobenzene	8.7	1.0	7.527	9.323	100.0
MW-14	10/1/2020	chlorobenzene	9.1	1.0	7.702	9.598	100.0
MW-14	4/1/2021	chlorobenzene	6.2	1.0	6.337	9.413	100.0
MW-14	10/4/2021	chlorobenzene	3.9	1.0	4.130	9.820	100.0
MW-14	4/6/2022	chlorobenzene	5.3	1.0	3.540	8.710	100.0
MW-14	10/4/2023	chlorobenzene	<1.0	1.0	1.031	6.919	100.0
MW-14	4/19/16	chloroethane	<1.0	1.0	0.500	0.500	2800.0
MW-14	10/10/16	chloroethane	1.2	1.0	0.263	1.087	2800.0
MW-14	4/4/17	chloroethane	<1.0	1.0	0.263	1.087	2,800.0
MW-14	10/18/17	chloroethane	1.3	1.0	0.363	1.387	2,800.0

MW-14	4/12/18	chloroethane	<1.0	1.0	0.363	1.387	2,800.0
MW-14	10/23/18	chloroethane	<1.0	1.0	0.229	1.171	2,800.0
MW-14	4/8/2019	chloroethane	<1.0	1.0	0.229	1.171	2,800.0
MW-14	10/4/2019	chloroethane	1.7	1.0	0.094	1.506	2,800.0
MW-14	4/9/2020	chloroethane	<1.0	1.0	0.094	1.506	2,800.0
MW-14	10/1/2020	chloroethane	<1.0	1.0	0.094	1.506	2,800.0
MW-14	4/1/2021	chloroethane	<1.0	1.0	0.094	1.506	2,800.0
MW-14	10/4/2021	chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-14	4/6/2022	chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-14	10/4/2023	chloroethane	<1.0	1.0	0.500	0.500	2,800.0
MW-14	4/19/16	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	10/10/16	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	4/4/17	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	10/18/17	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	4/12/18	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	10/23/18	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	4/8/2019	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	10/4/2019	dichlorodifluoromethane	1.2	1.0	0.263	1.087	1,000.0
MW-14	4/9/2020	dichlorodifluoromethane	<1.0	1.0	0.263	1.087	1,000.0
MW-14	10/1/2020	dichlorodifluoromethane	<1.0	1.0	0.263	1.087	1,000.0
MW-14	4/1/2021	dichlorodifluoromethane	<1.0	1.0	0.263	1.087	1,000.0
MW-14	10/4/2021	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	4/6/2022	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	10/4/2023	dichlorodifluoromethane	<1.0	1.0	0.500	0.500	1,000.0
MW-14	4/19/16	phorate	<0.4	0.4	0.000	6.405	1.4
MW-14	10/10/16	phorate	2.8	0.4	0.000	3.207	1.4
MW-14	4/4/17	phorate	<0.4	0.4	0.000	3.207	1.4
MW-14	10/18/17	phorate	<0.4	0.4	0.000	2.295	1.4
MW-14	4/12/18	phorate	<0.4	0.4	0.000	2.295	1.4
MW-14	10/23/18	phorate	<0.4	0.4	0.200	0.200	1.4
MW-14	4/8/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-14	10/4/2019	phorate	<0.4	0.4	0.200	0.200	1.4
MW-14	4/9/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-14	10/1/2020	phorate	NT	0.4	0.200	0.200	1.4
MW-14	4/1/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-14	10/4/2021	phorate	NT	0.4	0.200	0.200	1.4
MW-14	4/6/2022	phorate	NT	0.4	0.200	0.200	1.4
MW-14	10/4/2023	phorate	<0.4	0.4	0.200	0.200	1.4
MW-14	4/19/16	Tetrachloroethene	<1.0	1.0	---	---	5.0
MW-14	10/10/16	Tetrachloroethene	<1.0	1.0	---	---	5.0
MW-14	4/4/17	Tetrachloroethene	<1.0	1.0	---	---	5.0
MW-14	10/18/17	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	4/12/18	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	10/23/18	Tetrachloroethene	1.0	1.0	0.331	0.919	5.0

MW-14	4/8/2019	Tetrachloroethene	<1.0	1.0	0.331	0.919	5.0
MW-14	10/4/2019	Tetrachloroethene	<1.0	1.0	0.331	0.919	5.0
MW-14	4/9/2020	Tetrachloroethene	<1.0	1.0	0.331	0.919	5.0
MW-14	10/1/2020	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	4/1/2021	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	10/4/2021	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	4/6/2022	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0
MW-14	10/4/2023	Tetrachloroethene	<1.0	1.0	0.500	0.500	5.0

Appendix G

Leachate Collection System Performance Evaluation Report

Leachate Collection System Performance Evaluation Report

Leachate System Performance

As per Special Provision X.11 of the Closure Permit dated August 27, 2008, the Grundy County Sanitary Landfill is exempt from installing a leachate collection system based on the completed and certified site risk assessment. However, to control persistent historic leachate seeps a groundwater/leachate collection system has been installed. The first phase of the leachate collection system, installed in 1994, consisted of two leachate collection trenches, a leachate collection lateral with collection headers, and a 10,000 gallon capacity underground leachate storage tank. The second phase of the groundwater/leachate collection system, installed in 1995, consisted of an additional collection lateral installed in the approximate center of the southern half of the landfill. A map is included in Appendix G.1 showing the approximate locations of the leachate collection system.

As stated in the HLW letter dated January 29, 2016 (Doc #85310), landfill staff operate the components of the leachate seep control system manually. IDNR requested a schedule for pump operation and level measurements in the letter dated November 21, 2016. A bi-weekly schedule for level measurements was proposed in the HLW letter dated December 23, 2016 (Doc #88086). IDNR concurred with this recommendation in the letter dated January 26, 2017. The measurement documentation, which includes dates of pump operation, is provided in Appendix G.2.

In 2023, approximately 37,200 gallons of leachate (Appendix G.3) were hauled to the Grundy Center POTW.

Leachate level measurements are completed monthly by landfill staff until September, 2023. The Revised Permit dated September 28, 2023 (Doc # 107802) reduced leachate level measurements to a semi-annual frequency. Measurements for 2013 through 2023 are included in Appendix G.4. PZ-5 and PZ-8 have been recorded as dry since 2013 and levels at PZ-1 and PZ-2 are fairly consistent documenting minimal fluctuation in leachate levels at PZ-1 and PZ-2.

Leachate Line Cleaning

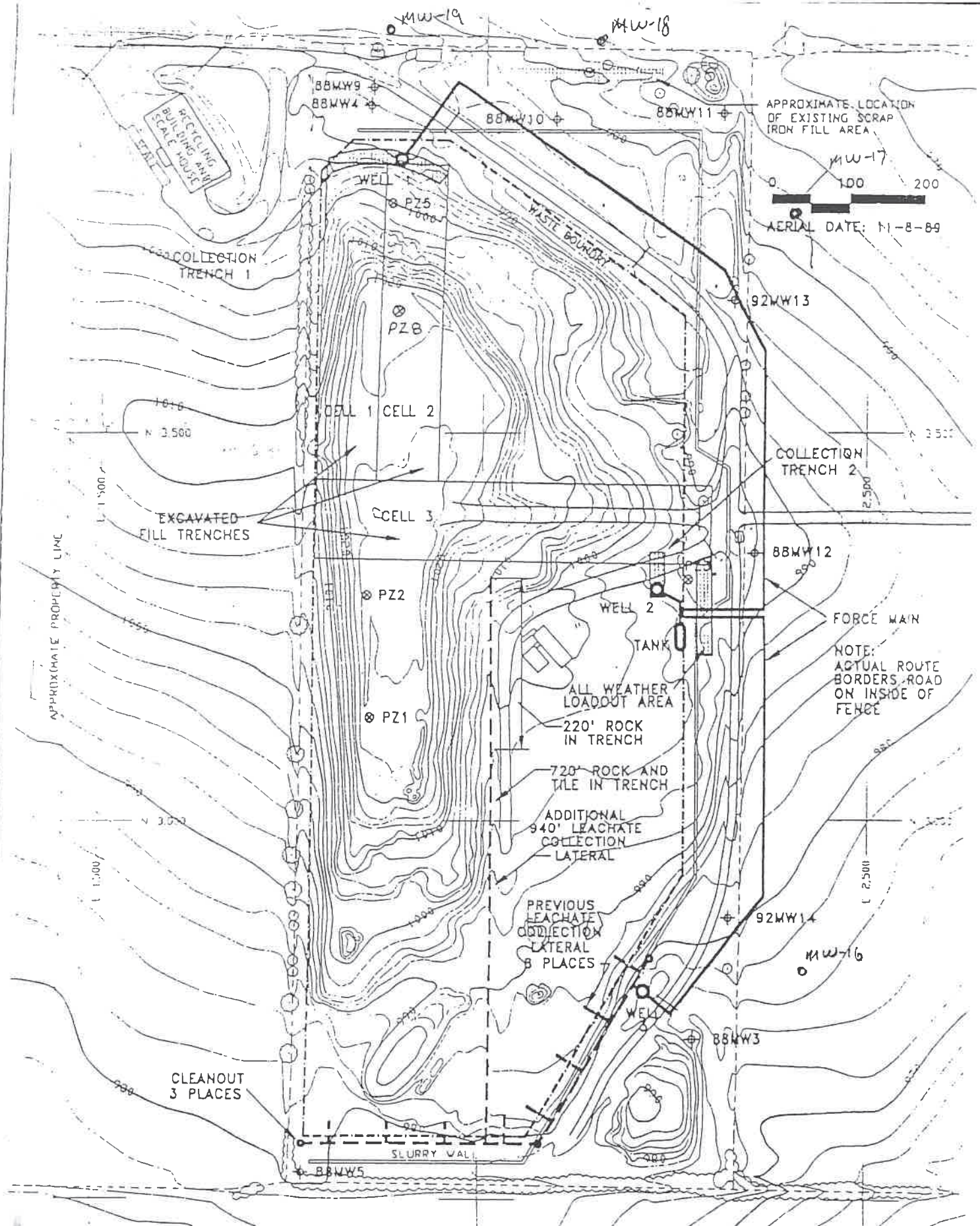
The leachate lines were cleaned on August 17, 2023. As per IDNR regulations, the lines should be cleaned every 3 years (next cleaning will be tentatively scheduled for 2026).

Leachate Treatment and Testing

The Grundy County Landfill has a Treatment Agreement in place with the City of Grundy Center under the City's Permit Number 3833001. The NPDES Permit is included in Appendix G.5.

Leachate samples are collected in accordance with the Treatment Agreement. Test results from the annual leachate sample are included in Appendix G.6. Test results from the leachate grab samples are included in Appendix G.7.

Appendix G.1 – Leachate Treatment System Map



Appendix G.2 – Leachate Well Check and Tank Level

BI-WEEKLY LEACHATE WELL CHECK AND TANK LEVEL

DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
01-03-23	OK	OK	OK	1,234 gal
01-05-23	OK	OK	OK	1,234 gal
01-10-23	OK	OK	OK	1,234 gal
01-17-23	OK	OK	OK	1,234 gal
01-24-23	OK	OK	OK	1,234 gal
01-26-03	OK	OK	OK	1,234 gal
01-31-23	OK	OK	OK	1,234 gal
02-02-23	OK	OK	OK	1,234 gal
02-07-23	OK	OK	OK	1,234 gal
02-14-23	OK	OK	OK	1,234 gal
02-21-23	OK	OK	OK	1,234 gal
02-23-23	OK	OK	OK	1,234 gal
03-02-23	OK	OK	OK	1,234 gal
03-07-23	OK	OK	OK	1,234 gal
03-14-23	OK	OK	OK	1,234 gal
03-16-23	OK	OK	OK	1,234 gal
03-21-23	OK	OK	OK	1,234 gal
03-28-23	Pumped	Pumped	Pumped	4,813 gal
04-04-23	OK	OK	OK	4,813 gal
04-06-23	Pumped	Pumped	Pumped	7,542 gal
04-11-23	Pumped	Hauled 1200 gal	Pumped	9,850 gal
04-13 -23	OK	Hauled 1200 gal	OK	8,650 gal
04-18-23	OK	Hauled 1200 gal	OK	7,420 gal
04-20-23	OK	OK	OK	7,420 gal
04-25-23	Pumped	Pumped	Pumped	10,000 gal
04-26-23	OK	Hauled 1200 gal	OK	8,785 gal
04-27-23	Pumped	Hauled 1200 gal	OK	9,352 gal
04-28-23	OK	Hauled 1200 gal	OK	8,100 gal
05-02-23	OK	Hauled 1200 gal	OK	6,900 gal

BI-WEEKLY LEACHATE WELL CHECK AND TANK LEVEL

DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
05-03-23	OK	Hauled 1200 gal	OK	5,614 gal
05-04-23	OK	Hauled 1200 gal	Pumped	5,347 gal
05-05-23	OK	Hauled 1200 gal	OK	4,148 gal
05-09-23	OK	Hauled 1200 gal	OK	2,853 gal
05-10-23	Pumped	Hauled 1200 gal	Pumped	3,622 gal
05-11-23	Pumped	Hauled 1200 gal	Pumped	6,663 gal
05-15-23	Pumped	Hauled 1200 gal	Pumped	8,359 gal
05-16-23	OK	Hauled 1200 gal	OK	7,172 gal
05-18-23	OK	Hauled 1200 gal	OK	5,879 gal
05-30-23	Pumped	Hauled 1200 gal	Pumped	8,985 gal
05-31-23	OK	Hauled 1200 gal	OK	7,783 gal
06-01-23	OK	Hauled 1200 gal	OK	6,534 gal
06-05-23	OK	Hauled 1200 gal	OK	5,480 gal
06-06-23	Pumped	Hauled 1200 gal	Pumped	5,746 gal
06-08-23	Pumped	Hauled 1200 gal	OK	6,404 gal
06-13-23	Pumped	Hauled 1200 gal	Pumped	6,011 gal
06-15-23	OK	Hauled 1200 gal	OK	4,679 gal
06-22-23	OK	Hauled 1200 gal	OK	3,362 gal
06-27-23	Pumped	Hauled 1200 gal	Pumped	3,492 gal
06-29-23	OK	Hauled 1200 gal	OK	2,360 gal
07-08-23	Pumped	Hauled 1200 gal	Pumped	4,148 gal
07-11-23	Pumped	Hauled 1200 gal	Pumped	3,884 gal
07-18-23	OK	OK	OK	3,884 gal
07-27-23	OK	OK	OK	3,884 gal
08-01-23	Pumped	Hauled 1200 gal	Pumped	3,624 gal
08-08-23	Pumped	Hauled 1200 gal	Pumped	2,853 gal
08-15-23	OK	OK	OK	2,853 gal
08-17-23	OK	OK	OK	2,853 gal
08-22-23	OK	OK	OK	2,853 gal

BI-WEEKLY LEACHATE WELL CHECK AND TANK LEVEL

DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
08-29-23	OK	OK	OK	2,853 gal
08-31-23	OK	OK	OK	2,853 gal
09-05-23	OK	OK	OK	2,853 gal
09-12-23	OK	OK	OK	2,853 gal
09-19-23	OK	OK	OK	2,853 gal
09-21-23	OK	OK	OK	2,853 gal
09-26-23	OK	OK	OK	2,853 gal
10-03-23	OK	OK	OK	2,853 gal
10-05-23	OK	OK	OK	2,853 gal
10-10-23	OK	OK	OK	2,853 gal
10-19-23	OK	OK	OK	2,853 gal
10-24-23	Pumped	OK	Pumped	4,413 gal
10-31-23	OK	OK	OK	4,413 gal
11-02-23	OK	OK	OK	4,413 gal
11-07-23	OK	OK	OK	4,413 gal
11-09-23	OK	OK	OK	4,413 gal
11-16-23	OK	OK	OK	4,413 gal
11-21-23	OK	OK	OK	4,413 gal
11-28-23	OK	OK	OK	4,413 gal
12-05-23	OK	OK	OK	4,413 gal
12-07-23	OK	OK	OK	4,413 gal
12-14-23	OK	OK	OK	4,413 gal
12-19-23	OK	OK	OK	4,413 gal
12-21-23	OK	OK	OK	4,413 gal
12-28-23	OK	OK	OK	4,413 gal

Appendix G.3- Leachate Volumes Hauled to Grundy Center POTW

2023	LEACHATE	HAULED
04-11-23	1200 gal.	GCWWTP
04-13-23	1200 gal.	GCWWTP
04-18-23	1200 gal.	GCWWTP
04-26-23	1200 gal.	GCWWTP
04-27-23	1200 gal.	GCWWTP
04-28-23	1200 gal.	GCWWTP
05-02-23	1200 gal.	GCWWTP
05-03-23	1200 gal.	GCWWTP
05-04-23	1200 gal.	GCWWTP
05-05-23	1200 gal.	GCWWTP
05-09-23	1200 gal.	GCWWTP
05-10-23	1200 gal.	GCWWTP
05-11-23	1200 gal.	GCWWTP
05-15-23	1200 gal.	GCWWTP
05-16-23	1200 gal.	GCWWTP
05-18-23	1200 gal.	GCWWTP
05-30-23	1200 gal.	GCWWTP
05-31-23	1200 gal.	GCWWTP
06-01-23	1200 gal.	GCWWTP
06-05-23	1200 gal.	GCWWTP
06-06-23	1200 gal.	GCWWTP
06-08-23	1200 gal.	GCWWTP
06-13-23	1200 gal.	GCWWTP
06-15-23	1200 gal.	GCWWTP
06-22-23	1200 gal.	GCWWTP
06-27-23	1200 gal.	GCWWTP
06-29-23	1200 gal.	GCWWTP
07-08-23	1200 gal.	GCWWTP
07-11-23	1200 gal.	GCWWTP
08-01-23	1200 gal.	GCWWTP
08-08-23	1200 gal.	GCWWTP

Appendix G.4 - Monthly Leachate Level Measurements

Leachate Elevation Data
 Grundy County Sanitary Landfill
 38-SDP-1-75C

Well/TOC	1024				1027				1003.12				1024			
	Leachate Depth	Leachate Elevation	Well Bottom Elevation	Leachate Thickness (ft)	Leachate Depth	Leachate Elevation	Well Bottom Elevation	Leachate Thickness (ft)	Leachate Depth	Leachate Elevation	Well Bottom Elevation	Leachate Thickness (ft)	Leachate Depth	Leachate Elevation	Well Bottom Elevation	Leachate Thickness (ft)
04/04/13	23.00	1001.00	995	6.00	18.07	1008.93	999	9.93	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/07/13	22.40	1001.60	995	6.60	17.65	1009.35	999	10.35	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/06/13	22.28	1001.72	995	6.72	16.40	1010.60	999	11.60	Dry	991.34	979.00	12.94	Dry	Dry	981.00	Dry
07/02/13	22.35	1001.62	995	6.65	15.50	1008.50	999	9.50	11.40	991.72	979.00	12.72	Dry	Dry	981.00	Dry
08/06/13	22.45	1001.55	995	6.55	18.82	1008.18	999	9.18	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/13/13	22.63	1001.37	995	6.37	19.25	1007.75	999	8.75	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/18/13	22.75	1001.25	995	6.25	19.26	1007.74	999	8.74	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/14/13	22.85	1001.15	995	6.15	19.27	1007.73	999	8.73	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/17/13	22.81	1001.19	995	6.19	19.25	1007.75	999	8.75	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/16/14	22.86	1001.14	995	6.14	Frozen	Frozen	Frozen	Frozen	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/13/14	22.90	1001.10	995	6.10	Frozen	Frozen	Frozen	Frozen	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/17/14	22.95	1001.05	995	6.05	19.40	1007.60	999	8.60	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/12/14	23.02	1000.98	995	5.98	19.61	1007.39	999	8.39	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/20/14	22.80	1001.20	995	6.20	18.23	1008.77	999	9.77	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/17/14	22.55	1001.45	995	6.45	18.38	1008.62	999	9.62	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/10/14	22.40	1001.60	995	6.60	18.47	1008.53	999	9.53	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/12/14	22.47	1001.53	995	6.53	18.49	1008.51	999	9.51	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/11/14	22.49	1001.51	995	6.51	18.52	1008.48	999	9.48	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/09/14	22.72	1001.28	995	6.28	19.50	1007.5	999	8.50	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/13/14	22.78	1001.22	995	6.22	19.53	1007.47	999	8.47	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/11/14	22.80	1001.20	995	6.20	19.57	1007.43	999	8.43	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/20/15	22.83	1001.17	995	6.17	19.70	1007.3	999	8.30	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/17/15	22.86	1001.14	995	6.14	19.76	1007.24	999	8.24	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/19/15	22.88	1001.12	995	6.12	19.79	1007.21	999	8.21	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/07/15	22.89	1001.11	995	6.11	19.53	1007.47	999	8.47	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/12/15	22.55	1001.45	995	6.45	18.90	1008.10	999	9.10	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/16/15	22.43	1001.57	995	6.57	18.80	1008.2	999	9.20	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/09/15	22.35	1001.65	995	6.65	18.72	1008.28	999	9.28	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/11/15	22.38	1001.62	995	6.62	18.75	1008.25	999	9.25	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/15/15	22.40	1001.60	995	6.60	18.82	1008.18	999	9.18	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/06/15	22.47	1001.53	995	6.53	18.85	1008.15	999	9.15	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/05/15	22.50	1001.50	995	6.50	19.20	1007.8	999	8.80	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/29/15	22.41	1001.59	995	6.59	19.15	1007.85	999	8.85	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/14/16	21.80	1002.20	995	7.20	17.80	1009.2	999	10.20	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/16/16	21.77	1002.23	995	7.23	17.21	1009.79	999	10.79	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/17/16	21.73	1002.27	995	7.27	17.12	1009.88	999	10.88	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/14/16	21.74	1002.26	995	7.26	17.04	1009.96	999	10.96	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/10/16	21.90	1002.10	995	7.10	17.28	1009.72	999	10.72	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/07/16	22.15	1001.85	995	6.85	17.55	1009.45	999	10.45	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/19/16	22.24	1001.76	995	6.76	17.62	1009.38	999	10.38	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/09/16	22.30	1001.70	995	6.70	17.67	1009.33	999	10.33	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/15/16	22.27	1001.73	995	6.73	17.65	1009.35	999	10.35	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/06/16	22.20	1001.80	995	6.80	17.55	1009.45	999	10.45	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/17/16	22.25	1001.75	995	6.75	17.58	1009.42	999	10.42	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/15/16	22.29	1001.71	995	6.71	17.63	1009.37	999	10.37	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/19/17	22.37	1001.63	995	6.63	18.53	1008.47	999	9.47	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/16/17	22.55	1001.45	995	6.45	18.90	1008.1	999	9.10	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/21/17	22.30	1001.70	995	6.70	18.25	1008.75	999	9.75	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/11/17	22.10	1001.90	995	6.90	17.45	1009.55	999	10.55	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/16/17	21.92	1002.08	995	7.08	16.79	1010.21	999	11.21	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/20/17	22.00	1002.00	995	7.00	17.56	1009.44	999	10.44	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/11/17	22.20	1001.80	995	6.80	18.22	1008.78	999	9.78	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/08/17	22.32	1001.68	995	6.68	18.40	1008.6	999	9.60	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/12/17	22.38	1001.62	995	6.62	18.52	1008.48	999	9.48	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/05/17	22.50	1001.50	995	6.50	18.62	1008.38	999	9.38	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/16/17	22.36	1001.64	995	6.64	18.10	1008.9	999	9.90	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/19/17	22.30	1001.70	995	6.70	17.85	1009.15	999	10.15	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/16/18	22.38	1001.62	995	6.62	17.79	1009.21	999	10.21	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/22/18	22.46	1001.54	995	6.54	17.62	1009.38	999	10.38	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/15/18	22.33	1001.65	995	6.65	18.11	1009.89	999	9.89	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/17/18	22.35	1001.65	995	6.65	17.10	1009.9	999	10.90	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/10/18	22.18	1001.82	995	6.82	16.86	1010.14	999	11.14	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/12/18	22.13	1001.87	995	6.87	16.50	1010.5	999	11.50	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/05/18	22.00	1002.00	995	7.00	15.73	1011.27	999	12.27	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/14/18	21.97	1002.03	995	7.03	15.92	1011.08	999	12.08	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/13/18	21.93	1002.07	995	7.07	16.58	1010.42	999	11.42	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/18/18	21.85	1002.15	995	7.15	17.88	1009.12	999	10.12	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/06/18	21.60	1002.40	995	7.40	17.38	1009.62	999	10.62	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/06/18	22.33	1001.67	995	6.67	18.11	1009.89	999	9.89	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/16/19	22.34	1001.66	995	6.66	18.20	1009.8	999	9.80	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/01/19	22.48	1001.52	995	6.52	17.80	1009.2	999	10.20	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/01/19	22.26	1001.74	995	6.74	17.62	1009.38	999	10.38	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/08/19	21.98	1002.02	995	7.02	16.87	1010.13	999	11.13	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/01/19	21.70	1002.30	995	7.30	16.52	1010.48	999	11.48	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/01/19	21.88	1002.12	995	7.12	16.57	1010.43	999	11.43	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/11/19	22.06	1001.94	995	6.94	16.60	1010.4	999	11.40	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/01/19	22.23	1001.77	995	6.77	16.68	1010.32	999	11.32	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/01/19	22.45	1001.55	995	6.55	16.79	1010.21	999	11.21	Dry	Dry	979.00	Dry	Dry	Dry		

Appendix G.5 - Leachate Treatment Agreement



**STATE OF IOWA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROGRAM
AMENDMENT TO NPDES PERMIT**

Iowa NPDES Permit #: 3833001
Date of Issuance: September 1, 2019
Date of Expiration: August 31, 2024
Date of this Amendment: **September 2, 2019**
EPA Number: IA0024511

Name and Mailing Address of Applicant:

CITY OF GRUNDY CENTER
703 F AVENUE
GRUNDY CENTER, IA 50638-1450

Identity and Location of Facility:

GRUNDY CENTER CITY OF STP
Township 87N, Range 16W, Section 07, Grundy County

Pursuant to the authority Iowa Code Section 455B.174, and of Rule 567--64.3, Iowa Administrative Code, the Director of the Iowa Department of Natural Resources has issued the above referenced permit. Pursuant to the same authority the Director hereby amends said permit as set forth below:

The permit is amended to correct typographical errors on the Additional Monitoring Requirements – Grundy County Landfill page. Please remove page #14 from the NPDES permit and replace it with the enclosed page #14.

For the Department of Natural Resources:

By _____
Karen Lodden
NPDES Section
ENVIRONMENTAL SERVICES DIVISION

c: FO 2

IOWA DEPARTMENT OF NATURAL RESOURCES
National Pollutant Discharge Elimination System (NPDES) Permit

OWNER NAME & ADDRESS
CITY OF GRUNDY CENTER
703 F AVENUE
GRUNDY CENTER, IA 50638-1450

FACILITY NAME & ADDRESS
GRUNDY CENTER CITY OF STP
EAST OF TOWN OFF C AVENUE
GRUNDY CENTER, IA 50638-1450

Section 7, T87N, R16W
Grundy County

IOWA NPDES PERMIT NUMBER: 3833001
DATE OF ISSUANCE: 09/01/2019
DATE OF EXPIRATION: 08/31/2024

**YOU ARE REQUIRED TO FILE FOR RENEWAL
OF THIS PERMIT BY:** 03/04/2024
EPA NUMBER: IA0024511

This permit is issued pursuant to the authority of section 402(b) of the Clean Water Act (33 U.S.C 1342(b)), Iowa Code section 455B.174, and rule 567-64.3, Iowa Administrative Code. You are authorized to operate the disposal system and to discharge the pollutants specified in this permit in accordance with the effluent limitations, monitoring requirements and other terms set forth in this permit.

You may appeal any condition of this permit by filing a written notice of appeal and request for administrative hearing with the director of this department within 30 days of your receipt of this permit.

Any existing unexpired Iowa operation permit or Iowa NPDES permit previously issued by the department for the facility identified above is revoked by the issuance of this permit. This provision does not apply to any authorization to discharge under the terms and conditions of a general permit issued by the department or to any permit issued exclusively for the discharge of stormwater.

FOR THE DEPARTMENT OF NATURAL RESOURCES

By _____

Karen Lodden
NPDES Section
ENVIRONMENTAL SERVICES DIVISION

Facility Name: GRUNDY CENTER CITY OF STP
Permit Number: 3833001

Outfall No.: 001 DISCHARGE FROM SEQUENCING BATCH REACTOR WASTEWATER TREATMENT FACILITY WITH UV DISINFECTION.

Receiving Stream: BLACK HAWK CREEK

Route of Flow: BLACK HAWK CREEK

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

Outfall No.: 002 BYPASS FROM MAIN TREATMENT PLANT.

Receiving Stream: BLACK HAWK CREEK

Route of Flow: BLACK HAWK CREEK

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

Outfall No.: 003 BYPASS FROM EQUALIZATION BASIN.

Receiving Stream: BLACK HAWK CREEK

Route of Flow: BLACK HAWK CREEK

Class A2 waters are secondary contact recreational use waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. During the recreational use, the probability of ingesting appreciable quantities of water is minimal. Class A2 uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

Waters designated Class B(WW2) are those in which flow or other physical characteristics are capable of supporting a resident aquatic community that includes a variety of native nongame fish and invertebrate species. The flow and other physical characteristics limit the maintenance of warm water game fish populations. These waters generally consist of small perennially flowing streams.

Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.

Facility Name: GRUNDY CENTER CITY OF STP
 Permit Number: 3833001

Effluent Limitations:

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

001 DISCHARGE FROM SEQUENCING BATCH REACTOR WASTEWATER TREATMENT FACILITY WITH UV DISINFECTION.

<i>Outfall: 001 Effective Dates: 09/01/2019 to 08/31/2024</i>		
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u> <u>Limits</u>
CBOD5		
	Yearly	7 Day Average 40 MG/L 400 LBS/DAY
	Yearly	30 Day Average 25 MG/L 250 LBS/DAY
TOTAL SUSPENDED SOLIDS		
	Yearly	7 Day Average 45 MG/L 450 LBS/DAY
	Yearly	30 Day Average 30 MG/L 300 LBS/DAY
AMMONIA NITROGEN (N)		
	JAN	30 Day Average 6.7 MG/L 45.2 LBS/DAY
	JAN	Daily Maximum 13.5 MG/L 108 LBS/DAY
	FEB	30 Day Average 7.6 MG/L 52.3 LBS/DAY
	FEB	Daily Maximum 13.5 MG/L 108 LBS/DAY
	MAR	30 Day Average 3.4 MG/L 27.9 LBS/DAY
	MAR	Daily Maximum 6.1 MG/L 49.6 LBS/DAY
	APR	30 Day Average 3.0 MG/L 20.2 LBS/DAY
	APR	Daily Maximum 6.1 MG/L 49.6 LBS/DAY
	MAY	30 Day Average 3.4 MG/L 23.0 LBS/DAY
	MAY	Daily Maximum 6.1 MG/L 49.6 LBS/DAY
	JUN	30 Day Average 2.5 MG/L 17.3 LBS/DAY
	JUN	Daily Maximum 6.1 MG/L 49.6 LBS/DAY
	JUL	30 Day Average 2.0 MG/L 13.3 LBS/DAY
	JUL	Daily Maximum 5.7 MG/L 45.3 LBS/DAY
	AUG	30 Day Average 1.9 MG/L 12.6 LBS/DAY
	AUG	Daily Maximum 5.7 MG/L 45.3 LBS/DAY
	SEP	30 Day Average 2.1 MG/L 14.0 LBS/DAY
	SEP	Daily Maximum 6.1 MG/L 49.6 LBS/DAY

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Outfall: 001 Effective Dates: 09/01/2019 to 08/31/2024

Parameter	Season	Limit Type	Limits
AMMONIA NITROGEN (N)			
	OCT	30 Day Average	3.1 MG/L 20.6 LBS/DAY
	OCT	Daily Maximum	6.1 MG/L 49.6 LBS/DAY
	NOV	30 Day Average	3.4 MG/L 27.9 LBS/DAY
	NOV	Daily Maximum	6.1 MG/L 49.6 LBS/DAY
	DEC	30 Day Average	3.4 MG/L 27.9 LBS/DAY
	DEC	Daily Maximum	6.1 MG/L 49.6 LBS/DAY
NITROGEN, TOTAL (AS N)			
	Yearly	30 Day Average	64 LBS/DAY
	Yearly	Daily Maximum	110 LBS/DAY
ACUTE TOXICITY, CERIODAPHNIA			
	Yearly	Daily Maximum	1 NO TOXICITY
ACUTE TOXICITY, PIMEPHALES			
	Yearly	Daily Maximum	1 NO TOXICITY
DISSOLVED OXYGEN			
	Yearly	Daily Minimum	4.8 MG/L
PH			
	Yearly	Daily Maximum	9.0 STD UNITS
	Yearly	Daily Minimum	6.5 STD UNITS
E. COLI			
	MAR	Geometric Mean	521 #/100 ML
	APR	Geometric Mean	521 #/100 ML
	MAY	Geometric Mean	521 #/100 ML
	JUN	Geometric Mean	521 #/100 ML
	JUL	Geometric Mean	521 #/100 ML
	AUG	Geometric Mean	521 #/100 ML
	SEP	Geometric Mean	521 #/100 ML
	OCT	Geometric Mean	521 #/100 ML
	NOV	Geometric Mean	521 #/100 ML

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Outfall: 001 Effective Dates: 09/01/2019 to 08/31/2024			
Parameter	Season	Limit Type	Limits
ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)			
	Yearly	Annual Average	62 LBS/DAY
ANNUAL AVERAGE PHOSPHORUS DISCHARGED (AS P)			
	Yearly	Annual Average	17 LBS/DAY

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Monitoring and Reporting Requirements

- (a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.
- (b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.
- (c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums and 30-day and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).
- (d) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.
- (e) Any records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.
- (f) Chapter 63 of the Iowa Administrative Code contains further explanation of these monitoring requirements.

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
The following monitoring requirements shall be in effect from 09/01/2019 to 08/31/2024				
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	2 TIMES PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	RAW WASTE
001	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	24 HOUR COMPOSITE	RAW WASTE
001	PH	2 TIMES PER WEEK	GRAB	RAW WASTE
001	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	TEMPERATURE	2 TIMES PER WEEK	GRAB	RAW WASTE
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	24 HOUR COMPOSITE	RAW WASTE
001	ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)	1 EVERY 12 MONTHS	CALCULATED	FINAL EFFLUENT
001	ANNUAL AVERAGE PHOSPHORUS DISCHARGED (AS P)	1 EVERY 12 MONTHS	CALCULATED	FINAL EFFLUENT
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	FINAL EFFLUENT
001	ACUTE TOXICITY, CERIODAPHNIA	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	ACUTE TOXICITY, PIMEPHALES	1 EVERY 12 MONTHS	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	AMMONIA NITROGEN (N)	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	CBOD5	2 TIMES PER WEEK	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	NITROGEN, TOTAL (AS N)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	PHOSPHORUS, TOTAL (AS P)	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	24 HOUR COMPOSITE	EFFLUENT PRIOR TO DISINFECTION
001	DISSOLVED OXYGEN	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	E. COLI	GEO. MEAN 1/3 MONTHS	GRAB	EFFLUENT AFTER DISINFECTION
001	PH	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION
001	TEMPERATURE	2 TIMES PER WEEK	GRAB	EFFLUENT AFTER DISINFECTION

Facility Name: GRUNDY CENTER CITY OF STP
Permit Number: 3833001

Special Monitoring Requirements

Outfall # Description

001 NITROGEN, TOTAL (AS N)

Total nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and nitrate + nitrite nitrogen and reporting the sum of the TKN and nitrate + nitrite results (reported as N). Nitrate + nitrite can be analyzed together or separately.

E. COLI

The limit for E. coli of 521 org/100 ml for outfall 001 is a geometric mean. The disinfection season is established in the Iowa Administrative Code, Subparagraph 567 IAC 61.3(3)“a”(1), and is in effect from March 15 to November 15. Any disinfection system (chlorine, UV light, etc.) shall be operated to comply with the limit during the entire disinfection season whenever wastewater is being discharged from outfall 001.

The facility must collect and analyze a minimum of five samples in one calendar month during each 3-month period from March 15 to November 15. The 3-month periods are March – May, June – August, and September – November. The collection of five samples in each 3-month period will result in a minimum of 15 samples being collected during a calendar year. For example, for the first 3-month period, the operator may choose April as the calendar month to collect the 5 individual E. coli samples to determine compliance with the limits. The operator may also choose the months of March or May as well, as long as each of the 5 samples is collected during a single calendar month. The same principle applies to the other two 3-month periods during the disinfection season. The following requirements apply to the individual samples collected in one calendar month:

Samples must be spaced over one calendar month.

No more than one sample can be collected on any one day.

There must be a minimum of two days between each sample.

No more than two samples may be collected in a period of seven consecutive days.

If the effluent has been disinfected using chlorine, ultraviolet light (UV), or any other process intended to disrupt the biological integrity of the E. coli, the samples shall be analyzed using the Most Probable Number method found in Standard Method 9223B (Collitert® or Collitert-18® made by IDEXX Laboratories, Inc.). If the effluent has not been disinfected the samples may be analyzed using either the MPN method above or EPA Method 1603: Escherichia coli (E. coli) in water by membrane filtration using modified membrane-thermotolerant E. coli agar (modified mTEC) or mColiBlue-24® made by the Hach Company.

The geometric mean must be calculated using all valid sample results collected during a month. The geometric mean formula is as follows:
Geometric Mean = $(\text{Sample one} \times \text{Sample two} \times \text{Sample three} \times \text{Sample four} \times \text{Sample five} \dots \text{Sample N})^{(1/N)}$, which is the Nth root of the result of the multiplication of all of the sample results where N = the number of samples. If a sample result is a less than value, the value reported by the lab without the less than sign should be used in the geometric mean calculation.

The geometric mean can be calculated in one of the following ways:

Use a scientific calculator that can calculate the powers of numbers.

Enter the samples in Microsoft Excel and use the function “GEOMEAN” to perform the calculation.

Use the geometric mean calculator on the Iowa DNR webpage at: <http://www.iowadnr.gov/Environmental-Protection/Water-Quality/NPDES-Wastewater-Permitting/NPDES-Operator-Information/Bacteria-Sampling>

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

ANNUAL AVERAGE NITROGEN DISCHARGED (AS N)

Annually from March 1, calculate the average of all total nitrogen mass (lbs/day) sample results from the previous 12 months. report the annual average in the April Discharge Monitoring Report (DMR) each year.

Calculation: Sum of all mass measurements (lbs/day) in the last 12 months divided by the total number of measurements in the last 12 months.

ANNUAL AVERAGE PHOSPHORUS DISCHARGED (AS P)

Annually from March 1, calculate the average of all total phosphorus mass (lbs/day) sample results from the previous 12 months. Report the annual average in the April Discharge Monitoring Report (DMR) each year.

Calculation: Sum of all mass measurements (lbs/day) in the last 12 months divided by the total number of measurements in the last 12 months.

Facility Name: GRUNDY CENTER CITY OF STP
 Permit Number: 3833001

Significant Industrial User Discharges:

Significant Industrial User: RICHELIEU FOODS, L.L.C.

Outfall # Outfall Description

001 EFFLUENT (WASTE) PRIOR TO DISCHARGE TO THE MUNICIPAL COLLECTION SYSTEM.

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

RICHELIEU FOODS, L.L.C.			
Outfall: 001 Effective Dates: 09/01/2019 to 08/31/2024			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
FLOW			
	Yearly	30 Day Average	0.06 MGD
	Yearly	DAILY MAXIMUM	0.08 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	867 LBS/DAY
	Yearly	DAILY MAXIMUM	1000 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	266 LBS/DAY
	Yearly	DAILY MAXIMUM	532 LBS/DAY
OIL AND GREASE			
	Yearly	30 Day Average	300 MG/L
	Yearly	DAILY MAXIMUM	600 MG/L
PH			
	Yearly	DAILY MAXIMUM	11.0 STD UNITS
	Yearly	DAILY MINIMUM	5.5 STD UNITS

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Monitoring and Reporting Requirements

- (a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.
- (b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.
- (c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums and 30-day and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).
- (d) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.
- (e) Any records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.
- (f) Chapter 63 of the Iowa Administrative Code contains further explanation of these monitoring requirements.

RICHELIEU FOODS, L.L.C.					
Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location	
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	2 TIMES PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER	
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER	
001	OIL AND GREASE	1 EVERY 2 WEEKS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER	
001	PH	2 TIMES PER WEEK	GRAB	PRIOR TO DISCHARGE TO CITY SEWER	
001	TOTAL SUSPENDED SOLIDS	1 TIME PER WEEK	24 HOUR COMPOSITE	PRIOR TO DISCHARGE TO CITY SEWER	

Facility Name: GRUNDY CENTER CITY OF STP
 Permit Number: 3833001

Significant Industrial User Discharges:

Significant Industrial User: GRUNDY COUNTY LANDFILL

Outfall # Outfall Description

001 SANITARY LANDFILL LEACHATE TRUCKED TO CITY WASTEWATER TREATMENT PLANT

Significant Industrial User Effluent Limitations

You are prohibited from discharging pollutants except in compliance with the following effluent limitations:

GRUNDY COUNTY LANDFILL			
Outfall: 001 Effective Dates: 09/01/2019 to 08/31/2024			
<u>Parameter</u>	<u>Season</u>	<u>Limit Type</u>	<u>Limit Values</u>
FLOW			
	Yearly	30 Day Average	0.0010 MGD
	Yearly	DAILY MAXIMUM	0.0015 MGD
BIOCHEMICAL OXYGEN DEMAND (BOD5)			
	Yearly	30 Day Average	8.4 LBS/DAY
	Yearly	DAILY MAXIMUM	25 LBS/DAY
TOTAL SUSPENDED SOLIDS			
	Yearly	30 Day Average	4.2 LBS/DAY
	Yearly	DAILY MAXIMUM	12.5 LBS/DAY
AMMONIA NITROGEN (N)			
	Yearly	30 Day Average	2.0 LBS/DAY
	Yearly	DAILY MAXIMUM	3.5 LBS/DAY
NITROGEN, TOTAL KJELDAHL (AS N)			
	Yearly	30 Day Average	1.3 LBS/DAY
	Yearly	DAILY MAXIMUM	3.7 LBS/DAY
PH			
	Yearly	DAILY MAXIMUM	9.0 STD UNITS
	Yearly	DAILY MINIMUM	6.0 STD UNITS

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Monitoring and Reporting Requirements

- (a) Samples and measurements taken shall be representative of the volume and nature of the monitored wastewater.
- (b) Analytical and sampling methods specified in 40 CFR Part 136 or other methods approved in writing by the department shall be utilized. Samples collected for operational testing need not be analyzed by approved analytical methods; however, commonly accepted test methods should be used.
- (c) You are required to report all data including calculated results needed to determine compliance with the limitations contained in this permit. The results of any monitoring not specified in this permit performed at the compliance monitoring point and analyzed according to 40 CFR Part 136 shall be included in the calculation and reporting of any data submitted in accordance with this permit. This includes daily maximums and minimums and 30-day and 7-day averages for all parameters that have concentration (mg/l) and mass (lbs/day) limits. In addition, flow data shall be reported in million gallons per day (MGD).
- (d) Results of all monitoring shall be recorded on forms provided by, or approved by, the department, and shall be submitted to the appropriate regional field office of the department by the fifteenth day following the close of the reporting period. Your reporting period is on a MONTHLY basis, ending on the last day of each reporting period.
- (e) Any records of monitoring activities and results shall include for all samples: the date, exact place and time of the sampling; the dates the analyses were performed; who performed the analyses; the analytical techniques or methods used; and the results of such analyses.
- (f) Chapter 63 of the Iowa Administrative Code contains further explanation of these monitoring requirements.

GRUNDY COUNTY LANDFILL				
Outfall	Wastewater Parameter	Sample Frequency	Sample Type	Monitoring Location
001	AMMONIA NITROGEN (N)	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	BIOCHEMICAL OXYGEN DEMAND (BOD5)	1 EVERY 6 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	FLOW	7/WEEK OR DAILY	24 HOUR TOTAL	PRIOR TO DISCHARGE TO CITY SEWER
001	NITROGEN, TOTAL KJELDAHL (AS N)	1 EVERY MONTH	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	PH	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	SANITARY LANDFILL LEACHATE	1 EVERY 12 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER
001	TOTAL SUSPENDED SOLIDS	1 EVERY 3 MONTHS	GRAB	PRIOR TO DISCHARGE TO CITY SEWER

Facility Name: GRUNDY CENTER CITY OF STP
 Permit Number: 3833001

ADDITIONAL MONITORING REQUIREMENTS – GRUNDY COUNTY LANDFILL

The permittee shall analyze a representative sample of the leachate discharge from the Grundy County Landfill at least annually for each of the pollutants listed below. Also, the permittee shall monitor the volume of waste discharged and BOD₅, TSS, pH and Total Kjeldahl Nitrogen at the frequencies specified on page 13 of this permit.

Conventional Pollutants and Metals	Volatile Compounds	Acid Extractable Compounds
Biochemical Oxygen Demand (BOD ₅)	Method of Analysis: EPA Methods 624 or 1624	Method of Analysis: EPA Methods 625 or 1625
Total Organic Carbon	Chloromethane (methyl chloride)	2-Chlorophenol
Total Dissolved Solids	Bromomethane (methyl bromide)	2-Nitrophenol
Total Suspended Solids	Vinyl chloride	2,4-Dimethylphenol
Ammonia Nitrogen	Chloroethane (ethyl chloride)	Benzoic acid
pH	Methylene chloride (dichloromethane)	2,4-Dichlorophenol
Arsenic, Total (as As)	1,1-Dichloroethene (1,1-dichloroethylene)	4-Chloro-3-methylphenol
Barium, Total (as Ba)	1,1-Dichloroethane	2,4,6-Trichlorophenol
Cadmium, Total (as Cd)	1,2-Dichloroethene (1,2-dichloroethylene)	2,4,5-Trichlorophenol
Chromium, Total (as Cr)	Chloroform	2,4-Dinitrophenol
Copper, Total (as Cu)	1,2-Dichloroethane	4-Nitrophenol
Iron, Total (as Fe)	1,1,1-Trichloroethane	4,6-Dinitro-2-methylphenol
Lead, Total (as Pb)	1,1,1-Trichloroethane (methyl chloroform)	Pentachlorophenol
Mercury, Total (as Hg)	Carbon tetrachloride	
Nickel, Total (as Ni)	Bromodichloromethane	
Selenium, Total (as Se)	1,1,2,2-Tetrachloroethane	
Silver, Total (as Ag)	1,2-Dichloropropane	
Zinc, Total (as Zn)	1,3-Dichloropropene	
	Trichloroethene	
	Dibromochloromethane	
	1,1,2-Trichloroethane	
	Benzene	
	2-Chloroethyl vinyl ether	
	Bromoform	
	Tetrachloroethene	
	Toluene	
	Chlorobenzene	
	Ethylbenzene	

Facility Name: GRUNDY CENTER CITY OF STP
 Permit Number: 3833001

Chlorinated Hydrocarbon Insecticides	Base/Neutral Compounds	Base/Neutral Compounds - continued
<p>Methods of Analysis: EPA Methods 608 or 625</p> <p>Beta BHC Delta BHC Gamma BHC Heptachlor Aldrin Heptachlor epoxide Endosulfan Dieldrin 4,4'-DDE Endrin Endosulfan II 4,4'-DDD Endosulfan sulfate 4,4'-DDT Endrin aldehyde Chlordane Toxaphene</p>	<p>Methods of Analysis: EPA Methods 625 or 1625</p> <p>bis (2-chloroethyl) ether 1,3-Dichlorobenzene 1,4-Dichlorobenzene Benzyl alcohol 1,2-Dichlorobenzene bis (2-chloroisopropyl) ether N-Nitroso-dipropylamine Hexachloroethane Nitrobenzene Isophorone bis (2-chloroethoxy) methane 1,2,4-Trichlorobenzene Naphthalene Hexachlorobutadiene Hexachlorocyclopentadiene 2-Chloronaphthalene Dimethyl phthalate Acenaphthylene Acenaphthene Dibenzofuran 2,4-Dinitrotoluene 2,6-Dinitrotoluene Diethyl phthalate 4-Chlorophenyl phenyl ether Fluorene N-Nitrosodiphenylamine 4-Bromophenyl phenyl ether Hexachlorobenzene Phenanthrene Anthracene</p>	<p>Di-n-butyl phthalate Fluoranthene Pyrene Butyl benzyl phthalate 3,3'-Dichlorobenzidine Benzo (a) anthracene bis (2-ethylhexyl) phthalate Chrysene Di-n-octyl phthalate Benzo (b) fluoranthene Benzo (k) fluoranthene Benzo (a) pyrene Indeno (1,2,3-cd) pyrene Dibenz (a,h) anthracene Benzo (g,h,i) perylene</p>
<p>Polychlorinated Biphenyls</p>		
<p>Methods of Analysis: EPA Methods 608 or 625</p> <p>Arochlor-1016 Arochlor-1221 Arochlor-1232 Arochlor-1242 Arochlor-1248 Arochlor-1254 Arochlor-1260</p>		

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Outfall Number: 001

Ceriodaphnia and Pimephales Toxicity Effluent Testing

1. For facilities that have not been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within three (3) months of permit issuance. For facilities that have been required to conduct toxicity testing by a previous NPDES permit, the initial annual toxicity test shall be conducted within twelve months (12) of the last toxicity test.
2. The test organisms that are to be used for acute toxicity testing shall be *Ceriodaphnia dubia* and *Pimephales promelas*. The acute toxicity testing procedures used to demonstrate compliance with permit limits shall be those listed in 40 CFR Part 136 and adopted by reference in rule 567--63.1(1). The method for measuring acute toxicity is specified in USEPA, October 2002, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition. U.S. Environmental Protection Agency, Office of Water, Washington, D.C., EPA 821-R-02-012.
3. The diluted effluent sample must contain a minimum of 98.20 % effluent and no more than 1.80 % of culture water.
4. One valid positive toxicity result will require, at a minimum, quarterly testing for effluent toxicity until three successive tests are determined not to be positive.
5. Two successive valid positive toxicity results or three positive results out of five successive valid effluent toxicity tests will require a toxicity reduction evaluation to be completed to eliminate the toxicity.
6. A non-toxic test result shall be indicated as a "1" on the monthly operation report. A toxic test result shall be indicated as a "2" on the monthly operation report. DNR Form 542-1381 shall also be submitted to the DNR field office along with the monthly operation report.

Ceriodaphnia and Pimephales Toxicity Effluent Limits

The maximum limit of "1" for the parameters Acute Toxicity, *Ceriodaphnia* and Acute Toxicity, *Pimephales* means no positive toxicity results.

Definition: "Positive toxicity result" means a statistical difference of mortality rate between the control and the diluted effluent sample. For more information see USEPA, October 2002, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, U.S. Environmental Protection Agency, Office of Water, Washington, D.C., EPA 821-R-02-012.

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

Design Capacity

Design: 1

The design capacity for the treatment works is specified in Construction Permit Number 88048, issued Wednesday, December 09, 1987.

The treatment plant is designed to treat:

- * An average dry weather (ADW) flow of 0.4000 Million Gallons Per Day (MGD).
- * An average wet weather (AWW) flow of 1.2000 Million Gallons Per Day (MGD).
- * A maximum wet weather (MWW) flow of 3.0000 Million Gallons Per Day (MGD).
- * A design 5-day biochemical oxygen demand (BOD5) load of 1300 lbs/day.

Operator Certification Type/Grade: WW/III

Wastes in such volumes or quantities as to exceed the design capacity of the treatment works or reduce the effluent quality below that specified in the operation permit of the treatment works are considered to be a waste which interferes with the operation or performance of the treatment works and are prohibited by subrule IAC 567-62.1(7).

Facility Name: GRUNDY CENTER CITY OF STP

Permit Number: 3833001

SEWAGE SLUDGE HANDLING AND DISPOSAL REQUIREMENTS

"Sewage sludge" is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge does not include the grit and screenings generated during preliminary treatment.

1. The permittee shall comply with all existing Federal and State laws and regulations that apply to the use and disposal of sewage sludge and with technical standards developed pursuant to Section 405(d) of the Clean Water Act when such standards are promulgated. If an applicable numerical limit or management practice for pollutants in sewage sludge is promulgated after issuance of this permit that is more stringent than a sludge pollutant limit or management practice specified in existing Federal or State laws or regulations, this permit shall be modified, or revoked and reissued, to conform to the regulations promulgated under Section 405(d) of the Clean Water Act. The permittee shall comply with the limitation no later than the compliance deadline specified in the applicable regulations.
2. The permittee shall provide written notice to the Department of Natural Resources prior to any planned changes in sludge disposal practices.
3. Land application of sewage sludge shall be conducted in accordance with criteria established in rule IAC 567--67.1 through 67.11 (455B).

Facility Name: GRUNDY CENTER CITY OF STP
Permit Number: 3833001

MAJOR CONTRIBUTING INDUSTRIES LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS

- 1.** You are required to notify the department, in writing, of any of the following:
 - (a) 180 days prior to the introduction of pollutants to your facility from a significant industrial user. A significant industrial user means an industrial user of a treatment works that:
 - (1) Discharges an average of 25,000 gallons per day or more of process wastewater excluding sanitary, noncontact cooling and boiler blowdown wastewater;
 - (2) Contributes a process waste stream which makes up five percent or more of the average dry weather hydraulic or organic capacity of the publicly-owned treatment works;
 - (3) Is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or
 - (4) Is designated by the department as a significant industrial user on the basis that the contributing industry, either singly or in combination with other contributing industries, has a reasonable potential for adversely affecting the operation of or effluent quality from the publicly-owned treatment works or for violating any pretreatment standards or requirements.
 - (b) 60 days prior to a proposed expansion, production increase or process modification that may result in the discharge of a new pollutant or a discharge in excess of limitations stated in the existing treatment agreement.
 - (c) 10 days prior to any commitment by you to accept waste from any new significant industrial user. Your written notification must include a new or revised treatment agreement in accordance with rule 64.3(5)(455B).
- 2.** You shall require all users of your facility to comply with Sections 204(b), 307 and 308 of the Clean Water Act.

Section 204(b) requires that all users of the treatment works constructed with funds provided under Sections 201(g) or 601 of the Act to pay their proportionate share of the costs of operation, maintenance and replacement of the treatment works.

Section 307 of the Act requires users to comply with pretreatment standards promulgated by EPA for pollutants that would cause interference with the treatment process or would pass through the treatment works.

Section 308 of the Act requires users to allow access at reasonable times to state and EPA inspectors for the purpose of sampling the discharge and reviewing and copying records.
- 3.** You shall limit and monitor pollutants for each significant industrial user as required elsewhere in this permit, and submit sample results to the department monthly. Your report shall be submitted by the fifteenth day of the following month.

Revised: June 16, 2009 CAC

STANDARD CONDITIONS

1. ADMINISTRATIVE RULES

Rules of this Department that govern the operation of your facility in connection with this permit are published in Part 567 of the Iowa Administrative Code (IAC) in Chapters 60-65, 67, and 121. Reference to the term “rule” in this permit means the designated provision of Part 567 of the IAC. Reference to the term “CFR” means the Code of Federal Regulations.

2. DEFINITIONS

- (a) 7 day average means the sum of the total daily discharges by mass, volume, or concentration during a 7 consecutive day period, divided by the total number of days during the period that measurements were made. Four 7 consecutive day periods shall be used each month to calculate the 7-day average. The first 7-day period shall begin with the first day of the month.
- (b) 30 day average means the sum of the total daily discharges by mass, volume, or concentration during a calendar month, divided by the total number of days during the month that measurements were made.
- (c) Daily maximum means the total discharge by mass, volume, or concentration during a twenty-four hour period.

3. DUTY TO PROVIDE INFORMATION

You must furnish to the Director, within a reasonable time, any information the Director may request to determine compliance with this permit or determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, in accordance with 567 IAC 64.3(11)“c”. You must also furnish to the Director, upon request, copies of any records required to be kept by this permit.

4. MONITORING AND RECORDS OF OPERATION

- (a) Maintenance of records. You shall retain for a minimum of three years all paper and electronic records of monitoring activities and results including all original strip chart recordings for continuous monitoring instrumentation and calibration and maintenance records. *{See 567 IAC 63.2(3)}*
- (b) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than two years, or both. *{See 40 CFR 122.41(j)(5)}*

5. SIGNATORY REQUIREMENTS

Applications, reports or other information submitted to the Department in connection with this permit must be signed and certified in accordance with 567 IAC 64.3(8).

6. OTHER INFORMATION

Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, you must promptly submit such facts or information. Where you become aware that you failed to submit any relevant facts in the submission of in any report to the director, including records of operation, you shall promptly submit such facts or information. *{See 567 IAC 60.4(2)“a” and 567 IAC 63.7}*

7. TRANSFER OF TITLE OR OWNER ADDRESS CHANGE

If title to your facility, or any part of it, is transferred the new owner shall be subject to this permit. You are required to notify the new owner of the requirements of this permit in writing prior to any transfer of title. The Director shall be notified in writing within 30 days of the transfer. No transfer of the authorization to discharge from the facility represented by the permit shall take place prior to notifying the department of the transfer of title. Whenever the address of the owner is changed, the department shall be notified in writing within 30 days of the address change. Electronic notification is not sufficient; all title transfers or address changes must be reported to the department by mail. *{See 567 IAC 64.14}*

8. PROPER OPERATION AND MAINTENANCE

All facilities and control systems shall be operated as efficiently as possible and maintained in good working order. A sufficient number of staff, adequately trained and knowledgeable in the operation of your facility shall be retained at all times and adequate laboratory controls and appropriate quality assurance procedures shall be provided to maintain compliance with the conditions of this permit. *{See 40 CFR 122.41(e) and 567 IAC 64.7(7)“f”}*

9. PERMIT MODIFICATION, SUSPENSION OR REVOCATION

- (a) This permit may be modified, suspended, or revoked and reissued for cause including but not limited to those specified in 567 IAC 64.3(11).
- (b) This permit may be modified due to conditions or information on which this permit is based, including any new standard the department may adopt that would change the required effluent limits. *{See 567 IAC 64.3(11)}*
- (c) If a toxic pollutant is present in your discharge and more stringent standards for toxic pollutants are established under Section 307(a) of the Clean Water Act, this permit will be modified in accordance with the new standards. *{See 40 CFR 122.62(a)(6) and 567 IAC 64.7(7)“g”}*

The filing of a request for a permit modification, revocation or suspension, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

10. DUTY TO REAPPLY AND PERMIT CONTINUATION

If you wish to continue to discharge after the expiration date of this permit, you must file a complete application for reissuance at least 180 days prior to the expiration date of this permit. If a timely and sufficient application is submitted, this permit will remain in effect until the Department makes a final determination on the permit application. *{See 567 IAC 64.8(1) and Iowa Code 17A.18}*

11. DUTY TO COMPLY

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Issuance of this permit does not relieve you of the responsibility to comply with all local, state and federal laws, ordinances, regulations or other legal requirements applying to the operation of your facility. *{See 40 CFR 122.41(a) and 567 IAC 64.7(4)“e”}*

STANDARD CONDITIONS

12. DUTY TO MITIGATE

You shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. *{See 40 CFR 122.41(d) and 567 IAC 64.7(7)“i”}*

13. TWENTY-FOUR HOUR REPORTING

You shall report any noncompliance that may endanger human health or the environment, including, but not limited to, violations of maximum daily limits for any toxic pollutant (listed as toxic under 307(a)(1) of the Clean Water Act) or hazardous substance (as designated in 40 CFR Part 116 pursuant to 311 of the Clean Water Act). Information shall be provided orally within 24 hours from the time you become aware of the circumstances. A written submission that includes a description of noncompliance and its cause; the period of noncompliance including exact dates and times, whether the noncompliance has been corrected or the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent a recurrence of the noncompliance must be provided within 5 days of the occurrence. *{See 567 IAC 63.12}*

14. OTHER NONCOMPLIANCE

You shall report all instances of noncompliance not reported under Condition #13 at the time monitoring reports are submitted. You shall give advance notice to the appropriate regional field office of the department of any planned activity which may result in noncompliance with permit requirements. *{See 567 IAC 63.14}*

15. INSPECTION OF PREMISES, RECORDS, EQUIPMENT, METHODS AND DISCHARGES

You are required to permit authorized personnel to:

- (a) Enter upon the premises where a regulated facility or activity is located or conducted or where records are kept under conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment, practices or operations regulated or required under this permit; and
- (d) Sample or monitor, at reasonable times, to assure compliance or as otherwise authorized by the Clean Water Act.

16. FAILURE TO SUBMIT FEES

This permit may be revoked, in whole or in part, if the appropriate permit fees are not submitted within thirty (30) days of the date of notification that such fees are due. *{See 567 IAC 64.16(1)}*

17. NEED TO HALT OR REDUCE ACTIVITY

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *{See 40 CFR 122.41(c) and 567 IAC 64.7(7)“j”}*

18. NOTICE OF CHANGED CONDITIONS

You are required to notify the director of any changes in existing conditions or information on which this permit is based. This includes, but is not limited to, the following:

- (a) If your facility is a publicly owned treatment works (POTW) or otherwise may accept waste for treatment from an indirect discharger or industrial contributor (See 567 IAC 64.3(5) for further notice requirements).
- (b) If your facility is a POTW and there is any substantial change in the volume or character of pollutants being introduced to the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit. *{See 40 CFR 122.42(b)}*
- (c) As soon as you know or have reason to believe that any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in this permit. *{See 40 CFR 122.42(a)}*
- (d) If you have begun or will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

19. PLANNED CHANGES

The permittee shall give notice to the appropriate regional field office of the department 30 days prior to any planned physical alterations or additions to the permitted facility. Notice is required only when:

- (a) Notice has not been given to any other section of the department. (Note: Facility expansions, production increases, or process modifications which may result in new or increased discharges of pollutants must be reported to the Director in advance. If such discharges will exceed effluent limitations, your report must include an application for a new permit. If any modification of, addition to, or construction of a disposal system is to be made, you must first obtain a written permit from this Department. In addition, no construction activity that will result in disturbance of one acre or more shall be initiated without first obtaining coverage under NPDES General Permit No. 2 for “Storm water discharge associated with construction activity.”) *{See 567 IAC 64.7(7)“a” and 64.2}*
- (b) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as defined in 567 IAC 60.2;
- (c) The alteration or addition results in a significant change in the permittee’s sludge use or disposal practices; or
- (d) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in the permit. *{See 567 IAC 63.13 and 63.14}*

20. USE OF CERTIFIED LABORATORIES

Analyses of wastewater, groundwater or sewage sludge that are required to be submitted to the department as a result of this permit must be performed by a laboratory certified by the State of Iowa. Routine, on-site monitoring for pH, temperature, dissolved oxygen, total residual chlorine and other pollutants that must be analyzed immediately upon sample collection, settleable solids, physical measurements, and operational monitoring tests specified in 567 IAC 63.3(4) are excluded from this requirement.

STANDARD CONDITIONS

21. BYPASSES

(a) Definition. "Bypass" means the diversion of waste streams from any portion of a treatment facility or collection system. A bypass does not include internal operational waste stream diversions that are part of the design of the treatment facility, maintenance diversions where redundancy is provided, diversions of wastewater from one point in a collection system to another point in a collection system, or wastewater backups into buildings that are caused in the building lateral or private sewer line.

(b) Prohibitions.

- i. Bypasses from any portion of a treatment facility or from a sanitary sewer collection system designed to carry only sewage are prohibited.
- ii. Bypass is prohibited and the department may not assess a civil penalty against a permittee for bypass if the permittee has complied with all of the following:

- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and
- (2) There were no feasible alternatives to the bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (3) The permittee submitted notices as required by paragraph (d) of this section.

(c) The Director may approve an anticipated bypass after considering its adverse effects if the Director determines that it will meet the three conditions listed above and a request for bypass has been submitted to the Department in accordance with 567 IAC 63.6(2).

(d) Reporting bypasses. Bypasses shall be reported in accordance with 567 IAC 63.6.

22. UPSET PROVISION

(a) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(b) Effect of an upset. An upset constitutes an affirmative defense in an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph "c" of this condition are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(c) Conditions necessary for demonstration of an upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed operating logs or other relevant evidence that:

- i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated;
 - iii. The permittee submitted notice of the upset to the Department in accordance with 567 IAC 63.6(3); and
 - iv. The permittee complied with any remedial measures required in accordance with 567 IAC 63.6(6)"b".
- (d) Burden of Proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

23. PROPERTY RIGHTS

This permit does not convey any property rights of any sort or any exclusive privilege. *{See 567 IAC 64.4(3)"b"}*

24. EFFECT OF A PERMIT

Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 307, 318, 403 and 405(a)-(b) of the Clean Water Act, and equivalent limitations and standards set out in 567 IAC Chapters 61 and 62. *{See 567 IAC 64.4(3)"a"}*

25. SEVERABILITY

The provisions of this permit are severable and if any provision or application of any provision to any circumstance is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding.

Appendix G.6 - Analytical Reports - Leachate Annual Sample

ANALYTICAL REPORT

May 08, 2023

Work Order: 1GD2059

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Report To
Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

Work Order Information
Date Received: 4/20/2023 10:10:00AM
Collector: Whipple, Todd
Phone: (515) 733-4144
PO Number:

Project: Grundy Co. Landfill - Leachate

Project Number: Leachate

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GD2059-01	Leachate Tank			Matrix: Water		Collected: 04/19/23 15:15	
Dibromochloromethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Chloromethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Vinyl Chloride	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Bromomethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Chloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,1-Dichloroethylene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Methylene Chloride	<5.0 ug/L	5.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
trans-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,1-Dichloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
cis-1,2-Dichloroethylene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Chloroform	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,1,1-Trichloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Carbon Tetrachloride	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Benzene	5.6 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,2-Dichloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Trichloroethylene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,2-Dichloropropane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Bromodichloromethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
2-Chloroethylvinyl ether	<10.0 ug/L	10.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
cis-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Toluene	1.2 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
trans-1,3-Dichloropropene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,1,2-Trichloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Tetrachloroethylene	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Chlorobenzene	17.9 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Ethylbenzene	4.1 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
Bromoform	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	
1,1,2,2-Tetrachloroethane	<1.0 ug/L	1.0	1GD1146	EPA 624	MSV	04/21/23 17:14	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL = Method Reporting Limit.

HLW Engineering
PO Box 314
Story City, IA 50248

May 08, 2023
Page 2 of 30

Work Order: 1GD2059

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GD2059-01	Leachate Tank			Matrix: Water		Collected: 04/19/23 15:15	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	100 %			66-134	MSV	04/21/23 17:14	
<i>Surrogate: Toluene-d8</i>	99.2 %			91-113	MSV	04/21/23 17:14	
<i>Surrogate: 4-Bromofluorobenzene</i>	98.9 %			83-112	MSV	04/21/23 17:14	
Bis(2-Chloroethyl) Ether	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2-Chlorophenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
1,3-Dichlorobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
1,4-Dichlorobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzyl Alcohol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
1,2-Dichlorobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Bis[2-Chloroisopropyl]ether	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
n-Nitroso-di-n-propylamine	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Hexachloroethane	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Nitrobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Isophorone	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2-Nitrophenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4-Dimethylphenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Bis (2-Chloroethoxy) Methane	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzoic acid	<50 ug/L	50	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4-Dichlorophenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
1,2,4-Trichlorobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Naphthalene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Hexachlorobutadiene	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
4-Chloro-3-methylphenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Hexachlorocyclopentadiene	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4,6-Trichlorophenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4,5-Trichlorophenol	<50 ug/L	50	1GD1284	EPA 625	EPP	05/03/23 16:36	
2-Chloronaphthalene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Dimethylphthalate	<15 ug/L	15	1GD1284	EPA 625	EPP	05/03/23 16:36	
Acenaphthylene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,6-Dinitrotoluene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Acenaphthene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4-Dinitrophenol	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
Dibenzofuran	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
2,4-Dinitrotoluene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
4-Nitrophenol	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Diethyl Phthalate	<30 ug/L	30	1GD1284	EPA 625	EPP	05/03/23 16:36	
Fluorene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
4-Chlorophenyl Phenyl Ether	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	

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Work Order: 1GD2059

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GD2059-01	Leachate Tank			Matrix: Water		Collected: 04/19/23 15:15	
4,6-Dinitro-2-methylphenol	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
N-Nitrosodiphenylamine	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
4-Bromophenyl Phenyl Ether	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Hexachlorobenzene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Pentachlorophenol	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
Phenanthrene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Anthracene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Di-n-butyl Phthalate	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Fluoranthene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Pyrene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Butyl Benzyl Phthalate	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzo(a)anthracene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Chrysene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Bis(2-Ethylhexyl) Phthalate	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Di-n-octyl Phthalate	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Indeno(1,2,3-cd)Pyrene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
3,3'-Dichlorobenzidine	<20 ug/L	20	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzo(b)Fluoranthene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzo(k)Fluoranthene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzo(a)Pyrene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Dibenzo(a,h)anthracene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Benzo(g,h,i)perylene	<10 ug/L	10	1GD1284	EPA 625	EPP	05/03/23 16:36	
Surrogate: 2-Fluorophenol	67.4 %			19-139	EPP	05/03/23 16:36	
Surrogate: Phenol-d6	39.2 %			14-154	EPP	05/03/23 16:36	
Surrogate: Nitrobenzene-d5	80.4 %			17-146	EPP	05/03/23 16:36	
Surrogate: 2-Fluorobiphenyl	73.3 %			18-122	EPP	05/03/23 16:36	
Surrogate: 2,4,6-Tribromophenol	72.5 %			21-151	EPP	05/03/23 16:36	
Surrogate: Terphenyl-d14	96.5 %			27-131	EPP	05/03/23 16:36	
Gamma-BHC [Lindane]	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Beta-BHC	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Heptachlor	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Delta-BHC	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Aldrin	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Heptachlor Epoxide	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Endosulfan I	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
4,4'-DDE	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Dieldrin	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Endrin	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	

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Work Order: 1GD2059

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1GD2059-01	Leachate Tank			Matrix: Water		Collected: 04/19/23 15:15	
4,4'-DDD	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Endosulfan II	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
4,4'-DDT	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Endrin Aldehyde	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Endosulfan Sulfate	<0.05 ug/L	0.05	1GD1212	EPA 608	EPP	05/01/23 11:14	
Chlordane	<0.10 ug/L	0.10	1GD1212	EPA 608	EPP	05/01/23 11:14	
Toxaphene	<0.20 ug/L	0.20	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1016	<0.10 ug/L	0.10	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1221	<0.20 ug/L	0.20	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1232	<0.20 ug/L	0.20	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1242	<0.20 ug/L	0.20	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1248	<0.20 ug/L	0.20	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1254	<0.10 ug/L	0.10	1GD1212	EPA 608	EPP	05/01/23 11:14	
Arochlor 1260	<0.10 ug/L	0.10	1GD1212	EPA 608	EPP	05/01/23 11:14	
Surrogate: Tetrachloro-m-xylene	52.0 %			30-119	EPP	05/01/23 11:14	
Surrogate: Decachlorobiphenyl	71.7 %			19-120	EPP	05/01/23 11:14	
BOD (5 day)	20 mg/L	4	1GD1035	SM 5210 B	RMC	04/20/23 15:40	
Nitrogen, Ammonia	121 mg/L	1.00	1GE0163	TIMBERLINE	TJB	05/03/23 11:18	
pH	6.9 pH	0.5	1GD1137	SM 4500 H+ B	BSS	04/21/23 16:54	I-03
Solids, total dissolved	1450 mg/L	5	1GD1274	USGS I-1750-85	MEAH	04/26/23 16:00	
Total Organic Carbon	62.6 mg/L	5.00	1GD1232	5310B	LNH	04/24/23 15:21	
Solids, total suspended	38 mg/L	1	1GD1292	USGS I-3765-85	MEAH	04/26/23 15:30	
Silver, total	<0.0020 mg/L	0.0020	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Arsenic, total	0.0044 mg/L	0.0020	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Barium, total	0.378 mg/L	0.0020	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Cadmium, total	<0.0002 mg/L	0.0002	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Chromium, total	0.0025 mg/L	0.0020	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Copper, total	0.0038 mg/L	0.0020	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Iron, total	10.4 mg/L	0.100	1GD1130	200.7	JAR	04/25/23 4:22	
Mercury, total	<0.00050 mg/L	0.00050	1GD1233	245.1	JAR	04/27/23 9:02	
Nickel, total	0.0251 mg/L	0.0040	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Lead, total	0.0020 mg/L	0.0008	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Selenium, total	<0.0040 mg/L	0.0040	1GD1122	EPA 200.8	RVV	04/25/23 1:23	
Zinc, total	0.0219 mg/L	0.0200	1GD1122	EPA 200.8	RVV	04/25/23 1:23	

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Work Order: 1GD2059

Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1146 - EPA 5030B

Blank (1GD1146-BLK1)

Prepared & Analyzed: 04/21/23

Surrogate: 1,2-Dichloroethane-d4	50.4		ug/L	50.4080		100	66-134			
Surrogate: Toluene-d8	49.5		"	50.2360		98.5	91-113			
Surrogate: 4-Bromofluorobenzene	49.0		"	50.4200		97.3	83-112			
Chloromethane	ND	1.0	"							
Vinyl Chloride	ND	1.0	"							
Bromomethane	ND	1.0	"							
Chloroethane	ND	1.0	"							
1,1-Dichloroethylene	ND	1.0	"							
Methylene Chloride	ND	5.0	"							
trans-1,2-Dichloroethylene	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
cis-1,2-Dichloroethylene	ND	1.0	"							
Chloroform	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Carbon Tetrachloride	ND	1.0	"							
Benzene	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
Trichloroethylene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
2-Chloroethylvinyl ether	ND	10.0	"							
cis-1,3-Dichloropropene	ND	1.0	"							
Toluene	ND	1.0	"							
trans-1,3-Dichloropropene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
Tetrachloroethylene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Bromoform	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							

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Work Order: 1GD2059

Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1146 - EPA 5030B

LCS (1GD1146-BS1)

Prepared & Analyzed: 04/21/23

Surrogate: Dibromofluoromethane	55.0		ug/L	50.3520		109	79-129			
Surrogate: 1,2-Dichloroethane-d4	49.0		"	50.4080		97.3	66-134			
Surrogate: Toluene-d8	50.2		"	50.2360		100	91-113			
Surrogate: 4-Bromofluorobenzene	49.0		"	50.4200		97.2	83-112			
Chloromethane	27.82	1.0	"	30.0000		92.7	63-145			
Vinyl Chloride	28.33	1.0	"	30.0000		94.4	68-145			
Bromomethane	33.27	1.0	"	30.0000		111	69-150			
Chloroethane	32.44	1.0	"	30.0000		108	74-134			
1,1-Dichloroethylene	54.44	1.0	"	50.0000		109	76-139			
Methylene Chloride	48.90	5.0	"	50.0000		97.8	67-141			
trans-1,2-Dichloroethylene	51.51	1.0	"	50.0000		103	71-137			
1,1-Dichloroethane	51.73	1.0	"	50.0000		103	72-130			
cis-1,2-Dichloroethylene	50.67	1.0	"	50.0000		101	81-134			
2-Butanone (MEK)	95.90	10.0	"	106.200		90.3	44-158			
Chloroform	49.90	1.0	"	50.0000		99.8	76-132			
1,1,1-Trichloroethane	45.98	1.0	"	49.9750		92.0	65-122			
Carbon Tetrachloride	58.20	1.0	"	50.0000		116	66-132			
Benzene	50.93	1.0	"	50.0000		102	77-130			
1,2-Dichloroethane	49.17	1.0	"	50.0000		98.3	75-124			
Trichloroethylene	42.68	1.0	"	50.0000		85.4	79-126			
1,2-Dichloropropane	50.17	1.0	"	50.0000		100	79-128			
Dibromomethane	53.05	1.0	"	50.0000		106	71-139			
Bromodichloromethane	49.95	1.0	"	50.0000		99.9	76-122			
2-Chloroethylvinyl ether	96.42	10.0	"	103.500		93.2	50-169			
cis-1,3-Dichloropropene	50.70	1.0	"	50.3250		101	74-122			
Toluene	50.28	1.0	"	50.0000		101	76-128			
trans-1,3-Dichloropropene	49.62	1.0	"	50.4250		98.4	73-125			
1,1,2-Trichloroethane	49.74	1.0	"	50.0000		99.5	74-126			
Tetrachloroethylene	48.17	1.0	"	50.0000		96.3	68-124			
Dibromochloromethane	56.06	1.0	"	49.5000		113	76-125			
Chlorobenzene	48.24	1.0	"	50.0000		96.5	77-120			
Ethylbenzene	46.90	1.0	"	50.0000		93.8	76-118			
Xylenes, total	139.5	2.0	"	150.000		93.0	74-121			
Bromoform	61.47	1.0	"	50.0000		123	68-128			
1,1,2,2-Tetrachloroethane	49.03	1.0	"	49.8500		98.4	62-128			
1,3-Dichlorobenzene	47.51	1.0	"	50.0000		95.0	72-123			
1,4-Dichlorobenzene	49.20	1.0	"	50.0000		98.4	75-120			
1,2-Dichlorobenzene	47.85	1.0	"	50.0000		95.7	72-121			

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Work Order: 1GD2059

Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1146 - EPA 5030B

LCS Dup (1GD1146-BSD1)

Prepared & Analyzed: 04/21/23

Surrogate: Dibromofluoromethane	54.5		ug/L	50.3520	108	79-129				
Surrogate: 1,2-Dichloroethane-d4	48.2		"	50.4080	95.7	66-134				
Surrogate: Toluene-d8	50.4		"	50.2360	100	91-113				
Surrogate: 4-Bromofluorobenzene	49.3		"	50.4200	97.8	83-112				
Chloromethane	26.54	1.0	"	30.0000	88.5	63-145	4.71	27		
Vinyl Chloride	26.70	1.0	"	30.0000	89.0	68-145	5.92	30		
Bromomethane	32.36	1.0	"	30.0000	108	69-150	2.77	30		
Chloroethane	31.32	1.0	"	30.0000	104	74-134	3.51	29		
1,1-Dichloroethylene	50.77	1.0	"	50.0000	102	76-139	6.98	30		
Methylene Chloride	47.57	5.0	"	50.0000	95.1	67-141	2.76	25		
trans-1,2-Dichloroethylene	49.35	1.0	"	50.0000	98.7	71-137	4.28	29		
1,1-Dichloroethane	49.46	1.0	"	50.0000	98.9	72-130	4.49	27		
cis-1,2-Dichloroethylene	46.83	1.0	"	50.0000	93.7	81-134	7.88	23		
2-Butanone (MEK)	92.51	10.0	"	106.200	87.1	44-158	3.60	25		
Chloroform	48.40	1.0	"	50.0000	96.8	76-132	3.05	26		
1,1,1-Trichloroethane	43.90	1.0	"	49.9750	87.8	65-122	4.63	29		
Carbon Tetrachloride	55.62	1.0	"	50.0000	111	66-132	4.53	30		
Benzene	49.25	1.0	"	50.0000	98.5	77-130	3.35	27		
1,2-Dichloroethane	48.79	1.0	"	50.0000	97.6	75-124	0.776	25		
Trichloroethylene	41.63	1.0	"	50.0000	83.3	79-126	2.49	28		
1,2-Dichloropropane	48.92	1.0	"	50.0000	97.8	79-128	2.52	26		
Dibromomethane	53.27	1.0	"	50.0000	107	71-139	0.414	27		
Bromodichloromethane	49.45	1.0	"	50.0000	98.9	76-122	1.01	24		
2-Chloroethylvinyl ether	96.62	10.0	"	103.500	93.4	50-169	0.207	28		
cis-1,3-Dichloropropene	49.68	1.0	"	50.3250	98.7	74-122	2.03	27		
Toluene	49.05	1.0	"	50.0000	98.1	76-128	2.48	28		
trans-1,3-Dichloropropene	49.14	1.0	"	50.4250	97.5	73-125	0.972	27		
1,1,2-Trichloroethane	49.57	1.0	"	50.0000	99.1	74-126	0.342	26		
Tetrachloroethylene	46.93	1.0	"	50.0000	93.9	68-124	2.61	28		
Dibromochloromethane	55.98	1.0	"	49.5000	113	76-125	0.143	23		
Chlorobenzene	47.58	1.0	"	50.0000	95.2	77-120	1.38	27		
Ethylbenzene	45.71	1.0	"	50.0000	91.4	76-118	2.57	27		
Xylenes, total	138.2	2.0	"	150.000	92.1	74-121	0.944	27		
Bromoform	61.85	1.0	"	50.0000	124	68-128	0.616	25		
1,1,2,2-Tetrachloroethane	50.52	1.0	"	49.8500	101	62-128	2.99	28		
1,3-Dichlorobenzene	47.58	1.0	"	50.0000	95.2	72-123	0.147	29		
1,4-Dichlorobenzene	48.90	1.0	"	50.0000	97.8	75-120	0.612	26		
1,2-Dichlorobenzene	48.24	1.0	"	50.0000	96.5	72-121	0.812	30		

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Work Order: 1GD2059

Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1146 - EPA 5030B

Matrix Spike (1GD1146-MS1)	Source: 1GD2133-01			Prepared & Analyzed: 04/21/23						
Surrogate: Dibromofluoromethane	570		ug/L	503.520		113	79-129			
Surrogate: 1,2-Dichloroethane-d4	499		"	504.080		99.0	66-134			
Surrogate: Toluene-d8	503		"	502.360		100	91-113			
Surrogate: 4-Bromofluorobenzene	490		"	504.200		97.3	83-112			
Chloromethane	291.0	10.0	"	300.000	ND	97.0	50-155			
Vinyl Chloride	310.3	10.0	"	300.000	ND	103	64-148			
Bromomethane	265.7	10.0	"	300.000	ND	88.6	50-159			
Chloroethane	360.2	10.0	"	300.000	ND	120	65-144			
1,1-Dichloroethylene	592.7	10.0	"	500.000	ND	119	78-139			
Methylene Chloride	519.5	50.0	"	500.000	ND	104	65-144			
trans-1,2-Dichloroethylene	561.8	10.0	"	500.000	ND	112	67-142			
1,1-Dichloroethane	554.8	10.0	"	500.000	ND	111	71-133			
cis-1,2-Dichloroethylene	539.0	10.0	"	500.000	ND	108	76-142			
2-Butanone (MEK)	830.0	100	"	1062.00	ND	78.2	48-169			
Chloroform	531.1	10.0	"	500.000	ND	106	75-133			
1,1,1-Trichloroethane	498.3	10.0	"	499.750	ND	99.7	66-120			
Carbon Tetrachloride	607.9	10.0	"	500.000	ND	122	67-132			
Benzene	522.7	10.0	"	500.000	ND	105	79-128			
1,2-Dichloroethane	514.5	10.0	"	500.000	ND	103	74-124			
Trichloroethylene	439.6	10.0	"	500.000	ND	87.9	82-122			
1,2-Dichloropropane	524.5	10.0	"	500.000	ND	105	80-126			
Dibromomethane	552.8	10.0	"	500.000	ND	111	62-141			
Bromodichloromethane	511.1	10.0	"	500.000	ND	102	77-119			
2-Chloroethylvinyl ether	988.5	100	"	1035.00	ND	95.5	10-157			
cis-1,3-Dichloropropene	481.6	10.0	"	503.250	ND	95.7	69-120			
Toluene	518.4	10.0	"	500.000	ND	104	80-125			
trans-1,3-Dichloropropene	475.1	10.0	"	504.250	ND	94.2	70-122			
1,1,2-Trichloroethane	513.3	10.0	"	500.000	ND	103	73-127			
Tetrachloroethylene	503.3	10.0	"	500.000	ND	101	70-122			
Dibromochloromethane	559.0	10.0	"	495.000	ND	113	75-122			
Chlorobenzene	505.2	10.0	"	500.000	ND	101	81-114			
Ethylbenzene	487.4	10.0	"	500.000	ND	97.5	79-113			
Xylenes, total	1437	20.0	"	1500.00	ND	95.8	79-114			
Bromoform	594.5	10.0	"	500.000	ND	119	66-126			
1,1,2,2-Tetrachloroethane	523.2	10.0	"	498.500	ND	105	56-132			
1,3-Dichlorobenzene	486.3	10.0	"	500.000	ND	97.3	69-125			
1,4-Dichlorobenzene	504.3	10.0	"	500.000	ND	101	73-119			
1,2-Dichlorobenzene	493.7	10.0	"	500.000	ND	98.7	71-117			

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Work Order: 1GD2059

Determination of Volatile Organic Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1146 - EPA 5030B

Matrix Spike Dup (1GD1146-MSD1)

Source: 1GD2133-01

Prepared & Analyzed: 04/21/23

Surrogate: Dibromofluoromethane	573		ug/L	503.520		114	79-129			
Surrogate: 1,2-Dichloroethane-d4	501		"	504.080		99.4	66-134			
Surrogate: Toluene-d8	502		"	502.360		99.9	91-113			
Surrogate: 4-Bromofluorobenzene	490		"	504.200		97.1	83-112			
Chloromethane	276.6	10.0	"	300.000	ND	92.2	50-155	5.07	19	
Vinyl Chloride	287.7	10.0	"	300.000	ND	95.9	64-148	7.56	24	
Bromomethane	296.6	10.0	"	300.000	ND	98.9	50-159	11.0	17	
Chloroethane	337.7	10.0	"	300.000	ND	113	65-144	6.45	28	
1,1-Dichloroethylene	561.8	10.0	"	500.000	ND	112	78-139	5.35	20	
Methylene Chloride	503.2	50.0	"	500.000	ND	101	65-144	3.19	16	
trans-1,2-Dichloroethylene	533.5	10.0	"	500.000	ND	107	67-142	5.17	18	
1,1-Dichloroethane	537.3	10.0	"	500.000	ND	107	71-133	3.20	16	
cis-1,2-Dichloroethylene	522.1	10.0	"	500.000	ND	104	76-142	3.19	17	
2-Butanone (MEK)	850.0	100	"	1062.00	ND	80.0	48-169	2.38	17	
Chloroform	519.9	10.0	"	500.000	ND	104	75-133	2.13	16	
1,1,1-Trichloroethane	486.2	10.0	"	499.750	ND	97.3	66-120	2.46	15	
Carbon Tetrachloride	600.6	10.0	"	500.000	ND	120	67-132	1.21	15	
Benzene	513.3	10.0	"	500.000	ND	103	79-128	1.81	12	
1,2-Dichloroethane	501.4	10.0	"	500.000	ND	100	74-124	2.58	12	
Trichloroethylene	414.9	10.0	"	500.000	ND	83.0	82-122	5.78	13	
1,2-Dichloropropane	503.4	10.0	"	500.000	ND	101	80-126	4.11	10	
Dibromomethane	540.0	10.0	"	500.000	ND	108	62-141	2.34	11	
Bromodichloromethane	502.9	10.0	"	500.000	ND	101	77-119	1.62	10	
2-Chloroethylvinyl ether	983.8	100	"	1035.00	ND	95.1	10-157	0.477	30	
cis-1,3-Dichloropropene	481.6	10.0	"	503.250	ND	95.7	69-120	0.00	10	
Toluene	501.9	10.0	"	500.000	ND	100	80-125	3.23	12	
trans-1,3-Dichloropropene	474.7	10.0	"	504.250	ND	94.1	70-122	0.0842	10	
1,1,2-Trichloroethane	509.2	10.0	"	500.000	ND	102	73-127	0.802	10	
Tetrachloroethylene	487.4	10.0	"	500.000	ND	97.5	70-122	3.21	15	
Dibromochloromethane	556.3	10.0	"	495.000	ND	112	75-122	0.484	12	
Chlorobenzene	490.2	10.0	"	500.000	ND	98.0	81-114	3.01	12	
Ethylbenzene	476.6	10.0	"	500.000	ND	95.3	79-113	2.24	13	
Xylenes, total	1427	20.0	"	1500.00	ND	95.1	79-114	0.726	12	
Bromoform	612.0	10.0	"	500.000	ND	122	66-126	2.90	16	
1,1,2,2-Tetrachloroethane	534.2	10.0	"	498.500	ND	107	56-132	2.08	29	
1,3-Dichlorobenzene	481.1	10.0	"	500.000	ND	96.2	69-125	1.08	18	
1,4-Dichlorobenzene	493.9	10.0	"	500.000	ND	98.8	73-119	2.08	21	
1,2-Dichlorobenzene	489.5	10.0	"	500.000	ND	97.9	71-117	0.854	23	

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Work Order: 1GD2059

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

Blank (1GD1284-BLK1)

Prepared: 04/25/23 Analyzed: 05/03/23

Surrogate: 2-Fluorophenol	18.8		ug/L	60.6000		31.1	19-139			
Surrogate: Phenol-d6	27.8		"	61.9000		44.8	14-154			
Surrogate: Nitrobenzene-d5	41.1		"	62.8500		65.3	17-146			
Surrogate: 2-Fluorobiphenyl	32.5		"	61.0000		53.2	18-122			
Surrogate: 2,4,6-Tribromophenol	25.6		"	62.2500		41.2	21-151			
Surrogate: Terphenyl-d14	61.4		"	65.1000		94.4	27-131			
Bis(2-Chloroethyl) Ether	ND	10	"							
2-Chlorophenol	ND	10	"							
1,3-Dichlorobenzene	ND	10	"							
1,4-Dichlorobenzene	ND	10	"							
Benzyl Alcohol	ND	10	"							
1,2-Dichlorobenzene	ND	10	"							
Bis[2-Chloroisopropyl]ether	ND	10	"							
n-Nitroso-di-n-propylamine	ND	10	"							
Hexachloroethane	ND	10	"							
Nitrobenzene	ND	10	"							
Isophorone	ND	10	"							
2-Nitrophenol	ND	10	"							
2,4-Dimethylphenol	ND	10	"							
Bis (2-Chloroethoxy) Methane	ND	10	"							
Benzoic acid	ND	50	"							
2,4-Dichlorophenol	ND	10	"							
1,2,4-Trichlorobenzene	ND	10	"							
Naphthalene	ND	10	"							
Hexachlorobutadiene	ND	20	"							
4-Chloro-3-methylphenol	ND	10	"							
Hexachlorocyclopentadiene	ND	20	"							
2,4,6-Trichlorophenol	ND	10	"							
2,4,5-Trichlorophenol	ND	50	"							
2-Chloronaphthalene	ND	10	"							
Dimethylphthalate	ND	15	"							
Acenaphthylene	ND	10	"							
2,6-Dinitrotoluene	ND	10	"							
Acenaphthene	ND	10	"							
2,4-Dinitrophenol	ND	20	"							
Dibenzofuran	ND	10	"							
2,4-Dinitrotoluene	ND	10	"							
4-Nitrophenol	ND	10	"							

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

Blank (1GD1284-BLK1)

Prepared: 04/25/23 Analyzed: 05/03/23

Diethyl Phthalate	ND	30	ug/L							
Fluorene	ND	10	"							
4-Chlorophenyl Phenyl Ether	ND	10	"							
4,6-Dinitro-2-methylphenol	ND	20	"							
N-Nitrosodiphenylamine	ND	10	"							
4-Bromophenyl Phenyl Ether	ND	10	"							
Hexachlorobenzene	ND	10	"							
Pentachlorophenol	ND	20	"							
Phenanthrene	ND	10	"							
Anthracene	ND	10	"							
Di-n-butyl Phthalate	ND	10	"							
Fluoranthene	ND	10	"							
Pyrene	ND	10	"							
Butyl Benzyl Phthalate	ND	10	"							
Benzo(a)anthracene	ND	10	"							
Chrysene	ND	10	"							
Bis(2-Ethylhexyl) Phthalate	ND	10	"							
Di-n-octyl Phthalate	ND	10	"							
Indeno(1,2,3-cd)Pyrene	ND	10	"							
3,3'-Dichlorobenzidine	ND	20	"							
Benzo(b)Fluoranthene	ND	10	"							
Benzo(k)Fluoranthene	ND	10	"							
Benzo(a)Pyrene	ND	10	"							
Dibenzo(a,h)anthracene	ND	10	"							
Benzo(g,h,i)perylene	ND	10	"							

LCS (1GD1284-BS1)

Prepared: 04/25/23 Analyzed: 05/03/23

Surrogate: 2-Fluorophenol	33.7		ug/L	60.6000	55.6	19-139				
Surrogate: Phenol-d6	22.7		"	61.9000	36.7	14-154				
Surrogate: Nitrobenzene-d5	48.7		"	62.8500	77.4	17-146				
Surrogate: 2-Fluorobiphenyl	46.3		"	61.0000	75.9	18-122				
Surrogate: 2,4,6-Tribromophenol	43.5		"	62.2500	69.8	21-151				
Surrogate: Terphenyl-d14	68.7		"	65.1000	106	27-131				
Bis(2-Chloroethyl) Ether	32.0	10	"	41.6667	76.9	35-150				
2-Chlorophenol	32.4	10	"	41.6667	77.9	51-117				
1,3-Dichlorobenzene	18.2	10	"	41.6667	43.7	27-91.3				
1,4-Dichlorobenzene	20.4	10	"	41.6667	49.1	28-92.6				
Benzyl Alcohol	6.7	10	"	41.6667	16.1	22-147				QS-03
1,2-Dichlorobenzene	20.3	10	"	41.6667	48.6	32-94.8				

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

LCS (1GD1284-BS1)

Prepared: 04/25/23 Analyzed: 05/03/23

Bis[2-Chloroisopropyl]ether	29.9	10	ug/L	41.6667	71.7	40-125
n-Nitroso-di-n-propylamine	35.0	10	"	41.6667	84.0	47-136
Hexachloroethane	15.8	10	"	41.6667	37.9	13-110
Nitrobenzene	35.5	10	"	41.6667	85.2	46-133
Isophorone	33.5	10	"	41.6667	80.4	48-130
2-Nitrophenol	26.4	10	"	41.6667	63.3	54-116
2,4-Dimethylphenol	34.8	10	"	41.6667	83.5	47-121
Bis (2-Chloroethoxy) Methane	31.9	10	"	41.6667	76.6	25-110
2,4-Dichlorophenol	32.8	10	"	41.6667	78.8	50-118
1,2,4-Trichlorobenzene	25.5	10	"	41.6667	61.2	27-95.5
Naphthalene	27.1	10	"	41.6667	65.1	42-107
Hexachlorobutadiene	17.6	20	"	41.6667	42.3	10-110
4-Chloro-3-methylphenol	33.1	10	"	41.6667	79.5	54-138
Hexachlorocyclopentadiene	25.6	20	"	41.6667	61.4	10-110
2,4,6-Trichlorophenol	27.6	10	"	41.6667	66.3	46-127
2,4,5-Trichlorophenol	30.9	50	"	41.6667	74.2	62-119
2-Chloronaphthalene	32.2	10	"	41.6667	77.2	38-118
Dimethylphthalate	36.9	15	"	41.6667	88.5	58-125
Acenaphthylene	31.7	10	"	41.6667	76.0	41-116
2,6-Dinitrotoluene	31.4	10	"	41.6667	75.5	58-126
Acenaphthene	31.2	10	"	41.6667	74.8	45-117
2,4-Dinitrophenol	13.7	20	"	41.6667	32.9	21-138
Dibenzofuran	34.5	10	"	41.6667	82.8	51-126
2,4-Dinitrotoluene	32.9	10	"	41.6667	79.0	52-134
4-Nitrophenol	25.5	10	"	41.6667	61.2	41-149
Diethyl Phthalate	38.1	30	"	41.6667	91.4	53-132
Fluorene	34.4	10	"	41.6667	82.5	47-126
4-Chlorophenyl Phenyl Ether	32.8	10	"	41.6667	78.7	47-124
4,6-Dinitro-2-methylphenol	22.9	20	"	41.6667	55.0	50-139
N-Nitrosodiphenylamine	31.6	10	"	41.6667	75.8	29-129
4-Bromophenyl Phenyl Ether	34.3	10	"	41.6667	82.2	48-125
Hexachlorobenzene	33.6	10	"	41.6667	80.7	29-137
Pentachlorophenol	17.7	20	"	41.6667	42.6	15-154
Phenanthrene	32.8	10	"	41.6667	78.8	45-136
Anthracene	36.8	10	"	41.6667	88.3	43-135
Di-n-butyl Phthalate	37.5	10	"	41.6667	90.0	42-153
Fluoranthene	37.6	10	"	41.6667	90.1	42-143
Pyrene	41.6	10	"	41.6667	99.9	40-146
Butyl Benzyl Phthalate	44.4	10	"	41.6667	107	40-151

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

LCS (1GD1284-BS1)		Prepared: 04/25/23 Analyzed: 05/03/23								
Benzo(a)anthracene	37.8	10	ug/L	41.6667	90.7	48-136				
Chrysene	37.3	10	"	41.6667	89.6	50-136				
Bis(2-Ethylhexyl) Phthalate	46.5	10	"	41.6667	112	34-180				
Di-n-octyl Phthalate	55.6	10	"	41.6667	134	40-165				
Indeno(1,2,3-cd)Pyrene	23.6	10	"	41.6667	56.8	39-152				
Benzo(b)Fluoranthene	33.1	10	"	41.6667	79.4	52-140				
Benzo(k)Fluoranthene	47.8	10	"	41.6667	115	47-147				
Benzo(a)Pyrene	36.2	10	"	41.6667	87.0	38-142				
Dibenzo(a,h)anthracene	20.8	10	"	41.6667	49.8	37-153				
Benzo(g,h,i)perylene	20.7	10	"	41.6667	49.7	39-157				

LCS Dup (1GD1284-BSD1)		Prepared: 04/25/23 Analyzed: 05/03/23								
Surrogate: 2-Fluorophenol	26.7		ug/L	60.6000	44.0	19-139				
Surrogate: Phenol-d6	24.9		"	61.9000	40.2	14-154				
Surrogate: Nitrobenzene-d5	32.2		"	62.8500	51.3	17-146				
Surrogate: 2-Fluorobiphenyl	32.6		"	61.0000	53.5	18-122				
Surrogate: 2,4,6-Tribromophenol	27.2		"	62.2500	43.6	21-151				
Surrogate: Terphenyl-d14	63.1		"	65.1000	96.9	27-131				
Bis(2-Chloroethyl) Ether	27.4	10	"	41.6667	65.7	35-150	15.8	30		
2-Chlorophenol	22.4	10	"	41.6667	53.7	51-117	36.8	27		QR-02
1,3-Dichlorobenzene	10.6	10	"	41.6667	25.5	27-91.3	52.8	30		QS-03
1,4-Dichlorobenzene	11.0	10	"	41.6667	26.4	28-92.6	60.0	30		QS-03
Benzyl Alcohol	8.9	10	"	41.6667	21.5	22-147	28.6	30		QS-03
1,2-Dichlorobenzene	12.4	10	"	41.6667	29.7	32-94.8	48.3	30		QS-03
Bis[2-Chloroisopropyl]ether	20.8	10	"	41.6667	49.9	40-125	35.9	26		QR-02
n-Nitroso-di-n-propylamine	24.0	10	"	41.6667	57.6	47-136	37.2	29		QR-02
Hexachloroethane	8.4	10	"	41.6667	20.0	13-110	61.6	30		QR-02
Nitrobenzene	21.6	10	"	41.6667	51.8	46-133	48.7	19		QR-02
Isophorone	23.5	10	"	41.6667	56.4	48-130	35.0	23		QR-02
2-Nitrophenol	15.9	10	"	41.6667	38.2	54-116	49.5	25		QS-03
2,4-Dimethylphenol	23.5	10	"	41.6667	56.4	47-121	38.7	29		QR-02
Bis (2-Chloroethoxy) Methane	21.6	10	"	41.6667	51.9	25-110	38.4	30		QR-02
2,4-Dichlorophenol	23.3	10	"	41.6667	55.9	50-118	34.0	21		QR-02
1,2,4-Trichlorobenzene	17.4	10	"	41.6667	41.7	27-95.5	37.8	30		QR-02
Naphthalene	17.1	10	"	41.6667	41.0	42-107	45.4	26		QS-03
Hexachlorobutadiene	12.3	20	"	41.6667	29.6	10-110	35.4	30		QR-02
4-Chloro-3-methylphenol	22.6	10	"	41.6667	54.1	54-138	38.0	12		QR-02
Hexachlorocyclopentadiene	11.4	20	"	41.6667	27.5	10-110	76.4	30		QR-02
2,4,6-Trichlorophenol	16.8	10	"	41.6667	40.4	46-127	48.6	21		QS-03

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Work Order: 1GD2059

Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

LCS Dup (1GD1284-BS01)

Prepared: 04/25/23 Analyzed: 05/03/23

2,4,5-Trichlorophenol	23.7	50	ug/L	41.6667	56.9	62-119	26.5	15	QS-03
2-Chloronaphthalene	22.8	10	"	41.6667	54.7	38-118	34.0	24	QR-02
Dimethylphthalate	24.4	15	"	41.6667	58.6	58-125	40.7	20	QR-02
Acenaphthylene	23.9	10	"	41.6667	57.4	41-116	27.9	30	
2,6-Dinitrotoluene	21.9	10	"	41.6667	52.6	58-126	35.7	20	QS-03
Acenaphthene	26.6	10	"	41.6667	64.0	45-117	15.6	27	
2,4-Dinitrophenol	9.1	20	"	41.6667	21.9	21-138	40.3	22	QR-02
Dibenzofuran	26.2	10	"	41.6667	62.9	51-126	27.3	15	QR-02
2,4-Dinitrotoluene	21.6	10	"	41.6667	51.8	52-134	41.6	22	QS-03
4-Nitrophenol	18.1	10	"	41.6667	43.4	41-149	34.0	28	QR-02
Diethyl Phthalate	26.3	30	"	41.6667	63.1	53-132	36.7	22	QR-02
Fluorene	28.3	10	"	41.6667	67.9	47-126	19.3	27	
4-Chlorophenyl Phenyl Ether	26.1	10	"	41.6667	62.7	47-124	22.7	20	QR-02
4,6-Dinitro-2-methylphenol	15.0	20	"	41.6667	36.0	50-139	41.7	25	QS-03
N-Nitrosodiphenylamine	21.5	10	"	41.6667	51.5	29-129	38.1	30	QR-02
4-Bromophenyl Phenyl Ether	28.2	10	"	41.6667	67.7	48-125	19.4	18	QR-02
Hexachlorobenzene	30.0	10	"	41.6667	72.0	29-137	11.4	30	
Pentachlorophenol	16.6	20	"	41.6667	39.8	15-154	6.76	29	
Phenanthrene	30.5	10	"	41.6667	73.2	45-136	7.42	27	
Anthracene	31.4	10	"	41.6667	75.4	43-135	15.7	28	
Di-n-butyl Phthalate	31.3	10	"	41.6667	75.0	42-153	18.1	29	
Fluoranthene	33.7	10	"	41.6667	80.8	42-143	10.9	30	
Pyrene	37.3	10	"	41.6667	89.5	40-146	11.0	25	
Butyl Benzyl Phthalate	39.4	10	"	41.6667	94.6	40-151	12.0	29	
Benzo(a)anthracene	35.0	10	"	41.6667	84.0	48-136	7.58	30	
Chrysene	34.8	10	"	41.6667	83.4	50-136	7.16	30	
Bis(2-Ethylhexyl) Phthalate	41.4	10	"	41.6667	99.3	34-180	11.7	30	
Di-n-octyl Phthalate	50.8	10	"	41.6667	122	40-165	9.16	30	
Indeno(1,2,3-cd)Pyrene	21.8	10	"	41.6667	52.3	39-152	8.23	30	
Benzo(b)Fluoranthene	31.5	10	"	41.6667	75.6	52-140	4.92	30	
Benzo(k)Fluoranthene	43.2	10	"	41.6667	104	47-147	10.3	30	
Benzo(a)Pyrene	32.1	10	"	41.6667	77.0	38-142	12.1	30	
Dibenzo(a,h)anthracene	19.1	10	"	41.6667	45.8	37-153	8.38	30	
Benzo(g,h,i)perylene	18.9	10	"	41.6667	45.5	39-157	8.93	30	

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

Reference (1GD1284-SRM1)

Prepared: 04/25/23 Analyzed: 05/03/23

Surrogate: 2-Fluorophenol	46.1		ug/L	60.6000		76.1	19-139			
Surrogate: Phenol-d6	50.3		"	61.9000		81.3	14-154			
Surrogate: Nitrobenzene-d5	59.7		"	62.8500		95.0	17-146			
Surrogate: 2-Fluorobiphenyl	54.8		"	61.0000		89.9	18-122			
Surrogate: 2,4,6-Tribromophenol	55.8		"	62.2500		89.6	21-151			
Surrogate: Terphenyl-d14	69.2		"	65.1000		106	27-131			
Bis(2-Chloroethyl) Ether	49.5	10	"	41.6667		119	80-120			
2-Chlorophenol	33.2	10	"	41.6667		79.6	80-120			QR-06
1,3-Dichlorobenzene	35.6	10	"	41.6667		85.5	80-120			
1,4-Dichlorobenzene	37.3	10	"	41.6667		89.6	80-120			
Benzyl Alcohol	20.2	10	"	41.6667		48.4	80-120			QR-06
1,2-Dichlorobenzene	34.9	10	"	41.6667		83.8	80-120			
Bis[2-Chloroisopropyl]ether	32.0	10	"	41.6667		76.7	80-120			QR-06
n-Nitroso-di-n-propylamine	36.4	10	"	41.6667		87.5	80-120			
Hexachloroethane	38.0	10	"	41.6667		91.1	80-120			
Nitrobenzene	43.1	10	"	41.6667		103	80-120			
Isophorone	38.7	10	"	41.6667		92.9	80-120			
2-Nitrophenol	35.6	10	"	41.6667		85.5	80-120			
2,4-Dimethylphenol	40.4	10	"	41.6667		96.8	80-120			
Bis (2-Chloroethoxy) Methane	40.1	10	"	41.6667		96.2	80-120			
2,4-Dichlorophenol	38.4	10	"	41.6667		92.2	80-120			
1,2,4-Trichlorobenzene	39.1	10	"	41.6667		93.8	80-120			
Naphthalene	37.3	10	"	41.6667		89.4	80-120			
Hexachlorobutadiene	40.0	20	"	41.6667		95.9	80-120			
4-Chloro-3-methylphenol	36.2	10	"	41.6667		87.0	80-120			
Hexachlorocyclopentadiene	43.1	20	"	41.6667		103	80-120			
2,4,6-Trichlorophenol	37.9	10	"	41.6667		91.0	80-120			
2,4,5-Trichlorophenol	41.2	50	"	41.6667		98.8	80-120			
2-Chloronaphthalene	38.8	10	"	41.6667		93.2	80-120			
Dimethylphthalate	38.2	15	"	41.6667		91.7	80-120			
Acenaphthylene	36.1	10	"	41.6667		86.6	80-120			
2,6-Dinitrotoluene	31.7	10	"	41.6667		76.1	80-120			QR-06
Acenaphthene	35.0	10	"	41.6667		84.0	80-120			
2,4-Dinitrophenol	29.7	20	"	41.6667		71.3	80-120			QR-06
Dibenzofuran	34.7	10	"	41.6667		83.3	80-120			
2,4-Dinitrotoluene	32.4	10	"	41.6667		77.9	80-120			QR-06
4-Nitrophenol	37.0	10	"	41.6667		88.7	80-120			
Diethyl Phthalate	38.4	30	"	41.6667		92.1	80-120			

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Determination of Base/Neutral/Acid Extractable Compounds - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1284 - EPA 625 BNA

Reference (1GD1284-SRM1)	Prepared: 04/25/23 Analyzed: 05/03/23									
Fluorene	35.6	10	ug/L	41.6667		85.6	80-120			
4-Chlorophenyl Phenyl Ether	37.2	10	"	41.6667		89.2	80-120			
4,6-Dinitro-2-methylphenol	34.2	20	"	41.6667		82.0	80-120			
N-Nitrosodiphenylamine	33.2	10	"	41.6667		79.7	80-120			QR-06
4-Bromophenyl Phenyl Ether	36.4	10	"	41.6667		87.5	80-120			
Hexachlorobenzene	36.4	10	"	41.6667		87.2	80-120			
Pentachlorophenol	23.9	20	"	41.6667		57.4	80-120			QR-06
Phenanthrene	35.6	10	"	41.6667		85.4	80-120			
Anthracene	37.8	10	"	41.6667		90.6	80-120			
Di-n-butyl Phthalate	38.9	10	"	41.6667		93.3	80-120			
Fluoranthene	39.1	10	"	41.6667		93.9	80-120			
Pyrene	42.3	10	"	41.6667		102	80-120			
Butyl Benzyl Phthalate	44.7	10	"	41.6667		107	80-120			
Benzo(a)anthracene	38.8	10	"	41.6667		93.0	80-120			
Chrysene	38.9	10	"	41.6667		93.4	80-120			
Bis(2-Ethylhexyl) Phthalate	42.4	10	"	41.6667		102	80-120			
Di-n-octyl Phthalate	59.0	10	"	41.6667		142	80-120			QR-06
Indeno(1,2,3-cd)Pyrene	24.6	10	"	41.6667		59.0	80-120			QR-06
Benzo(b)Fluoranthene	36.6	10	"	41.6667		87.9	80-120			
Benzo(k)Fluoranthene	45.8	10	"	41.6667		110	80-120			
Benzo(a)Pyrene	36.3	10	"	41.6667		87.1	80-120			
Dibenzo(a,h)anthracene	21.2	10	"	41.6667		50.9	80-120			QR-06
Benzo(g,h,i)perylene	23.3	10	"	41.6667		56.0	80-120			QR-06

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Determination of Organochlorine Insecticides & PCBs - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1212 - EPA 608 PCB

Blank (1GD1212-BLK1)

Prepared: 04/24/23 Analyzed: 05/01/23

Surrogate: Decachlorobiphenyl	0.202		ug/L	0.600000		33.6	19-120			
Surrogate: Tetrachloro-m-xylene	0.256		"	0.600000		42.7	30-119			
Gamma-BHC [Lindane]	ND	0.05	"							
Beta-BHC	ND	0.05	"							
Heptachlor	ND	0.05	"							
Delta-BHC	ND	0.05	"							
Aldrin	ND	0.05	"							
Heptachlor Epoxide	ND	0.05	"							
Endosulfan I	ND	0.05	"							
4,4'-DDE	ND	0.05	"							
Dieldrin	ND	0.05	"							
Endrin	ND	0.05	"							
4,4'-DDD	ND	0.05	"							
Endosulfan II	ND	0.05	"							
4,4'-DDT	ND	0.05	"							
Endrin Aldehyde	ND	0.05	"							
Endosulfan Sulfate	ND	0.05	"							
Chlordane	ND	0.10	"							
Toxaphene	ND	0.20	"							
Arochlor 1016	ND	0.10	"							
Arochlor 1221	ND	0.20	"							
Arochlor 1232	ND	0.20	"							
Arochlor 1242	ND	0.20	"							
Arochlor 1248	ND	0.20	"							
Arochlor 1254	ND	0.10	"							
Arochlor 1260	ND	0.10	"							

LCS (1GD1212-BS1)

Prepared: 04/24/23 Analyzed: 05/01/23

Surrogate: Decachlorobiphenyl	0.317		ug/L	0.600000		52.9	19-120			
Surrogate: Tetrachloro-m-xylene	0.397		"	0.600000		66.1	30-119			
Gamma-BHC [Lindane]	0.096	0.05	"	0.250000		38.3	37-127			
Beta-BHC	0.067	0.05	"	0.250000		26.7	36-131			QS-03
Heptachlor	0.156	0.05	"	0.250000		62.6	36-128			
Delta-BHC	0.138	0.05	"	0.250000		55.4	29-147			
Aldrin	0.080	0.05	"	0.250000		32.0	41-120			QS-03
Heptachlor Epoxide	0.125	0.05	"	0.250000		49.9	50-132			QS-03
Endosulfan I	0.108	0.05	"	0.250000		43.2	50-133			QS-03
4,4'-DDE	0.098	0.05	"	0.250000		39.3	46-140			QS-03
Dieldrin	0.083	0.05	"	0.250000		33.1	41-138			QS-03

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1212 - EPA 608 PCB

LCS (1GD1212-BS1)		Prepared: 04/24/23 Analyzed: 05/01/23								
Endrin	0.020	0.05	ug/L	0.250000		8.05	32-152			QS-03
4,4'-DDD	0.130	0.05	"	0.250000		52.1	44-150			
Endosulfan II	0.113	0.05	"	0.250000		45.1	45-141			
4,4'-DDT	0.141	0.05	"	0.250000		56.3	46-145			
Endrin Aldehyde	0.151	0.05	"	0.250000		60.5	33-145			
Endosulfan Sulfate	0.136	0.05	"	0.250000		54.5	52-133			

LCS Dup (1GD1212-BS1)		Prepared: 04/24/23 Analyzed: 05/01/23								
Surrogate: Tetrachloro-m-xylene	0.0896		ug/L	0.600000		14.9	30-119			A-01
Surrogate: Decachlorobiphenyl	ND		"	0.600000			19-120			A-01
Gamma-BHC [Lindane]	0.015	0.05	"	0.250000		6.20	37-127	144	30	A-01
Beta-BHC	ND	0.05	"	0.250000			36-131		30	A-01
Heptachlor	0.013	0.05	"	0.250000		5.31	36-128	169	30	A-01
Delta-BHC	ND	0.05	"	0.250000			29-147		30	A-01
Aldrin	ND	0.05	"	0.250000			41-120		30	A-01
Heptachlor Epoxide	ND	0.05	"	0.250000			50-132		30	A-01
Endosulfan I	ND	0.05	"	0.250000			50-133		30	A-01
4,4'-DDE	ND	0.05	"	0.250000			46-140		30	A-01
Dieldrin	0.012	0.05	"	0.250000		4.76	41-138	150	30	A-01
Endrin	ND	0.05	"	0.250000			32-152		30	A-01
4,4'-DDD	0.018	0.05	"	0.250000		7.36	44-150	150	30	A-01
Endosulfan II	ND	0.05	"	0.250000			45-141		30	A-01
4,4'-DDT	0.017	0.05	"	0.250000		6.84	46-145	157	30	A-01
Endrin Aldehyde	0.014	0.05	"	0.250000		5.72	33-145	165	30	A-01
Endosulfan Sulfate	ND	0.05	"	0.250000			52-133		30	A-01

Reference (1GD1212-SRM1)		Prepared: 04/24/23 Analyzed: 05/01/23								
Surrogate: Tetrachloro-m-xylene	0.454		ug/L	0.600000		75.6	30-119			
Surrogate: Decachlorobiphenyl	0.478		"	0.600000		79.7	19-120			
Gamma-BHC [Lindane]	0.225	0.05	"	0.250000		90.2	80-120			
Beta-BHC	0.217	0.05	"	0.250000		86.9	80-120			
Heptachlor	0.246	0.05	"	0.250000		98.3	80-120			
Delta-BHC	0.219	0.05	"	0.250000		87.8	80-120			
Aldrin	0.220	0.05	"	0.250000		88.1	80-120			
Heptachlor Epoxide	0.245	0.05	"	0.250000		98.0	80-120			
Endosulfan I	0.239	0.05	"	0.250000		95.5	80-120			
4,4'-DDE	0.247	0.05	"	0.250000		98.7	80-120			
Dieldrin	0.242	0.05	"	0.250000		97.0	80-120			
Endrin	0.270	0.05	"	0.250000		108	80-120			

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Determination of Organochlorine Insecticides & PCBs - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1212 - EPA 608 PCB

Reference (1GD1212-SRM1)

Prepared: 04/24/23 Analyzed: 05/01/23

4,4'-DDD	0.257	0.05	ug/L	0.250000		103	80-120			
Endosulfan II	0.250	0.05	"	0.250000		99.9	80-120			
4,4'-DDT	0.257	0.05	"	0.250000		103	80-120			
Endrin Aldehyde	0.279	0.05	"	0.250000		112	80-120			
Endosulfan Sulfate	0.257	0.05	"	0.250000		103	80-120			

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Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1035 - General Prep Micro

Blank (1GD1035-BLK1)				Prepared & Analyzed: 04/20/23						
BOD (5 day)	ND	4	mg/L							B-06
Duplicate (1GD1035-DUP1)				Source: 1GD2077-03		Prepared & Analyzed: 04/20/23				
BOD (5 day)	128	4	mg/L		146			13.1	29	
Reference (1GD1035-SRM1)				Prepared & Analyzed: 04/20/23						
BOD (5 day)	239	4	mg/L	198.000		121	84.6-115.4			QR-06

Batch 1GD1137 - Wet Chem Preparation

Duplicate (1GD1137-DUP1)				Source: 1GD2212-01		Prepared & Analyzed: 04/21/23				
pH	7.6	0.5	pH		7.6			0.0920	10	
Reference (1GD1137-SRM1)				Prepared & Analyzed: 04/21/23						
pH	7.0	0.5	pH	7.00000		100	90-110			
Reference (1GD1137-SRM2)				Prepared & Analyzed: 04/21/23						
pH	7.0	0.5	pH	7.00000		99.9	90-110			

Batch 1GD1232 - TOC/DOC

Blank (1GD1232-BLK1)				Prepared & Analyzed: 04/24/23						
Total Organic Carbon	ND	0.50	mg/L							
LCS (1GD1232-BS1)				Prepared & Analyzed: 04/24/23						
Total Organic Carbon	5.08	0.50	mg/L	5.00000		102	86-120			

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Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1232 - TOC/DOC

				Prepared & Analyzed: 04/24/23						
LCS Dup (1GD1232-BS1)										
Total Organic Carbon	5.07	0.50	mg/L	5.00000	101	86-120	0.256	10		
				Prepared & Analyzed: 04/24/23						
Matrix Spike (1GD1232-MS1) Source: 1GD1048-01										
Total Organic Carbon	22.77	2.00	mg/L	20.0000	2.98	99.0	81-128			
				Prepared & Analyzed: 04/24/23						
Matrix Spike Dup (1GD1232-MSD1) Source: 1GD1048-01										
Total Organic Carbon	23.56	2.00	mg/L	20.0000	2.98	103	81-128	3.40	10	

Batch 1GD1274 - Wet Chem Preparation

				Prepared: 04/25/23 Analyzed: 04/26/23						
Blank (1GD1274-BLK1)										
Solids, total dissolved	ND	5	mg/L							
				Prepared: 04/25/23 Analyzed: 04/26/23						
LCS (1GD1274-BS1)										
Solids, total dissolved	97	5	mg/L	100.000	97.4	71-114				
				Prepared: 04/25/23 Analyzed: 04/26/23						
Duplicate (1GD1274-DUP1) Source: 1GD2059-01										
Solids, total dissolved	1410	5	mg/L		1450		2.79	30		

Batch 1GD1292 - Wet Chem Preparation

				Prepared: 04/25/23 Analyzed: 04/26/23						
Blank (1GD1292-BLK1)										
Solids, total suspended	ND	1	mg/L							
				Prepared: 04/25/23 Analyzed: 04/26/23						
LCS (1GD1292-BS1)										
Solids, total suspended	16.0	1	mg/L	15.0000	107	74-114				

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Work Order: 1GD2059

Determination of Conventional Chemistry Parameters - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1292 - Wet Chem Preparation

Duplicate (1GD1292-DUP1)	Source: 1GD2253-01	Prepared: 04/25/23	Analyzed: 04/26/23			
Solids, total suspended	30.7	1	mg/L	32.7	6.32	30

Batch 1GE0163 - General Prep HPLC/IC

Blank (1GE0163-BLK1)	Prepared & Analyzed: 05/03/23		
Nitrogen, Ammonia	ND	0.10	mg/L

Blank (1GE0163-BLK2)	Prepared & Analyzed: 05/03/23		
Nitrogen, Ammonia	ND	0.10	mg/L

LCS (1GE0163-BS1)	Prepared & Analyzed: 05/03/23					
Nitrogen, Ammonia	5.12	0.10	mg/L	5.00000	102	90-114

LCS (1GE0163-BS2)	Prepared & Analyzed: 05/03/23					
Nitrogen, Ammonia	5.26	0.10	mg/L	5.00000	105	90-114

Matrix Spike (1GE0163-MS1)	Source: 1GD2040-02	Prepared & Analyzed: 05/03/23					
Nitrogen, Ammonia	5.45	0.10	mg/L	5.00000	ND	109	84-115

Matrix Spike (1GE0163-MS2)	Source: 1GD2044-02	Prepared & Analyzed: 05/03/23					
Nitrogen, Ammonia	6.02	0.10	mg/L	5.00000	0.744	106	84-115

Matrix Spike Dup (1GE0163-MSD1)	Source: 1GD2040-02	Prepared & Analyzed: 05/03/23							
Nitrogen, Ammonia	5.56	0.10	mg/L	5.00000	ND	111	84-115	1.93	20

Matrix Spike Dup (1GE0163-MSD2)	Source: 1GD2044-02	Prepared & Analyzed: 05/03/23							
Nitrogen, Ammonia	6.15	0.10	mg/L	5.00000	0.744	108	84-115	2.15	20

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Work Order: 1GD2059

Determination of Total Metals - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1122 - EPA 200.2 Total ICP-MS

Blank (1GD1122-BLK1)

Prepared: 04/21/23 Analyzed: 04/24/23

Arsenic, total	ND	0.0020	mg/L							
Barium, total	ND	0.0020	"							
Cadmium, total	ND	0.0002	"							
Chromium, total	ND	0.0020	"							
Copper, total	ND	0.0020	"							
Lead, total	ND	0.0008	"							
Nickel, total	ND	0.0040	"							
Selenium, total	ND	0.0040	"							
Silver, total	ND	0.0020	"							
Zinc, total	ND	0.0200	"							

LCS (1GD1122-BS1)

Prepared: 04/21/23 Analyzed: 04/24/23

Arsenic, total	0.0888	0.0020	mg/L	0.100000		88.8	85-115			
Barium, total	0.0972	0.0020	"	0.100000		97.2	85-115			
Cadmium, total	0.0887	0.0002	"	0.100000		88.7	85-115			
Chromium, total	0.0902	0.0020	"	0.100000		90.2	85-115			
Copper, total	0.0936	0.0020	"	0.100000		93.6	85-115			
Lead, total	0.0908	0.0008	"	0.100000		90.8	85-115			
Nickel, total	0.0937	0.0040	"	0.100000		93.7	85-115			
Selenium, total	0.0896	0.0040	"	0.100000		89.6	85-115			
Silver, total	0.0940	0.0020	"	0.100000		94.0	85-115			
Zinc, total	0.0904	0.0200	"	0.100000		90.4	85-115			

Matrix Spike (1GD1122-MS1)

Source: 1GD1953-01

Prepared: 04/21/23 Analyzed: 04/24/23

Arsenic, total	0.0916	0.0020	mg/L	0.100000	0.0012	90.4	70-130			
Barium, total	0.134	0.0020	"	0.100000	0.0405	93.8	70-130			
Cadmium, total	0.0876	0.0002	"	0.100000	ND	87.6	70-130			
Chromium, total	0.0885	0.0020	"	0.100000	0.0010	87.5	70-130			
Copper, total	0.0938	0.0020	"	0.100000	0.0072	86.6	70-130			
Lead, total	0.0852	0.0008	"	0.100000	ND	85.2	70-130			
Nickel, total	0.0905	0.0040	"	0.100000	0.0014	89.1	70-130			
Selenium, total	0.0918	0.0040	"	0.100000	ND	91.8	70-130			
Silver, total	0.0921	0.0020	"	0.100000	ND	92.1	70-130			
Zinc, total	0.120	0.0200	"	0.100000	0.0414	79.1	70-130			

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Work Order: 1GD2059

Determination of Total Metals - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1GD1122 - EPA 200.2 Total ICP-MS

Matrix Spike Dup (1GD1122-MSD1)	Source: 1GD1953-01			Prepared: 04/21/23 Analyzed: 04/25/23					
Arsenic, total	0.0993	0.0020	mg/L	0.100000	0.0012	98.0	70-130	8.05	20
Barium, total	0.143	0.0020	"	0.100000	0.0405	102	70-130	6.15	20
Cadmium, total	0.0936	0.0002	"	0.100000	ND	93.6	70-130	6.65	20
Chromium, total	0.0967	0.0020	"	0.100000	0.0010	95.7	70-130	8.85	20
Copper, total	0.101	0.0020	"	0.100000	0.0072	93.5	70-130	7.04	20
Lead, total	0.0926	0.0008	"	0.100000	ND	92.6	70-130	8.34	20
Nickel, total	0.0992	0.0040	"	0.100000	0.0014	97.8	70-130	9.13	20
Selenium, total	0.101	0.0040	"	0.100000	ND	101	70-130	9.52	20
Silver, total	0.0996	0.0020	"	0.100000	ND	99.6	70-130	7.81	20
Zinc, total	0.130	0.0200	"	0.100000	0.0414	88.6	70-130	7.59	20

Post Spike (1GD1122-PS1)	Source: 1GD1953-01			Prepared: 04/21/23 Analyzed: 04/25/23					
Arsenic, total	0.0878		mg/L	0.0800000	0.0012	108	70-130		
Barium, total	0.126		"	0.0800000	0.0397	108	70-130		
Cadmium, total	0.0812		"	0.0800000	0.00004	101	70-130		
Chromium, total	0.0822		"	0.0800000	0.0010	101	70-130		
Copper, total	0.0894		"	0.0800000	0.0071	103	70-130		
Lead, total	0.0781		"	0.0800000	0.0003	97.3	70-130		
Nickel, total	0.0871		"	0.0800000	0.0014	107	70-130		
Selenium, total	0.0858		"	0.0800000	0.0005	107	70-130		
Silver, total	0.0848		"	0.0800000	0.0011	105	70-130		
Zinc, total	0.122		"	0.0800000	0.0405	102	70-130		

Batch 1GD1130 - EPA 200.2 Total ICP-OES (200.7)

Blank (1GD1130-BLK1)				Prepared: 04/21/23 Analyzed: 04/25/23	
Iron, total	ND	0.100	mg/L		

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Work Order: 1GD2059

Determination of Total Metals - Quality Control
Keystone Laboratories - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1GD1130 - EPA 200.2 Total ICP-OES (200.7)										
LCS (1GD1130-BS1)				Prepared: 04/21/23 Analyzed: 04/25/23						
Iron, total	2.33	0.100	mg/L	2.20000		106	85-115			
Matrix Spike (1GD1130-MS1)				Source: 1GD1953-01 Prepared: 04/21/23 Analyzed: 04/25/23						
Iron, total	2.22	0.100	mg/L	2.20000	ND	101	70-130			
Matrix Spike Dup (1GD1130-MSD1)				Source: 1GD1953-01 Prepared: 04/21/23 Analyzed: 04/25/23						
Iron, total	2.28	0.100	mg/L	2.20000	ND	104	70-130	2.46	20	
Post Spike (1GD1130-PS1)				Source: 1GD1953-01 Prepared: 04/21/23 Analyzed: 04/25/23						
Iron, total	9.46		mg/L	8.80000	0.023	107	85-115			
Batch 1GD1233 - EPA 7470A Hg Water										
Blank (1GD1233-BLK1)				Prepared: 04/25/23 Analyzed: 04/27/23						
Mercury, total	ND	0.00050	mg/L							
LCS (1GD1233-BS1)				Prepared: 04/25/23 Analyzed: 04/27/23						
Mercury, total	0.00265	0.00050	mg/L	0.00250000		106	85-115			
Matrix Spike (1GD1233-MS1)				Source: 1GD1699-01 Prepared: 04/25/23 Analyzed: 04/27/23						
Mercury, total	0.00283	0.00050	mg/L	0.00250000	ND	113	70-130			
Matrix Spike Dup (1GD1233-MSD1)				Source: 1GD1699-01 Prepared: 04/25/23 Analyzed: 04/27/23						
Mercury, total	0.00285	0.00050	mg/L	0.00250000	ND	114	70-130	0.574	10	

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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Certified Analyses Included In This Report

Method/Matrix	Analyte	Certifications
200.7 in Water	Iron, total	SIA1X,KS-NT
245.1 in Water	Mercury, total	SIA1X,KS-NT
5310B in Drink Wtr	Total Organic Carbon	SIA1X
5310B in Water	Total Organic Carbon	KS-NT,SIA1X
EPA 200.8 in Water	Arsenic, total	SIA1X,KS-NT
	Barium, total	SIA1X,KS-NT
	Cadmium, total	SIA1X,KS-NT
	Chromium, total	SIA1X,KS-NT
	Copper, total	SIA1X,KS-NT
	Lead, total	SIA1X,KS-NT
	Nickel, total	SIA1X,KS-NT
	Selenium, total	SIA1X,KS-NT
	Silver, total	SIA1X,KS-NT
	Zinc, total	SIA1X,KS-NT
EPA 608 in Water	Gamma-BHC [Lindane]	KS-NT,SIA1X
	Beta-BHC	KS-NT,SIA1X
	Heptachlor	KS-NT,SIA1X
	Delta-BHC	KS-NT,SIA1X
	Aldrin	KS-NT,SIA1X
	Heptachlor Epoxide	KS-NT,SIA1X
	Endosulfan I	KS-NT,SIA1X
	4,4'-DDE	KS-NT,SIA1X
	Dieldrin	KS-NT,SIA1X
	Endrin	KS-NT,SIA1X
	4,4'-DDD	KS-NT,SIA1X
	Endosulfan II	KS-NT,SIA1X
	4,4'-DDT	KS-NT,SIA1X
	Endrin Aldehyde	KS-NT,SIA1X
	Endosulfan Sulfate	KS-NT,SIA1X
	Chlordane	KS-NT,SIA1X
	Toxaphene	KS-NT,SIA1X
	Arochlor 1016	KS-NT,SIA1X
	Arochlor 1221	KS-NT,SIA1X
	Arochlor 1232	KS-NT,SIA1X
	Arochlor 1242	KS-NT,SIA1X
	Arochlor 1248	KS-NT,SIA1X
	Arochlor 1254	KS-NT,SIA1X
	Arochlor 1260	KS-NT,SIA1X
EPA 624 in Water	Chloromethane	KS-NT,SIA1X
	Vinyl Chloride	KS-NT,SIA1X

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Bromomethane	KS-NT,SIA1X
Chloroethane	KS-NT,SIA1X
1,1-Dichloroethylene	KS-NT,SIA1X
Methylene Chloride	KS-NT,SIA1X
trans-1,2-Dichloroethylene	KS-NT
1,1-Dichloroethane	KS-NT,SIA1X
cis-1,2-Dichloroethylene	SIA1X
2-Butanone (MEK)	SIA1X
Chloroform	KS-NT,SIA1X
1,1,1-Trichloroethane	KS-NT,SIA1X
Carbon Tetrachloride	KS-NT,SIA1X
Benzene	KS-NT,SIA1X
1,2-Dichloroethane	KS-NT,SIA1X
Trichloroethylene	KS-NT
1,2-Dichloropropane	KS-NT,SIA1X
Dibromomethane	SIA1X
Bromodichloromethane	KS-NT,SIA1X
2-Chloroethylvinyl ether	KS-NT,SIA1X
cis-1,3-Dichloropropene	KS-NT,SIA1X
Toluene	KS-NT
trans-1,3-Dichloropropene	KS-NT
1,1,2-Trichloroethane	KS-NT,SIA1X
Tetrachloroethylene	KS-NT,SIA1X
Dibromochloromethane	KS-NT,SIA1X
Chlorobenzene	KS-NT,SIA1X
Ethylbenzene	KS-NT,SIA1X
Xylenes, total	SIA1X
Bromoform	KS-NT,SIA1X
1,1,2,2-Tetrachloroethane	KS-NT,SIA1X
1,3-Dichlorobenzene	KS-NT,SIA1X
1,4-Dichlorobenzene	KS-NT,SIA1X
1,2-Dichlorobenzene	KS-NT,SIA1X

EPA 625 in Water

Bis(2-Chloroethyl) Ether	KS-NT,SIA1X
2-Chlorophenol	KS-NT,SIA1X
Bis[2-Chloroisopropyl]ether	SIA1X
n-Nitroso-di-n-propylamine	KS-NT,SIA1X
Hexachloroethane	KS-NT,SIA1X
Nitrobenzene	KS-NT,SIA1X
Isophorone	KS-NT,SIA1X
2-Nitrophenol	KS-NT,SIA1X
2,4-Dimethylphenol	KS-NT,SIA1X
Bis (2-Chloroethoxy) Methane	KS-NT,SIA1X
2,4-Dichlorophenol	KS-NT,SIA1X
1,2,4-Trichlorobenzene	KS-NT,SIA1X
Naphthalene	KS-NT,SIA1X
Hexachlorobutadiene	KS-NT,SIA1X
4-Chloro-3-methylphenol	KS-NT,SIA1X
Hexachlorocyclopentadiene	KS-NT,SIA1X
2,4,6-Trichlorophenol	KS-NT,SIA1X
2,4,5-Trichlorophenol	SIA1X

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Work Order: 1GD2059

2-Chloronaphthalene	KS-NT,SIA1X
Dimethylphthalate	KS-NT,SIA1X
Acenaphthylene	KS-NT,SIA1X
2,6-Dinitrotoluene	KS-NT,SIA1X
Acenaphthene	KS-NT,SIA1X
2,4-Dinitrophenol	KS-NT,SIA1X
2,4-Dinitrotoluene	KS-NT,SIA1X
4-Nitrophenol	KS-NT,SIA1X
Diethyl Phthalate	KS-NT,SIA1X
Fluorene	KS-NT,SIA1X
4-Chlorophenyl Phenyl Ether	KS-NT,SIA1X
4,6-Dinitro-2-methylphenol	KS-NT,SIA1X
N-Nitrosodiphenylamine	KS-NT,SIA1X
4-Bromophenyl Phenyl Ether	KS-NT,SIA1X
Hexachlorobenzene	KS-NT,SIA1X
Pentachlorophenol	KS-NT,SIA1X
Phenanthrene	KS-NT,SIA1X
Anthracene	KS-NT,SIA1X
Di-n-butyl Phthalate	KS-NT,SIA1X
Fluoranthene	KS-NT,SIA1X
Pyrene	KS-NT,SIA1X
Butyl Benzyl Phthalate	KS-NT,SIA1X
Benzo(a)anthracene	KS-NT,SIA1X
Chrysene	KS-NT,SIA1X
Bis(2-Ethylhexyl) Phthalate	KS-NT,SIA1X
Di-n-octyl Phthalate	KS-NT,SIA1X
Indeno(1,2,3-cd)Pyrene	KS-NT,SIA1X
3,3'-Dichlorobenzidine	SIA1X
Benzo(b)Fluoranthene	KS-NT,SIA1X
Benzo(k)Fluoranthene	KS-NT,SIA1X
Benzo(a)Pyrene	KS-NT,SIA1X
Dibenzo(a,h)anthracene	KS-NT,SIA1X
Benzo(g,h,i)perylene	KS-NT,SIA1X
SM 4500 H+ B in Water	
	pH KS-NT,SIA1X
SM 5210 B in Water	
	BOD (5 day) SIA1X,KS-NT
TIMBERLINE in Water	
	Nitrogen, Ammonia SIA1X,KS-NT
USGS I-1750-85 in Water	
	Solids, total dissolved KS-NT,SIA1X
USGS I-3765-85 in Water	
	Solids, total suspended SIA1X,KS-NT

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Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2024
KS-NT	Kansas Department of Health and Environment (NELAP)	E-10287	10/31/2023
MO-KC	Missouri Department of Natural Resources (KC)	140	04/30/2023
MO-NT	Missouri Department of Natural Resources (Newton)	10170	04/30/2026
SIA1X	Iowa Dept. of Natural Resources	95	02/01/2024

Notes and Definitions

- A-01 Recovery outside of acceptance limits due to analyst error
- B-06 Unseeded Blank equals .5mg/L
- I-03 Analyte required to be analyzed within 15 minutes of sampling. Analysis performed upon receipt of sample at laboratory.
- QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QR-06 The reference standard was outside of established control limits.
- QS-03 The blank spike recovery was below established acceptance limits.

End of Report



Keystone Laboratories

Sue Thompson
Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.



1 G D 2 0 5 9

HLW Engineering
PM: Sue Thompson

SITE INFORMATION

Sampler: TODD WHIPPLE

Project: Grundy Co. Landfill - Leachate
Leachate

REPORT TO

Todd Whipple
HLW Engineering
PO Box 314
Story City, IA 50248

Barbara Smith
Grundy County Landfill - Billing
20434 220th St
Grundy Center, IA 50638

SPECIAL INSTRUCTIONS

None

Turn Around Time

Standard RUSH, need by ___/___/___

LAB USE ONLY

Work Order: GD2059
Temperature: 0.3
Turn-Cooler: No

Custody Seal
Containers Intact
COC/Labels Agree
Preservation Confirmed
Received on Ice

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	Number of Containers	Analyses	Lab Sample Number
01-001	<u>Leachate Tank</u>	Water	GRAB	<u>4/19/23</u>	<u>15:15</u>	<u>12</u>	608-107 624-105 625-116 65-1-200.6 bod-2210 cr-1-200.6 cu-1-200.6 cu-1-200.7 ni5-unibacterium pb-1-200.6 se-1-200.6 tot-33100 zn-1-200.6	<u>GA</u>

Relinquished By: Todd Whipple Date/Time: 4/20/23

Received for Lab By: [Signature] Date/Time: 4-20-23 1010

Received By: _____ Date/Time: _____

Remarks:

Original - Lab Copy Yellow - Sampler Copy

Appendix G.7 - Analytical Reports - Leachate Grab Samples

Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
20434 220th St
Grundy Center, IA 50638

Laboratory Sample #
CN55131 - CN55133
3270-83 - 3270-85
Information Sheet #
WW0330-83

Date Received:
03/30/2023

Date Processed:
04/10/2023

IA Lab ID Number **061** NPDES
EPA Lab ID Number **46**

Test Name (Contaminant ID)	Method	Results	Units	LOQ	Dilution Factor	Prep Date	Test Date	Analyst
Sample #: CN55131 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 03/29/2023 03:15 AM	Collection Point: Sample Date:					
Carb Biochem Oxygen Demand (5 day)	SM5210 B	<200	mg/L	200 LOD	10	03/31/23	04/05/23	MEF
pH (1925)	EPA 150.1	6.9	S.U.	NA	NA	NA	03/30/23	MEF
Total Suspended Solids	USGS I 3765-85	50	mg/L	4.000	NA	NA	04/03/23	TS
Sample #: CN55132 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 03/29/2023 03:15 AM	Collection Point: Sample Date:					
Ammonia (1003)	ATP Case No. N08-0004	125	mg/L	4.1450	25	NA	03/31/23 05:30PM	MB
Sample #: CN55133 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 03/29/2023 03:15 AM	Collection Point: Sample Date:					
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	114	mg/L	0.4	1	04/06/23	04/06/23	CALC_EW

Report Authorized by: 

Date: 04/10/2023

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation

RL = Reporting Limit

NA = Not Applicable

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Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
20434 220th St
Grundy Center, IA 50638

Laboratory Sample #
CO50052 - CO50054
6171-35 - 6171-37
 Information Sheet #
WW0511-135

Date Received:
05/11/2023

Date Processed:
05/19/2023

IA Lab ID Number **061** NPDES
 EPA Lab ID Number **46**

Test Name (Contaminant ID)	Method	Results	Units	LOQ	Dilution Factor	Prep Date	Test Date	Analyst
Sample #: CO50052 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/10/2023 04:00 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	<200	mg/L	200 LOD	10	05/11/23	05/16/23	MEF
pH (1925)	EPA 150.1	6.8	S.U.	NA	NA	NA	05/11/23	LC
Total Suspended Solids	USGS I 3765-85	71	mg/L	4.000	NA	NA	05/15/23	TS
Sample #: CO50053 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/10/2023 04:00 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	132	mg/L	1.6580	10	NA	05/15/23 07:40PM	MB
Sample #: CO50054 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/10/2023 04:00 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	143	mg/L	12	10	NA	05/18/23	MB

Report Authorized by:

Date: 05/19/2023

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NA = Not Applicable

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Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
20434 220th St
Grundy Center, IA 50638

Laboratory Sample #
CP12613 - CP12615
8570-45 - 8570-47
 Information Sheet #
WW0615-45

Date Received:
06/15/2023

Date Processed:
06/26/2023

IA Lab ID Number **061** NPDES
 EPA Lab ID Number **46**

Test Name (Contaminant ID)	Method	Results	Units	LOQ	Dilution Factor	Prep Date	Test Date	Analyst
Sample #: CP12613 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/15/2023 08:45 AM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	21	mg/L	20 LOD	1	06/15/23	06/20/23	MEF
pH (1925)	EPA 150.1	6.6	S.U.	NA	NA	NA	06/15/23	MEF
Total Suspended Solids	USGS I 3765-85	50	mg/L	4.000	NA	NA	06/19/23	MEF
Sample #: CP12614 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/15/2023 08:45 AM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	162	mg/L	1.6580	10	NA	06/16/23 06:49PM	JS
Sample #: CP12615 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/15/2023 08:45 AM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	194	mg/L	12	10	NA	06/23/23	JS

Report Authorized by:

Date: 06/26/2023

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 NA = Not Applicable

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Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
20434 220th St
Grundy Center, IA 50638

Laboratory Sample #
CP49693 - CP49695
0570-50 - 0570-52
 Information Sheet #
WW0713-50

Date Received:
07/13/2023

Date Processed:
07/21/2023

IA Lab ID Number **061** NPDES
 EPA Lab ID Number **46**

Test Name (Contaminant ID)	Method	Results	Units	LOQ	Dilution Factor	Prep Date	Test Date	Analyst
Sample #: CP49693 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/12/2023 03:15 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	<20	mg/L	20 LOD	1	07/13/23	07/18/23	MEF
pH (1925)	EPA 150.1	6.9	S.U.	NA	NA	NA	07/13/23	MEF
Total Suspended Solids	USGS I 3765-85	38	mg/L	4.000	NA	NA	07/17/23	MEF
Sample #: CP49694 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/12/2023 03:15 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	237	mg/L	4.1450	25	NA	07/18/23 11:59AM	JS/CB
Sample #: CP49695 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/12/2023 03:15 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	215	mg/L	61	50	NA	07/21/23	JS/CB/SNS

Report Authorized by:

Date: 07/24/2023

LOQ units are the same as Result units and are adjusted to reflect dilution.

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 RL = Reporting Limit
 NA = Not Applicable

DISCLAIMER: The results issued on this report only reflect the analysis of the sample(s) submitted at our lab and may not be construed as an endorsement of the sampling method employed. This report shall not be reproduced except in full, without written approval of the laboratory. The accuracy of these results are limited by the integrity of the sample and the accuracy of the test method. Reports are kept on file for five years.

Appendix H

Gas Monitoring Report

Gas Monitoring Report

Explosive gas monitoring at the facility per 113.9(2) was conducted in 2023.

A request was filed with IDNR on August 17, 2022 (Doc #103858) to reduce the frequency of gas monitoring to semi-annually at subsurface gas probes GP-1 through GP-8 and at the Equipment Building and the Recycling Building. Approval was received from IDNR on January 23, 2023 (Doc #105563).

Monitoring requirements include the structures on site and eight (8) subsurface probes (designated GP-1 through GP-8) that are monitored semi-annually.

Figure 1 illustrates the locations of the subsurface gas monitoring points.

Explosive gas concentrations were undetected or below regulatory action levels during the 2023 monitoring episodes. Summary tables of gas monitoring are included in Appendix H.1.

Appendix H.1- Gas Monitoring Data

**Annual Methane Gas Evaluation Report
Grundy County Sanitary Landfill
2023**

Location/Date	4/19/23	10/4/23
	% LEL	% LEL
Ambient Air - Breathing Zone		
#1*	0	0
#2*	0	0
#3*	0	0
#4*	0	0
#5*	0	0
#6*	0	0
#7*	0	0
Equipment Bldg	0	0
Recycle Bldg	0	0
Subsurface		
GP-1	0	0
GP-2	0	0
GP-3 (MW-16)	0	0
GP-4 (MW-14)	0	0
GP-5 (MW-13)	0	0
GP-6 (MW-17)	0	0
GP-7 (MW-18)	0	0
GP-8 (MW-19)	0	0

*Explosive gas concentrations were recorded continuously.
The concentrations are reported at each referenced location for ease in presentation of data.

Frequency of gas monitoring changed to semi-annually in the Revised Closure Permit dated January 23, 2023