

2024 ANNUAL GROUNDWATER QUALITY REPORT

FOR THE

GRUNDY COUNTY SANITARY LANDFILL

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

by:

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6033-24A.320

Table of Contents

Certification

Section 1.0 Background Information

Section 2.0 Reporting Period Activities

Section 3.0 Data Evaluation and Summary

Quality Assurance/Quality Control

Background data Validation

Statistically Significant Increases/Exceedances of Prediction Limits

Assessment Monitoring

Site Specific GWPS

Statistically Significant Levels

In-Place Water Quality Maintenance Systems

Assessment of Corrective Measures (ACM) Evaluations

Monitoring Well Maintenance Performance Reevaluation

Leachate Collection System Performance Reevaluation

Gas Monitoring Evaluation

Section 4.0 Recommendations

Figures

Figure 1 – Site Plan

Figure 2 – Water Table Contour Map

Appendices

Appendix A Monitoring Well Maintenance and Performance Re-evaluation

Appendix B Field Sampling Forms

Appendix C Summary Tables

Appendix D Statistical Report


Appendix E Laboratory Reports for Report Period

Appendix F Summary Tables, SSI & Comparison of Confidence Limits to the GWPS

Appendix G Leachate Collection System Performance Evaluation Report

Appendix H Gas Monitoring Report

Certification

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Date: 12-19-2024

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 The Owner desires to adopt an Environmental Covenant for the facility and have the Closure Permit rescinded. The Owner requests that the IDNR visit the site in the Spring of 2025 to initiate the proposed pursuit of an Environmental Covenant.

Water quality findings in 2024 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, 2022, and 2023). 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 2025 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 2024 annual water quality data collected April 17, 2024.

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 NE¹/₄ and the NW¹/₄ 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) – Current Year (2024) and 2025 Planned

WELL	Monitoring Phase	2024		2025		Appendix II Sample History
		April 2024	October 2024	April 2025	October 2025	
MW-15 (b)	Water Level Only					4/16/09
MW-15A (b)	Detection Monitoring	Appendix I	No Sample	No Sample	Appendix I	
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	No Sample	Appendix I ⁽¹⁾	4/16/09, 10/17/14, 10/4/19, 4/17/24
MW-10	Water Level Only					4/16/09, 4/4/17, 4/12/18
MW-11	Assessment Monitoring	Appendix I ⁽¹⁾	No Sample	No Sample	Appendix I	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	No Sample	Appendix I ⁽¹⁾	4/16/09, 10/17/14, 10/4/19, 4/17/24
MW-14	Assessment Monitoring	Appendix II	No Sample	No Sample	Appendix I ⁽¹⁾	4/16/09, 10/17/14, 10/4/19, 4/17/24

(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 April 17, 2024 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 April 17, 2024 is included in Appendix C.

2.1 Current Detection Monitoring Activities

The background wells are MW-15A and MW-18. Numerous semi-annual sampling episodes 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 four (4) 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, Annual Monitoring Event in 2024, dated May, 2024 is included in Appendix D.

The Keystone Analytical Report for the laboratory testing April 17, 2024 sampling episode is included in Appendix E.

QUALITY ASSURANCE/QUALITY CONTROL

A blind duplicate sample was collected at MW-14 during the April 17, 2024 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 April 17, 2024 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 May, 2024 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 May 2024 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 2024, 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 2024, the detections that exceed the prediction limit are summarized in Table 2 below.

**Table 2 – Compounds Exceeding a Prediction Limit
2024**

MW-9**	Barium
	Nickel
	1,4-dichlorobenzene
	bis (2-ethylhexyl)phthalate
	Chlorobenzene
MW-11**	none
MW-13**	Barium
	Nickel
	1,4-dichlorobenzene
	bis (2-ethylhexyl)phthalate
	Chlorobenzene
	Chloroethane
MW-14**	Barium
	Nickel
	bis (2-ethylhexyl)phthalate

** 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, MW-11, MW-13, and MW-14; 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
4/17/2024	8.0	<6	7.0	72.0

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
4/17/2024	<0.4	NT	<0.4	<0.4

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
4/17/2024	<0.4	NT	<0.4	<0.4

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 2024 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 2024. It is recommended that the Ecolotree® buffer be maintained in the current condition as an on-going corrective measure for 2025.

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.

The trend analyses requested by IDNR in the letter dated July 11, 2024 (Doc #110446) are complete and will be reported under separate cover. The results of the trend analyses support the request to pursue an Environmental Covenant.

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.

We request IDNR participation in developing an Environmental Covenant for the facility in order to rescind the Closure Permit for the facility. We request a site visit by IDNR in the Spring of 2025 as the initial step in proceeding with the Environmental Covenant.

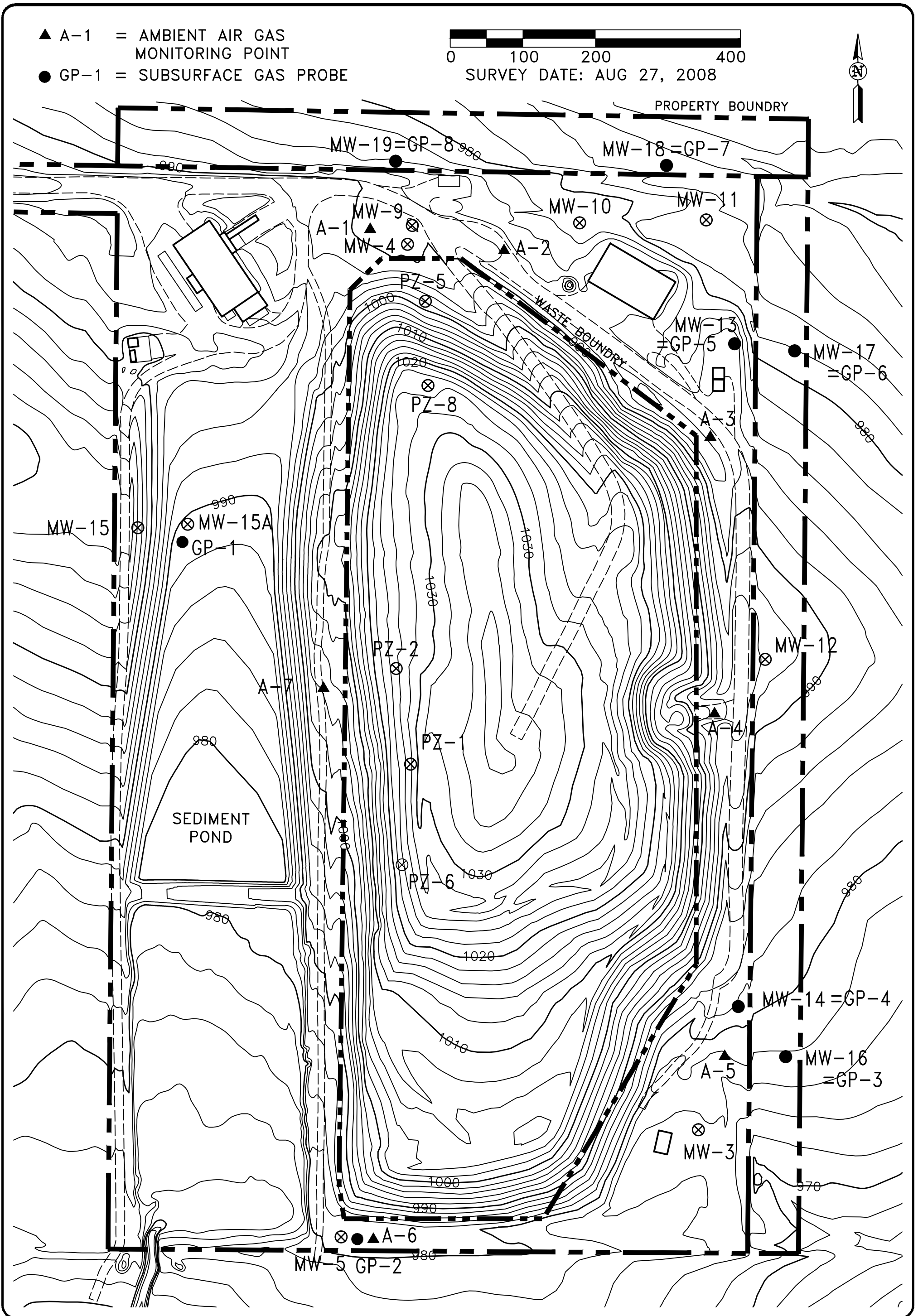
We request that IDNR suspend requirements for further sampling and testing in 2025 while the Environmental Covenant process is underway.

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 in 2025.

Figures

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

0 100 200 400
 SURVEY DATE: AUG 27, 2008



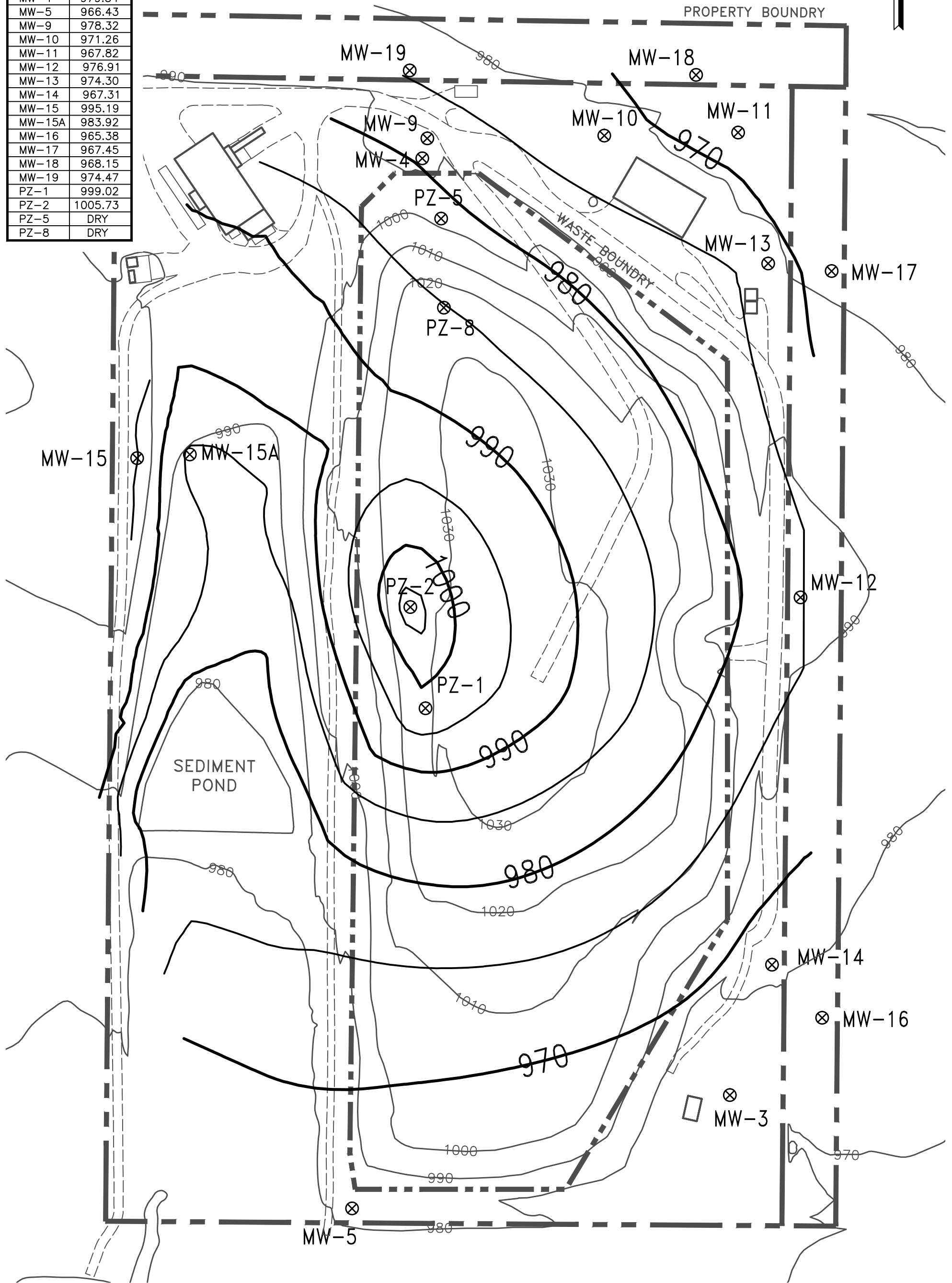
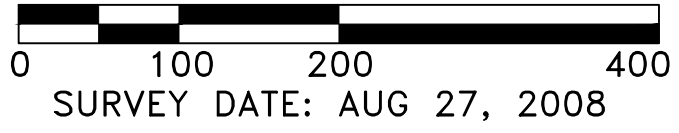
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**SITE PLAN WITH
 GAS MONITORING LOCATIONS**
 GRUNDY COUNTY SANITARY LANDFILL
 GRUNDY CENTER, IOWA

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

WATER ELEVATION
OCTOBER 22, 2024

WELL	ELEV.
MW-3	967.45
MW-4	979.54
MW-5	966.43
MW-9	978.32
MW-10	971.26
MW-11	967.82
MW-12	976.91
MW-13	974.30
MW-14	967.31
MW-15	995.19
MW-15A	983.92
MW-16	965.38
MW-17	967.45
MW-18	968.15
MW-19	974.47
PZ-1	999.02
PZ-2	1005.73
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 12-9-24

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	X	O
High and low water levels	X	X	X	X	X	O
Six-month water levels	X	X	X	X	X	O
Well-depth measurement	X	X	X	X	X	O
Evaluation of recharge rates and chemistry	X		X		X	

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 22, 2024 is included with this report. The Water Table Contour Map illustrates the water table surface.

Well Depth & Sedimentation

Well depth measurements were made on April 17, 2024. 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 17, 2024. Review of the field data for the April 17, 2024 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 2026.

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
04/17/24	10.24	968.20	8.97	982.17	14.51	968.45	9.49	982.14	11.75	972.53	10.41	968.37	20.36	975.05	12.90	974.00
10/22/24	10.99	967.45	11.60	979.54	16.53	966.43	13.31	978.32	13.02	971.26	10.96	967.82	18.50	976.91	12.60	974.30
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	975.05	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	20.36	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
04/17/24	16.61	967.02	14.23	998.23	3.49	988.83	16.91	963.08	13.04	967.20	9.24	969.08	9.40	977.26
10/22/24	16.32	967.31	17.27	995.19	8.40	983.92	14.61	965.38	12.79	967.45	10.17	968.15	12.19	974.47
minimum	10.67	966.10	12.60	994.16	3.05	980.62	9.12	963.08	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	16.91	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>	<u>4/17/2024</u>
MW-15A (b)	Appendix I	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	Appendix II
MW-10	Appendix I	---	
MW-11	Appendix I	Appendix II	Appendix I ⁽¹⁾
MW-12	Appendix I	---	
MW-13	Appendix I	Appendix I	Appendix II
MW-14	Appendix I	Appendix I	Appendix II
Duplicate	At MW-3	At MW-15A	At MW-14

(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**

4/17/2024

Sampled by: Todd Whipple

Weather conditions: Partly sunny, windy, 52-68 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	17.50
Top sample	974.13
Bottom sample	970.13
Turbidity(NTU)	29.19

Date	Time	Water Level	Water Elevation	Notes
4/17/2024	13:21	9.49	982.14	

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	29.19
Appendix I	Metals	150	150	29.19
Appendix I	VOC	240	240	29.19
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	4/17/2024	13:21	9.49	982.14	5	2.3	no
		After purging				991.63			
		Top of Screen after construction				978.00			
						4.14			feet above (+) or below (-) top screen
		Bottom of Well after construction				968.00			
		Bottom of Well	4/17/2024		23.00	968.63			
						0.63			feet sedimentation
		Before Sampling				991.63			
		Recovery	4/17/2024	13:35	18.14	973.49			
		Recovery	4/17/2024	17:11	9.46	982.17			
		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	15.00
Top sample	963.78
Bottom sample	959.78
Turbidity(NTU)	2.96

Date	Time	Water Level	Water Elevation	Notes
4/17/2024	15:12	10.41	968.37	

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	2.96
Appendix I	Metals	150	150	2.96
Appendix I	VOC	240	240	2.96
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	Well Depth	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
978.78	20.55		4/17/2024	15:12	10.41	968.37	4	2.4	No
						978.78			
						965.40			
						2.97			feet above (+) or below (-) top screen
						955.40			
			4/17/2024		20.55	958.23			
						2.83			feet sedimentation
						978.78			
			4/17/2024	15:25	10.70	968.08			no drawdown
						978.78			
						978.78			
						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)	4.67

Date	Time	Water Level	Water Elevation	Notes
4/17/2024	14:33	12.9	974	

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	4.67
Appendix I	Metals	150	150	4.67
Appendix I	VOC	240	240	4.67
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	Before purging	4/17/2024	14:33	12.9	974.00	4	4.0	no
		After purging				986.90			
		Top of Screen after construction				977.00			
						-3.00			feet above (+) or below (-) top screen
		Bottom of Well after construction				967.00			
		Bottom of Well	4/17/2024		19.95	966.95			
						-0.05			feet sedimentation
		Before Sampling				986.90			
		Recovery	4/17/2024	14:45	16.50	970.40			
		Recovery	4/17/2024	17:14	13.50	973.40			
		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	16.50
Top sample	967.13
Bottom sample	963.13
Turbidity(NTU)	4.24

Date	Time	Water Level	Water Elevation	Notes
4/17/2024	13:53	16.61	967.02	

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	4.24
Appendix I	Metals	150	150	4.24
Appendix I	VOC	240	240	4.24
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	Before purging	4/17/2024	13:53	16.61	967.02	1.5	2.7	yes
		After purging				983.63			
		Top of Screen after construction				973.50			
						-6.48			feet above (+) or below (-) top screen
		Bottom of Well after construction				963.50			
		Bottom of Well	4/17/2024		20.25	963.38			
						-0.12			feet sedimentation
		Before Sampling				983.63			
		Recovery	4/17/2024	14:08	19.31	964.32			
		Recovery	4/17/2024	15:08	18.05	965.58			
		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	10.00
Top sample	982.32
Bottom sample	978.32
Turbidity(NTU)	3.60

Date	Time	Water Level	Water Elevation	Notes
4/17/2024	15:50	3.49	988.83	

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	3.60
Appendix I	Metals	150	150	3.60
Appendix I	VOC	240	240	3.60
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	Well Depth	2" dia.	Date	Time	Depth	Elevation	Gallons	# of Vol.	Purged Dry?
992.32	18.00		4/17/2024	15:50	3.49	988.83	4	1.7	no
						992.32			
						985.13			
						3.70			feet above (+) or below (-) top screen
						975.13			
			4/17/2024		15.75	976.57			
						1.44			feet sedimentation
						992.32			
			4/17/2024	16:01	10.84	981.48			
			4/17/2024	17:17	4.50	987.82			
						992.32			
						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	4/17/2024
(3,4)-methylphenol				<8	
1,1,1,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,1-trichloroethane	<1	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	<1	<1	<1	<1	<1
1,1,2-trichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethane	<1	<1	<1	<1	<1
1,1-dichloroethene	<1	<1	<1	<1	<1
1,1-dichloropropene				<1	
1,2,3-trichloropropane	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene				<8	
1,2,4-trichlorobenzene				<1	
1,2-dibromo-3-chloropropane	<5	<5	<5	<1	<5
1,2-dibromoethane	<1	<1	<1	<1	<1
1,2-dichlorobenzene	<1	<1	<1	<1	<1
1,2-dichloroethane	<1	<1	<1	<1	<1
1,2-dichloropropane	<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
1,4-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	<10
2-chloronaphthalene				<8	
2-chlorophenol				<8	
2-hexanone	<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
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
Acetonitrile				<10	
Acetophenone				<8	
Acrolein				<10	
Acrylonitrile	<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 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	4/17/2024
Antimony, total	<2	<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	<4
Azobenzene				<8	
Barium, total	203	270	342	243	236
Benzene	<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
Beta-bhc				<.05	
Bis (2-chloroethoxy) methane				<8	
Bis(2-chloroethyl) ether				<8	
Bis(2-chloroisopropyl) ether				<8	
Bis(2-ethylhexyl) phthalate				9	<6
Bromochloromethane	<1	<1	<1	<1	<1
Bromodichloromethane	<1	<1	<1	<1	<1
Bromoform	<1	<1	<1	<1	<1
Bromomethane	<1	<1	<1	<1	<1
Butyl benzyl phthalate				<8	
Cadmium, total	.9	<.8	5.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1	<1
Chlordane				<.1	
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzilate				<8	
Chloroethane	<1	<1	<1	<1	<1
Chloroform	<1	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1	<1
Chloroprene				<1	
Chromium, total	<8	<8	<8	<8	<8
Chrysene				<8	
Cis-1,2-dichloroethene	<1	<1	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1	<1	<1
Cobalt, total	9.2	14.8	1.7	8.3	3.9
Copper, total	<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
Dibromomethane	<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
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	4/17/2024
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
Mercury, total				<.5	
Methacrylonitrile				<1	
Methapyrilene				<8	
Methoxychlor				<.05	
Methyl iodide	<1	<1	<1	<2	<1
Methyl methacrylate				<1	
Methyl methanesulfonate				<8	
Methyl parathion				<.4	
Methylene chloride	<5	<5	<5	<5	<5
Naphthalene				<8	
Nickel, total	8.3	4.2	10.7	7.4	4.6
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	<4
Silver, total	<4	<4	<4	<4	<4
Solids, total suspended					
Styrene	<1	<1	<1	<1	<1
Sulfide, total				<.1	
Tetrachloroethene	<1	<1	<1	<1	<1
Thallium, total	<2	<2	<2	<2	<2
Thionazin				<.4	
Tin, total				<20	
Toluene	<1	<1	<1	<1	<1
Toxaphene				<.2	
Trans-1,2-dichloroethene	<1	<1	<1	<1	<1
Trans-1,3-dichloropropene	<1	<1	<1	<1	<1
Trans-1,4-dichloro-2-butene	<5	<5	<5	<5	<5
Trichloroethene	<1	<1	<1	<1	<1
Trichlorofluoromethane	<1	<1	<1	<1	<1
Vanadium, total	<20	<20	<20	<20	<20
Vinyl acetate	<5	<5	<5	<5	<5
Vinyl chloride	<1	<1	<1	<1	<1
Xylenes, total	<2	<2	<2	<2	<2
Zinc, total	<20.0	<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	4/17/2024
(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	2.3	1.4	2.6	2.4
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	<10	<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	<10.0	<10.0	<10.0	<10.0
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 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	4/17/2024
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	358	352	334	434
Benzene	<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
Beta-bhc				<.05
Bis (2-chloroethoxy) methane				<8
Bis(2-chloroethyl) ether				<8
Bis(2-chloroisopropyl) ether				<8
Bis(2-ethylhexyl) phthalate				7
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	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chlordane				<.1
Chlorobenzene	<1.0	<1.0	1.1	1.8
Chlorobenzilate				<8
Chloroethane	<1.0	<1.0	<1.0	2.8
Chloroform	<1	<1	<1	<1
Chloromethane	<1	<1	<1	<1
Chloroprene				<1
Chromium, total	<8	<8	<8	<8
Chrysene				<8
Cis-1,2-dichloroethene	<1.0	<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	<1	<1	<1	<1
Cobalt, total	9.5	3.9	10.6	11.6
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 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		<.10						
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						<.10			
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	4/17/2024
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	67.8	106.0	75.4	89.9
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
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				<.15
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 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	4/17/2024
(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	1.0	1.0	<1.0	<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	<10	<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	<10.0	<10.0	<10.0	<10.0
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 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	4/17/2024
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	30.5	<4.0	5.5	<4.0
Azobenzene				<8
Barium, total	1530.0	1360.0	843.0	1040.0
Benzene	<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
Beta-bhc				<.05
Bis (2-chloroethoxy) methane				<8
Bis(2-chloroethyl) ether				<8
Bis(2-chloroisopropyl) ether				<8
Bis(2-ethylhexyl) phthalate				72
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	<.8	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1	<1
Carbon tetrachloride	<1	<1	<1	<1
Chlordane				<.1
Chlorobenzene	3.9	5.3	<1.0	<1.0
Chlorobenzilate				<8
Chloroethane	<1.0	<1.0	<1.0	<1.0
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	19.2	15.0	7.3	4.1
Copper, total	<4	<4	<4	<4
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				<1.0
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 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		<.10						
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						<.10			
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	4/17/2024
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	5.1	<4.0	<4.0	<4.0
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	52.6	50.6	33.8	31.6
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				<.15
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 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	4/17/2024
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	<10	<10	<10
2-hexanone	<5	<5	<5
4-methyl-2-pentanone	<5	<5	<5
Acetone	<10.0	<10.0	<10.0
Acrylonitrile	<5	<5	<5
Antimony, total	<2.0	<2.0	<2.0
Arsenic, total	<4	<4	<4
Barium, total	289.0	166.0	73.0
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	4.7	<.4	<.4
Copper, total	<4.0	<4.0	<4.0
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	8.2	<4.0	<4.0
Selenium, total	<4.0	<4.0	<4.0
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 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		Δ05						
4,4'-dde	ug/L		Δ05						
4,4'-ddt	ug/L		Δ05						
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		Δ05						
Allyl chloride	ug/L		<1						
Alpha-bhc	ug/L		Δ05						
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						
Methapyrene	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	<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	<1	△△
Methyl methacrylate	ug/L								△△
Methyl methanesulfonate	ug/L								△△
Methyl parathion	ug/L								△.4
Methylene chloride	ug/L	<5	<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	<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	<4.0	△.0
Silver, total	ug/L	<4	<4	<4	<4	<4	<4	<4	△.4
Solids, total suspended	mg/L		427	16					
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	<8.0	<8.0	<8.0	<8.0	8.6	<8.0	<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	4/17/2024
(3 4)-methylphenol			<8
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
1,2,3-trichloropropane	<1	<1	<1
1,2,4,5-tetrachlorobenzene			<8
1,2,4-trichlorobenzene			<1
1,2-dibromo-3-chloropropane	<5	<5	<1
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			<8
1,3,5-trinitrobenzene			<8
1,3-dichlorobenzene			<1
1,3-dichloropropane			<1
1,3-dinitrobenzene			<8
1,4-dichlorobenzene	1.2	1.4	1.5
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	<10	<10	<5
2-chloronaphthalene			<8
2-chlorophenol			<8
2-hexanone	<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
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
Acetonitrile			<10
Acetophenone			<8
Acrolein			<10
Acrylonitrile	<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	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	4/17/2024
Antimony, total	<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	17.8	16.2	<4.0
Azobenzene			<8
Barium, total	1120	855	965
Benzene	<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
Beta-bhc			<.05
Bis (2-chloroethoxy) methane			<8
Bis(2-chloroethyl) ether			<8
Bis(2-chloroisopropyl) ether			<8
Bis(2-ethylhexyl) phthalate			8
Bromochloromethane	<1	<1	<1
Bromodichloromethane	<1	<1	<1
Bromoform	<1	<1	<1
Bromomethane	<1	<1	<1
Butyl benzyl phthalate			<8
Cadmium, total	<.8	<.8	<.8
Carbon disulfide	<1	<1	<1
Carbon tetrachloride	<1	<1	<1
Chlordane			<.1
Chlorobenzene	4.4	3.6	1.4
Chlorobenzilate			<8
Chloroethane	1.0	<1.0	<1.0
Chloroform	<1	<1	<1
Chloromethane	<1	<1	<1
Chloroprene			<1
Chromium, total	<8	<8	<8
Chrysene			<8
Cis-1,2-dichloroethene	<1	<1	<1
Cis-1,3-dichloropropene	<1	<1	<1
Cobalt, total	8.5	4.4	10.8
Copper, total	<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
Dibromomethane	<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
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	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		<.10						
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
Sulfide, total						<.10			
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	<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	8.3	<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	4/17/2024
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
Mercury, total			<.5
Methacrylonitrile			<1
Methapyrilene			<8
Methoxychlor			<.05
Methyl iodide	<1	<1	<2
Methyl methacrylate			<1
Methyl methanesulfonate			<8
Methyl parathion			<.4
Methylene chloride	<5	<5	<5
Naphthalene			<8
Nickel, total	30.9	19.1	46.2
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
Silver, total	<4	<4	<4
Solids, total suspended			
Styrene	<1	<1	<1
Sulfide, total			<.15
Tetrachloroethene	<1	<1	<1
Thallium, total	<2	<2	<2
Thionazin			<.4
Tin, total			<20
Toluene	<1	<1	<1
Toxaphene			<.2
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.

Appendix D
Statistical Reports

Appendix D.1 –Statistical Evaluation Report

GROUND WATER STATISTICS
FOR GRUNDY COUNTY LANDFILL

Annual Monitoring Event in 2024

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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 2024 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 2024 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 2024

Well	Trace Metal	Result	Prediction Limit	Prediction Limit Type	Verified or Awaiting Verification
MW-13	Barium, µg/L	434	297.6737	Normal	Verified
	Nickel, µg/L	89.9	10.9000	Nonparametric	Verified
MW-14	Barium, µg/L	1040	297.6737	Normal	Verified
	Nickel, µg/L	31.6	10.9000	Nonparametric	Verified
MW-9	Barium, µg/L	965	297.6737	Normal	Verified
	Nickel, µg/L	46.2	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-13 (4.851 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (11.6 µg/L) did not exceed the site prediction limit of 11.6 µg/L.

The 95% LCL for cobalt at MW-14 (3.253 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (4.1 µg/L) is less than the site prediction limit of 11.6 µg/L.

The 95% LCL for cobalt at MW-9 (3.930 µg/L) exceeds the Iowa Statewide Standard of 2.1 µg/L, however the current concentration (10.8 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.

Volatile Organic Compounds

Volatile 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 2024 are summarized below. Historical VOC detections are summarized in Attachment D.

Organic compounds detected during the annual monitoring event in 2024

Well	VOC Detected	Result, µg/L	Reporting Limit, µg/L	Verified/ Awaiting Verification	Groundwater Standard, µg/L
MW-13	1,4-Dichlorobenzene	2.4	1	Verified	75 ^a
	Bis(2-ethylhexyl)phthalate	7.0	6	Awaiting Verification	6 ^a
	Chlorobenzene	1.8	1	Verified	100 ^a
	Chloroethane	2.8	1	Awaiting Verification	2800 ^b
MW-14	Bis(2-ethylhexyl)phthalate	72.0	6	Awaiting Verification	6 ^a
MW-9	1,4-Dichlorobenzene	1.5	1	Verified	75 ^a
	Bis(2-ethylhexyl)phthalate	8.0	6	Awaiting Verification	6 ^a
	Chlorobenzene	1.4	1	Verified	100 ^a

a - USEPA MCL

b – Iowa Statewide Standard

Chloroethane was previously detected at MW-13 in October 2020. 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 2024 at Grundy County Landfill. The ground water data obtained during the annual monitoring event in 2024 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 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 and chlorobenzene 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 2024

Table 1

Analytical Data Summary for 4/17/2024

Constituents	Units	MW-11	MW-13	MW-14	MW-15A	MW-9
(3 4)-methylphenol	ug/L		<8	<8		<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		<1
1,2,3-trichloropropane	ug/L	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	ug/L		<8	<8		<8
1,2,4-trichlorobenzene	ug/L		<1	<1		<1
1,2-dibromo-3-chloropropane	ug/L	<5	<1	<1	<5	<1
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	<8		<8
1,3,5-trinitrobenzene	ug/L		<8	<8		<8
1,3-dichlorobenzene	ug/L		<1	<1		<1
1,3-dichloropropane	ug/L		<1	<1		<1
1,3-dinitrobenzene	ug/L		<8	<8		<8
1,4-dichlorobenzene	ug/L	<1.0	2.4	<1.0	<1.0	1.5
1,4-naphthoquinone	ug/L		<8	<8		<8
1,4-phenylenediamine	ug/L		<8	<8		<8
1-naphthylamine	ug/L		<8	<8		<8
2,2-dichloropropane	ug/L		<1	<1		<1
2,3,4,6-tetrachlorophenol	ug/L		<8	<8		<8
2,4,5-t	ug/L		<5	<5		<5
2,4,5-tp (silvex)	ug/L		<5	<5		<5
2,4,5-trichlorophenol	ug/L		<8	<8		<8
2,4,6-trichlorophenol	ug/L		<8	<8		<8
2,4-d	ug/L		<2	<2		<2
2,4-dichlorophenol	ug/L		<8	<8		<8
2,4-dimethylphenol	ug/L		<8	<8		<8
2,4-dinitrophenol	ug/L		<8	<8		<8
2,4-dinitrotoluene	ug/L		<8	<8		<8
2,6-dichlorophenol	ug/L		<8	<8		<8
2,6-dinitrotoluene	ug/L		<8	<8		<8
2-acetylaminofluorene	ug/L		<8	<8		<8
2-butanone	ug/L	<10	<5	<5	<10	<5
2-chloronaphthalene	ug/L		<8	<8		<8
2-chlorophenol	ug/L		<8	<8		<8
2-hexanone	ug/L	<5	<5	<5	<5	<5
2-methylnaphthalene	ug/L		<8	<8		<8
2-methylphenol	ug/L		<8	<8		<8
2-naphthylamine	ug/L		<8	<8		<8
2-nitroaniline	ug/L		<8	<8		<8
2-nitrophenol	ug/L		<8	<8		<8
3,3'-dichlorobenzidine	ug/L		<8	<8		<8
3,3'-dimethylbenzidine	ug/L		<8	<8		<8
3-methylcholanthrene	ug/L		<8	<8		<8
3-nitroaniline	ug/L		<8	<8		<8
4,4'-ddd	ug/L		<.05	<.05		<.05
4,4'-dde	ug/L		<.05	<.05		<.05
4,4'-ddt	ug/L		<.05	<.05		<.05
4,6-dinitro-2-methylphenol	ug/L		<8	<8		<8
4-aminobiphenyl	ug/L		<8	<8		<8
4-bromophenyl phenyl ether	ug/L		<8	<8		<8
4-chloro-3-methylphenol	ug/L		<8	<8		<8
4-chloroaniline	ug/L		<8	<8		<8
4-chlorophenyl phenyl ether	ug/L		<8	<8		<8
4-methyl-2-pentanone	ug/L	<5	<5	<5	<5	<5
4-nitroaniline	ug/L		<8	<8		<8
4-nitrophenol	ug/L		<8	<8		<8
5-nitro-o-toluidine	ug/L		<8	<8		<8
7,12-dimethylbenz(a)anthracene	ug/L		<8	<8		<8
Acenaphthene	ug/L		<8	<8		<8
Acenaphthylene	ug/L		<8	<8		<8
Acetone	ug/L	<10	<10	<10	<10	<10
Acetonitrile	ug/L		<10	<10		<10
Acetophenone	ug/L		<8	<8		<8
Acrolein	ug/L		<10	<10		<10
Acrylonitrile	ug/L	<5	<5	<5	<5	<5
Aldrin	ug/L		<.05	<.05		<.05
Allyl chloride	ug/L		<1	<1		<1
Alpha-bhc	ug/L		<.05	<.05		<.05
Anthracene	ug/L		<8	<8		<8

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

Table 1

Analytical Data Summary for 4/17/2024

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	<2		<2
Arochlor 1221	ug/L		<2	<2		<2
Arochlor 1232	ug/L		<2	<2		<2
Arochlor 1242	ug/L		<2	<2		<2
Arochlor 1248	ug/L		<2	<2		<2
Arochlor 1254	ug/L		<2	<2		<2
Arochlor 1260	ug/L		<2	<2		<2
Arsenic, total	ug/L	<4	<4	<4	<4	<4
Azobenzene	ug/L		<8	<8		<8
Barium, total	ug/L	236	434	1040	73	965
Benzene	ug/L	<1	<1	<1	<1	<1
Benzo(a)anthracene	ug/L		<8	<8		<8
Benzo(a)pyrene	ug/L		<8	<8		<8
Benzo(b)fluoranthene	ug/L		<8	<8		<8
Benzo(g,h,i)perylene	ug/L		<8	<8		<8
Benzo(k)fluoranthene	ug/L		<8	<8		<8
Benzyl alcohol	ug/L		<8	<8		<8
Beryllium, total	ug/L	<4	<4	<4	<4	<4
Beta-bhc	ug/L		<.05	<.05		<.05
Bis (2-chloroethoxy) methane	ug/L		<8	<8		<8
Bis(2-chloroethyl) ether	ug/L		<8	<8		<8
Bis(2-chloroisopropyl) ether	ug/L		<8	<8		<8
Bis(2-ethylhexyl) phthalate	ug/L	<6	7	72		8
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	<8		<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	<.1		<.1
Chlorobenzene	ug/L	<1.0	1.8	<1.0	<1.0	1.4
Chlorobenzilate	ug/L		<8	<8		<8
Chloroethane	ug/L	<1.0	2.8	<1.0	<1.0	<1.0
Chloroform	ug/L	<1	<1	<1	<1	<1
Chloromethane	ug/L	<1	<1	<1	<1	<1
Chloroprene	ug/L		<1	<1		<1
Chromium, total	ug/L	<8	<8	<8	<8	<8
Chrysene	ug/L		<8	<8		<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	3.9	11.6	4.1	<.4	10.8
Copper, total	ug/L	<4	<4	<4	<4	<4
Cyanide, total	mg/L		<.005	<.005		<.005
Delta-bhc	ug/L		<.05	<.05		<.05
Diallate	ug/L		<8	<8		<8
Dibenzo(a,h)anthracene	ug/L		<8	<8		<8
Dibenzofuran	ug/L		<8	<8		<8
Dibromochloromethane	ug/L	<1	<1	<1	<1	<1
Dibromomethane	ug/L	<1	<1	<1	<1	<1
Dichlorodifluoromethane	ug/L		<1	<1		<1
Dieldrin	ug/L		<.05	<.05		<.05
Diethyl phthalate	ug/L		<8	<8		<8
Dimethoate	ug/L		<.4	<.4		<.4
Dimethylphthalate	ug/L		<8	<8		<8
Di-n-butyl phthalate	ug/L		<8	<8		<8
Di-n-octyl phthalate	ug/L		<8	<8		<8
Dinoseb	ug/L		<.5	<.5		<.5
Diphenylamine	ug/L		<8	<8		<8
Disulfoton	ug/L		<.4	<.4		<.4
Endosulfan i	ug/L		<.05	<.05		<.05
Endosulfan ii	ug/L		<.05	<.05		<.05
Endosulfan sulfate	ug/L		<.05	<.05		<.05
Endrin	ug/L		<.05	<.05		<.05
Endrin aldehyde	ug/L		<.05	<.05		<.05
Ethyl methacrylate	ug/L		<10	<10		<10
Ethyl methanesulfonate	ug/L		<8	<8		<8
Ethylbenzene	ug/L	<1	<1	<1	<1	<1
Famphur	ug/L		<.4	<.4		<.4
Fluoranthene	ug/L		<8	<8		<8
Fluorene	ug/L		<8	<8		<8
Gamma-bhc (lindane)	ug/L		<.05	<.05		<.05
Heptachlor	ug/L		<.05	<.05		<.05
Heptachlor epoxide	ug/L		<.05	<.05		<.05
Hexachlorobenzene	ug/L		<.05	<.05		<.05

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

Table 1

Analytical Data Summary for 4/17/2024

Constituents	Units	MW-11	MW-13	MW-14	MW-15A	MW-9
Hexachlorobutadiene	ug/L		<8	<8		<8
Hexachlorocyclopentadiene	ug/L		<8	<8		<8
Hexachloroethane	ug/L		<8	<8		<8
Hexachloropropene	ug/L		<8	<8		<8
Indeno(1,2,3-cd)pyrene	ug/L		<8	<8		<8
Isobutanol	mg/L		<1	<1		<1
Isodrin	ug/L		<8	<8		<8
Isophorone	ug/L		<8	<8		<8
Isosafrole	ug/L		<8	<8		<8
Kepone	ug/L		<8	<8		<8
Lead, total	ug/L	<4	<4	<4	<4	<4
Mercury, total	ug/L		<.5	<.5		<.5
Methacrylonitrile	ug/L		<1	<1		<1
Methapyrilene	ug/L		<8	<8		<8
Methoxychlor	ug/L		<.05	<.05		<.05
Methyl iodide	ug/L	<1	<2	<2	<1	<2
Methyl methacrylate	ug/L		<1	<1		<1
Methyl methanesulfonate	ug/L		<8	<8		<8
Methyl parathion	ug/L		<.4	<.4		<.4
Methylene chloride	ug/L	<5	<5	<5	<5	<5
Naphthalene	ug/L		<8	<8		<8
Nickel, total	ug/L	4.6	89.9	31.6	<4.0	46.2
Nitrobenzene	ug/L		<8	<8		<8
N-nitrosodiethylamine	ug/L		<8	<8		<8
N-nitrosodimethylamine	ug/L		<8	<8		<8
N-nitrosodi-n-butylamine	ug/L		<8	<8		<8
N-nitroso-di-n-propylamine	ug/L		<8	<8		<8
N-nitrosodiphenylamine	ug/L		<8	<8		<8
N-nitrosomethylethylamine	ug/L		<8	<8		<8
N-nitrosopiperidine	ug/L		<8	<8		<8
N-nitrosopyrrolidine	ug/L		<8	<8		<8
O,o,o-triethyl phosphorothioate	ug/L		<.4	<.4		<.4
O-toluidine	ug/L		<8	<8		<8
Parathion	ug/L		<.4	<.4		<.4
P-dimethylaminoazobenzene	ug/L		<8	<8		<8
Pentachlorobenzene	ug/L		<8	<8		<8
Pentachloronitrobenzene (pcnb)	ug/L		<8	<8		<8
Pentachlorophenol	ug/L		<8	<8		<8
Phenacetin	ug/L		<8	<8		<8
Phenanthrene	ug/L		<8	<8		<8
Phenol	ug/L		<8	<8		<8
Phorate	ug/L		<.4	<.4		<.4
Pronamide	ug/L		<8	<8		<8
Propionitrile	ug/L		<10	<10		<10
Pyrene	ug/L		<8	<8		<8
Safrole	ug/L		<8	<8		<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		<.15	<.15		<.15
Tetrachloroethene	ug/L	<1	<1	<1	<1	<1
Thallium, total	ug/L	<2	<2	<2	<2	<2
Thionazin	ug/L		<.4	<.4		<.4
Tin, total	ug/L		<20	<20		<20
Toluene	ug/L	<1	<1	<1	<1	<1
Toxaphene	ug/L		<.2	<.2		<.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	
Antimony, total	ug/L	MW-15A	04/17/2024	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	
Arsenic, total	ug/L	MW-15A	04/17/2024	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	
Barium, total	ug/L	MW-15A	04/17/2024		73.0000	
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	10/04/2020	ND	4.0000	
Beryllium, total	ug/L	MW-15A	04/09/2020	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	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		
Beryllium, total	ug/L	MW-15A	04/06/2022	ND	4.0000		
Beryllium, total	ug/L	MW-15A	10/04/2023	ND	4.0000		
Beryllium, total	ug/L	MW-15A	04/17/2024	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		
Cadmium, total	ug/L	MW-15A	04/17/2024	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		
Chromium, total	ug/L	MW-15A	04/17/2024	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	**
Cobalt, total	ug/L	MW-15A	04/17/2024	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		

* - 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	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	
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	
Copper, total	ug/L	MW-15A	04/17/2024	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	
Lead, total	ug/L	MW-15A	04/17/2024	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	
Nickel, total	ug/L	MW-15A	04/17/2024	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		4.0000	
Selenium, total	ug/L	MW-15A	10/04/2023	ND	4.0000	
Selenium, total	ug/L	MW-15A	04/17/2024	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	

* - 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	04/01/2015	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		
Silver, total	ug/L	MW-15A	04/17/2024	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	**
Thallium, total	ug/L	MW-15A	04/17/2024	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		
Vanadium, total	ug/L	MW-15A	04/17/2024	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		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		9.0000		
Zinc, total	ug/L	MW-15A	04/08/2019	ND	8.0000		
Zinc, total	ug/L	MW-15A	10/04/2019		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	**

* - 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	
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	**
Zinc, total	ug/L	MW-15A	04/17/2024	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		
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		

* - 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	
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		
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		

* - 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	
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		
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	**

* - 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	
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		
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	04/17/2024	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-11	04/17/2024		236.0000		297.6737
Beryllium, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-11	04/17/2024	ND	0.8000		2.2000
Chromium, total	ug/L	MW-11	04/17/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-11	04/17/2024		3.9000		11.6000
Copper, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.1000
Lead, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-11	04/17/2024		4.6000		10.9000
Selenium, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-11	04/17/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-11	04/17/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-11	04/17/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-11	04/17/2024	ND	20.0000		29.4000
Antimony, total	ug/L	MW-13	04/17/2024	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-13	04/17/2024		434.0000	***	297.6737
Beryllium, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-13	04/17/2024	ND	0.8000		2.2000
Chromium, total	ug/L	MW-13	04/17/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-13	04/17/2024		11.6000		11.6000
Copper, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.1000
Lead, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-13	04/17/2024		89.9000	***	10.9000
Selenium, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-13	04/17/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-13	04/17/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-13	04/17/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-13	04/17/2024	ND	20.0000		29.4000
Antimony, total	ug/L	MW-14	04/17/2024	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-14	04/17/2024	ND	4.0000	**	4.0000
Barium, total	ug/L	MW-14	04/17/2024		1040.0000	***	297.6737
Beryllium, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-14	04/17/2024	ND	0.8000		2.2000
Chromium, total	ug/L	MW-14	04/17/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-14	04/17/2024		4.1000		11.6000
Copper, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.1000
Lead, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-14	04/17/2024		31.6000	***	10.9000
Selenium, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-14	04/17/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-14	04/17/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-14	04/17/2024	ND	20.0000		29.4000
Antimony, total	ug/L	MW-9	04/17/2024	ND	2.0000		2.8000
Arsenic, total	ug/L	MW-9	04/17/2024	ND	4.0000	**	4.0000
Barium, total	ug/L	MW-9	04/17/2024		965.0000	***	297.6737
Beryllium, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.0000
Cadmium, total	ug/L	MW-9	04/17/2024	ND	0.8000		2.2000
Chromium, total	ug/L	MW-9	04/17/2024	ND	8.0000		8.0000
Cobalt, total	ug/L	MW-9	04/17/2024		10.8000		11.6000
Copper, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.1000
Lead, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.0000
Nickel, total	ug/L	MW-9	04/17/2024		46.2000	***	10.9000
Selenium, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.0000
Silver, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.0000
Thallium, total	ug/L	MW-9	04/17/2024	ND	2.0000		4.0000
Vanadium, total	ug/L	MW-9	04/17/2024	ND	20.0000		20.0000
Zinc, total	ug/L	MW-9	04/17/2024	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	37	0.027	1	133	0.008
Arsenic, total	0	37	0.000	40	131	0.305
Barium, total	37	37	1.000	154	154	1.000
Beryllium, total	0	37	0.000	0	99	0.000
Cadmium, total	4	37	0.108	29	123	0.236
Chromium, total	0	37	0.000	22	131	0.168
Cobalt, total	6	37	0.162	98	143	0.685
Copper, total	1	37	0.027	59	150	0.393
Lead, total	0	37	0.000	28	135	0.207
Nickel, total	6	37	0.162	149	154	0.968
Selenium, total	0	37	0.000	16	122	0.131
Silver, total	0	37	0.000	0	99	0.000
Thallium, total	0	37	0.000	2	129	0.016
Vanadium, total	0	37	0.000	15	130	0.115
Zinc, total	8	37	0.216	81	149	0.544

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	37	0.027									nonpar
Arsenic, total	0	37	0.000									nonpar
Barium, total	37	37	1.000	0.254	2.552					2.326	normal	normal
Beryllium, total	0	37	0.000									nonpar
Cadmium, total	4	37	0.108	0.346	0.570					2.326	normal	nonpar
Chromium, total	0	37	0.000									nonpar
Cobalt, total	6	37	0.162	0.285	0.547					2.326	normal	nonpar
Copper, total	1	37	0.027									nonpar
Lead, total	0	37	0.000									nonpar
Nickel, total	6	37	0.162	1.753	1.220					2.326	normal	nonpar
Selenium, total	0	37	0.000									nonpar
Silver, total	0	37	0.000									nonpar
Thallium, total	0	37	0.000									nonpar
Vanadium, total	0	37	0.000									nonpar
Zinc, total	8	37	0.216	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	37					2.8000	nonpar	0.99
Arsenic, total	ug/L	0	37					4.0000	nonpar	0.99
Barium, total	ug/L	37	37	176.6757	49.0461	0.0100	2.4670	297.6737	normal	0.99
Beryllium, total	ug/L	0	37					4.0000	nonpar	0.99
Cadmium, total	ug/L	4	37					2.2000	nonpar	0.99
Chromium, total	ug/L	0	37					8.0000	nonpar	0.99
Cobalt, total	ug/L	6	37					11.6000	nonpar	0.99
Copper, total	ug/L	1	37					4.1000	nonpar	0.99
Lead, total	ug/L	0	37					4.0000	nonpar	0.99
Nickel, total	ug/L	6	37					10.9000	nonpar	0.99
Selenium, total	ug/L	0	37					4.0000	nonpar	0.99
Silver, total	ug/L	0	37					4.0000	nonpar	0.99
Thallium, total	ug/L	0	37					4.0000	nonpar	0.99
Vanadium, total	ug/L	0	37					20.0000	nonpar	0.99
Zinc, total	ug/L	8	37					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 6

**Dixon's Test Outliers
1% Significance Level**

Constituent	Units	Well	Date	Result	ND Qualifier	Date Range	N	Critical Value
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N = Total number of independent measurements in background at each well.

Date Range = Dates of the first and last measurements included in background at each well.

Critical Value depends on the significance level and on N-1 when the two most extreme values are tested or N for the most extreme value.

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	10/17/2006		244.0000	297.6737
Barium, total	ug/L	MW-13	04/18/2007		178.0000	297.6737
Barium, total	ug/L	MW-13	10/03/2007		284.0000	297.6737
Barium, total	ug/L	MW-13	04/21/2008		16.6000	297.6737
Barium, total	ug/L	MW-13	10/06/2008		284.0000	297.6737
Barium, total	ug/L	MW-13	04/17/2009		171.0000	297.6737
Barium, total	ug/L	MW-13	06/25/2009		247.0000	297.6737
Barium, total	ug/L	MW-13	07/20/2009		366.0000 *	297.6737
Barium, total	ug/L	MW-13	10/12/2009		264.0000	297.6737
Barium, total	ug/L	MW-13	10/28/2009		227.0000	297.6737
Barium, total	ug/L	MW-13	04/14/2010		191.0000	297.6737
Barium, total	ug/L	MW-13	07/13/2010		315.0000 *	297.6737
Barium, total	ug/L	MW-13	09/23/2010		328.0000 *	297.6737
Barium, total	ug/L	MW-13	04/21/2011		119.0000	297.6737
Barium, total	ug/L	MW-13	11/03/2011		280.0000	297.6737
Barium, total	ug/L	MW-13	04/24/2012		216.0000	297.6737
Barium, total	ug/L	MW-13	09/19/2012		275.0000	297.6737
Barium, total	ug/L	MW-13	04/24/2013		193.0000	297.6737
Barium, total	ug/L	MW-13	10/08/2013		325.0000 *	297.6737
Barium, total	ug/L	MW-13	04/24/2014		288.0000	297.6737
Barium, total	ug/L	MW-13	10/15/2014		355.0000 *	297.6737
Barium, total	ug/L	MW-13	04/01/2015		321.0000 *	297.6737
Barium, total	ug/L	MW-13	10/02/2015		359.0000 *	297.6737
Barium, total	ug/L	MW-13	04/19/2016		434.0000 *	297.6737
Barium, total	ug/L	MW-13	10/10/2016		291.0000	297.6737
Barium, total	ug/L	MW-13	04/04/2017		130.0000	297.6737
Barium, total	ug/L	MW-13	10/18/2017		341.0000 *	297.6737
Barium, total	ug/L	MW-13	01/12/2018		337.0000 *	297.6737
Barium, total	ug/L	MW-13	04/12/2018		259.0000	297.6737
Barium, total	ug/L	MW-13	10/23/2018		392.0000 *	297.6737
Barium, total	ug/L	MW-13	04/08/2019		280.0000	297.6737
Barium, total	ug/L	MW-13	10/04/2019		403.0000 *	297.6737
Barium, total	ug/L	MW-13	04/09/2020		253.0000	297.6737
Barium, total	ug/L	MW-13	10/01/2020		384.0000 *	297.6737
Barium, total	ug/L	MW-13	04/01/2021		141.0000	297.6737
Barium, total	ug/L	MW-13	10/04/2021		358.0000 *	297.6737
Barium, total	ug/L	MW-13	04/06/2022		352.0000 *	297.6737
Barium, total	ug/L	MW-13	10/04/2023		334.0000 *	297.6737
Barium, total	ug/L	MW-13	04/17/2024		434.0000 *	297.6737
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

* - 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
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
Nickel, total	ug/L	MW-13	04/17/2024		89.9000	*	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
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
Arsenic, total	ug/L	MW-14	04/17/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-14	10/17/2006		883.0000	*	297.6737
Barium, total	ug/L	MW-14	04/18/2007		632.0000	*	297.6737
Barium, total	ug/L	MW-14	10/03/2007		1590.0000	*	297.6737
Barium, total	ug/L	MW-14	04/21/2008		366.0000	*	297.6737
Barium, total	ug/L	MW-14	10/06/2008		1090.0000	*	297.6737
Barium, total	ug/L	MW-14	04/14/2009		2320.0000	*	297.6737
Barium, total	ug/L	MW-14	04/17/2009		1560.0000	*	297.6737
Barium, total	ug/L	MW-14	06/25/2009		960.0000	*	297.6737
Barium, total	ug/L	MW-14	07/20/2009		1120.0000	*	297.6737
Barium, total	ug/L	MW-14	10/12/2009		1190.0000	*	297.6737
Barium, total	ug/L	MW-14	10/28/2009		959.0000	*	297.6737
Barium, total	ug/L	MW-14	04/14/2010		754.0000	*	297.6737
Barium, total	ug/L	MW-14	07/13/2010		885.0000	*	297.6737
Barium, total	ug/L	MW-14	09/23/2010		1020.0000	*	297.6737
Barium, total	ug/L	MW-14	04/21/2011		572.0000	*	297.6737
Barium, total	ug/L	MW-14	11/03/2011		1180.0000	*	297.6737
Barium, total	ug/L	MW-14	04/24/2012		110.0000	*	297.6737
Barium, total	ug/L	MW-14	09/19/2012		917.0000	*	297.6737
Barium, total	ug/L	MW-14	04/24/2013		349.0000	*	297.6737
Barium, total	ug/L	MW-14	10/08/2013		533.0000	*	297.6737
Barium, total	ug/L	MW-14	04/24/2014		290.0000	*	297.6737
Barium, total	ug/L	MW-14	10/15/2014		711.0000	*	297.6737
Barium, total	ug/L	MW-14	04/01/2015		747.0000	*	297.6737
Barium, total	ug/L	MW-14	06/09/2015		419.0000	*	297.6737
Barium, total	ug/L	MW-14	10/02/2015		818.0000	*	297.6737

* - 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-14	04/19/2016		671.0000 *	297.6737
Barium, total	ug/L	MW-14	10/10/2016		483.0000 *	297.6737
Barium, total	ug/L	MW-14	04/04/2017		76.3000	297.6737
Barium, total	ug/L	MW-14	10/18/2017		1110.0000 *	297.6737
Barium, total	ug/L	MW-14	01/12/2018		692.0000 *	297.6737
Barium, total	ug/L	MW-14	04/12/2018		1130.0000 *	297.6737
Barium, total	ug/L	MW-14	10/23/2018		368.0000 *	297.6737
Barium, total	ug/L	MW-14	04/08/2019		809.0000 *	297.6737
Barium, total	ug/L	MW-14	10/04/2019		903.0000 *	297.6737
Barium, total	ug/L	MW-14	04/09/2020		986.0000 *	297.6737
Barium, total	ug/L	MW-14	10/01/2020		717.0000 *	297.6737
Barium, total	ug/L	MW-14	04/01/2021		714.0000 *	297.6737
Barium, total	ug/L	MW-14	10/04/2021		1530.0000 *	297.6737
Barium, total	ug/L	MW-14	04/06/2022		1360.0000 *	297.6737
Barium, total	ug/L	MW-14	10/04/2023		843.0000 *	297.6737
Barium, total	ug/L	MW-14	04/17/2024		1040.0000 *	297.6737
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
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
Nickel, total	ug/L	MW-14	04/17/2024		31.6000 *	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

* - 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-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
Arsenic, total	ug/L	MW-9	04/17/2024	ND	4.0000		4.0000
Barium, total	ug/L	MW-9	10/17/2006		923.0000	*	297.6737
Barium, total	ug/L	MW-9	04/18/2007		671.0000	*	297.6737
Barium, total	ug/L	MW-9	10/03/2007		609.0000	*	297.6737
Barium, total	ug/L	MW-9	04/21/2008		554.0000	*	297.6737
Barium, total	ug/L	MW-9	10/06/2008		555.0000	*	297.6737
Barium, total	ug/L	MW-9	04/13/2009		157.0000	*	297.6737
Barium, total	ug/L	MW-9	04/17/2009		596.0000	*	297.6737
Barium, total	ug/L	MW-9	06/25/2009		687.0000	*	297.6737
Barium, total	ug/L	MW-9	07/20/2009		579.0000	*	297.6737
Barium, total	ug/L	MW-9	10/12/2009		618.0000	*	297.6737
Barium, total	ug/L	MW-9	10/28/2009		622.0000	*	297.6737
Barium, total	ug/L	MW-9	04/14/2010		599.0000	*	297.6737
Barium, total	ug/L	MW-9	07/13/2010		719.0000	*	297.6737
Barium, total	ug/L	MW-9	09/23/2010		627.0000	*	297.6737
Barium, total	ug/L	MW-9	04/21/2011		212.0000	*	297.6737
Barium, total	ug/L	MW-9	11/03/2011		581.0000	*	297.6737
Barium, total	ug/L	MW-9	04/24/2012		619.0000	*	297.6737
Barium, total	ug/L	MW-9	09/19/2012		665.0000	*	297.6737
Barium, total	ug/L	MW-9	04/24/2013		597.0000	*	297.6737
Barium, total	ug/L	MW-9	10/08/2013		604.0000	*	297.6737
Barium, total	ug/L	MW-9	04/24/2014		522.0000	*	297.6737
Barium, total	ug/L	MW-9	10/16/2014		651.0000	*	297.6737
Barium, total	ug/L	MW-9	04/01/2015		742.0000	*	297.6737
Barium, total	ug/L	MW-9	06/09/2015		789.0000	*	297.6737
Barium, total	ug/L	MW-9	10/02/2015		862.0000	*	297.6737
Barium, total	ug/L	MW-9	04/19/2016		932.0000	*	297.6737
Barium, total	ug/L	MW-9	10/10/2016		652.0000	*	297.6737
Barium, total	ug/L	MW-9	04/04/2017		917.0000	*	297.6737
Barium, total	ug/L	MW-9	10/18/2017		638.0000	*	297.6737
Barium, total	ug/L	MW-9	04/12/2018		691.0000	*	297.6737
Barium, total	ug/L	MW-9	10/23/2018		721.0000	*	297.6737
Barium, total	ug/L	MW-9	04/08/2019		717.0000	*	297.6737
Barium, total	ug/L	MW-9	10/04/2019		616.0000	*	297.6737
Barium, total	ug/L	MW-9	04/09/2020		707.0000	*	297.6737
Barium, total	ug/L	MW-9	10/01/2020		630.0000	*	297.6737
Barium, total	ug/L	MW-9	04/01/2021		839.0000	*	297.6737
Barium, total	ug/L	MW-9	10/04/2021		773.0000	*	297.6737
Barium, total	ug/L	MW-9	04/06/2022		1120.0000	*	297.6737
Barium, total	ug/L	MW-9	10/04/2023		855.0000	*	297.6737
Barium, total	ug/L	MW-9	04/17/2024		965.0000	*	297.6737
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

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

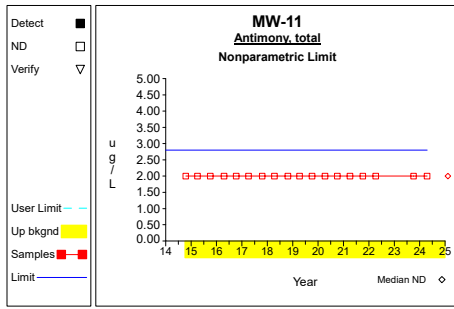
Table 8

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

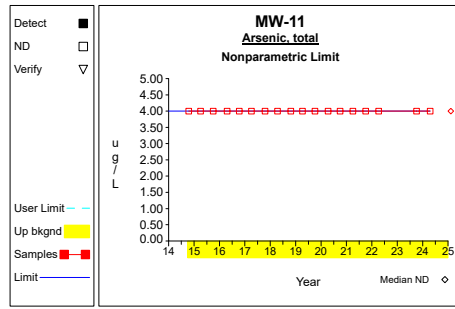
Constituent	Units	Well	Date	Result	Pred. Limit
Nickel, total	ug/L	MW-9	04/14/2010	19.1000 *	10.9000
Nickel, total	ug/L	MW-9	07/13/2010	25.2000 *	10.9000
Nickel, total	ug/L	MW-9	09/23/2010	19.8000 *	10.9000
Nickel, total	ug/L	MW-9	04/21/2011	33.0000 *	10.9000
Nickel, total	ug/L	MW-9	11/03/2011	17.7000 *	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
Nickel, total	ug/L	MW-9	04/17/2024	46.2000 *	10.9000

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

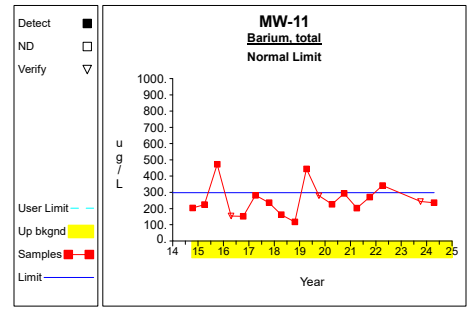
Up vs. Down Prediction Limits



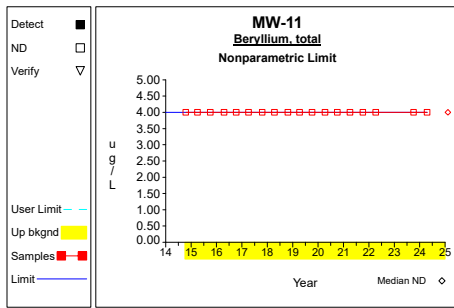
Graph 1



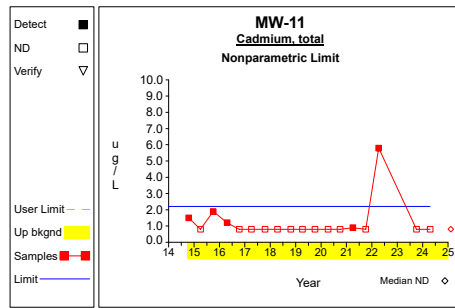
Graph 2



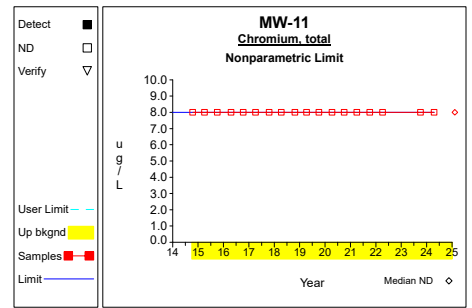
Graph 3



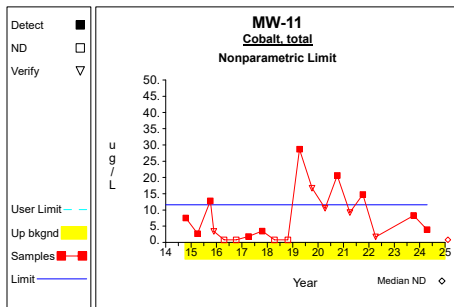
Graph 4



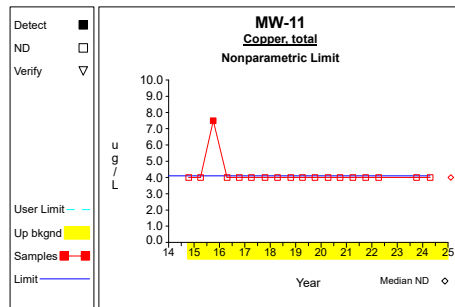
Graph 5



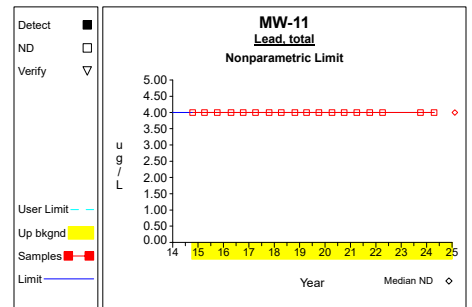
Graph 6



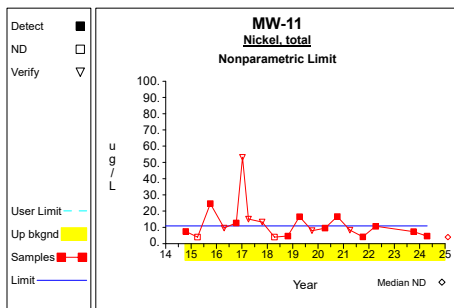
Graph 7



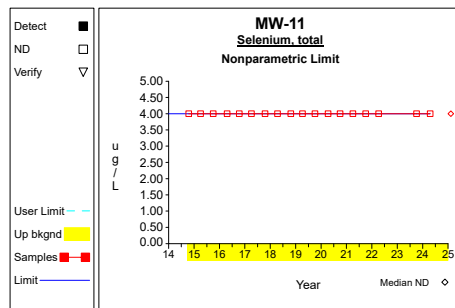
Graph 8



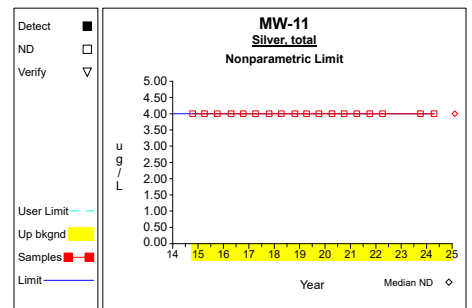
Graph 9



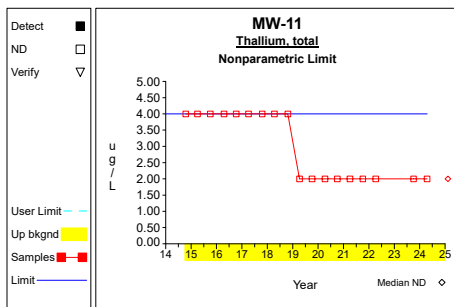
Graph 10



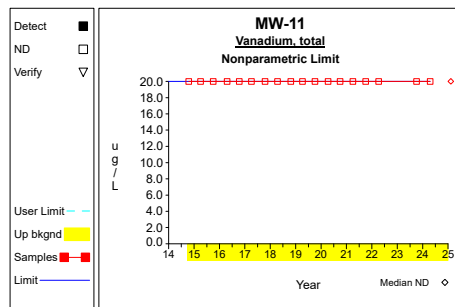
Graph 11



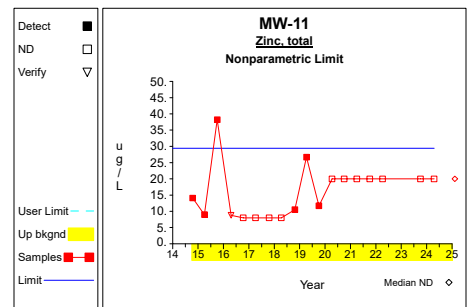
Graph 12



Graph 13

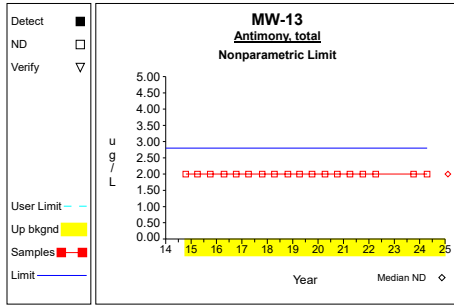


Graph 14

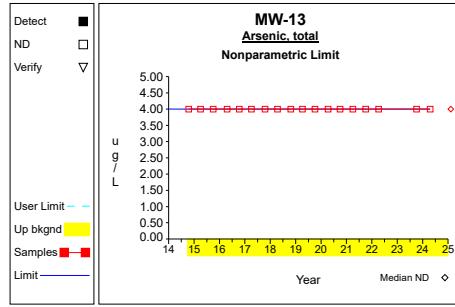


Graph 15

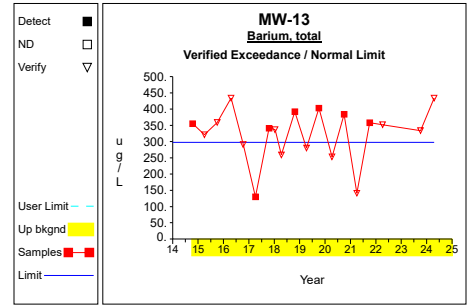
Up vs. Down Prediction Limits



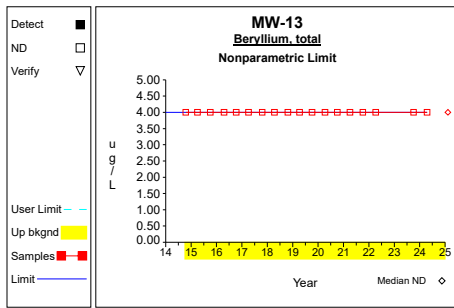
Graph 16



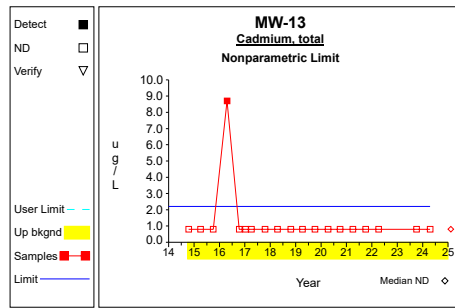
Graph 17



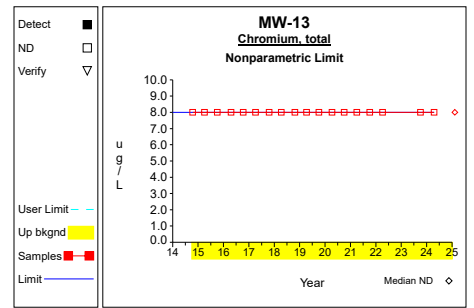
Graph 18



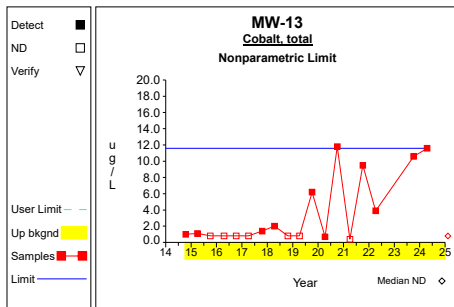
Graph 19



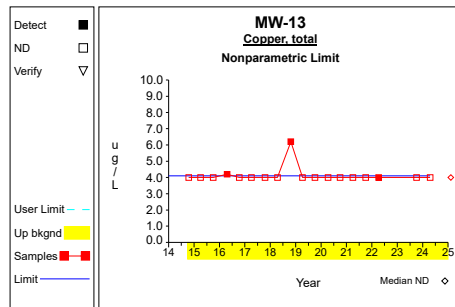
Graph 20



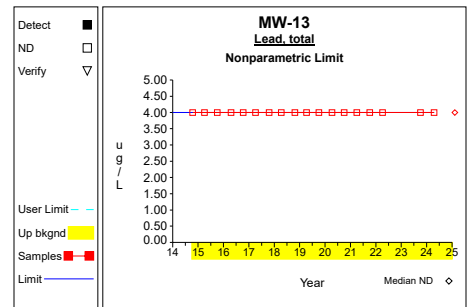
Graph 21



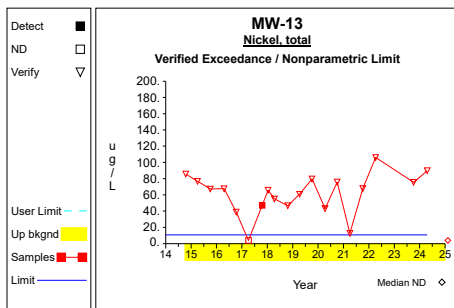
Graph 22



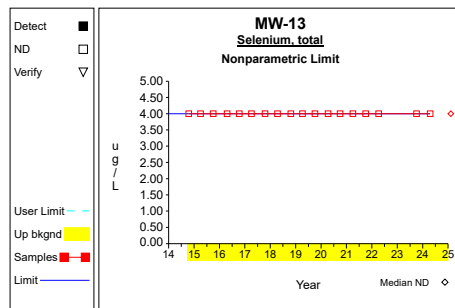
Graph 23



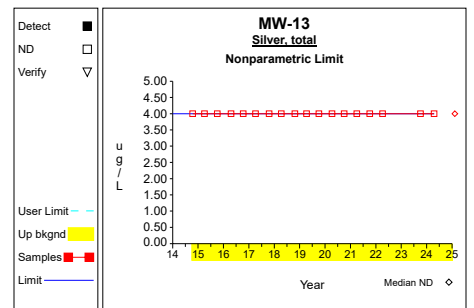
Graph 24



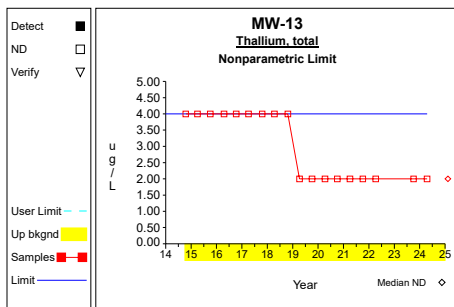
Graph 25



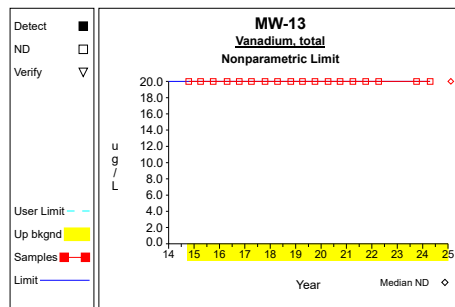
Graph 26



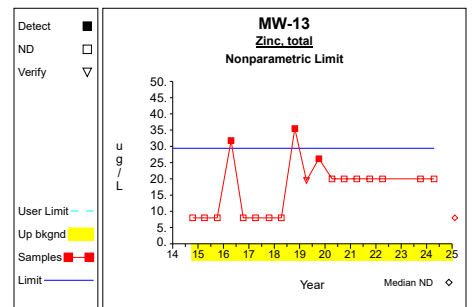
Graph 27



Graph 28

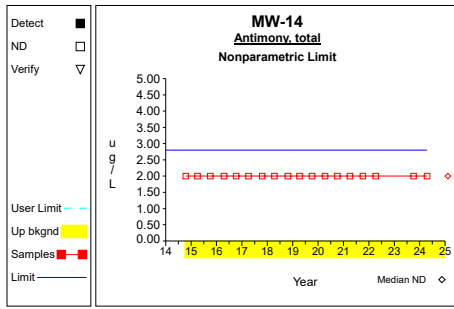


Graph 29

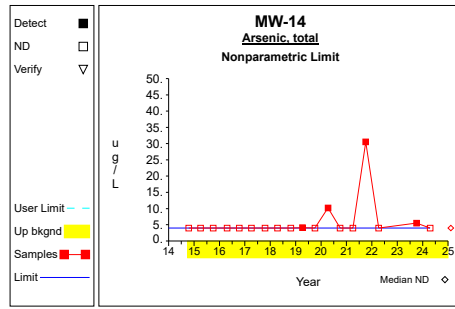


Graph 30

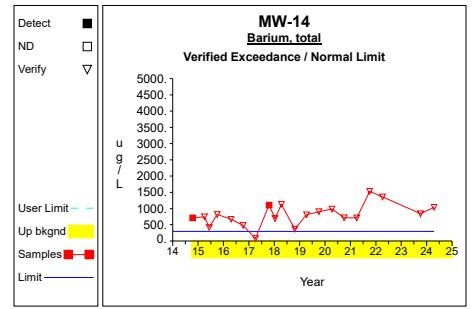
Up vs. Down Prediction Limits



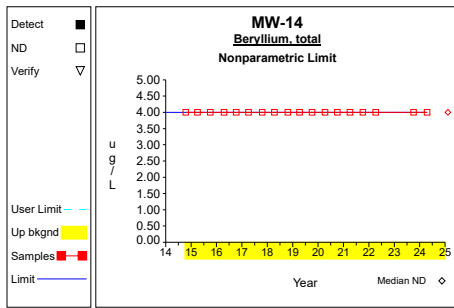
Graph 31



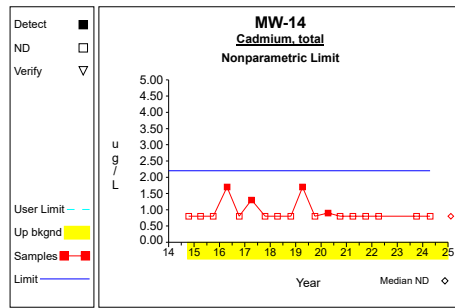
Graph 32



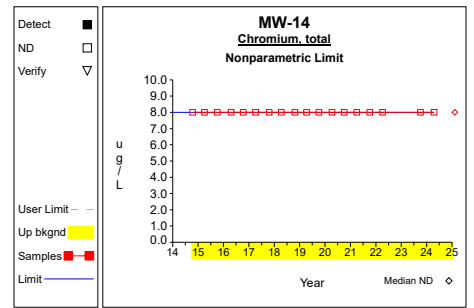
Graph 33



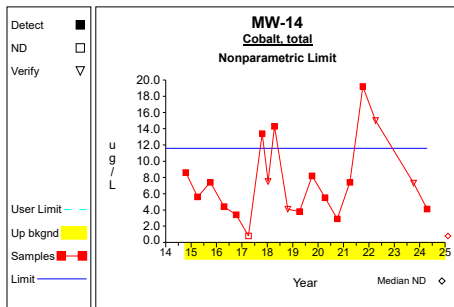
Graph 34



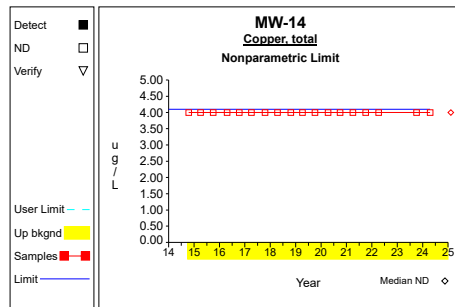
Graph 35



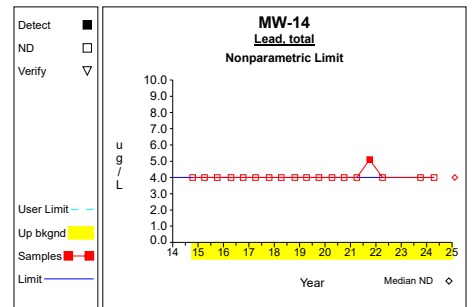
Graph 36



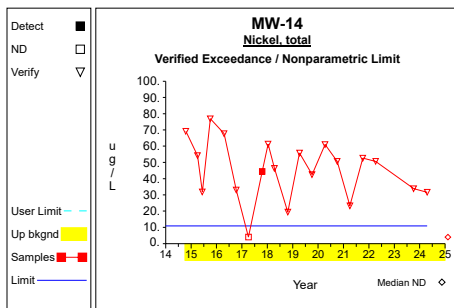
Graph 37



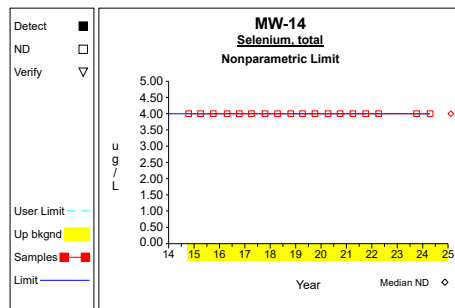
Graph 38



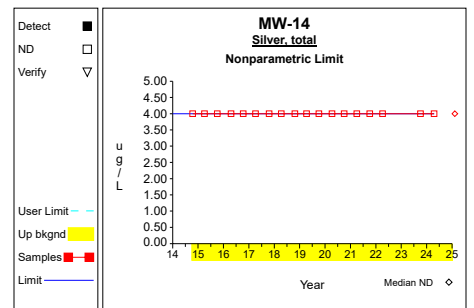
Graph 39



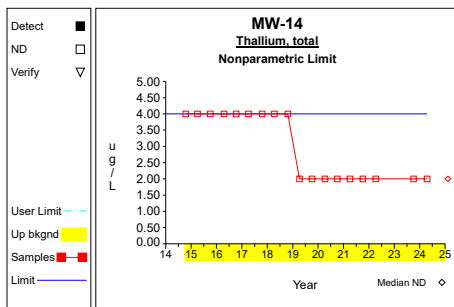
Graph 40



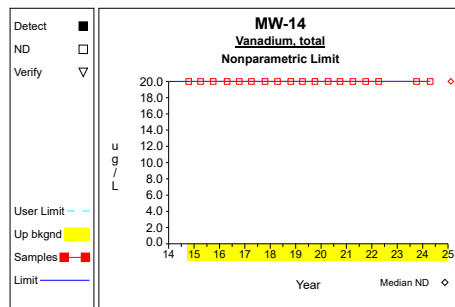
Graph 41



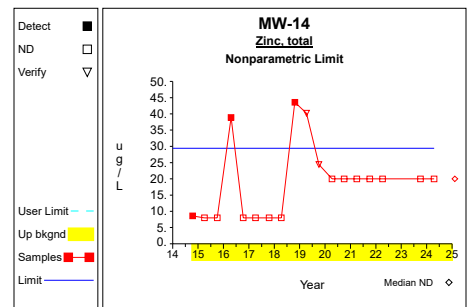
Graph 42



Graph 43

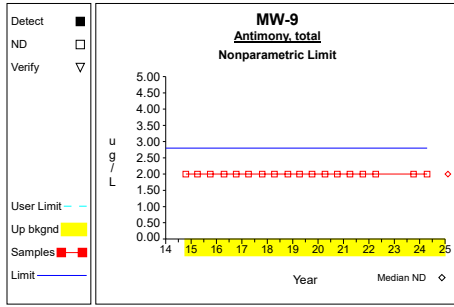


Graph 44

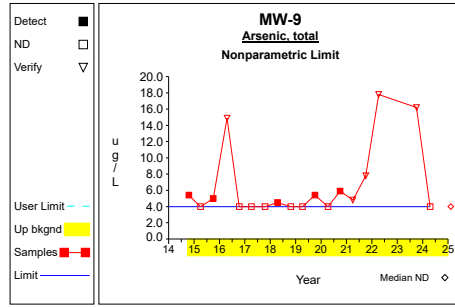


Graph 45

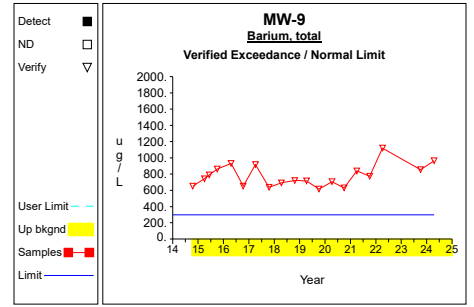
Up vs. Down Prediction Limits



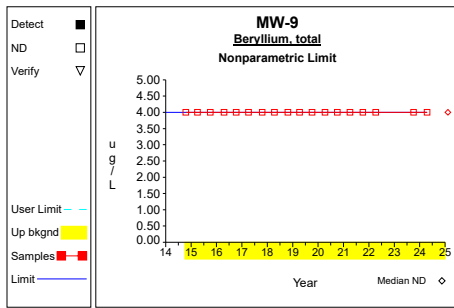
Graph 46



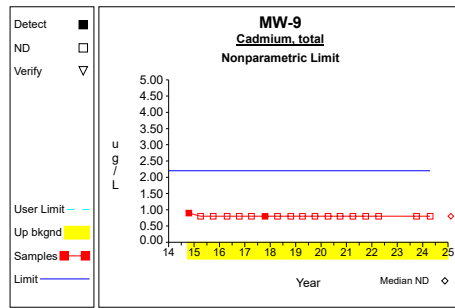
Graph 47



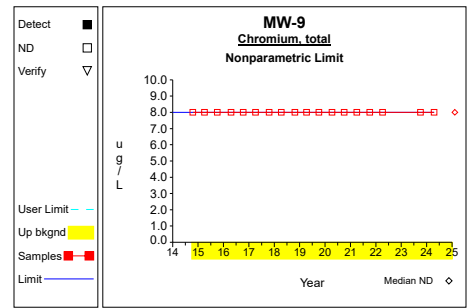
Graph 48



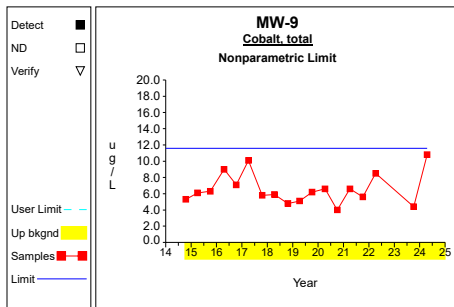
Graph 49



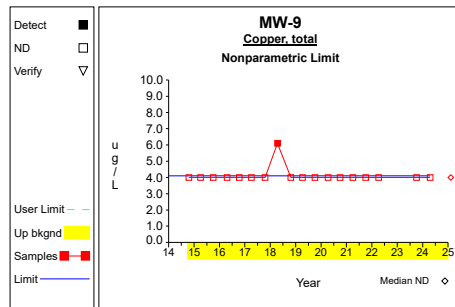
Graph 50



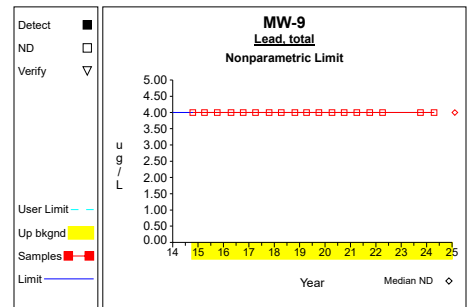
Graph 51



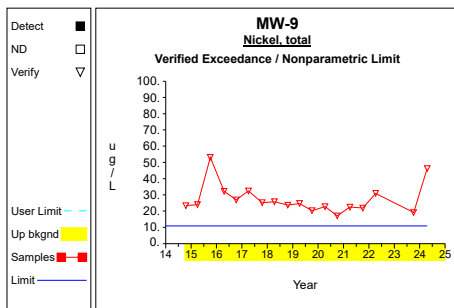
Graph 52



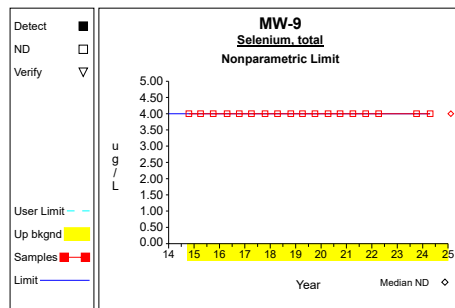
Graph 53



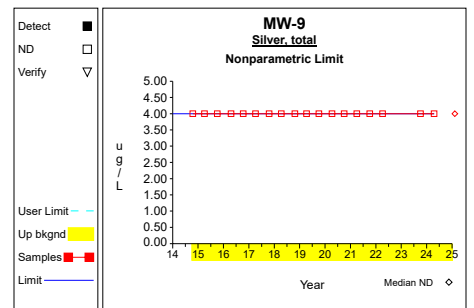
Graph 54



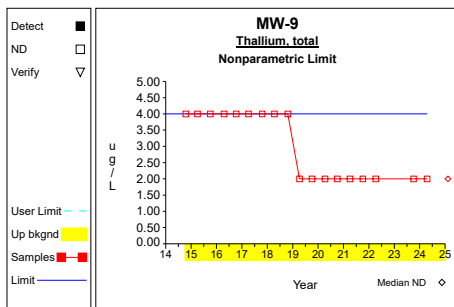
Graph 55



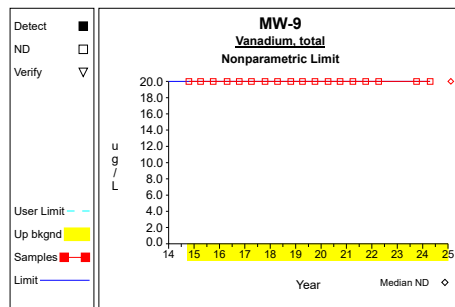
Graph 56



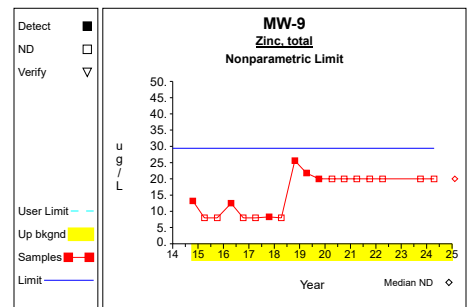
Graph 57



Graph 58

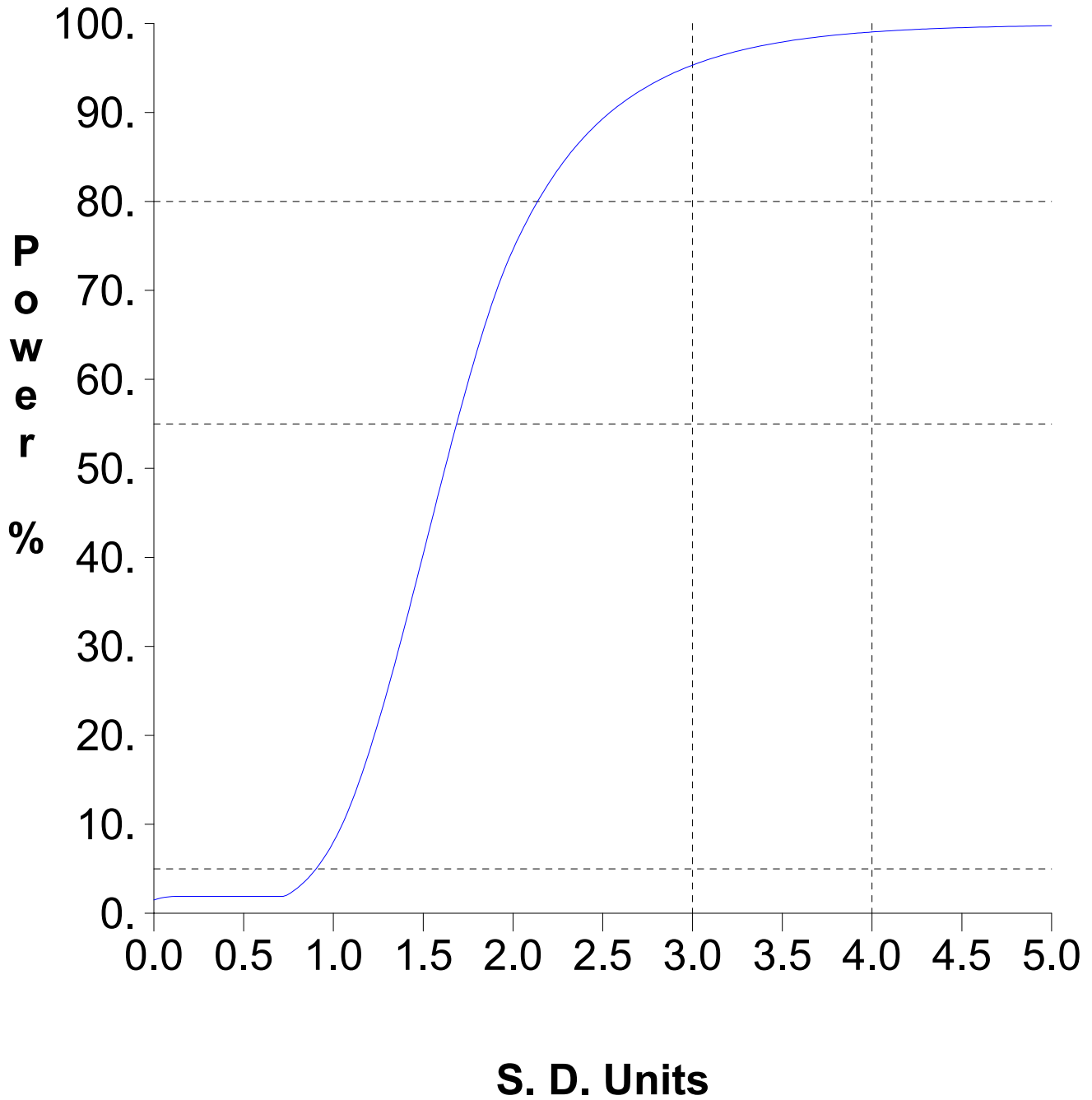


Graph 59



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	272.750	48.438	1.176	215.773	329.727	2000.000	
Cadmium, total	ug/L	MW-11	4	1.750	2.700	1.176	0.000	4.926	5.000	
Cobalt, total	ug/L	MW-11	4	7.175	5.777	1.176	0.380	13.970	2.100	
Nickel, total	ug/L	MW-11	4	6.725	3.008	1.176	3.187	10.263	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	369.500	44.193	1.176	317.517	421.483	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	8.900	3.442	1.176	4.851	12.949	2.100	
Nickel, total	ug/L	MW-13	4	84.775	16.860	1.176	64.942	104.608	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	1193.250	309.498	1.176	829.191	1557.309	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	11.400	6.926	1.176	3.253	19.547	2.100	
Nickel, total	ug/L	MW-14	4	42.150	10.979	1.176	29.235	55.065	100.000	
Arsenic, total	ug/L	MW-9	4	10.950	7.405	1.176	2.239	19.661	10.000	
Barium, total	ug/L	MW-9	4	928.250	150.096	1.176	751.693	1104.807	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	7.325	2.886	1.176	3.930	10.720	2.100	
Nickel, total	ug/L	MW-9	4	29.525	12.203	1.176	15.170	43.880	100.000	

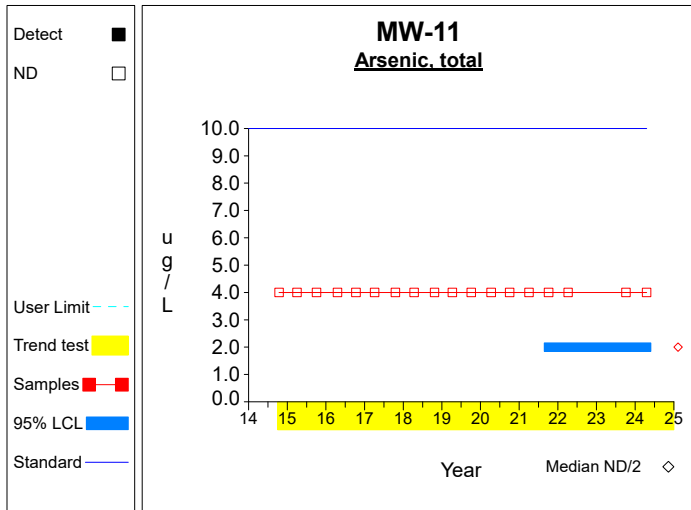
* - Insufficient Data

** - Significant Exceedance

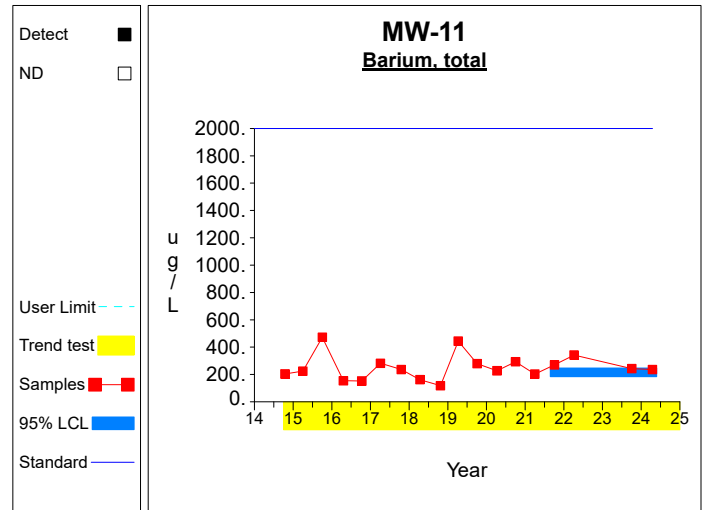
LCL = Lower Confidence Limit

UCL = Upper Confidence Limit

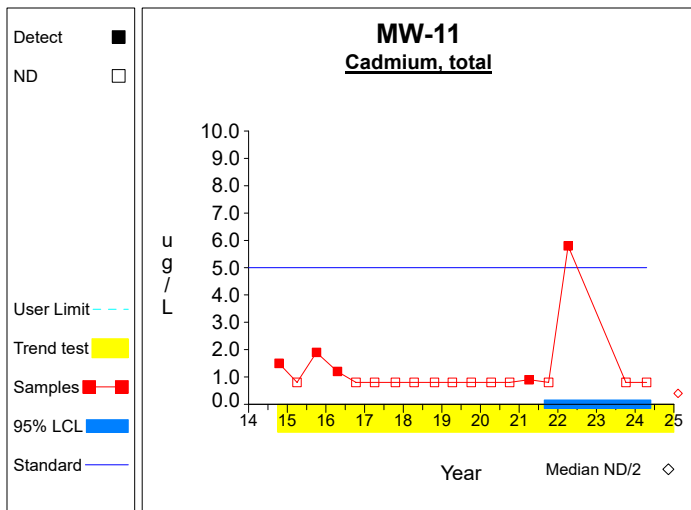
Confidence Limits (Assessment)



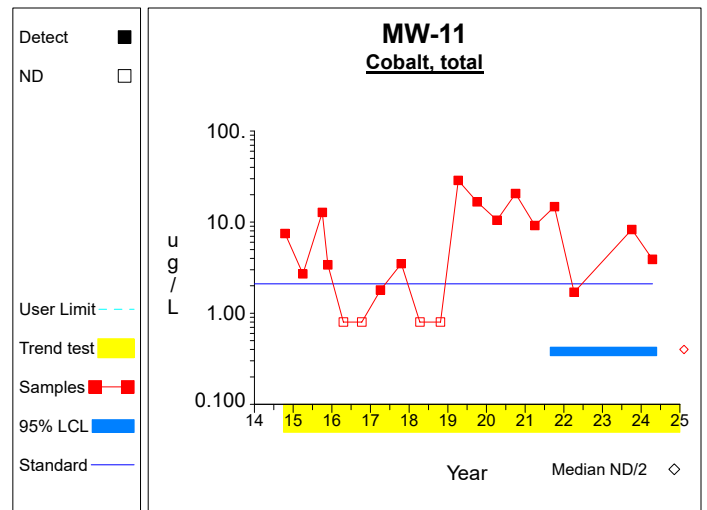
Graph 1



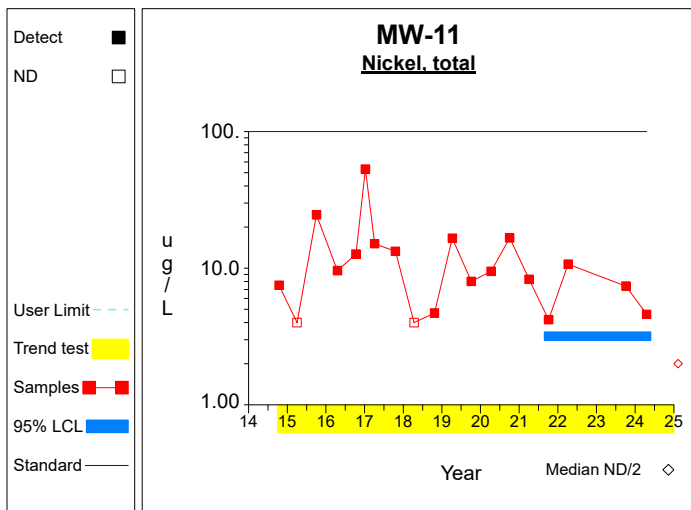
Graph 2



Graph 3

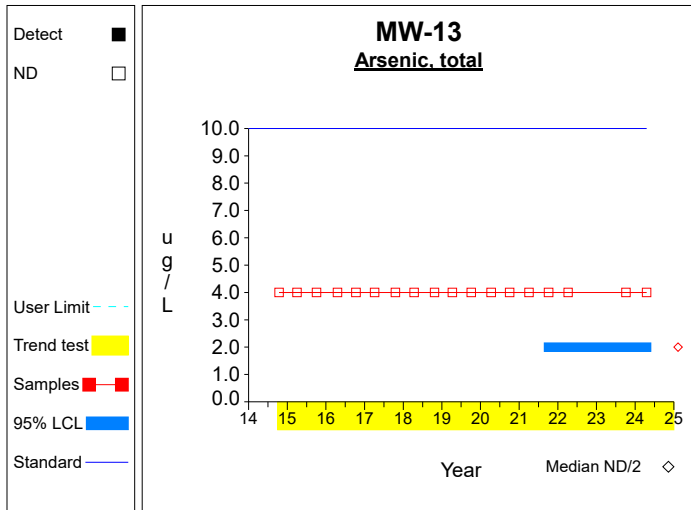


Graph 4

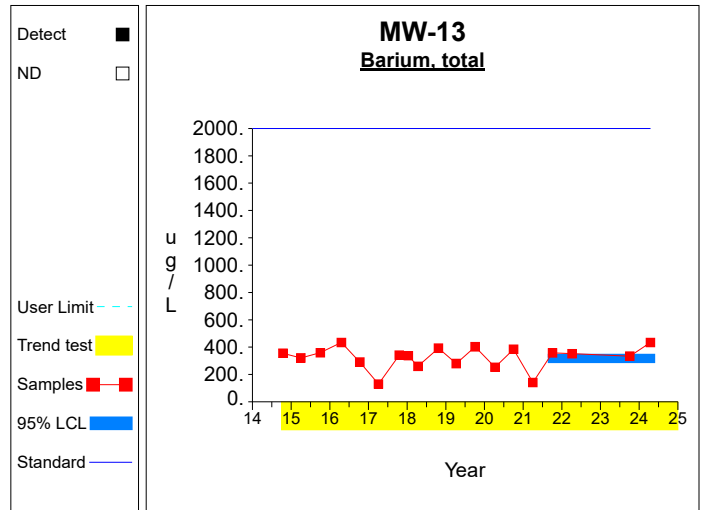


Graph 5

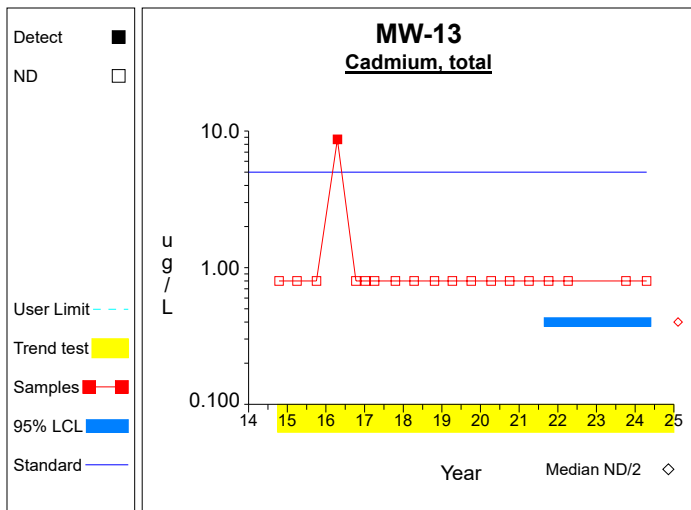
Confidence Limits (Assessment)



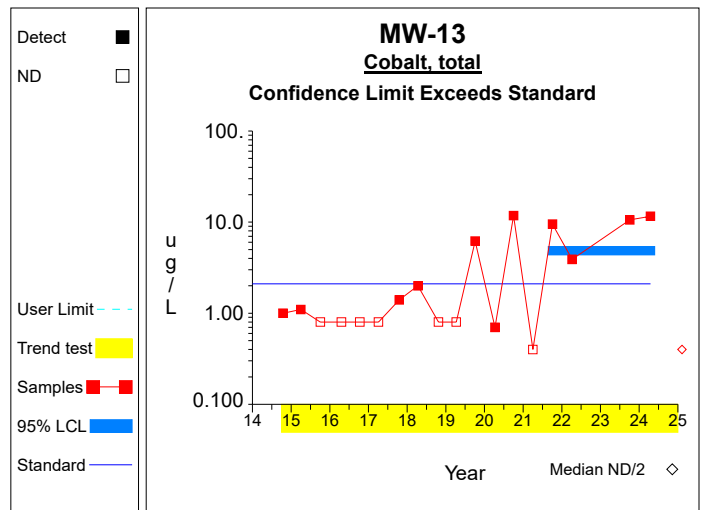
Graph 6



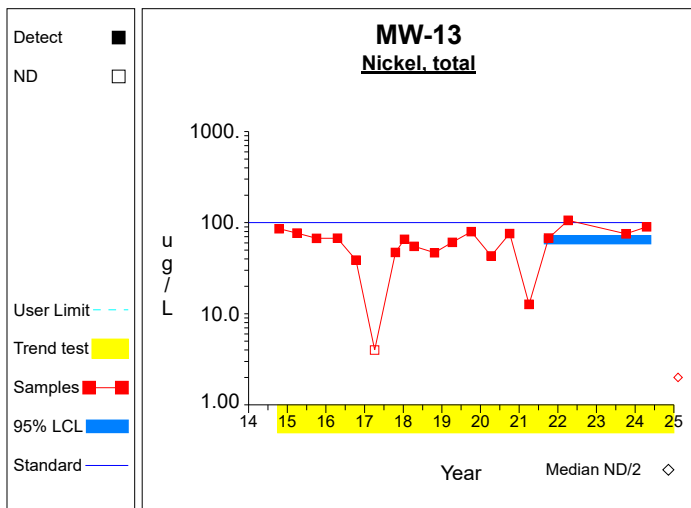
Graph 7



Graph 8

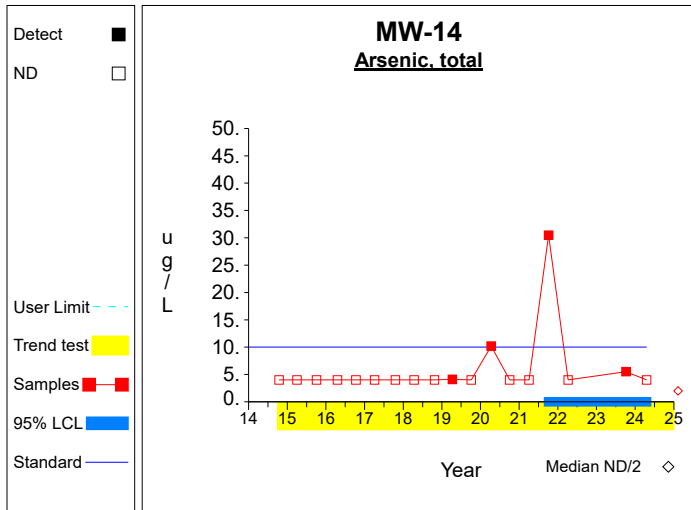


Graph 9

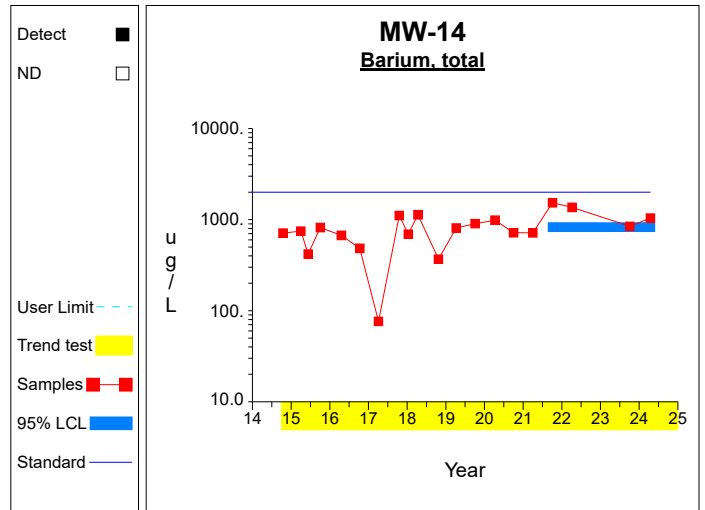


Graph 10

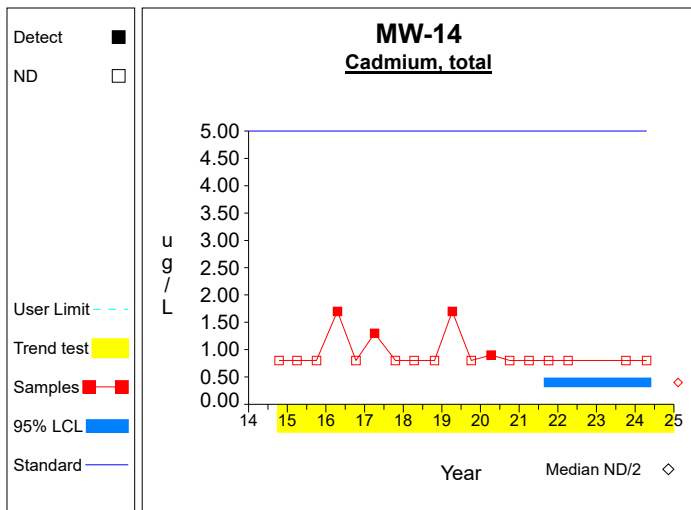
Confidence Limits (Assessment)



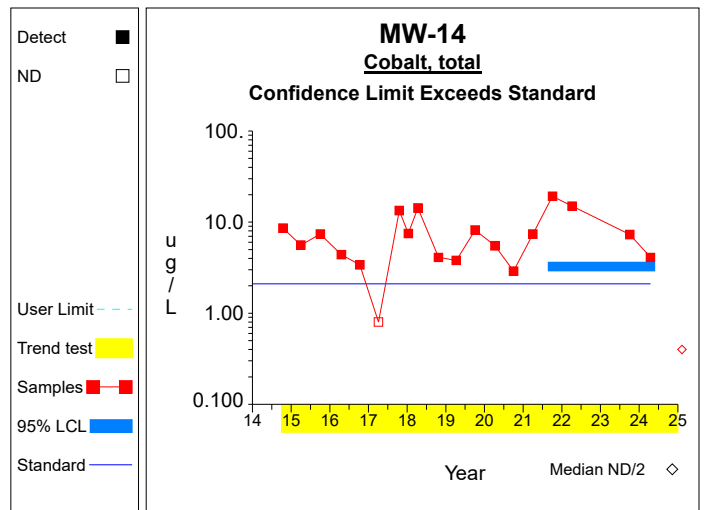
Graph 11



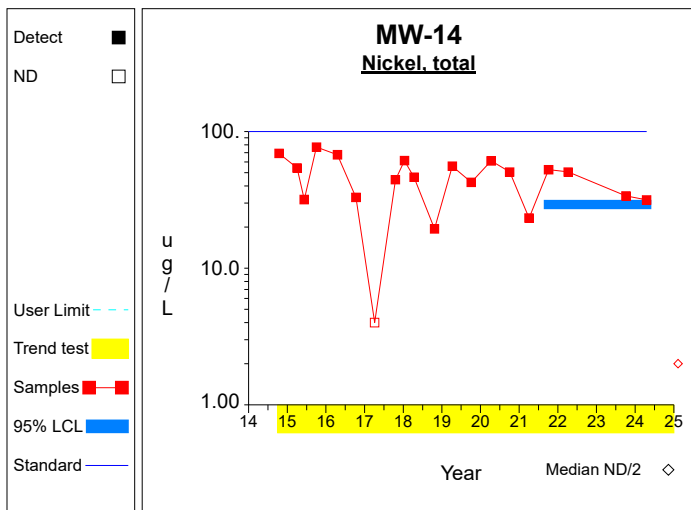
Graph 12



Graph 13

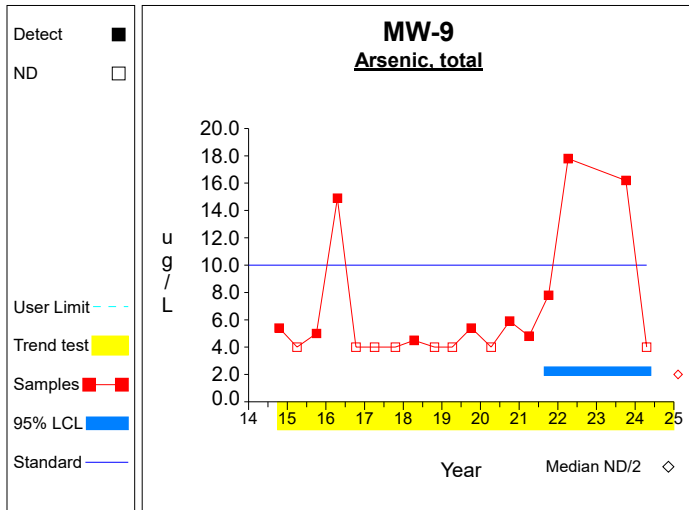


Graph 14

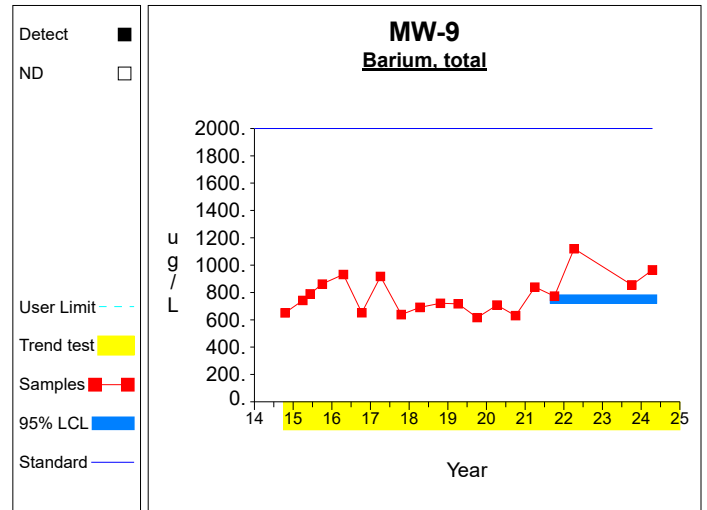


Graph 15

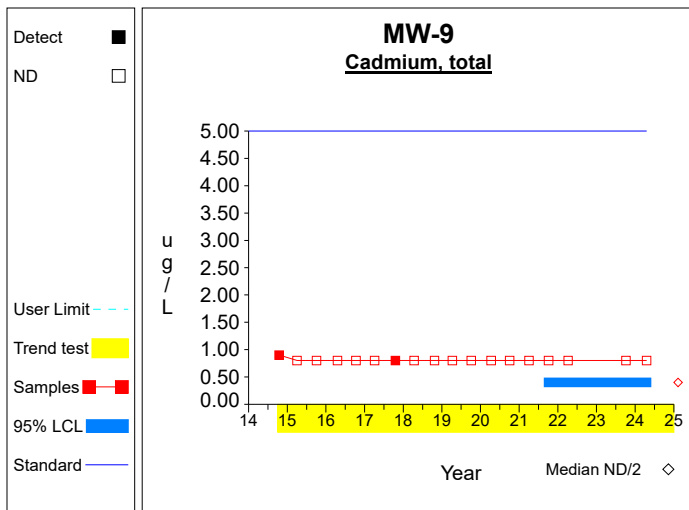
Confidence Limits (Assessment)



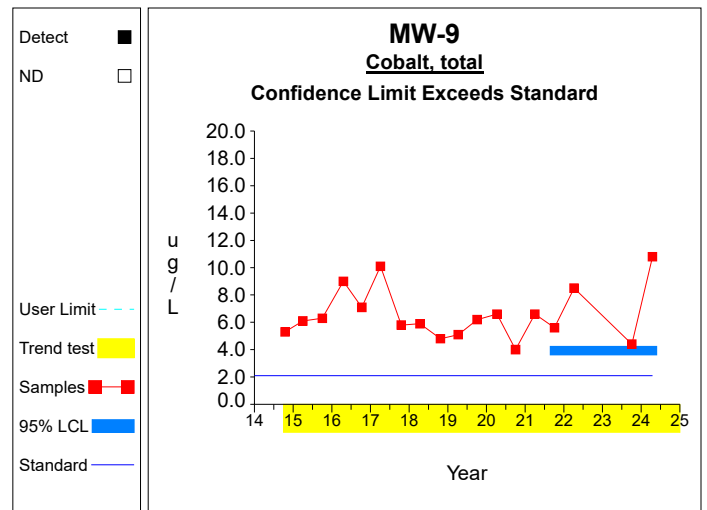
Graph 16



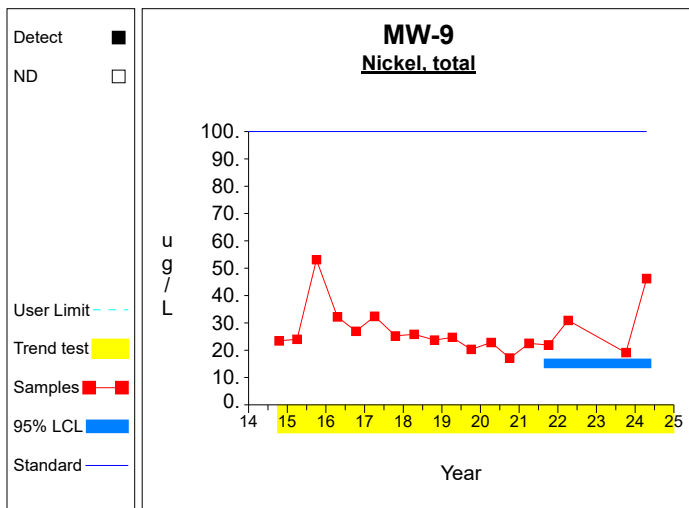
Graph 17



Graph 18



Graph 19



Graph 20

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 0.0^{1/2}) / 2$ $= [76.5, 76.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1091.0 / 4$ $= 272.75$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{304609.0 - 1.19 \times 10^6/4}{4-1} \right)^{1/2}$ $= 48.438$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 272.75 - 2.353 * 48.438/4^{1/2}$ $= 215.773$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 272.75 + 2.353 * 48.438/4^{1/2}$ $= 329.727$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 4.59$	Sen's estimator of trend.
7	$\text{var}(S) = 696.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 696.0^{1/2}) / 2$ $= [42.52, 110.48]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-19.877, 24.419]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cadmium, total (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 7.0 / 4$ $= 1.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((34.12 - 49.0/4) / (4-1))^{1/2}$ $= 2.7$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.75 - 2.353 * 2.7/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.75 + 2.353 * 2.7/4^{1/2}$ $= 4.926$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 428.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 428.333^{1/2}) / 2$ $= [49.843, 103.157]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 28.7 / 4$ $= 7.175$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{306.03 - 823.69/4}{4-1} \right)^{1/2}$ $= 5.777$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 7.175 - 2.353 * 5.777/4^{1/2}$ $= 0.38$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 7.175 + 2.353 * 5.777/4^{1/2}$ $= 13.97$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.314$	Sen's estimator of trend.
7	$\text{var}(S) = 808.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 808.333^{1/2}) / 2$ $= [48.881, 122.119]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-1.336, 2.554]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 26.9 / 4$ $= 6.725$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{208.05 - 723.61/4}{4-1} \right)^{1/2}$ $= 3.008$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 6.725 - 2.353 * 3.008/4^{1/2}$ $= 3.187$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 6.725 + 2.353 * 3.008/4^{1/2}$ $= 10.263$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = -0.473$	Sen's estimator of trend.
7	$\text{var}(S) = 816.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 816.0^{1/2}) / 2$ $= [48.707, 122.293]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-2.397, 1.177]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.0 / 4$ $= 2.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((16.0 - 64.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.0 - 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.0 + 2.353 * 0.0/4^{1/2}$ $= 2.0$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 0.0^{1/2}) / 2$ $= [76.5, 76.5]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1478.0 / 4$ $= 369.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((551980.0 - 2.18 \times 10^6 / 4) / (4-1))^{1/2}$ $= 44.193$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 369.5 - 2.353 * 44.193/4^{1/2}$ $= 317.517$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 369.5 + 2.353 * 44.193/4^{1/2}$ $= 421.483$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 1.528$	Sen's estimator of trend.
7	$\text{var}(S) = 816.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 816.0^{1/2}) / 2$ $= [48.707, 122.293]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [-19.292, 20.314]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cadmium, total (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1.6 / 4$ $= 0.4$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{0.64 - 2.56/4}{4-1} \right)^{1/2}$ $= 4.21 \times 10^{-9}$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.4 - 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.4 + 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 120.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 120.0^{1/2}) / 2$ $= [71.391, 99.609]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 35.6 / 4$ $= 8.9$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{352.38 - 1267.36/4}{4-1} \right)^{1/2}$ $= 3.442$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 8.9 - 2.353 * 3.442/4^{1/2}$ $= 4.851$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 8.9 + 2.353 * 3.442/4^{1/2}$ $= 12.949$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.668$	Sen's estimator of trend.
7	$\text{var}(S) = 652.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 652.667^{1/2}) / 2$ $= [43.595, 109.405]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 1.593]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 339.1 / 4$ $= 84.775$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{29600.01 - 114988.81/4}{4-1} \right)^{1/2}$ $= 16.86$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 84.775 - 2.353 * 16.86/4^{1/2}$ $= 64.942$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 84.775 + 2.353 * 16.86/4^{1/2}$ $= 104.608$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 1.459$	Sen's estimator of trend.
7	$\text{var}(S) = 817.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 817.0^{1/2}) / 2$ $= [48.685, 122.315]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-6.23, 8.23]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 40.0 / 4$ $= 10.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((968.5 - 1600.0/4) / (4-1))^{1/2}$ $= 13.766$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 10.0 - 2.353 * 13.766/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 10.0 + 2.353 * 13.766/4^{1/2}$ $= 26.193$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 363.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 363.333^{1/2}) / 2$ $= [51.949, 101.051]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4773.0 / 4$ $= 1193.25$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{5.98 \times 10^6 - 2.28 \times 10^7/4}{4-1} \right)^{1/2}$ $= 309.498$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1193.25 - 2.353 * 309.498/4^{1/2}$ $= 829.191$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1193.25 + 2.353 * 309.498/4^{1/2}$ $= 1557.309$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 20 * (20-1) / 2$ $= 190$	Number of sample pairs during trend detection period.
6	$S = 51.181$	Sen's estimator of trend.
7	$\text{var}(S) = 950.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (190 \pm 2.576 * 950.0^{1/2}) / 2$ $= [55.301, 134.699]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-13.7, 132.213]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cadmium, total (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1.6 / 4$ $= 0.4$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((0.64 - 2.56/4) / (4-1))^{1/2}$ $= 4.21 \times 10^{-9}$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.4 - 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.4 + 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 362.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 362.333^{1/2}) / 2$ $= [51.983, 101.017]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 45.6 / 4$ $= 11.4$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{663.74 - 2079.36/4}{4-1} \right)^{1/2}$ $= 6.926$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 11.4 - 2.353 * 6.926/4^{1/2}$ $= 3.253$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 11.4 + 2.353 * 6.926/4^{1/2}$ $= 19.547$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 0.093$	Sen's estimator of trend.
7	$\text{var}(S) = 815.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 815.0^{1/2}) / 2$ $= [48.73, 122.27]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.974, 1.649]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 168.6 / 4$ $= 42.15$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((7468.12 - 28425.96/4) / (4-1))^{1/2}$ $= 10.979$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 42.15 - 2.353 * 10.979/4^{1/2}$ $= 29.235$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 42.15 + 2.353 * 10.979/4^{1/2}$ $= 55.065$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 20 * (20-1) / 2$ $= 190$	Number of sample pairs during trend detection period.
6	$S = -2.4$	Sen's estimator of trend.
7	$\text{var}(S) = 949.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (190 \pm 2.576 * 949.0^{1/2}) / 2$ $= [55.322, 134.678]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-5.38, 2.745]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Arsenic, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 43.8 / 4$ $= 10.95$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{644.12 - 1918.44/4}{4-1} \right)^{1/2}$ $= 7.405$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 10.95 - 2.353 * 7.405/4^{1/2}$ $= 2.239$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 10.95 + 2.353 * 7.405/4^{1/2}$ $= 19.661$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.1$	Sen's estimator of trend.
7	$\text{var}(S) = 630.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 630.667^{1/2}) / 2$ $= [44.154, 108.846]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.182, 1.629]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Barium, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3713.0 / 4$ $= 928.25$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{3.51 \times 10^6 - 1.38 \times 10^7/4}{4-1} \right)^{1/2}$ $= 150.096$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 928.25 - 2.353 * 150.096/4^{1/2}$ $= 751.693$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 928.25 + 2.353 * 150.096/4^{1/2}$ $= 1104.807$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 19 * (19-1) / 2$ $= 171$	Number of sample pairs during trend detection period.
6	$S = 15.727$	Sen's estimator of trend.
7	$\text{var}(S) = 817.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (171 \pm 2.576 * 817.0^{1/2}) / 2$ $= [48.685, 122.315]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-17.538, 48.427]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cadmium, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 1.6 / 4$ $= 0.4$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{0.64 - 2.56/4}{4-1} \right)^{1/2}$ $= 4.21 \times 10^{-9}$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.4 - 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.4 + 2.353 * 4.21 \times 10^{-9} / 4^{1/2}$ $= 0.4$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 203.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 203.667^{1/2}) / 2$ $= [58.119, 94.881]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Cobalt, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 29.3 / 4$ $= 7.325$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{239.61 - 858.49/4}{4-1} \right)^{1/2}$ $= 2.886$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 7.325 - 2.353 * 2.886/4^{1/2}$ $= 3.93$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 7.325 + 2.353 * 2.886/4^{1/2}$ $= 10.72$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 696.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 696.0^{1/2}) / 2$ $= [42.52, 110.48]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.468, 0.591]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Nickel, total (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 118.1 / 4$ $= 29.525$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((3933.67 - 13947.61/4) / (4-1))^{1/2}$ $= 12.203$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 29.525 - 2.353 * 12.203/4^{1/2}$ $= 15.17$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 29.525 + 2.353 * 12.203/4^{1/2}$ $= 43.88$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 18 * (18-1) / 2$ $= 153$	Number of sample pairs during trend detection period.
6	$S = -0.82$	Sen's estimator of trend.
7	$\text{var}(S) = 697.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (153 \pm 2.576 * 697.0^{1/2}) / 2$ $= [42.496, 110.504]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [-2.416, 0.893]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

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
1,4-dichlorobenzene	MW-13	4/17/2024		2.4	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
Bis(2-ethylhexyl) phthalate	MW-13	4/17/2024		7	6	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
Chlorobenzene	MW-13	4/17/2024		1.8	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
Chloroethane	MW-13	4/17/2024		2.8	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

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-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
Bis(2-ethylhexyl) phthalate	MW-14	4/17/2024		72	6	ug/L
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

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
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
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

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
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
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
1,4-dichlorobenzene	MW-9	4/17/2024		1.5	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
Bis(2-ethylhexyl) phthalate	MW-9	4/17/2024		8	6	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

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	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
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
Chlorobenzene	MW-9	4/17/2024		1.4	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

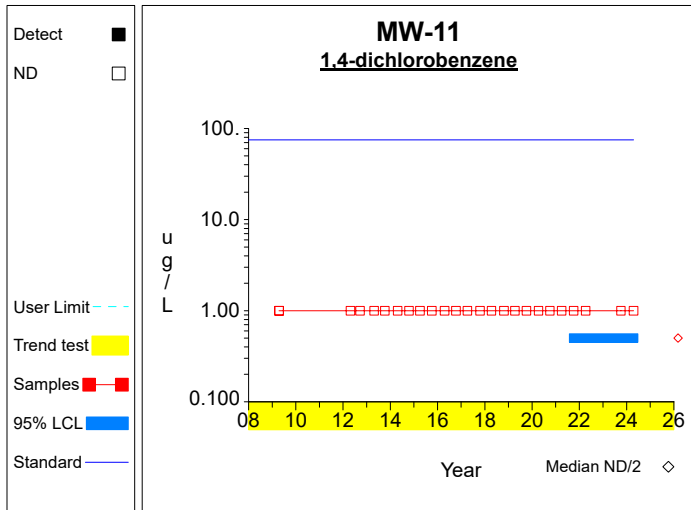
Table 1

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

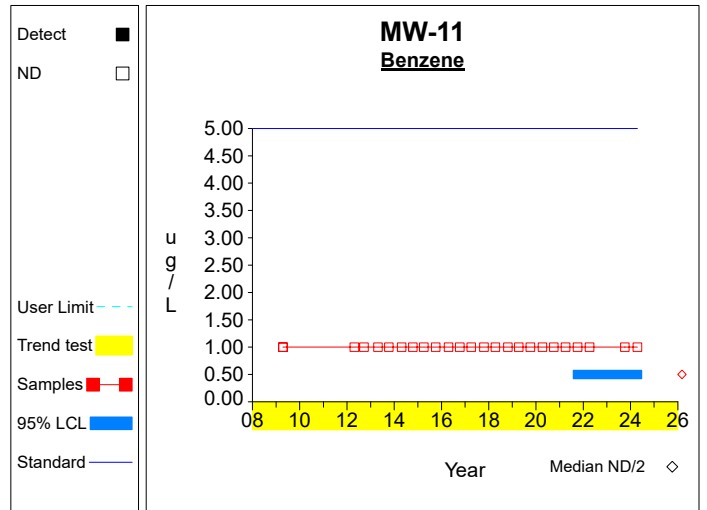
Constituent	Units	Well	N	Mean	SD	Factor	95% LCL	95% UCL	Standard	Trend
1,4-dichlorobenzene	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	75.000	
Benzene	ug/L	MW-11	4	0.500	0.000	1.176	0.500	0.500	5.000	
Bis(2-ethylhexyl) phthalate	ug/L	MW-11	4	9.500	9.434	1.176	0.000	20.597	6.000	
Chlorobenzene	ug/L	MW-11	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	2.175	0.532	1.176	1.550	2.800	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	4.750	1.500	1.176	2.986	6.514	6.000	
Chlorobenzene	ug/L	MW-13	4	0.975	0.618	1.176	0.248	1.702	100.000	
Chloroethane	ug/L	MW-13	4	1.075	1.150	1.176	0.000	2.428	2800.000	
1,4-dichlorobenzene	ug/L	MW-14	4	0.750	0.289	1.176	0.410	1.090	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	21.000	34.000	1.176	0.000	60.994	6.000	
Chlorobenzene	ug/L	MW-14	4	2.550	2.435	1.176	0.000	5.414	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	1.300	0.183	1.176	1.085	1.515	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	5.750	1.500	1.176	3.986	7.514	6.000	
Chlorobenzene	ug/L	MW-9	4	3.700	1.701	1.176	1.699	5.701	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

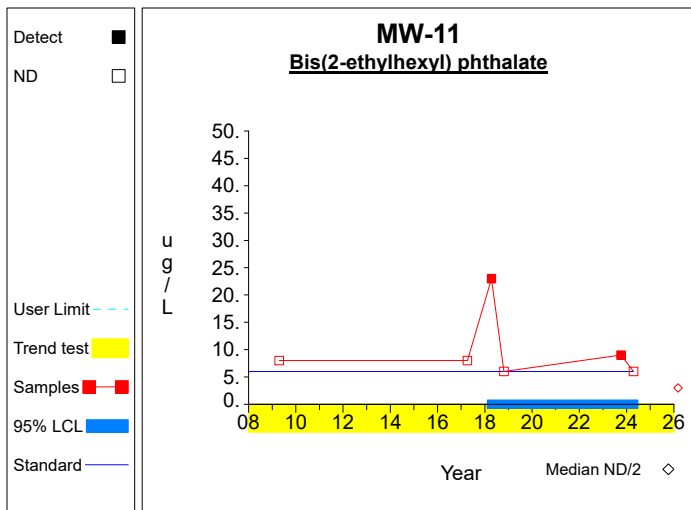
Confidence Limits (Assessment)



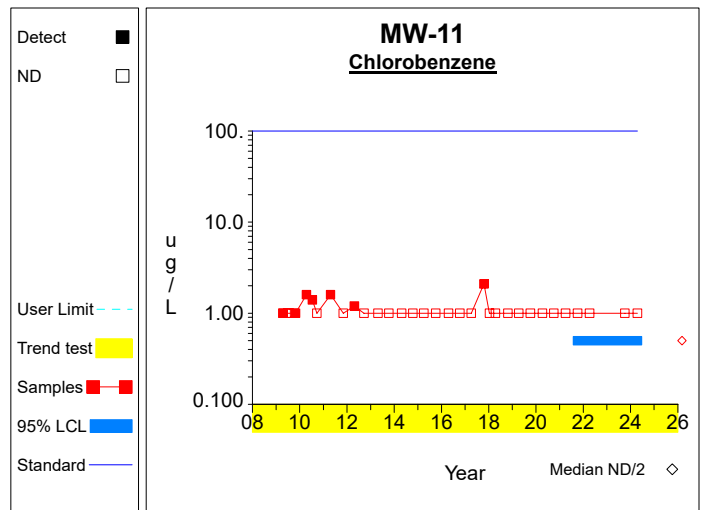
Graph 1



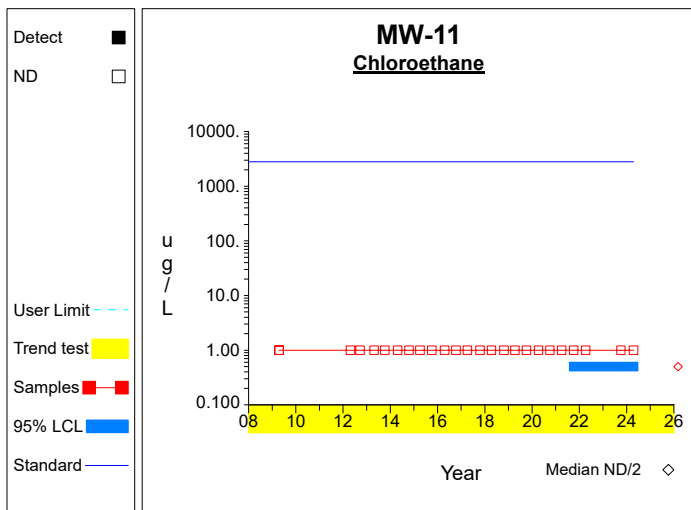
Graph 2



Graph 3

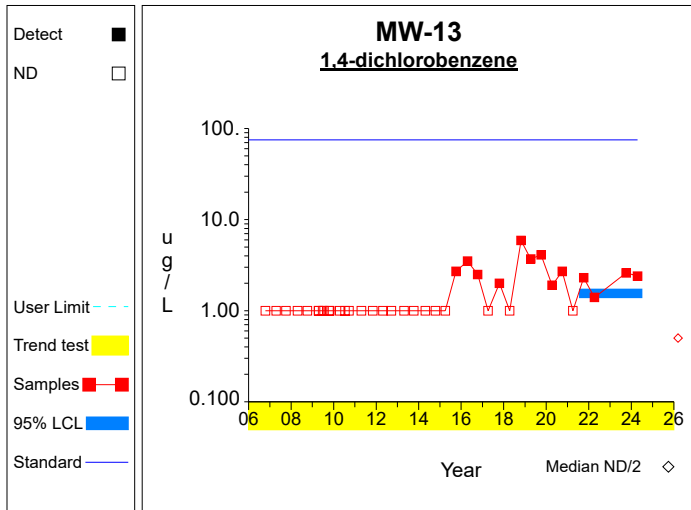


Graph 4

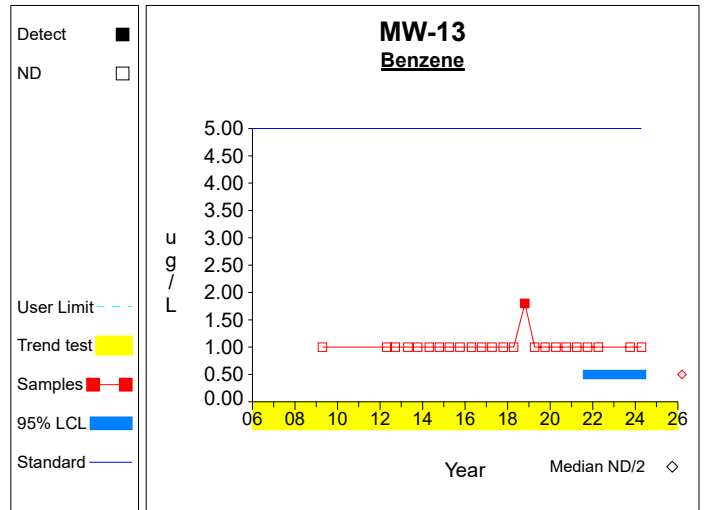


Graph 5

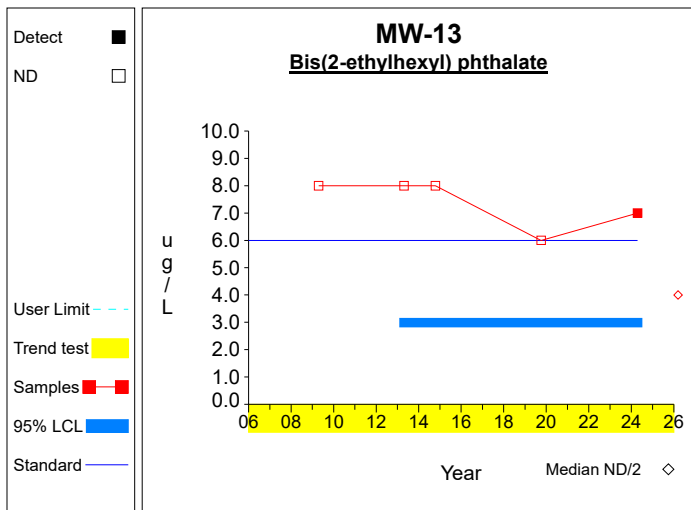
Confidence Limits (Assessment)



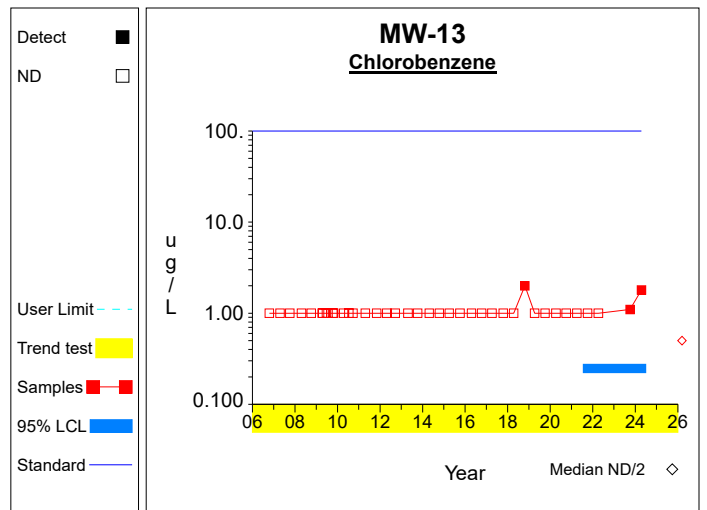
Graph 6



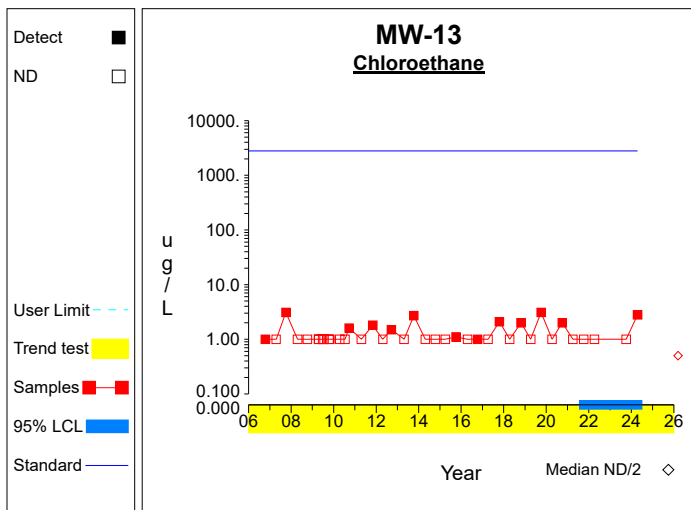
Graph 7



Graph 8

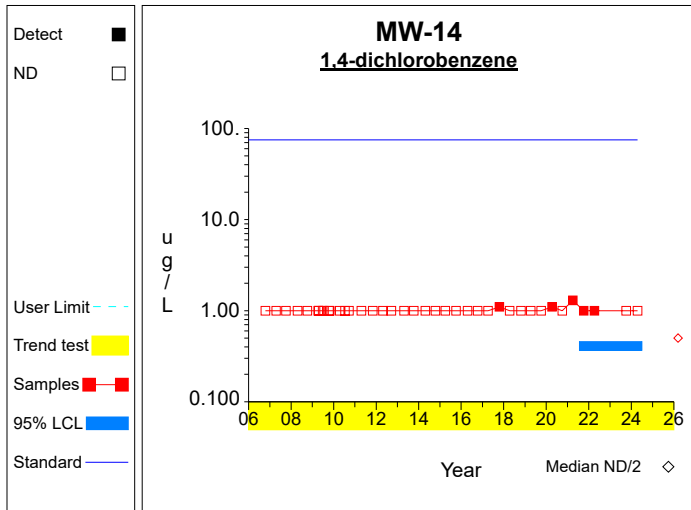


Graph 9

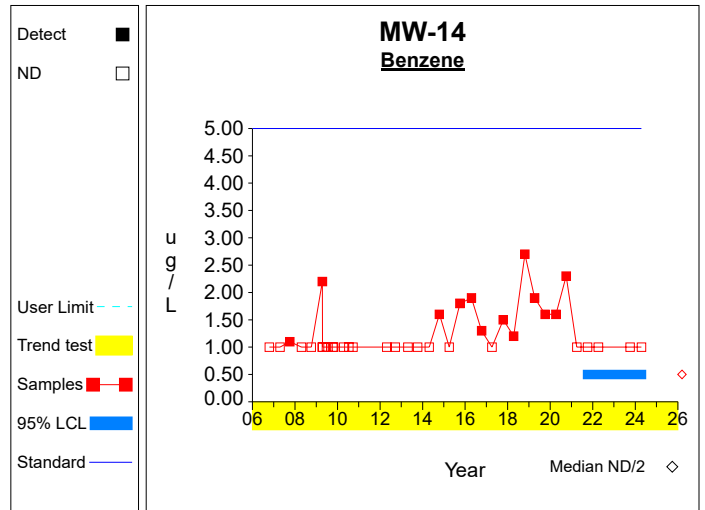


Graph 10

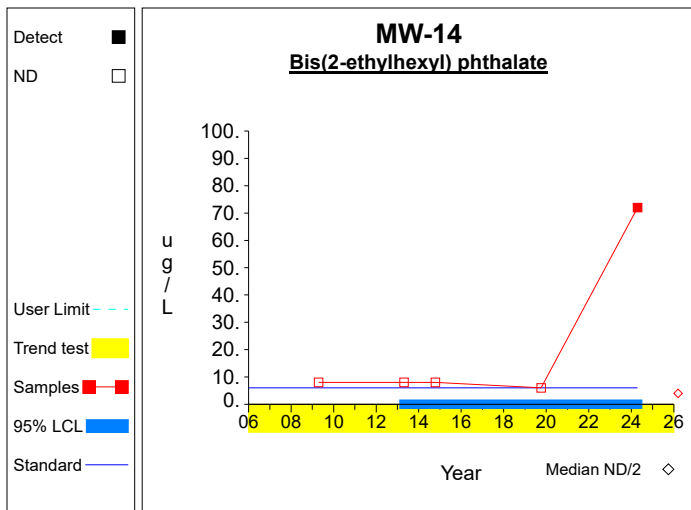
Confidence Limits (Assessment)



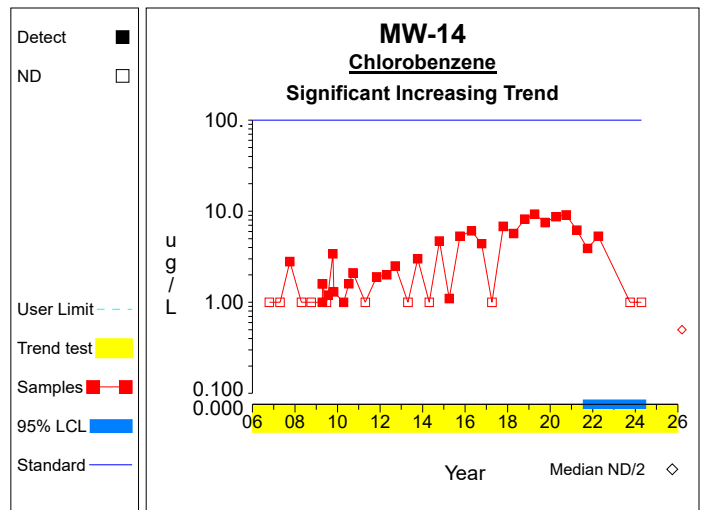
Graph 11



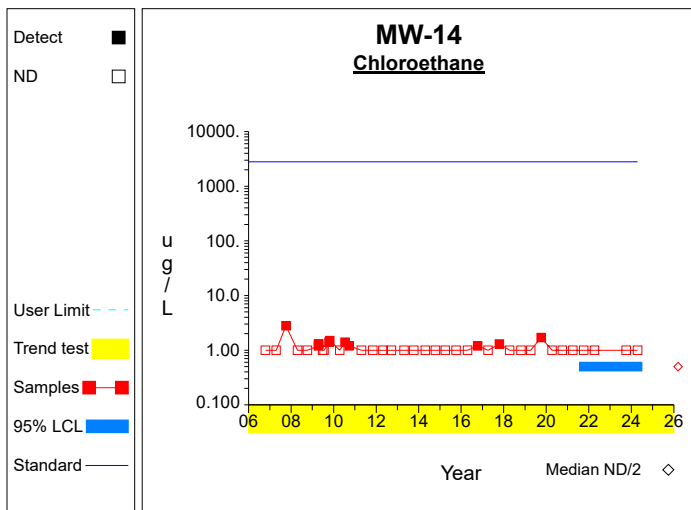
Graph 12



Graph 13

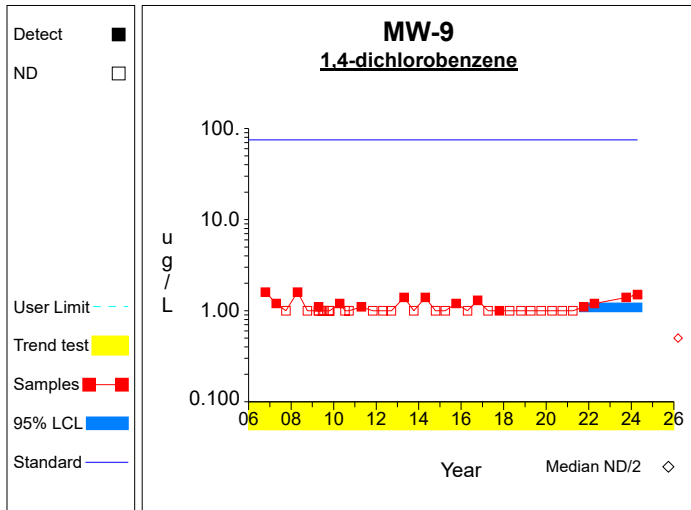


Graph 14

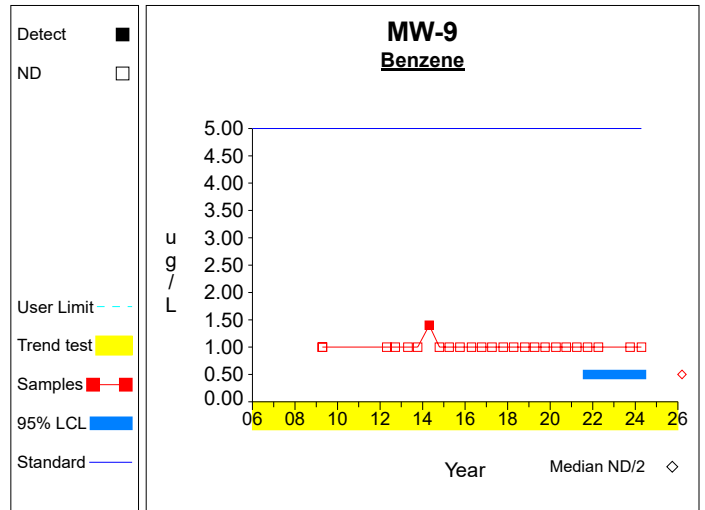


Graph 15

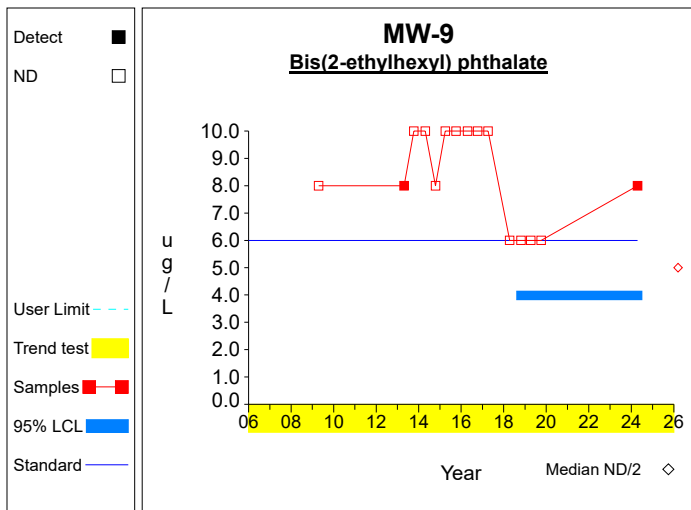
Confidence Limits (Assessment)



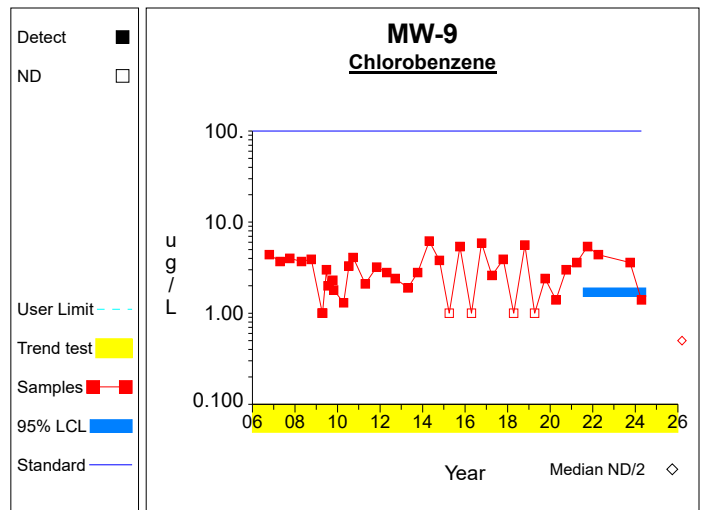
Graph 16



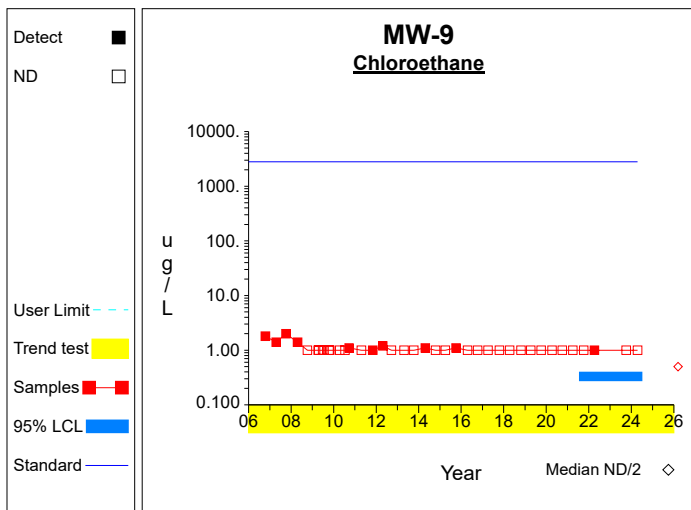
Graph 17



Graph 18



Graph 19



Graph 20

Worksheet 6 - Assessment Monitoring
1,4-dichlorobenzene (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 0.0^{1/2}) / 2$ $= [150.0, 150.0]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 0.0^{1/2}) / 2$ $= [150.0, 150.0]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 38.0 / 4$ $= 9.5$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{(N-1)} \right)^{1/2}$ $= \left(\frac{628.0 - 1444.0/4}{(4-1)} \right)^{1/2}$ $= 9.434$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 9.5 - 2.353 * 9.434/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 9.5 + 2.353 * 9.434/4^{1/2}$ $= 20.597$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 6 * (6-1) / 2$ $= 15$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 19.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (15 \pm 2.576 * 19.667^{1/2}) / 2$ $= [1.788, 13.212]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-16.793, 1.427]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 35 * (35-1) / 2$ $= 595$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 2394.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (595 \pm 2.576 * 2394.333^{1/2}) / 2$ $= [234.476, 360.524]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-11

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 0.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 0.0^{1/2}) / 2$ $= [150.0, 150.0]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
1,4-dichlorobenzene (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 8.7 / 4$ $= 2.175$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((19.77 - 75.69/4) / (4-1))^{1/2}$ $= 0.532$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 2.175 - 2.353 * 0.532/4^{1/2}$ $= 1.55$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 2.175 + 2.353 * 0.532/4^{1/2}$ $= 2.8$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 39 * (39-1) / 2$ $= 741$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4774.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (741 \pm 2.576 * 4774.333^{1/2}) / 2$ $= [281.504, 459.496]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.141]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 24 * (24-1) / 2$ $= 276$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 191.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (276 \pm 2.576 * 191.667^{1/2}) / 2$ $= [120.168, 155.832]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 19.0 / 4$ $= 4.75$	Compute the mean of the last 4 measurements.
2	$S = \left(\frac{\text{sum}[X^2] - \text{sum}[X]^2/N}{N-1} \right)^{1/2}$ $= \left(\frac{97.0 - 361.0/4}{4-1} \right)^{1/2}$ $= 1.5$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 4.75 - 2.353 * 1.5/4^{1/2}$ $= 2.986$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 4.75 + 2.353 * 1.5/4^{1/2}$ $= 6.514$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 8.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 8.0^{1/2}) / 2$ $= [1.357, 8.643]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.3]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.9 / 4$ $= 0.975$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((4.95 - 15.21/4) / (4-1))^{1/2}$ $= 0.618$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 0.975 - 2.353 * 0.618/4^{1/2}$ $= 0.248$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 0.975 + 2.353 * 0.618/4^{1/2}$ $= 1.702$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 39 * (39-1) / 2$ $= 741$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 1443.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (741 \pm 2.576 * 1443.667^{1/2}) / 2$ $= [321.562, 419.438]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-13

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 4.3 / 4$ $= 1.075$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((8.59 - 18.49/4) / (4-1))^{1/2}$ $= 1.15$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 1.075 - 2.353 * 1.15/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 1.075 + 2.353 * 1.15/4^{1/2}$ $= 2.428$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 39 * (39-1) / 2$ $= 741$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4772.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (741 \pm 2.576 * 4772.333^{1/2}) / 2$ $= [281.522, 459.478]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
1,4-dichlorobenzene (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 3.0 / 4$ $= 0.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((2.5 - 9.0/4) / (4-1))^{1/2}$ $= 0.289$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.75 - 2.353 * 0.289/4^{1/2}$ $= 0.41$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.75 + 2.353 * 0.289/4^{1/2}$ $= 1.09$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 2406.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 2406.333^{1/2}) / 2$ $= [326.818, 453.182]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 38 * (38-1) / 2$ $= 703$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4489.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (703 \pm 2.576 * 4489.0^{1/2}) / 2$ $= [265.204, 437.796]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 84.0 / 4$ $= 21.0$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((5232.0 - 7056.0/4) / (4-1))^{1/2}$ $= 34.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 21.0 - 2.353 * 34.0/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 21.0 + 2.353 * 34.0/4^{1/2}$ $= 60.994$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 5 * (5-1) / 2$ $= 10$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 8.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (10 \pm 2.576 * 8.0^{1/2}) / 2$ $= [1.357, 8.643]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 6.81]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 10.2 / 4$ $= 2.55$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((43.8 - 104.04/4) / (4-1))^{1/2}$ $= 2.435$	Compute sd of the last 4 measurements.
3	$LCL = \bar{X} - tS/N^{1/2}$ $= 2.55 - 2.353 * 2.435/4^{1/2}$ $= 0.0$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$UCL = \bar{X} + tS/N^{1/2}$ $= 2.55 + 2.353 * 2.435/4^{1/2}$ $= 5.414$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.411$	Sen's estimator of trend.
7	$\text{var}(S) = 7196.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 7196.0^{1/2}) / 2$ $= [280.74, 499.26]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$CL(S) = [0.157, 0.599]$	Two-sided confidence interval for slope.
10	$LCL(S) > 0$	Significant increasing trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-14

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4516.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 4516.333^{1/2}) / 2$ $= [303.442, 476.558]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
1,4-dichlorobenzene (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 5.2 / 4$ $= 1.3$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((6.86 - 27.04/4) / (4-1))^{1/2}$ $= 0.183$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 1.3 - 2.353 * 0.183/4^{1/2}$ $= 1.085$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 1.3 + 2.353 * 0.183/4^{1/2}$ $= 1.515$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 5516.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 5516.333^{1/2}) / 2$ $= [294.338, 485.662]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Benzene (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.0 / 4$ $= 0.5$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.0 - 4.0/4) / (4-1))^{1/2}$ $= 0.0$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.5 - 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.5 + 2.353 * 0.0/4^{1/2}$ $= 0.5$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 25 * (25-1) / 2$ $= 300$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 208.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (300 \pm 2.576 * 208.0^{1/2}) / 2$ $= [131.424, 168.576]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Bis(2-ethylhexyl) phthalate (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 23.0 / 4$ $= 5.75$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((139.0 - 529.0/4) / (4-1))^{1/2}$ $= 1.5$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 5.75 - 2.353 * 1.5/4^{1/2}$ $= 3.986$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 5.75 + 2.353 * 1.5/4^{1/2}$ $= 7.514$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 15 * (15-1) / 2$ $= 105$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 138.667$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (105 \pm 2.576 * 138.667^{1/2}) / 2$ $= [37.333, 67.667]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chlorobenzene (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 14.8 / 4$ $= 3.7$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((63.44 - 219.04/4) / (4-1))^{1/2}$ $= 1.701$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 3.7 - 2.353 * 1.701/4^{1/2}$ $= 1.699$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 3.7 + 2.353 * 1.701/4^{1/2}$ $= 5.701$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.01$	Sen's estimator of trend.
7	$\text{var}(S) = 7340.0$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 7340.0^{1/2}) / 2$ $= [279.652, 500.348]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [-0.134, 0.181]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

Worksheet 6 - Assessment Monitoring
Chloroethane (ug/L) at MW-9

<u>Step</u>	<u>Equation</u>	<u>Description</u>
1	$\bar{X} = \text{sum}[X] / N$ $= 2.5 / 4$ $= 0.625$	Compute the mean of the last 4 measurements.
2	$S = ((\text{sum}[X^2] - \text{sum}[X]^2/N) / (N-1))^{1/2}$ $= ((1.75 - 6.25/4) / (4-1))^{1/2}$ $= 0.25$	Compute sd of the last 4 measurements.
3	$\text{LCL} = \bar{X} - tS/N^{1/2}$ $= 0.625 - 2.353 * 0.25/4^{1/2}$ $= 0.331$	Compute lower confidence limit for the mean of the last 4 measurements.
4	$\text{UCL} = \bar{X} + tS/N^{1/2}$ $= 0.625 + 2.353 * 0.25/4^{1/2}$ $= 0.919$	Compute upper confidence limit for the mean of the last 4 measurements.
5	$N' = N * (N-1) / 2$ $= 40 * (40-1) / 2$ $= 780$	Number of sample pairs during trend detection period.
6	$S = 0.0$	Sen's estimator of trend.
7	$\text{var}(S) = 4219.333$	Variance estimate for slope.
8	$M(S) = (N' \pm Z_{.995} * \text{var}(S)^{1/2}) / 2$ $= (780 \pm 2.576 * 4219.333^{1/2}) / 2$ $= [306.336, 473.664]$	Ordinal positions for two-sided lower confidence limits for slope. The LCL and UCL are the M th largest slope estimates for the values shown. When the values are not integers, interpolation is used.
9	$\text{CL}(S) = [0.0, 0.0]$	Two-sided confidence interval for slope.
10	the interval includes 0	There is no significant trend.

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	4/17/24	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	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	29.19	344.00	0.52	39.30	79.59	
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	2.96	43.20	0.77	9.10	11.95	
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	4.67		4.67	0.45	1.64	1.02
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	4.24	149.90	0.45	17.90	37.53	
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	3.6	271.00	0.37	16.82	59.93	
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	29.19				
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	2.96				
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	4.24				
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	8.93				

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.

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.

Table 2 – Compounds Exceeding a Prediction Limit

2024	
MW-9**	Barium
	Nickel
	1,4-dichlorobenzene
	bis (2-ethylhexyl)phthalate
	Chlorobenzene
MW-11**	none
MW-13**	Barium
	Nickel
	1,4-dichlorobenzene
	bis (2-ethylhexyl)phthalate
	Chlorobenzene
	Chloroethane
MW-14**	Barium
	Nickel
	bis (2-ethylhexyl)phthalate

** 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*



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Project Description

6033

For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Thursday, May 9, 2024

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc., 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



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

HLW Engineering

Project Name: 6033

Todd Whipple
PO Box 314
Story City, IA 50248

Project / PO Number: N/A
Received: 04/18/2024
Reported: 05/09/2024

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-15A	1HD1596-01	Aqueous	GRAB		04/17/24 15:50	04/18/24 09:39
MW-9	1HD1596-02	Aqueous	GRAB		04/17/24 13:21	04/18/24 09:39
MW-11	1HD1596-03	Aqueous	GRAB		04/17/24 15:12	04/18/24 09:39
MW-13	1HD1596-04	Aqueous	GRAB		04/17/24 14:33	04/18/24 09:39
MW-14	1HD1596-05	Aqueous	GRAB		04/17/24 13:53	04/18/24 09:39
Duplicate	1HD1596-06	Aqueous	GRAB		04/17/24 00:00	04/18/24 09:39



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Analytical Testing Parameters

Client Sample ID:	92MW-15A	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 15:50
Lab Sample ID:	1HD1596-01		

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		04/23/24 0000	04/23/24 1648	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Acetone	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Benzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Styrene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID: 92MW-15A	Collected By: Whipple, Todd
Sample Matrix: Aqueous	Collection Date: 04/17/2024 15:50
Lab Sample ID: 1HD1596-01	

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: Dibromofluoromethane	96.5	Limit: 75-136	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: Dibromofluoromethane	96.5	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: 1,2-Dichloroethane-d4	99.9	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: 1,2-Dichloroethane-d4	99.9	Limit: 61-142	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: Toluene-d8	97.6	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: Toluene-d8	97.6	Limit: 82-121	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1648	LJS
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 80-116	% Rec	1		04/23/24 0000	04/23/24 1648	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		04/24/24 1610	04/26/24 0237	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Barium, total	0.0730	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Cobalt, total	<0.0004	0.0004	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Nickel, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0237	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0237	JAR



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

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		04/23/24 0000	04/23/24 1711	LJS
Chloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Acrolein	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Acetone	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Acetonitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Benzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	1.4	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Styrene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,4-Dichlorobenzene	1.5	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Allyl chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Chloroprene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Propionitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: Dibromofluoromethane	96.9	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: Dibromofluoromethane	96.9	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 1,2-Dichloroethane-d4	99.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 1,2-Dichloroethane-d4	99.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 1,2-Dichloroethane-d4	99.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: Toluene-d8	97.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: Toluene-d8	97.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: Toluene-d8	97.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 4-Bromofluorobenzene	97.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 4-Bromofluorobenzene	97.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1711	LJS
Surrogate: 4-Bromofluorobenzene	97.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1711	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		04/29/24 1336	04/29/24 2229	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		04/22/24 1218	05/02/24 1744	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Phenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Chlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Benzyl Alcohol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Acetophenone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
o-Toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Hexachloroethane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Nitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Isophorone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Naphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Chloroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Hexachloropropene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Hexachlorobutadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Methylnaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Isosafrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Safrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Chloronaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Dimethylphthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Acenaphthylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
3-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Acenaphthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Dibenzofuran	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Pentachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Diethyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Diphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Diallate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Phenacetin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
4-Aminobiphenyl	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Pentachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Pronamide	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Phenanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Methapyrilene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Isodrin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Chlorobenzilate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Benzo(a)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Chrysene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Bis(2-Ethylhexyl) Phthalate	8	6	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Kepone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
2-Acetylamino fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
3-Methylcholanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: 2-Fluorophenol	91.9	Limit: 24-136	% Rec	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: Phenol-d6	92.0	Limit: 15-140	% Rec	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: Nitrobenzene-d5	110	Limit: 29-130	% Rec	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: 2-Fluorobiphenyl	97.4	Limit: 23-113	% Rec	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: 2,4,6-Tribromophenol	111	Limit: 15-139	% Rec	1		04/22/24 1218	05/02/24 1744	EPP
Surrogate: Terphenyl-dl4	73.4	Limit: 27-141	% Rec	1		04/22/24 1218	05/02/24 1744	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		04/24/24 1056	05/02/24 1001	EPP
Thionazin	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Phorate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Dimethoate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Disulfoton	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Famphur	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1001	EPP
Surrogate: 2-Nitro-m-xylene	82.7	Limit: 38-122	% Rec	1		04/24/24 1056	05/02/24 1001	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		04/23/24 1335	04/30/24 2034	MSV
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2034	MSV
2,4,5-T	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2034	MSV
Dinoseb	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2034	MSV
Surrogate: 2,5-Dichlorobenzoic Acid	104	Limit: 31-116	% Rec	1		04/23/24 1335	04/30/24 2034	MSV

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8081								
Alpha-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Beta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Heptachlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Aldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Endosulfan I	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Dieldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Endrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Endosulfan II	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Methoxychlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Chlordane	<0.10	0.10	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Toxaphene	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0900	EPP
Surrogate: Tetrachloro-m-xylene	72.4	Limit: 10-121	% Rec	1		04/24/24 1049	05/01/24 0900	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		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0900	EPP
Surrogate: Tetrachloro-m-xylene	81.1	Limit: 38-121	% Rec	1		04/24/24 1053	05/01/24 0900	EPP
Surrogate: Decachlorobiphenyl	87.1	Limit: 25-119	% Rec	1		04/24/24 1053	05/01/24 0900	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 376.2								
Sulfide, total	<0.15	0.15	mg/L	1		04/23/24 1521	04/23/24 1555	CHP
EPA 9010B								
Cyanide, total	<0.005	0.005	mg/L	1		04/25/24 1628	04/26/24 1444	CHP

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		04/24/24 1610	04/26/24 0243	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Barium, total	0.965	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-9	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:21
Lab Sample ID:	1HD1596-02		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Cobalt, total	0.0108	0.0004	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Nickel, total	0.0462	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Tin, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0243	JAR
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		04/19/24 1724	04/23/24 0913	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-11	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 15:12
Lab Sample ID:	1HD1596-03		

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		04/23/24 0000	04/23/24 1734	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Acetone	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Methyl Iodide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
2-Butanone (MEK)	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Benzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Chlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Styrene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS

Microbac Laboratories, Inc., Newton

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID: MW-11	Collected By: Whipple, Todd
Sample Matrix: Aqueous	Collection Date: 04/17/2024 15:12
Lab Sample ID: 1HD1596-03	

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		04/23/24 0000	04/23/24 1734	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: Dibromofluoromethane	96.3	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: Dibromofluoromethane	96.3	Limit: 75-136	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: 1,2-Dichloroethane-d4	99.4	Limit: 61-142	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: 1,2-Dichloroethane-d4	99.4	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: Toluene-d8	97.2	Limit: 82-121	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: Toluene-d8	97.2	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: 4-Bromofluorobenzene	95.1	Limit: 80-116	% Rec	1		04/23/24 0000	04/23/24 1734	LJS
Surrogate: 4-Bromofluorobenzene	95.1	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1734	LJS

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8270C								
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L	1		04/23/24 1026	04/26/24 2028	EPP
Surrogate: Nitrobenzene-d5	105	Limit: 29-130	% Rec	1		04/23/24 1026	04/26/24 2028	EPP
Surrogate: 2-Fluorobiphenyl	92.4	Limit: 23-113	% Rec	1		04/23/24 1026	04/26/24 2028	EPP
Surrogate: Terphenyl-d14	102	Limit: 27-141	% Rec	1		04/23/24 1026	04/26/24 2028	EPP

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		04/24/24 1610	04/26/24 0301	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Barium, total	0.236	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Cobalt, total	0.0039	0.0004	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Nickel, total	0.0046	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0301	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0301	JAR



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

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		04/23/24 0000	04/23/24 1757	LJS
Chloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Chloroethane	2.8	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Acrolein	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Acetone	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Acetonitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Benzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	1.8	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Styrene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,4-Dichlorobenzene	2.4	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Allyl chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Chloroprene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Propionitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: Dibromofluoromethane	95.6	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: Dibromofluoromethane	95.6	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 1,2-Dichloroethane-d4	98.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 1,2-Dichloroethane-d4	98.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 1,2-Dichloroethane-d4	98.8	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 4-Bromofluorobenzene	96.1	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 4-Bromofluorobenzene	96.1	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1757	LJS
Surrogate: 4-Bromofluorobenzene	96.1	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1757	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		04/29/24 1336	04/29/24 2301	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		04/22/24 1218	05/02/24 1809	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Phenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Chlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Benzyl Alcohol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Acetophenone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
o-Toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Hexachloroethane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Nitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Isophorone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Naphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Chloroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Hexachloropropene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Hexachlorobutadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Methylnaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Isosafrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Safrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Chloronaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Dimethylphthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Acenaphthylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
3-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Acenaphthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Dibenzofuran	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Pentachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Diethyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Diphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Diallate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Phenacetin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
4-Aminobiphenyl	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Pentachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Pronamide	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Phenanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Methapyrilene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Isodrin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Chlorobenzilate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Benzo(a)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Chrysene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Bis(2-Ethylhexyl) Phthalate	7	6	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Kepone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
2-Acetylamino fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
3-Methylcholanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: 2-Fluorophenol	93.5	Limit: 24-136	% Rec	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: Phenol-d6	93.4	Limit: 15-140	% Rec	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: Nitrobenzene-d5	108	Limit: 29-130	% Rec	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: 2-Fluorobiphenyl	93.1	Limit: 23-113	% Rec	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: 2,4,6-Tribromophenol	104	Limit: 15-139	% Rec	1		04/22/24 1218	05/02/24 1809	EPP
Surrogate: Terphenyl-dl4	88.0	Limit: 27-141	% Rec	1		04/22/24 1218	05/02/24 1809	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		04/24/24 1056	05/02/24 1059	EPP
Thionazin	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Phorate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Dimethoate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Disulfoton	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Famphur	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1059	EPP
Surrogate: 2-Nitro-m-xylene	86.5	Limit: 38-122	% Rec	1		04/24/24 1056	05/02/24 1059	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		04/23/24 1335	04/30/24 2106	MSV
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2106	MSV
2,4,5-T	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2106	MSV
Dinoseb	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2106	MSV
Surrogate: 2,5-Dichlorobenzoic Acid	105	Limit: 31-116	% Rec	1		04/23/24 1335	04/30/24 2106	MSV

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8081								
Alpha-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Beta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Heptachlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Aldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Endosulfan I	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Dieldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Endrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Endosulfan II	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Methoxychlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Chlordane	<0.10	0.10	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Toxaphene	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0915	EPP
Surrogate: Tetrachloro-m-xylene	79.9	Limit: 10-121	% Rec	1		04/24/24 1049	05/01/24 0915	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		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0915	EPP
Surrogate: Tetrachloro-m-xylene	87.8	Limit: 38-121	% Rec	1		04/24/24 1053	05/01/24 0915	EPP
Surrogate: Decachlorobiphenyl	102	Limit: 25-119	% Rec	1		04/24/24 1053	05/01/24 0915	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 376.2								
Sulfide, total	<0.15	0.15	mg/L	1		04/23/24 1521	04/23/24 1555	CHP
EPA 9010B								
Cyanide, total	<0.005	0.005	mg/L	1		04/25/24 1628	04/26/24 1444	CHP

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		04/24/24 1610	04/26/24 0307	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Barium, total	0.434	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-13	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:33
Lab Sample ID:	1HD1596-04		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Cobalt, total	0.0116	0.0004	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Nickel, total	0.0899	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Tin, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0307	JAR
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		04/19/24 1724	04/23/24 0916	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

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		04/23/24 0000	04/23/24 1820	LJS
Chloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Trichlorofluoromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Acrolein	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Acetone	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Methyl Iodide	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Carbon Disulfide	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Acetonitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Acrylonitrile	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Vinyl Acetate	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
2,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
2-Butanone (MEK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Bromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Benzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Dibromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Ethyl Methacrylate	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,3-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
2-Hexanone (MBK)	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2-Dibromoethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Chlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Ethylbenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Xylenes, total	<2.0	2.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Styrene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2,3-Trichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,3-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,4-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2-Dichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2-Dibromo-3-chloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Allyl chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Chloroprene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Methacrylonitrile	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Methyl Methacrylate	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Propionitrile	<10.0	10.0	ug/L	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: Dibromofluoromethane	95.4	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: Dibromofluoromethane	95.4	Limit: 80-126	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 1,2-Dichloroethane-d4	98.7	Limit: 63-138	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: Toluene-d8	96.9	Limit: 87-116	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1820	LJS
Surrogate: 4-Bromofluorobenzene	96.2	Limit: 85-111	% Rec	1		04/23/24 0000	04/23/24 1820	LJS

Determination of General Solvents	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 8015C								
Isobutanol	<1.0	1.0	mg/L	1		04/29/24 1336	04/29/24 2333	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		04/22/24 1218	05/02/24 1833	EPP
Methyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosodiethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosomethylethylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Ethyl Methanesulfonate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Phenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Bis(2-Chloroethyl) Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Chlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Benzyl Alcohol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Methylphenol (o-Cresol)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Bis[2-Chloroisopropyl]ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
n-Nitroso-di-n-propylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosopyrrolidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Acetophenone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
o-Toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
(3 & 4)-Methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Hexachloroethane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Nitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosopiperidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Isophorone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,4-Dimethylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Bis (2-Chloroethoxy) Methane	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,4-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Naphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Chloroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,6-Dichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Hexachloropropene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Hexachlorobutadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosodi-n-butylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,4-Phenylenediamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Chloro-3-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Methylnaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Isosafrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,2,4,5-Tetrachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Hexachlorocyclopentadiene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,4,6-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,4,5-Trichlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Safrole	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Chloronaphthalene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,4-Naphthoquinone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Dimethylphthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,3-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,2-Dinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,6-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Acenaphthylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
3-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Acenaphthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
2,4-Dinitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Nitrophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Dibenzofuran	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,4-Dinitrotoluene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2,3,4,6-Tetrachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Pentachlorobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Naphthylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Diethyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Chlorophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Nitroaniline	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
5-Nitro-o-toluidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4,6-Dinitro-2-methylphenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
N-Nitrosodiphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Diphenylamine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Diallate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
1,3,5-Trinitrobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Phenacetin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Bromophenyl Phenyl Ether	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
4-Aminobiphenyl	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Pentachlorophenol	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Pronamide	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Pentachloronitrobenzene (PCNB)	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Phenanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Di-n-butyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Methapyrilene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Isodrin	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Chlorobenzilate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
p-(Dimethylamino)azobenzene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
3,3-Dimethylbenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Butyl Benzyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Benzo(a)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Chrysene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Bis(2-Ethylhexyl) Phthalate	72	6	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Kepone	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
3,3'-Dichlorobenzidine	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
2-Acetylamino fluorene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Di-n-octyl Phthalate	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP

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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(b)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
7,12-Dimethylbenz [a] anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Benzo(k)Fluoranthene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Benzo(a)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
3-Methylcholanthrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Dibenzo(a,h)anthracene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Indeno(1,2,3-cd)Pyrene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Benzo(g,h,i)perylene	<8	8	ug/L	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: 2-Fluorophenol	90.8	Limit: 24-136	% Rec	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: Phenol-d6	91.2	Limit: 15-140	% Rec	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: Nitrobenzene-d5	99.3	Limit: 29-130	% Rec	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: 2-Fluorobiphenyl	88.7	Limit: 23-113	% Rec	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: 2,4,6-Tribromophenol	90.6	Limit: 15-139	% Rec	1		04/22/24 1218	05/02/24 1833	EPP
Surrogate: Terphenyl-dl4	84.5	Limit: 27-141	% Rec	1		04/22/24 1218	05/02/24 1833	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		04/24/24 1056	05/02/24 1157	EPP
Thionazin	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Phorate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Dimethoate	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Disulfoton	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Methyl Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Parathion	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Famphur	<0.4	0.4	ug/L	1		04/24/24 1056	05/02/24 1157	EPP
Surrogate: 2-Nitro-m-xylene	74.2	Limit: 38-122	% Rec	1		04/24/24 1056	05/02/24 1157	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		04/23/24 1335	04/30/24 2139	MSV
2,4,5-TP (Silvex)	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2139	MSV
2,4,5-T	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2139	MSV
Dinoseb	<0.5	0.5	ug/L	1		04/23/24 1335	04/30/24 2139	MSV
Surrogate: 2,5-Dichlorobenzoic Acid	102	Limit: 31-116	% Rec	1		04/23/24 1335	04/30/24 2139	MSV

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 8081								
Alpha-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Beta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Heptachlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID: MW-14	Collected By: Whipple, Todd
Sample Matrix: Aqueous	Collection Date: 04/17/2024 13:53
Lab Sample ID: 1HD1596-05	

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Delta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Aldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Endosulfan I	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
4,4`-DDE	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Dieldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Endrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
4,4`-DDD	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Endosulfan II	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
4,4`-DDT	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Methoxychlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Chlordane	<0.10	0.10	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Toxaphene	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Hexachlorobenzene	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 0929	EPP
Surrogate: Tetrachloro-m-xylene	83.8	Limit: 10-121	% Rec	1		04/24/24 1049	05/01/24 0929	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		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Arochlor 1260	<0.20	0.20	ug/L	1		04/24/24 1053	05/01/24 0929	EPP
Surrogate: Tetrachloro-m-xylene	94.2	Limit: 38-121	% Rec	1		04/24/24 1053	05/01/24 0929	EPP
Surrogate: Decachlorobiphenyl	90.9	Limit: 25-119	% Rec	1		04/24/24 1053	05/01/24 0929	EPP

Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 376.2								
Sulfide, total	<0.15	0.15	mg/L	1		04/23/24 1521	04/23/24 1555	CHP
EPA 9010B								
Cyanide, total	<0.005	0.005	mg/L	1		04/25/24 1628	04/26/24 1444	CHP

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		04/24/24 1610	04/26/24 0314	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Barium, total	1.04	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Client Sample ID:	MW-14	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 13:53
Lab Sample ID:	1HD1596-05		

Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Cobalt, total	0.0041	0.0004	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Nickel, total	0.0316	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Tin, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0314	JAR
EPA 7470A								
Mercury, total	<0.00050	0.00050	mg/L	1		04/19/24 1724	04/23/24 0918	JAR

Client Sample ID:	Duplicate	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024
Lab Sample ID:	1HD1596-06		

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		04/24/24 1610	04/26/24 0320	JAR
Arsenic, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Barium, total	1.05	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Beryllium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Cadmium, total	<0.0008	0.0008	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Chromium, total	<0.0080	0.0080	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Cobalt, total	0.0041	0.0004	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Copper, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Lead, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Nickel, total	0.0317	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Silver, total	<0.0040	0.0040	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Thallium, total	<0.0020	0.0020	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Vanadium, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0320	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 1610	04/26/24 0320	JAR



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CERTIFICATE OF ANALYSIS

1HD1596

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 7470A	1HD1267	1HD1267-BLK1	
		1HD1267-BS1	
		1HD1267-MS1	1HD1237-06
		1HD1267-MSD1	1HD1237-06
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1HD1309	1HD1309-BLK1	
		1HD1309-BS1	
		1HD1309-BSD1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 8270C	1HD1367	1HD1367-BLK1	
		1HD1367-BS1	
		1HD1367-BSD1	
		1HD1596-03	MW-11

Method	Batch	Laboratory ID	Client / Source ID
EPA 8151A	1HD1383	1HD1383-BLK1	
		1HD1383-BS1	
		1HD1383-BSD1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 376.2	1HD1387	1HD1387-BS1	
		1HD1387-BLK1	
		1HD1387-MS1	1HD1596-02
		1HD1387-MSD1	1HD1596-02
		1HD1596-04	MW-13
		1HD1596-05	MW-14
		1HD1596-02	MW-9

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260B	1HD1408	1HD1408-BS1	



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CERTIFICATE OF ANALYSIS

1HD1596

EPA 8260B	1HD1408	1HD1408-BSD1	
		1HD1408-BLK1	
		1HD1596-01	92MW-15A
		1HD1596-02	MW-9
		1HD1596-03	MW-11
		1HD1596-04	MW-13
		1HD1596-05	MW-14
		1HD1408-MS1	1HD1532-04
		1HD1408-MSD1	1HD1532-04

Method	Batch	Laboratory ID	Client / Source ID
EPA 8081	1HD1434	1HD1434-BLK1	
		1HD1434-BS1	
		1HD1434-BSD1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 8082	1HD1436	1HD1436-BLK1	
		1HD1436-BS1	
		1HD1436-BSD1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 8141	1HD1439	1HD1439-BLK1	
		1HD1439-BS1	
		1HD1439-BSD1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1HD1478	1HD1478-BLK1	
		1HD1478-BS1	
		1HD1478-MS1	1HD0315-03RE3
		1HD1478-MSD1	1HD0315-03RE3
		1HD1478-PS1	1HD0315-03RE3
		1HD1596-01	92MW-15A
		1HD1596-02	MW-9
		1HD1596-03	MW-11
		1HD1596-04	MW-13



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

EPA 6020A	1HD1478	1HD1596-05	MW-14
		1HD1596-06	Duplicate

Method	Batch	Laboratory ID	Client / Source ID
EPA 9010B	1HD1564	1HD1596-05	MW-14
		1HD1564-MSD1	1HD1596-02
		1HD1564-BLK1	
		1HD1564-MS1	1HD1596-02
		1HD1564-BS1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13

Method	Batch	Laboratory ID	Client / Source ID
EPA 8015C	1HD1672	1HD1672-BS1	
		1HD1672-BLK1	
		1HD1596-02	MW-9
		1HD1596-04	MW-13
		1HD1596-05	MW-14
		1HD1672-MS1	1HD1461-02
		1HD1672-MSD1	1HD1461-02
		1HD1672-MRL1	
		1HD1672-MRL2	

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1408 - EPA 5030B - EPA 8260B

Blank (1HD1408-BLK1)				Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46						
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							
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							



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Blank (1HD1408-BLK1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46										
Methyl Iodide	<2.0	2.0	ug/L							
Methyl Iodide	<1.0	1.0	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							
Vinyl Acetate	<5.0	5.0	ug/L							
Vinyl Acetate	<5.0	5.0	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)	<5.0	5.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	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							
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							

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Blank (1HD1408-BLK1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46										
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							
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	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Blank (1HD1408-BLK1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46										
1,2,4-Trichlorobenzene	<1.0	1.0	ug/L							
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							
<hr/>										
Surrogate: Dibromofluoromethane	50.8		ug/L	50.2		101	80-126			
Surrogate: Dibromofluoromethane	50.8		ug/L	50.2		101	80-126			
Surrogate: Dibromofluoromethane	50.8		ug/L	50.2		101	80-126			
Surrogate: Dibromofluoromethane	50.8		ug/L	50.2		101	75-136			
Surrogate: 1,2-Dichloroethane-d4	51.8		ug/L	50.1		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.8		ug/L	50.1		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.8		ug/L	50.1		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.8		ug/L	50.1		103	63-138			
Surrogate: 1,2-Dichloroethane-d4	51.8		ug/L	50.1		103	61-142			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	87-116			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	87-116			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	87-116			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	87-116			
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	82-121			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	85-111			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	85-111			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	85-111			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	85-111			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	80-116			
<hr/>										
LCS (1HD1408-BS1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 09:38										
Dichlorodifluoromethane	37.88	1.0	ug/L	31.6		120	44-139			
Chloromethane	35.96	1.0	ug/L	30.6		117	56-152			
Chloromethane	35.96	1.0	ug/L	30.6		117	63-155			
Vinyl Chloride	35.51	1.0	ug/L	30.2		117	62-151			
Vinyl Chloride	35.51	1.0	ug/L	30.2		117	70-154			
Bromomethane	30.25	1.0	ug/L	28.8		105	61-162			
Bromomethane	30.25	1.0	ug/L	28.8		105	52-176			
Chloroethane	38.95	1.0	ug/L	31.6		123	69-138			
Chloroethane	38.95	1.0	ug/L	31.6		123	72-148			
Trichlorofluoromethane	35.99	1.0	ug/L	32.6		110	70-143			
Trichlorofluoromethane	35.99	1.0	ug/L	32.6		110	70-152			
Acrolein	90.15	10.0	ug/L	100		89.9	27-144			
1,1-Dichloroethylene	54.20	1.0	ug/L	50.0		108	76-140			
1,1-Dichloroethylene	54.20	1.0	ug/L	50.0		108	70-148			
Acetone	83.64	10.0	ug/L	101		82.6	51-156			
Acetone	83.64	10.0	ug/L	101		82.6	43-172			
Methyl Iodide	100.8	2.0	ug/L	102		98.9	81-166			
Methyl Iodide	100.8	1.0	ug/L	102		98.9	69-170			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
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LCS (1HD1408-BS1)	Prepared: 04/23/24 00:00 Analyzed: 04/23/24 09:38									
Carbon Disulfide	121.4	1.0	ug/L	103		118	76-147			
Carbon Disulfide	121.4	1.0	ug/L	103		118	72-162			
Acetonitrile	430.6	10.0	ug/L	103		419	46-156			QS-02
Methylene Chloride	51.84	5.0	ug/L	50.0		104	67-139			
Methylene Chloride	51.84	5.0	ug/L	50.0		104	68-142			
Acrylonitrile	94.62	5.0	ug/L	100		94.3	67-144			
Acrylonitrile	94.62	5.0	ug/L	100		94.3	67-144			
trans-1,2-Dichloroethylene	53.70	1.0	ug/L	50.0		107	72-135			
trans-1,2-Dichloroethylene	53.70	1.0	ug/L	50.0		107	66-148			
1,1-Dichloroethane	51.84	1.0	ug/L	50.0		104	72-129			
1,1-Dichloroethane	51.84	1.0	ug/L	50.0		104	66-143			
Vinyl Acetate	97.50	5.0	ug/L	100		97.5	24-144			
Vinyl Acetate	97.50	5.0	ug/L	100		97.5	43-153			
2,2-Dichloropropane	49.64	1.0	ug/L	50.0		99.3	64-131			
cis-1,2-Dichloroethylene	50.21	1.0	ug/L	50.0		100	81-137			
cis-1,2-Dichloroethylene	50.21	1.0	ug/L	50.0		100	71-149			
2-Butanone (MEK)	91.25	5.0	ug/L	102		89.6	47-149			
2-Butanone (MEK)	91.25	10.0	ug/L	102		89.6	52-159			
Bromochloromethane	52.63	1.0	ug/L	50.0		105	75-138			
Bromochloromethane	52.63	1.0	ug/L	50.0		105	69-143			
Chloroform	50.51	1.0	ug/L	50.0		101	78-131			
Chloroform	50.51	1.0	ug/L	50.0		101	69-144			
1,1,1-Trichloroethane	49.46	1.0	ug/L	50.0		98.9	67-121			
1,1,1-Trichloroethane	49.46	1.0	ug/L	50.0		98.9	62-129			
1,1-Dichloropropene	49.98	1.0	ug/L	50.0		100	80-131			
Carbon Tetrachloride	52.74	1.0	ug/L	50.0		105	71-131			
Carbon Tetrachloride	52.74	1.0	ug/L	50.0		105	63-141			
Benzene	50.94	1.0	ug/L	50.0		102	77-130			
Benzene	50.94	1.0	ug/L	50.0		102	71-134			
1,2-Dichloroethane	48.82	1.0	ug/L	50.0		97.6	76-126			
1,2-Dichloroethane	48.82	1.0	ug/L	50.0		97.6	72-132			
Trichloroethylene	50.80	1.0	ug/L	50.0		102	80-124			
Trichloroethylene	50.80	1.0	ug/L	50.0		102	71-135			
1,2-Dichloropropane	50.57	1.0	ug/L	50.0		101	81-125			
1,2-Dichloropropane	50.57	1.0	ug/L	50.0		101	69-136			
Dibromomethane	51.42	1.0	ug/L	50.0		103	84-134			
Dibromomethane	51.42	1.0	ug/L	50.0		103	73-147			
Bromodichloromethane	49.96	1.0	ug/L	50.0		99.9	78-121			
Bromodichloromethane	49.96	1.0	ug/L	50.0		99.9	68-129			
cis-1,3-Dichloropropene	49.40	1.0	ug/L	50.0		98.8	78-120			
cis-1,3-Dichloropropene	49.40	1.0	ug/L	50.0		98.8	65-134			
4-Methyl-2-pentanone (MIBK)	101.2	5.0	ug/L	100		101	67-143			
4-Methyl-2-pentanone (MIBK)	101.2	5.0	ug/L	100		101	58-147			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
LCS (1HD1408-BS1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 09:38										
Toluene	48.89	1.0	ug/L	50.0		97.8	77-130			
Toluene	48.89	1.0	ug/L	50.0		97.8	72-133			
trans-1,3-Dichloropropene	50.85	1.0	ug/L	50.0		102	77-123			
trans-1,3-Dichloropropene	50.85	1.0	ug/L	50.0		102	67-130			
Ethyl Methacrylate	106.5	10.0	ug/L	102		104	52-148			
1,1,2-Trichloroethane	50.24	1.0	ug/L	50.0		100	78-124			
1,1,2-Trichloroethane	50.24	1.0	ug/L	50.0		100	69-135			
Tetrachloroethylene	50.30	1.0	ug/L	50.0		101	73-124			
Tetrachloroethylene	50.30	1.0	ug/L	50.0		101	69-130			
1,3-Dichloropropane	56.49	1.0	ug/L	50.0		113	78-131			
2-Hexanone (MBK)	104.0	5.0	ug/L	99.3		105	57-145			
2-Hexanone (MBK)	104.0	5.0	ug/L	99.3		105	55-144			
Dibromochloromethane	51.03	1.0	ug/L	50.0		102	78-126			
Dibromochloromethane	51.03	1.0	ug/L	50.0		102	73-127			
1,2-Dibromoethane	50.10	1.0	ug/L	50.0		100	69-126			
1,2-Dibromoethane	50.10	1.0	ug/L	50.0		100	67-132			
Chlorobenzene	50.14	1.0	ug/L	50.0		100	76-120			
Chlorobenzene	50.14	1.0	ug/L	50.0		100	72-123			
1,1,1,2-Tetrachloroethane	51.71	1.0	ug/L	50.0		103	81-122			
1,1,1,2-Tetrachloroethane	51.71	1.0	ug/L	50.0		103	73-127			
Ethylbenzene	51.98	1.0	ug/L	50.0		104	74-121			
Ethylbenzene	51.98	1.0	ug/L	50.0		104	71-127			
Xylenes, total	157.3	2.0	ug/L	150		105	75-122			
Xylenes, total	157.3	2.0	ug/L	150		105	74-127			
Styrene	53.55	1.0	ug/L	50.0		107	76-119			
Styrene	53.55	1.0	ug/L	50.0		107	66-126			
Bromoform	48.10	1.0	ug/L	50.0		96.2	74-127			
Bromoform	48.10	1.0	ug/L	50.0		96.2	68-130			
1,2,3-Trichloropropane	49.51	1.0	ug/L	50.0		99.0	73-125			
1,2,3-Trichloropropane	49.51	1.0	ug/L	50.0		99.0	63-136			
trans-1,4-Dichloro-2-butene	91.95	5.0	ug/L	103		89.4	55-135			
trans-1,4-Dichloro-2-butene	91.95	5.0	ug/L	103		89.4	54-134			
1,1,2,2-Tetrachloroethane	48.77	1.0	ug/L	50.0		97.5	58-133			
1,1,2,2-Tetrachloroethane	48.77	1.0	ug/L	50.0		97.5	61-131			
1,3-Dichlorobenzene	51.26	1.0	ug/L	50.0		103	70-125			
1,4-Dichlorobenzene	49.35	1.0	ug/L	50.0		98.7	69-128			
1,4-Dichlorobenzene	49.35	1.0	ug/L	50.0		98.7	70-129			
1,2-Dichlorobenzene	50.94	1.0	ug/L	50.0		102	70-125			
1,2-Dichlorobenzene	50.94	1.0	ug/L	50.0		102	69-126			
1,2-Dibromo-3-chloropropane	46.92	1.0	ug/L	50.0		93.8	54-147			
1,2-Dibromo-3-chloropropane	46.92	5.0	ug/L	50.0		93.8	50-143			
1,2,4-Trichlorobenzene	50.16	1.0	ug/L	50.0		100	55-149			
Allyl chloride	36.10	1.0	ug/L	35.7		101	76-134			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
LCS (1HD1408-BS1)										
				Prepared: 04/23/24 00:00 Analyzed: 04/23/24 09:38						
Chloroprene	59.11	1.0	ug/L	50.0		118	74-141			
Methacrylonitrile	61.45	1.0	ug/L	64.3		95.6	73-143			
Methyl Methacrylate	57.02	1.0	ug/L	57.3		99.5	72-123			
Propionitrile	79.66	10.0	ug/L	50.0		159	50-151			QS-02
<i>Surrogate: Dibromofluoromethane</i>	50.9		ug/L	50.2		102	80-126			
<i>Surrogate: Dibromofluoromethane</i>	50.9		ug/L	50.2		102	80-126			
<i>Surrogate: Dibromofluoromethane</i>	50.9		ug/L	50.2		102	80-126			
<i>Surrogate: Dibromofluoromethane</i>	50.9		ug/L	50.2		102	75-136			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.6		ug/L	50.1		101	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.6		ug/L	50.1		101	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.6		ug/L	50.1		101	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.6		ug/L	50.1		101	63-138			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	50.6		ug/L	50.1		101	61-142			
<i>Surrogate: Toluene-d8</i>	50.3		ug/L	50.4		99.8	87-116			
<i>Surrogate: Toluene-d8</i>	50.3		ug/L	50.4		99.8	87-116			
<i>Surrogate: Toluene-d8</i>	50.3		ug/L	50.4		99.8	87-116			
<i>Surrogate: Toluene-d8</i>	50.3		ug/L	50.4		99.8	87-116			
<i>Surrogate: Toluene-d8</i>	50.3		ug/L	50.4		99.8	82-121			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.4		ug/L	50.1		101	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.4		ug/L	50.1		101	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.4		ug/L	50.1		101	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.4		ug/L	50.1		101	85-111			
<i>Surrogate: 4-Bromofluorobenzene</i>	50.4		ug/L	50.1		101	80-116			
LCS Dup (1HD1408-BSD1)										
				Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01						
Dichlorodifluoromethane	35.70	1.0	ug/L	31.6		113	44-139	5.93	30	
Chloromethane	34.15	1.0	ug/L	30.6		111	56-152	5.16	30	
Chloromethane	34.15	1.0	ug/L	30.6		111	63-155	5.16	24	
Vinyl Chloride	33.22	1.0	ug/L	30.2		110	62-151	6.66	28	
Vinyl Chloride	33.22	1.0	ug/L	30.2		110	70-154	6.66	25	
Bromomethane	30.50	1.0	ug/L	28.8		106	61-162	0.823	28	
Bromomethane	30.50	1.0	ug/L	28.8		106	52-176	0.823	27	
Chloroethane	37.41	1.0	ug/L	31.6		118	69-138	4.03	29	
Chloroethane	37.41	1.0	ug/L	31.6		118	72-148	4.03	25	
Trichlorofluoromethane	33.93	1.0	ug/L	32.6		104	70-143	5.89	27	
Trichlorofluoromethane	33.93	1.0	ug/L	32.6		104	70-152	5.89	26	
Acrolein	81.50	10.0	ug/L	100		81.3	27-144	10.1	30	
1,1-Dichloroethylene	51.03	1.0	ug/L	50.0		102	76-140	6.02	30	
1,1-Dichloroethylene	51.03	1.0	ug/L	50.0		102	70-148	6.02	24	
Acetone	73.24	10.0	ug/L	101		72.4	51-156	13.3	30	
Acetone	73.24	10.0	ug/L	101		72.4	43-172	13.3	30	
Methyl Iodide	98.09	2.0	ug/L	102		96.3	81-166	2.68	29	
Methyl Iodide	98.09	1.0	ug/L	102		96.3	69-170	2.68	30	
Carbon Disulfide	114.3	1.0	ug/L	103		111	76-147	5.97	27	
Carbon Disulfide	114.3	1.0	ug/L	103		111	72-162	5.97	24	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
LCS Dup (1HD1408-BSD1)										
				Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01						
Acetonitrile	403.6	10.0	ug/L	103		393	46-156	6.49	30	QS-02
Methylene Chloride	50.42	5.0	ug/L	50.0		101	67-139	2.78	26	
Methylene Chloride	50.42	5.0	ug/L	50.0		101	68-142	2.78	21	
Acrylonitrile	88.84	5.0	ug/L	100		88.5	67-144	6.30	24	
Acrylonitrile	88.84	5.0	ug/L	100		88.5	67-144	6.30	24	
trans-1,2-Dichloroethylene	50.79	1.0	ug/L	50.0		102	72-135	5.57	28	
trans-1,2-Dichloroethylene	50.79	1.0	ug/L	50.0		102	66-148	5.57	27	
1,1-Dichloroethane	48.98	1.0	ug/L	50.0		98.0	72-129	5.67	26	
1,1-Dichloroethane	48.98	1.0	ug/L	50.0		98.0	66-143	5.67	24	
Vinyl Acetate	94.18	5.0	ug/L	100		94.2	24-144	3.46	30	
Vinyl Acetate	94.18	5.0	ug/L	100		94.2	43-153	3.46	30	
2,2-Dichloropropane	46.70	1.0	ug/L	50.0		93.4	64-131	6.10	26	
cis-1,2-Dichloroethylene	47.83	1.0	ug/L	50.0		95.7	81-137	4.86	27	
cis-1,2-Dichloroethylene	47.83	1.0	ug/L	50.0		95.7	71-149	4.86	26	
2-Butanone (MEK)	79.76	5.0	ug/L	102		78.3	47-149	13.4	30	
2-Butanone (MEK)	79.76	10.0	ug/L	102		78.3	52-159	13.4	27	
Bromochloromethane	51.02	1.0	ug/L	50.0		102	75-138	3.11	24	
Bromochloromethane	51.02	1.0	ug/L	50.0		102	69-143	3.11	23	
Chloroform	48.30	1.0	ug/L	50.0		96.6	78-131	4.47	27	
Chloroform	48.30	1.0	ug/L	50.0		96.6	69-144	4.47	23	
1,1,1-Trichloroethane	46.64	1.0	ug/L	50.0		93.3	67-121	5.87	28	
1,1,1-Trichloroethane	46.64	1.0	ug/L	50.0		93.3	62-129	5.87	24	
1,1-Dichloropropene	46.85	1.0	ug/L	50.0		93.7	80-131	6.46	30	
Carbon Tetrachloride	49.78	1.0	ug/L	50.0		99.6	71-131	5.77	28	
Carbon Tetrachloride	49.78	1.0	ug/L	50.0		99.6	63-141	5.77	25	
Benzene	48.87	1.0	ug/L	50.0		97.7	77-130	4.15	25	
Benzene	48.87	1.0	ug/L	50.0		97.7	71-134	4.15	24	
1,2-Dichloroethane	47.62	1.0	ug/L	50.0		95.2	76-126	2.49	24	
1,2-Dichloroethane	47.62	1.0	ug/L	50.0		95.2	72-132	2.49	24	
Trichloroethylene	49.00	1.0	ug/L	50.0		98.0	80-124	3.61	27	
Trichloroethylene	49.00	1.0	ug/L	50.0		98.0	71-135	3.61	24	
1,2-Dichloropropane	49.30	1.0	ug/L	50.0		98.6	81-125	2.54	25	
1,2-Dichloropropane	49.30	1.0	ug/L	50.0		98.6	69-136	2.54	24	
Dibromomethane	50.60	1.0	ug/L	50.0		101	84-134	1.61	23	
Dibromomethane	50.60	1.0	ug/L	50.0		101	73-147	1.61	25	
Bromodichloromethane	48.54	1.0	ug/L	50.0		97.1	78-121	2.88	25	
Bromodichloromethane	48.54	1.0	ug/L	50.0		97.1	68-129	2.88	22	
cis-1,3-Dichloropropene	48.22	1.0	ug/L	50.0		96.4	78-120	2.42	26	
cis-1,3-Dichloropropene	48.22	1.0	ug/L	50.0		96.4	65-134	2.42	23	
4-Methyl-2-pentanone (MIBK)	98.38	5.0	ug/L	100		98.3	67-143	2.88	26	
4-Methyl-2-pentanone (MIBK)	98.38	5.0	ug/L	100		98.3	58-147	2.88	27	
Toluene	47.13	1.0	ug/L	50.0		94.3	77-130	3.67	27	
Toluene	47.13	1.0	ug/L	50.0		94.3	72-133	3.67	24	

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
LCS Dup (1HD1408-BSD1)										
				Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01						
trans-1,3-Dichloropropene	49.94	1.0	ug/L	50.0		99.9	77-123	1.81	28	
trans-1,3-Dichloropropene	49.94	1.0	ug/L	50.0		99.9	67-130	1.81	24	
Ethyl Methacrylate	104.2	10.0	ug/L	102		102	52-148	2.22	30	
1,1,2-Trichloroethane	49.57	1.0	ug/L	50.0		99.1	78-124	1.34	24	
1,1,2-Trichloroethane	49.57	1.0	ug/L	50.0		99.1	69-135	1.34	23	
Tetrachloroethylene	48.32	1.0	ug/L	50.0		96.6	73-124	4.02	26	
Tetrachloroethylene	48.32	1.0	ug/L	50.0		96.6	69-130	4.02	25	
1,3-Dichloropropane	55.75	1.0	ug/L	50.0		112	78-131	1.32	24	
2-Hexanone (MBK)	100.7	5.0	ug/L	99.3		101	57-145	3.17	30	
2-Hexanone (MBK)	100.7	5.0	ug/L	99.3		101	55-144	3.17	25	
Dibromochloromethane	50.39	1.0	ug/L	50.0		101	78-126	1.26	23	
Dibromochloromethane	50.39	1.0	ug/L	50.0		101	73-127	1.26	22	
1,2-Dibromoethane	49.13	1.0	ug/L	50.0		98.3	69-126	1.96	22	
1,2-Dibromoethane	49.13	1.0	ug/L	50.0		98.3	67-132	1.96	24	
Chlorobenzene	48.76	1.0	ug/L	50.0		97.5	76-120	2.79	25	
Chlorobenzene	48.76	1.0	ug/L	50.0		97.5	72-123	2.79	23	
1,1,1,2-Tetrachloroethane	49.84	1.0	ug/L	50.0		99.7	81-122	3.68	23	
1,1,1,2-Tetrachloroethane	49.84	1.0	ug/L	50.0		99.7	73-127	3.68	24	
Ethylbenzene	49.99	1.0	ug/L	50.0		100	74-121	3.90	27	
Ethylbenzene	49.99	1.0	ug/L	50.0		100	71-127	3.90	26	
Xylenes, total	151.5	2.0	ug/L	150		101	75-122	3.78	26	
Xylenes, total	151.5	2.0	ug/L	150		101	74-127	3.78	25	
Styrene	51.92	1.0	ug/L	50.0		104	76-119	3.09	26	
Styrene	51.92	1.0	ug/L	50.0		104	66-126	3.09	23	
Bromoform	47.28	1.0	ug/L	50.0		94.6	74-127	1.72	22	
Bromoform	47.28	1.0	ug/L	50.0		94.6	68-130	1.72	23	
1,2,3-Trichloropropane	48.94	1.0	ug/L	50.0		97.9	73-125	1.16	20	
1,2,3-Trichloropropane	48.94	1.0	ug/L	50.0		97.9	63-136	1.16	24	
trans-1,4-Dichloro-2-butene	90.17	5.0	ug/L	103		87.7	55-135	1.95	26	
trans-1,4-Dichloro-2-butene	90.17	5.0	ug/L	103		87.7	54-134	1.95	27	
1,1,2,2-Tetrachloroethane	48.79	1.0	ug/L	50.0		97.6	58-133	0.0410	28	
1,1,2,2-Tetrachloroethane	48.79	1.0	ug/L	50.0		97.6	61-131	0.0410	29	
1,3-Dichlorobenzene	49.76	1.0	ug/L	50.0		99.6	70-125	2.97	27	
1,4-Dichlorobenzene	47.97	1.0	ug/L	50.0		95.9	69-128	2.84	29	
1,4-Dichlorobenzene	47.97	1.0	ug/L	50.0		95.9	70-129	2.84	24	
1,2-Dichlorobenzene	50.06	1.0	ug/L	50.0		100	70-125	1.74	25	
1,2-Dichlorobenzene	50.06	1.0	ug/L	50.0		100	69-126	1.74	26	
1,2-Dibromo-3-chloropropane	47.42	1.0	ug/L	50.0		94.8	54-147	1.06	29	
1,2-Dibromo-3-chloropropane	47.42	5.0	ug/L	50.0		94.8	50-143	1.06	30	
1,2,4-Trichlorobenzene	49.89	1.0	ug/L	50.0		99.8	55-149	0.540	30	
Allyl chloride	33.28	1.0	ug/L	35.7		93.1	76-134	8.13	30	
Chloroprene	55.54	1.0	ug/L	50.0		111	74-141	6.23	30	
Methacrylonitrile	58.73	1.0	ug/L	64.3		91.4	73-143	4.53	30	

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1408 - EPA 5030B - EPA 8260B

LCS Dup (1HD1408-BSD1)

Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01

Methyl Methacrylate	56.14	1.0	ug/L	57.3		97.9	72-123	1.56	30	
Propionitrile	71.50	10.0	ug/L	50.0		143	50-151	10.8	30	

Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	80-126			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	63-138			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	61-142			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	87-116			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	82-121			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	85-111			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	80-116			

Matrix Spike (1HD1408-MS1)

Source: 1HD1532-04

Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51

Dichlorodifluoromethane	343.3	10.0	ug/L	316	ND	109	47-137			
Chloromethane	321.3	10.0	ug/L	306	ND	105	49-154			
Chloromethane	321.3	10.0	ug/L	306	ND	105	61-152			
Vinyl Chloride	319.2	10.0	ug/L	302	ND	106	61-152			
Vinyl Chloride	319.2	10.0	ug/L	302	ND	106	66-149			
Bromomethane	222.6	10.0	ug/L	288	ND	77.3	47-168			
Bromomethane	222.6	10.0	ug/L	288	ND	77.3	43-171			
Chloroethane	351.5	10.0	ug/L	316	ND	111	61-148			
Chloroethane	351.5	10.0	ug/L	316	ND	111	69-148			
Trichlorofluoromethane	326.4	10.0	ug/L	326	ND	100	73-147			
Trichlorofluoromethane	326.4	10.0	ug/L	326	ND	100	62-163			
Acrolein	768.0	100	ug/L	1000	ND	76.6	20-164			
1,1-Dichloroethylene	470.3	10.0	ug/L	500	ND	94.1	68-153			
1,1-Dichloroethylene	470.3	10.0	ug/L	500	ND	94.1	70-148			
Acetone	873.1	100	ug/L	1010	ND	86.3	45-175			
Acetone	873.1	100	ug/L	1010	ND	86.3	45-173			
Methyl Iodide	983.3	20.0	ug/L	1020	ND	96.5	79-167			
Methyl Iodide	983.3	10.0	ug/L	1020	ND	96.5	62-167			
Carbon Disulfide	1080	10.0	ug/L	1030	ND	105	72-156			
Carbon Disulfide	1080	10.0	ug/L	1030	ND	105	71-163			
Acetonitrile	834.2	100	ug/L	1030	ND	81.2	38-166			
Methylene Chloride	464.0	50.0	ug/L	500	ND	92.8	64-143			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Matrix Spike (1HD1408-MS1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51						
Methylene Chloride	464.0	50.0	ug/L	500	ND	92.8	69-140			
Acrylonitrile	933.4	50.0	ug/L	1000	ND	93.0	58-151			
Acrylonitrile	933.4	50.0	ug/L	1000	ND	93.0	58-151			
trans-1,2-Dichloroethylene	473.0	10.0	ug/L	500	ND	94.6	65-145			
trans-1,2-Dichloroethylene	473.0	10.0	ug/L	500	ND	94.6	69-144			
1,1-Dichloroethane	465.8	10.0	ug/L	500	ND	93.2	68-136			
1,1-Dichloroethane	465.8	10.0	ug/L	500	ND	93.2	70-138			
Vinyl Acetate	903.2	50.0	ug/L	1000	ND	90.3	58-143			
Vinyl Acetate	903.2	50.0	ug/L	1000	ND	90.3	58-142			
2,2-Dichloropropane	417.6	10.0	ug/L	500	ND	83.5	50-118			
cis-1,2-Dichloroethylene	541.4	10.0	ug/L	500	ND	108	67-153			
cis-1,2-Dichloroethylene	541.4	10.0	ug/L	500	ND	108	68-151			
2-Butanone (MEK)	982.2	50.0	ug/L	1020	ND	96.5	52-159			
2-Butanone (MEK)	982.2	100	ug/L	1020	ND	96.5	50-160			
Bromochloromethane	480.7	10.0	ug/L	500	ND	96.1	61-151			
Bromochloromethane	480.7	10.0	ug/L	500	ND	96.1	65-143			
Chloroform	452.5	10.0	ug/L	500	ND	90.5	77-132			
Chloroform	452.5	10.0	ug/L	500	ND	90.5	71-143			
1,1,1-Trichloroethane	439.5	10.0	ug/L	500	ND	87.9	71-118			
1,1,1-Trichloroethane	439.5	10.0	ug/L	500	ND	87.9	63-133			
1,1-Dichloropropene	449.6	10.0	ug/L	500	ND	89.9	82-128			
Carbon Tetrachloride	431.3	10.0	ug/L	500	ND	86.3	71-133			
Carbon Tetrachloride	431.3	10.0	ug/L	500	ND	86.3	63-142			
Benzene	485.0	10.0	ug/L	500	ND	97.0	81-125			
Benzene	485.0	10.0	ug/L	500	ND	97.0	69-133			
1,2-Dichloroethane	475.0	10.0	ug/L	500	ND	95.0	75-125			
1,2-Dichloroethane	475.0	10.0	ug/L	500	ND	95.0	63-138			
Trichloroethylene	480.4	10.0	ug/L	500	ND	96.1	83-120			
Trichloroethylene	480.4	10.0	ug/L	500	ND	96.1	71-133			
1,2-Dichloropropane	487.6	10.0	ug/L	500	ND	97.5	80-124			
1,2-Dichloropropane	487.6	10.0	ug/L	500	ND	97.5	69-132			
Dibromomethane	503.7	10.0	ug/L	500	ND	101	84-131			
Dibromomethane	503.7	10.0	ug/L	500	ND	101	70-147			
Bromodichloromethane	469.7	10.0	ug/L	500	ND	93.9	79-118			
Bromodichloromethane	469.7	10.0	ug/L	500	ND	93.9	67-130			
cis-1,3-Dichloropropene	458.1	10.0	ug/L	500	ND	91.6	75-116			
cis-1,3-Dichloropropene	458.1	10.0	ug/L	500	ND	91.6	61-126			
4-Methyl-2-pentanone (MIBK)	1065	50.0	ug/L	1000	ND	106	65-149			
4-Methyl-2-pentanone (MIBK)	1065	50.0	ug/L	1000	ND	106	55-147			
Toluene	468.3	10.0	ug/L	500	ND	93.7	82-123			
Toluene	468.3	10.0	ug/L	500	ND	93.7	71-133			
trans-1,3-Dichloropropene	480.0	10.0	ug/L	500	ND	96.0	75-117			
trans-1,3-Dichloropropene	480.0	10.0	ug/L	500	ND	96.0	63-124			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Matrix Spike (1HD1408-MS1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51						
Ethyl Methacrylate	1069	100	ug/L	1020	ND	104	73-135			
1,1,2-Trichloroethane	494.9	10.0	ug/L	500	ND	99.0	77-122			
1,1,2-Trichloroethane	494.9	10.0	ug/L	500	ND	99.0	69-133			
Tetrachloroethylene	482.8	10.0	ug/L	500	ND	96.6	74-120			
Tetrachloroethylene	482.8	10.0	ug/L	500	ND	96.6	70-124			
1,3-Dichloropropane	557.4	10.0	ug/L	500	ND	111	80-127			
2-Hexanone (MBK)	1110	50.0	ug/L	993	ND	112	57-150			
2-Hexanone (MBK)	1110	50.0	ug/L	993	ND	112	53-141			
Dibromochloromethane	488.7	10.0	ug/L	500	ND	97.7	80-120			
Dibromochloromethane	488.7	10.0	ug/L	500	ND	97.7	74-122			
1,2-Dibromoethane	506.1	10.0	ug/L	500	ND	101	67-125			
1,2-Dibromoethane	506.1	10.0	ug/L	500	ND	101	66-127			
Chlorobenzene	487.5	10.0	ug/L	500	ND	97.5	81-113			
Chlorobenzene	487.5	10.0	ug/L	500	ND	97.5	76-116			
1,1,1,2-Tetrachloroethane	492.3	10.0	ug/L	500	ND	98.5	80-119			
1,1,1,2-Tetrachloroethane	492.3	10.0	ug/L	500	ND	98.5	77-121			
Ethylbenzene	501.3	10.0	ug/L	500	ND	100	78-114			
Ethylbenzene	501.3	10.0	ug/L	500	ND	100	73-124			
Xylenes, total	1511	20.0	ug/L	1500	ND	101	77-116			
Xylenes, total	1511	20.0	ug/L	1500	ND	101	75-123			
Styrene	521.7	10.0	ug/L	500	ND	104	78-114			
Styrene	521.7	10.0	ug/L	500	ND	104	70-120			
Bromoform	468.8	10.0	ug/L	500	ND	93.8	69-125			
Bromoform	468.8	10.0	ug/L	500	ND	93.8	70-124			
1,2,3-Trichloropropane	503.8	10.0	ug/L	500	ND	101	72-125			
1,2,3-Trichloropropane	503.8	10.0	ug/L	500	ND	101	62-135			
trans-1,4-Dichloro-2-butene	896.7	50.0	ug/L	1030	ND	87.2	48-131			
trans-1,4-Dichloro-2-butene	896.7	50.0	ug/L	1030	ND	87.2	50-120			
1,1,2,2-Tetrachloroethane	499.7	10.0	ug/L	500	ND	99.9	51-138			
1,1,2,2-Tetrachloroethane	499.7	10.0	ug/L	500	ND	99.9	63-126			
1,3-Dichlorobenzene	497.1	10.0	ug/L	500	ND	99.5	70-122			
1,4-Dichlorobenzene	481.2	10.0	ug/L	500	ND	96.2	70-124			
1,4-Dichlorobenzene	481.2	10.0	ug/L	500	ND	96.2	72-119			
1,2-Dichlorobenzene	500.8	10.0	ug/L	500	ND	100	68-123			
1,2-Dichlorobenzene	500.8	10.0	ug/L	500	ND	100	71-117			
1,2-Dibromo-3-chloropropane	494.5	10.0	ug/L	500	ND	98.9	46-149			
1,2-Dibromo-3-chloropropane	494.5	50.0	ug/L	500	ND	98.9	49-134			
1,2,4-Trichlorobenzene	467.2	10.0	ug/L	500	ND	93.4	60-137			
Surrogate: Dibromofluoromethane	472		ug/L	502		94.1	80-126			
Surrogate: Dibromofluoromethane	472		ug/L	502		94.1	80-126			
Surrogate: Dibromofluoromethane	472		ug/L	502		94.1	75-136			
Surrogate: 1,2-Dichloroethane-d4	471		ug/L	501		94.0	63-138			
Surrogate: 1,2-Dichloroethane-d4	471		ug/L	501		94.0	63-138			

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Matrix Spike (1HD1408-MS1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51						
Surrogate: 1,2-Dichloroethane-d4	471		ug/L	501		94.0	63-138			
Surrogate: 1,2-Dichloroethane-d4	471		ug/L	501		94.0	61-142			
Surrogate: Toluene-d8	499		ug/L	504		99.0	87-116			
Surrogate: Toluene-d8	499		ug/L	504		99.0	87-116			
Surrogate: Toluene-d8	499		ug/L	504		99.0	87-116			
Surrogate: Toluene-d8	499		ug/L	504		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	80-116			
Matrix Spike Dup (1HD1408-MSD1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 20:14						
Dichlorodifluoromethane	326.3	10.0	ug/L	316	ND	103	47-137	5.08	20	
Chloromethane	302.2	10.0	ug/L	306	ND	98.6	49-154	6.13	25	
Chloromethane	302.2	10.0	ug/L	306	ND	98.6	61-152	6.13	26	
Vinyl Chloride	300.5	10.0	ug/L	302	ND	99.4	61-152	6.04	24	
Vinyl Chloride	300.5	10.0	ug/L	302	ND	99.4	66-149	6.04	23	
Bromomethane	229.6	10.0	ug/L	288	ND	79.7	47-168	3.10	30	
Bromomethane	229.6	10.0	ug/L	288	ND	79.7	43-171	3.10	29	
Chloroethane	336.9	10.0	ug/L	316	ND	106	61-148	4.24	29	
Chloroethane	336.9	10.0	ug/L	316	ND	106	69-148	4.24	25	
Trichlorofluoromethane	314.4	10.0	ug/L	326	ND	96.4	73-147	3.75	24	
Trichlorofluoromethane	314.4	10.0	ug/L	326	ND	96.4	62-163	3.75	25	
Acrolein	760.2	100	ug/L	1000	ND	75.8	20-164	1.02	24	
1,1-Dichloroethylene	448.3	10.0	ug/L	500	ND	89.7	68-153	4.79	21	
1,1-Dichloroethylene	448.3	10.0	ug/L	500	ND	89.7	70-148	4.79	22	
Acetone	851.0	100	ug/L	1010	ND	84.1	45-175	2.56	23	
Acetone	851.0	100	ug/L	1010	ND	84.1	45-173	2.56	30	
Methyl Iodide	1030	20.0	ug/L	1020	ND	101	79-167	4.65	14	
Methyl Iodide	1030	10.0	ug/L	1020	ND	101	62-167	4.65	24	
Carbon Disulfide	1014	10.0	ug/L	1030	ND	98.7	72-156	6.31	19	
Carbon Disulfide	1014	10.0	ug/L	1030	ND	98.7	71-163	6.31	22	
Acetonitrile	785.0	100	ug/L	1030	ND	76.4	38-166	6.08	20	
Methylene Chloride	447.2	50.0	ug/L	500	ND	89.4	64-143	3.69	19	
Methylene Chloride	447.2	50.0	ug/L	500	ND	89.4	69-140	3.69	19	
Acrylonitrile	914.8	50.0	ug/L	1000	ND	91.2	58-151	2.01	15	
Acrylonitrile	914.8	50.0	ug/L	1000	ND	91.2	58-151	2.01	15	
trans-1,2-Dichloroethylene	450.8	10.0	ug/L	500	ND	90.2	65-145	4.81	18	
trans-1,2-Dichloroethylene	450.8	10.0	ug/L	500	ND	90.2	69-144	4.81	22	
1,1-Dichloroethane	444.2	10.0	ug/L	500	ND	88.8	68-136	4.75	17	
1,1-Dichloroethane	444.2	10.0	ug/L	500	ND	88.8	70-138	4.75	20	
Vinyl Acetate	988.4	50.0	ug/L	1000	ND	98.8	58-143	9.01	14	
Vinyl Acetate	988.4	50.0	ug/L	1000	ND	98.8	58-142	9.01	24	
2,2-Dichloropropane	395.7	10.0	ug/L	500	ND	79.1	50-118	5.39	17	

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HD1408-MSD1)					Source: 1HD1532-04		Prepared: 04/23/24 00:00 Analyzed: 04/23/24 20:14			
cis-1,2-Dichloroethylene	520.3	10.0	ug/L	500	ND	104	67-153	3.97	22	
cis-1,2-Dichloroethylene	520.3	10.0	ug/L	500	ND	104	68-151	3.97	22	
2-Butanone (MEK)	963.8	50.0	ug/L	1020	ND	94.7	52-159	1.89	28	
2-Butanone (MEK)	963.8	100	ug/L	1020	ND	94.7	50-160	1.89	23	
Bromochloromethane	456.4	10.0	ug/L	500	ND	91.3	61-151	5.19	27	
Bromochloromethane	456.4	10.0	ug/L	500	ND	91.3	65-143	5.19	22	
Chloroform	435.1	10.0	ug/L	500	ND	87.0	77-132	3.92	17	
Chloroform	435.1	10.0	ug/L	500	ND	87.0	71-143	3.92	21	
1,1,1-Trichloroethane	423.1	10.0	ug/L	500	ND	84.6	71-118	3.80	15	
1,1,1-Trichloroethane	423.1	10.0	ug/L	500	ND	84.6	63-133	3.80	23	
1,1-Dichloropropene	431.2	10.0	ug/L	500	ND	86.2	82-128	4.18	16	
Carbon Tetrachloride	436.9	10.0	ug/L	500	ND	87.4	71-133	1.29	14	
Carbon Tetrachloride	436.9	10.0	ug/L	500	ND	87.4	63-142	1.29	22	
Benzene	469.9	10.0	ug/L	500	ND	94.0	81-125	3.16	12	
Benzene	469.9	10.0	ug/L	500	ND	94.0	69-133	3.16	18	
1,2-Dichloroethane	459.9	10.0	ug/L	500	ND	92.0	75-125	3.23	13	
1,2-Dichloroethane	459.9	10.0	ug/L	500	ND	92.0	63-138	3.23	20	
Trichloroethylene	462.8	10.0	ug/L	500	ND	92.6	83-120	3.73	11	
Trichloroethylene	462.8	10.0	ug/L	500	ND	92.6	71-133	3.73	23	
1,2-Dichloropropane	469.6	10.0	ug/L	500	ND	93.9	80-124	3.76	11	
1,2-Dichloropropane	469.6	10.0	ug/L	500	ND	93.9	69-132	3.76	20	
Dibromomethane	488.3	10.0	ug/L	500	ND	97.7	84-131	3.10	13	
Dibromomethane	488.3	10.0	ug/L	500	ND	97.7	70-147	3.10	22	
Bromodichloromethane	458.7	10.0	ug/L	500	ND	91.7	79-118	2.37	11	
Bromodichloromethane	458.7	10.0	ug/L	500	ND	91.7	67-130	2.37	21	
cis-1,3-Dichloropropene	443.2	10.0	ug/L	500	ND	88.6	75-116	3.31	11	
cis-1,3-Dichloropropene	443.2	10.0	ug/L	500	ND	88.6	61-126	3.31	21	
4-Methyl-2-pentanone (MIBK)	1047	50.0	ug/L	1000	ND	105	65-149	1.70	14	
4-Methyl-2-pentanone (MIBK)	1047	50.0	ug/L	1000	ND	105	55-147	1.70	23	
Toluene	454.6	10.0	ug/L	500	ND	90.9	82-123	2.97	12	
Toluene	454.6	10.0	ug/L	500	ND	90.9	71-133	2.97	19	
trans-1,3-Dichloropropene	463.1	10.0	ug/L	500	ND	92.6	75-117	3.58	11	
trans-1,3-Dichloropropene	463.1	10.0	ug/L	500	ND	92.6	63-124	3.58	21	
Ethyl Methacrylate	1050	100	ug/L	1020	ND	103	73-135	1.81	10	
1,1,2-Trichloroethane	483.8	10.0	ug/L	500	ND	96.8	77-122	2.27	11	
1,1,2-Trichloroethane	483.8	10.0	ug/L	500	ND	96.8	69-133	2.27	19	
Tetrachloroethylene	475.0	10.0	ug/L	500	ND	95.0	74-120	1.63	17	
Tetrachloroethylene	475.0	10.0	ug/L	500	ND	95.0	70-124	1.63	24	
1,3-Dichloropropane	546.6	10.0	ug/L	500	ND	109	80-127	1.96	13	
2-Hexanone (MBK)	1090	50.0	ug/L	993	ND	110	57-150	1.75	17	
2-Hexanone (MBK)	1090	50.0	ug/L	993	ND	110	53-141	1.75	24	
Dibromochloromethane	483.7	10.0	ug/L	500	ND	96.7	80-120	1.03	12	
Dibromochloromethane	483.7	10.0	ug/L	500	ND	96.7	74-122	1.03	21	

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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 8260B										
Matrix Spike Dup (1HD1408-MSD1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 20:14						
1,2-Dibromoethane	493.1	10.0	ug/L	500	ND	98.6	67-125	2.60	12	
1,2-Dibromoethane	493.1	10.0	ug/L	500	ND	98.6	66-127	2.60	23	
Chlorobenzene	472.5	10.0	ug/L	500	ND	94.5	81-113	3.12	14	
Chlorobenzene	472.5	10.0	ug/L	500	ND	94.5	76-116	3.12	21	
1,1,1,2-Tetrachloroethane	482.4	10.0	ug/L	500	ND	96.5	80-119	2.03	15	
1,1,1,2-Tetrachloroethane	482.4	10.0	ug/L	500	ND	96.5	77-121	2.03	25	
Ethylbenzene	489.5	10.0	ug/L	500	ND	97.9	78-114	2.38	14	
Ethylbenzene	489.5	10.0	ug/L	500	ND	97.9	73-124	2.38	20	
Xylenes, total	1481	20.0	ug/L	1500	ND	98.7	77-116	1.99	13	
Xylenes, total	1481	20.0	ug/L	1500	ND	98.7	75-123	1.99	20	
Styrene	507.0	10.0	ug/L	500	ND	101	78-114	2.86	12	
Styrene	507.0	10.0	ug/L	500	ND	101	70-120	2.86	23	
Bromoform	468.7	10.0	ug/L	500	ND	93.7	69-125	0.0213	14	
Bromoform	468.7	10.0	ug/L	500	ND	93.7	70-124	0.0213	22	
1,2,3-Trichloropropane	501.0	10.0	ug/L	500	ND	100	72-125	0.557	18	
1,2,3-Trichloropropane	501.0	10.0	ug/L	500	ND	100	62-135	0.557	28	
trans-1,4-Dichloro-2-butene	889.4	50.0	ug/L	1030	ND	86.5	48-131	0.817	17	
trans-1,4-Dichloro-2-butene	889.4	50.0	ug/L	1030	ND	86.5	50-120	0.817	26	
1,1,2,2-Tetrachloroethane	491.2	10.0	ug/L	500	ND	98.2	51-138	1.72	30	
1,1,2,2-Tetrachloroethane	491.2	10.0	ug/L	500	ND	98.2	63-126	1.72	24	
1,3-Dichlorobenzene	480.9	10.0	ug/L	500	ND	96.3	70-122	3.31	30	
1,4-Dichlorobenzene	465.2	10.0	ug/L	500	ND	93.0	70-124	3.38	28	
1,4-Dichlorobenzene	465.2	10.0	ug/L	500	ND	93.0	72-119	3.38	24	
1,2-Dichlorobenzene	484.4	10.0	ug/L	500	ND	96.9	68-123	3.33	29	
1,2-Dichlorobenzene	484.4	10.0	ug/L	500	ND	96.9	71-117	3.33	24	
1,2-Dibromo-3-chloropropane	483.8	10.0	ug/L	500	ND	96.8	46-149	2.19	30	
1,2-Dibromo-3-chloropropane	483.8	50.0	ug/L	500	ND	96.8	49-134	2.19	28	
1,2,4-Trichlorobenzene	465.8	10.0	ug/L	500	ND	93.2	60-137	0.300	30	
Surrogate: Dibromofluoromethane	469		ug/L	502		93.5	80-126			
Surrogate: Dibromofluoromethane	469		ug/L	502		93.5	80-126			
Surrogate: Dibromofluoromethane	469		ug/L	502		93.5	75-136			
Surrogate: 1,2-Dichloroethane-d4	464		ug/L	501		92.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	464		ug/L	501		92.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	464		ug/L	501		92.7	63-138			
Surrogate: 1,2-Dichloroethane-d4	464		ug/L	501		92.7	61-142			
Surrogate: Toluene-d8	497		ug/L	504		98.7	87-116			
Surrogate: Toluene-d8	497		ug/L	504		98.7	87-116			
Surrogate: Toluene-d8	497		ug/L	504		98.7	87-116			
Surrogate: Toluene-d8	497		ug/L	504		98.7	82-121			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	85-111			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	80-116			



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CERTIFICATE OF ANALYSIS

1HD1596

Determination of General Solvents	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1672 - Semi-Vol GC - EPA 8015C

Blank (1HD1672-BLK1)			Prepared: 04/29/24 13:36 Analyzed: 04/29/24 21:26							
Isobutanol	<1.0	1.0	mg/L							
LCS (1HD1672-BS1)			Prepared: 04/29/24 13:36 Analyzed: 04/29/24 19:20							
Isobutanol	27.38	1.0	mg/L	26.0		105	40-135			
Matrix Spike (1HD1672-MS1)			Source: 1HD1461-02 Prepared: 04/29/24 13:36 Analyzed: 04/30/24 02:42							
Isobutanol	25.96	1.0	mg/L	26.0	ND	99.9	63-135			
Matrix Spike Dup (1HD1672-MSD1)			Source: 1HD1461-02 Prepared: 04/29/24 13:36 Analyzed: 04/30/24 03:13							
Isobutanol	25.02	1.0	mg/L	26.0	ND	96.2	63-135	3.69	30	

Determination of Base/Neutral Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1367 - 3520C BNA Cont Liq - EPA 8270C

Blank (1HD1367-BLK1)			Prepared: 04/23/24 10:26 Analyzed: 04/26/24 16:47							
Bis(2-Ethylhexyl) Phthalate	<6	6	ug/L							
Surrogate: Nitrobenzene-d5	33.5		ug/L	30.0		111	29-130			
Surrogate: 2-Fluorobiphenyl	26.4		ug/L	28.8		91.8	23-113			
Surrogate: Terphenyl-d14	32.7		ug/L	28.8		113	27-141			
LCS (1HD1367-BS1)			Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:11							
Bis(2-Ethylhexyl) Phthalate	28.1	6	ug/L	25.0		113	33-184			
Surrogate: Nitrobenzene-d5	26.2		ug/L	30.0		87.2	38-115			
Surrogate: 2-Fluorobiphenyl	25.0		ug/L	28.8		86.7	33-110			
Surrogate: Terphenyl-d14	30.5		ug/L	28.8		106	30-142			
LCS Dup (1HD1367-BSD1)			Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:36							
Bis(2-Ethylhexyl) Phthalate	28.6	6	ug/L	25.0		114	33-184	1.52	30	
Surrogate: Nitrobenzene-d5	23.0		ug/L	30.0		76.5	38-115			
Surrogate: 2-Fluorobiphenyl	24.2		ug/L	28.8		83.9	33-110			
Surrogate: Terphenyl-d14	29.3		ug/L	28.8		102	30-142			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C

Blank (1HD1309-BLK1)			Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:31							
N-Nitrosodimethylamine	<8	8	ug/L							
Methyl Methanesulfonate	<8	8	ug/L							
N-Nitrosodiethylamine	<8	8	ug/L							
N-Nitrosomethylethylamine	<8	8	ug/L							



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CERTIFICATE OF ANALYSIS

1HD1596

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Base/Neutral/Acid Extractable Compounds										
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C										
Blank (1HD1309-BLK1)										
Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:31										
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							
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							

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1HD1596

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1HD1309-BLK1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:31					
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						
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						

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C									
Blank (1HD1309-BLK1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:31					
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>	22.4		ug/L	29.6		75.7		24-136	
<i>Surrogate: Phenol-d6</i>	22.9		ug/L	30.5		75.2		15-140	
<i>Surrogate: Nitrobenzene-d5</i>	25.8		ug/L	30.0		86.0		29-130	
<i>Surrogate: 2-Fluorobiphenyl</i>	21.8		ug/L	28.8		75.8		23-113	
<i>Surrogate: 2,4,6-Tribromophenol</i>	27.0		ug/L	29.7		90.6		15-139	
<i>Surrogate: Terphenyl-d14</i>	30.7		ug/L	28.8		106		27-141	
LCS (1HD1309-BS1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:55					
N-Nitrosodimethylamine	19.3	8	ug/L	25.0		77.2		36-138	
Methyl Methanesulfonate	19.5	8	ug/L	25.0		78.2		22-114	
N-Nitrosodiethylamine	93.5	8	ug/L	100		93.5		52-114	
N-Nitrosomethylethylamine	96.2	8	ug/L	100		96.2		36-120	
Ethyl Methanesulfonate	20.5	8	ug/L	25.0		82.1		46-110	
Phenol	22.7	8	ug/L	25.0		90.6		50-112	
Bis(2-Chloroethyl) Ether	18.8	8	ug/L	25.0		75.1		39-151	
2-Chlorophenol	22.3	8	ug/L	25.0		89.2		56-116	
Benzyl Alcohol	24.9	8	ug/L	25.0		99.7		13-158	
2-Methylphenol (o-Cresol)	22.9	8	ug/L	25.0		91.6		53-131	
Bis[2-Chloroisopropyl]ether	21.4	8	ug/L	25.0		85.6		50-121	
n-Nitroso-di-n-propylamine	26.4	8	ug/L	25.0		105		50-138	
N-Nitrosopyrrolidine	99.1	8	ug/L	100		99.1		31-118	
Acetophenone	24.5	8	ug/L	25.0		98.0		45-104	
o-Toluidine	35.6	8	ug/L	100		35.6		10-163	
(3 & 4)-Methylphenol	27.5	8	ug/L	25.0		110		30-164	
Hexachloroethane	13.3	8	ug/L	25.0		53.3		10-110	
Nitrobenzene	22.7	8	ug/L	25.0		90.6		47-134	
N-Nitrosopiperidine	93.3	8	ug/L	100		93.3		51-122	
Isophorone	22.6	8	ug/L	25.0		90.6		54-128	
2-Nitrophenol	23.1	8	ug/L	25.0		92.4		54-117	
2,4-Dimethylphenol	23.8	8	ug/L	25.0		95.3		52-118	
Bis (2-Chloroethoxy) Methane	20.8	8	ug/L	25.0		83.0		13-132	

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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 1HD1309 - 3520C BNA Cont Liq - EPA 8270C										
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LCS (1HD1309-BS1)	Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:55									
2,4-Dichlorophenol	23.8	8	ug/L	25.0		95.4	58-114			
Naphthalene	20.3	8	ug/L	25.0		81.1	37-116			
2,6-Dichlorophenol	21.1	8	ug/L	25.0		84.6	52-129			
Hexachloropropene	10.7	8	ug/L	25.0		42.9	14-110			
Hexachlorobutadiene	13.2	8	ug/L	25.0		52.8	14-110			
N-Nitrosodi-n-butylamine	118.4	8	ug/L	100		118	40-135			
4-Chloro-3-methylphenol	25.0	8	ug/L	25.0		100	57-136			
2-Methylnaphthalene	21.2	8	ug/L	25.0		85.0	44-111			
Isosafrole	21.6	8	ug/L	25.0		86.4	49-107			
1,2,4,5-Tetrachlorobenzene	16.1	8	ug/L	25.0		64.5	42-110			
Hexachlorocyclopentadiene	13.9	8	ug/L	25.0		55.5	11-110			
2,4,6-Trichlorophenol	28.0	8	ug/L	25.0		112	55-120			
2,4,5-Trichlorophenol	30.4	8	ug/L	25.0		121	55-121			QS-02
Safrole	21.2	8	ug/L	25.0		84.8	40-118			
2-Chloronaphthalene	16.3	8	ug/L	25.0		65.3	47-127			
2-Nitroaniline	26.7	8	ug/L	25.0		107	36-143			
Dimethylphthalate	26.8	8	ug/L	25.0		107	59-128			
1,3-Dinitrobenzene	26.4	8	ug/L	25.0		106	63-125			
1,2-Dinitrobenzene	26.4	8	ug/L	25.0		106	63-123			
2,6-Dinitrotoluene	26.1	8	ug/L	25.0		104	60-127			
Acenaphthylene	23.5	8	ug/L	25.0		94.0	49-113			
3-Nitroaniline	9.3	8	ug/L	25.0		37.1	10-162			
Acenaphthene	23.7	8	ug/L	25.0		94.6	50-119			
2,4-Dinitrophenol	26.7	8	ug/L	25.0		107	27-157			
4-Nitrophenol	31.5	8	ug/L	25.0		126	49-154			
Dibenzofuran	23.7	8	ug/L	25.0		94.9	56-121			
2,4-Dinitrotoluene	27.1	8	ug/L	25.0		108	53-138			
2,3,4,6-Tetrachlorophenol	29.6	8	ug/L	25.0		118	47-132			
Pentachlorobenzene	20.7	8	ug/L	25.0		82.8	41-125			
Diethyl Phthalate	28.0	8	ug/L	25.0		112	53-138			
Fluorene	25.0	8	ug/L	25.0		100	54-125			
4-Chlorophenyl Phenyl Ether	24.4	8	ug/L	25.0		97.8	51-122			
4-Nitroaniline	18.0	8	ug/L	25.0		71.9	10-136			
5-Nitro-o-toluidine	49.7	8	ug/L	100		49.7	10-145			
4,6-Dinitro-2-methylphenol	25.8	8	ug/L	25.0		103	49-137			
Diphenylamine	23.6	8	ug/L	25.0		94.4	35-151			
Azobenzene	24.8	8	ug/L	25.0		99.3	16-156			
Diallate	21.0	8	ug/L	25.0		84.2	54-132			
1,3,5-Trinitrobenzene	21.7	8	ug/L	25.0		86.6	57-173			
Phenacetin	25.2	8	ug/L	25.0		101	55-121			
4-Bromophenyl Phenyl Ether	24.8	8	ug/L	25.0		99.2	53-122			
Pentachlorophenol	27.2	8	ug/L	25.0		109	18-152			

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1HD1596

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C										
LCS (1HD1309-BS1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 16:55						
Pronamide	21.8	8	ug/L	25.0		87.4	42-122			
Pentachloronitrobenzene (PCNB)	27.3	8	ug/L	25.0		109	50-128			
Phenanthrene	27.0	8	ug/L	25.0		108	59-131			
Anthracene	26.5	8	ug/L	25.0		106	59-127			
Di-n-butyl Phthalate	26.5	8	ug/L	25.0		106	64-148			
Fluoranthene	26.9	8	ug/L	25.0		108	62-132			
Isodrin	24.4	8	ug/L	25.0		97.4	46-130			
Chlorobenzilate	21.2	8	ug/L	25.0		84.6	48-150			
Pyrene	27.4	8	ug/L	25.0		109	58-135			
p-(Dimethylamino)azobenzene	82.2	8	ug/L	100		82.2	28-146			
Butyl Benzyl Phthalate	26.2	8	ug/L	25.0		105	52-150			
Benzo(a)anthracene	27.0	8	ug/L	25.0		108	58-131			
Chrysene	27.2	8	ug/L	25.0		109	59-131			
Bis(2-Ethylhexyl) Phthalate	28.8	6	ug/L	25.0		115	33-184			
2-Acetylaminofluorene	124.9	8	ug/L	100		125	47-166			
Di-n-octyl Phthalate	30.5	8	ug/L	25.0		122	48-162			
Benzo(b)Fluoranthene	29.1	8	ug/L	25.0		116	50-146			
7,12-Dimethylbenz [a] anthracene	23.7	8	ug/L	25.0		94.7	22-155			
Benzo(k)Fluoranthene	29.6	8	ug/L	25.0		119	54-144			
Benzo(a)Pyrene	28.2	8	ug/L	25.0		113	39-148			
3-Methylcholanthrene	19.6	8	ug/L	25.0		78.3	34-118			
Dibenzo(a,h)anthracene	28.0	8	ug/L	25.0		112	46-153			
Indeno(1,2,3-cd)Pyrene	28.0	8	ug/L	25.0		112	48-152			
Benzo(g,h,i)perylene	26.8	8	ug/L	25.0		107	47-161			
<i>Surrogate: 2-Fluorophenol</i>	24.1		ug/L	29.6		81.5	24-136			
<i>Surrogate: Phenol-d6</i>	28.0		ug/L	30.5		92.0	15-140			
<i>Surrogate: Nitrobenzene-d5</i>	27.6		ug/L	30.0		91.7	38-115			
<i>Surrogate: 2-Fluorobiphenyl</i>	29.4		ug/L	28.8		102	33-110			
<i>Surrogate: 2,4,6-Tribromophenol</i>	33.6		ug/L	29.7		113	15-139			
<i>Surrogate: Terphenyl-d14</i>	34.1		ug/L	28.8		118	30-142			
LCS Dup (1HD1309-BSD1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 17:20						
N-Nitrosodimethylamine	19.8	8	ug/L	25.0		79.2	36-138	2.51	30	
Methyl Methanesulfonate	18.9	8	ug/L	25.0		75.6	22-114	3.33	23	
N-Nitrosodiethylamine	42.3	8	ug/L	100		42.3	52-114	75.4	18	QS-03
N-Nitrosomethylethylamine	46.9	8	ug/L	100		46.9	36-120	69.0	22	QR-02
Ethyl Methanesulfonate	20.1	8	ug/L	25.0		80.3	46-110	2.22	24	
Phenol	21.6	8	ug/L	25.0		86.2	50-112	5.02	28	
Bis(2-Chloroethyl) Ether	18.6	8	ug/L	25.0		74.4	39-151	0.964	30	
2-Chlorophenol	21.4	8	ug/L	25.0		85.5	56-116	4.26	22	
Benzyl Alcohol	19.8	8	ug/L	25.0		79.1	13-158	23.0	30	
2-Methylphenol (o-Cresol)	22.0	8	ug/L	25.0		88.0	53-131	4.01	25	
Bis[2-Chloroisopropyl]ether	21.1	8	ug/L	25.0		84.3	50-121	1.60	25	

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Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C									
LCS Dup (1HD1309-BSD1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 17:20					
n-Nitroso-di-n-propylamine	24.0	8	ug/L	25.0		95.8 50-138	9.54	30	
N-Nitrosopyrrolidine	45.9	8	ug/L	100		45.9 31-118	73.3	30	QR-02
Acetophenone	23.1	8	ug/L	25.0		92.5 45-104	5.80	30	
o-Toluidine	<8	8	ug/L	100			10-163	30	QS-03
(3 & 4)-Methylphenol	24.5	8	ug/L	25.0		97.8 30-164	11.8	30	
Hexachloroethane	10.8	8	ug/L	25.0		43.2 10-110	21.1	37	
Nitrobenzene	25.0	8	ug/L	25.0		100 47-134	9.98	28	
N-Nitrosopiperidine	46.8	8	ug/L	100		46.8 51-122	66.4	30	QS-03
Isophorone	24.8	8	ug/L	25.0		99.2 54-128	9.15	22	
2-Nitrophenol	24.2	8	ug/L	25.0		97.0 54-117	4.77	21	
2,4-Dimethylphenol	25.3	8	ug/L	25.0		101 52-118	5.95	23	
Bis (2-Chloroethoxy) Methane	15.7	8	ug/L	25.0		62.8 13-132	27.6	30	
2,4-Dichlorophenol	25.7	8	ug/L	25.0		103 58-114	7.31	20	
Naphthalene	20.1	8	ug/L	25.0		80.3 37-116	0.992	17	
2,6-Dichlorophenol	23.4	8	ug/L	25.0		93.4 52-129	9.93	16	
Hexachloropropene	8.4	8	ug/L	25.0		33.5 14-110	24.7	29	
Hexachlorobutadiene	10.1	8	ug/L	25.0		40.5 14-110	26.3	29	
N-Nitrosodi-n-butylamine	46.5	8	ug/L	100		46.5 40-135	87.2	23	QR-02
4-Chloro-3-methylphenol	27.9	8	ug/L	25.0		112 57-136	11.0	18	
2-Methylnaphthalene	22.0	8	ug/L	25.0		88.0 44-111	3.42	20	
Isosafrole	19.8	8	ug/L	25.0		79.1 49-107	8.75	12	
1,2,4,5-Tetrachlorobenzene	14.3	8	ug/L	25.0		57.2 42-110	11.9	30	
Hexachlorocyclopentadiene	11.6	8	ug/L	25.0		46.2 11-110	18.3	29	
2,4,6-Trichlorophenol	25.9	8	ug/L	25.0		104 55-120	7.53	15	
2,4,5-Trichlorophenol	30.7	8	ug/L	25.0		123 55-121	1.18	16	QS-02
Safrole	15.2	8	ug/L	25.0		60.9 40-118	32.8	30	QR-02
2-Chloronaphthalene	37.7	8	ug/L	25.0		151 47-127	79.0	17	QS-02
2-Nitroaniline	26.3	8	ug/L	25.0		105 36-143	1.32	30	
Dimethylphthalate	27.2	8	ug/L	25.0		109 59-128	1.33	15	
1,3-Dinitrobenzene	24.3	8	ug/L	25.0		97.1 63-125	8.60	14	
1,2-Dinitrobenzene	23.6	8	ug/L	25.0		94.3 63-123	11.5	18	
2,6-Dinitrotoluene	26.7	8	ug/L	25.0		107 60-127	2.39	13	
Acenaphthylene	19.9	8	ug/L	25.0		79.4 49-113	16.8	23	
Acenaphthene	22.3	8	ug/L	25.0		89.2 50-119	5.87	16	
2,4-Dinitrophenol	27.1	8	ug/L	25.0		108 27-157	1.41	23	
4-Nitrophenol	30.7	8	ug/L	25.0		123 49-154	2.44	28	
Dibenzofuran	24.0	8	ug/L	25.0		96.0 56-121	1.17	18	
2,4-Dinitrotoluene	28.2	8	ug/L	25.0		113 53-138	3.98	18	
2,3,4,6-Tetrachlorophenol	26.6	8	ug/L	25.0		106 47-132	10.6	29	
Pentachlorobenzene	20.4	8	ug/L	25.0		81.7 41-125	1.41	22	
Diethyl Phthalate	29.7	8	ug/L	25.0		119 53-138	6.13	18	
Fluorene	25.9	8	ug/L	25.0		104 54-125	3.50	14	

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1HD1596

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1309 - 3520C BNA Cont Liq - EPA 8270C										
LCS Dup (1HD1309-BSD1)				Prepared: 04/22/24 12:18 Analyzed: 05/02/24 17:20						
4-Chlorophenyl Phenyl Ether	25.0	8	ug/L	25.0		99.8	51-122	2.06	15	
4-Nitroaniline	11.8	8	ug/L	25.0		47.3	10-136	41.3	30	QR-02
5-Nitro-o-toluidine	10.5	8	ug/L	100		10.5	10-145	130	30	QR-02
4,6-Dinitro-2-methylphenol	22.2	8	ug/L	25.0		88.7	49-137	14.9	16	
Diphenylamine	12.4	8	ug/L	25.0		49.8	35-151	62.0	30	QR-02
Azobenzene	21.4	8	ug/L	25.0		85.6	16-156	14.8	30	
Diallate	20.9	8	ug/L	25.0		83.5	54-132	0.811	25	
1,3,5-Trinitrobenzene	21.9	8	ug/L	25.0		87.6	57-173	1.10	30	
Phenacetin	24.1	8	ug/L	25.0		96.6	55-121	4.22	30	
4-Bromophenyl Phenyl Ether	24.6	8	ug/L	25.0		98.3	53-122	0.851	16	
Pentachlorophenol	26.5	8	ug/L	25.0		106	18-152	2.57	30	
Pronamide	16.8	8	ug/L	25.0		67.2	42-122	26.1	30	
Pentachloronitrobenzene (PCNB)	26.0	8	ug/L	25.0		104	50-128	4.99	18	
Phenanthrene	26.8	8	ug/L	25.0		107	59-131	0.707	16	
Anthracene	23.6	8	ug/L	25.0		94.3	59-127	11.6	16	
Di-n-butyl Phthalate	28.6	8	ug/L	25.0		114	64-148	7.55	30	
Fluoranthene	29.8	8	ug/L	25.0		119	62-132	10.2	16	
Isodrin	24.6	8	ug/L	25.0		98.5	46-130	1.14	29	
Chlorobenzilate	20.1	8	ug/L	25.0		80.4	48-150	5.19	30	
Pyrene	27.7	8	ug/L	25.0		111	58-135	1.38	18	
p-(Dimethylamino)azobenzene	11.6	8	ug/L	100		11.6	28-146	151	30	QS-03
Butyl Benzyl Phthalate	25.9	8	ug/L	25.0		104	52-150	1.07	30	
Benzo(a)anthracene	26.3	8	ug/L	25.0		105	58-131	2.55	30	
Chrysene	27.6	8	ug/L	25.0		110	59-131	1.46	30	
Bis(2-Ethylhexyl) Phthalate	28.0	6	ug/L	25.0		112	33-184	2.99	30	
2-Acetylaminofluorene	64.0	8	ug/L	100		64.0	47-166	64.5	30	QR-02
Di-n-octyl Phthalate	33.6	8	ug/L	25.0		134	48-162	9.49	30	
Benzo(b)Fluoranthene	32.5	8	ug/L	25.0		130	50-146	11.0	30	
7,12-Dimethylbenz [a] anthracene	21.8	8	ug/L	25.0		87.0	22-155	8.41	30	
Benzo(k)Fluoranthene	31.9	8	ug/L	25.0		128	54-144	7.31	30	
Benzo(a)Pyrene	25.8	8	ug/L	25.0		103	39-148	8.63	30	
3-Methylcholanthrene	9.3	8	ug/L	25.0		37.2	34-118	71.1	30	QR-02
Dibenzo(a,h)anthracene	26.6	8	ug/L	25.0		106	46-153	5.31	30	
Indeno(1,2,3-cd)Pyrene	26.2	8	ug/L	25.0		105	48-152	6.45	30	
Benzo(g,h,i)perylene	26.6	8	ug/L	25.0		107	47-161	0.748	30	
Surrogate: 2-Fluorophenol	23.5		ug/L	29.6		79.4	24-136			
Surrogate: Phenol-d6	26.6		ug/L	30.5		87.2	15-140			
Surrogate: Nitrobenzene-d5	29.3		ug/L	30.0		97.5	38-115			
Surrogate: 2-Fluorobiphenyl	27.9		ug/L	28.8		96.9	33-110			
Surrogate: 2,4,6-Tribromophenol	35.1		ug/L	29.7		118	15-139			
Surrogate: Terphenyl-d14	33.5		ug/L	28.8		116	30-142			

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1HD1596

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Organophosphorus Insecticides										
Batch 1HD1439 - 3510C NP/OC Sep Fnl - EPA 8141										

Blank (1HD1439-BLK1)										
Prepared: 04/24/24 10:56 Analyzed: 05/02/24 07:07										
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 5.50 ug/L 8.34 65.9 38-122

LCS (1HD1439-BS1)										
Prepared: 04/24/24 10:56 Analyzed: 05/02/24 08:05										
O,O,O-Triethyl phosphorothioate	3.30	0.4	ug/L	4.02		81.9	42-115			
Thionazin	3.45	0.4	ug/L	4.03		85.5	28-118			
Phorate	3.52	0.4	ug/L	4.03		87.3	18-159			
Dimethoate	3.87	0.4	ug/L	4.03		96.1	43-155			
Disulfoton	3.11	0.4	ug/L	4.03		77.2	37-126			
Methyl Parathion	3.48	0.4	ug/L	4.04		86.1	28-145			
Parathion	3.21	0.4	ug/L	4.00		80.2	52-121			
Famphur	3.60	0.4	ug/L	4.02		89.4	44-144			

Surrogate: 2-Nitro-m-xylene 6.84 ug/L 8.34 82.1 38-122

LCS Dup (1HD1439-BSD1)										
Prepared: 04/24/24 10:56 Analyzed: 05/02/24 09:03										
O,O,O-Triethyl phosphorothioate	3.44	0.4	ug/L	4.02		85.5	42-115	4.31	30	
Thionazin	3.72	0.4	ug/L	4.03		92.3	28-118	7.67	30	
Phorate	3.77	0.4	ug/L	4.03		93.5	18-159	6.86	30	
Dimethoate	3.42	0.4	ug/L	4.03		84.8	43-155	12.5	22	
Disulfoton	3.47	0.4	ug/L	4.03		86.1	37-126	10.9	30	
Methyl Parathion	3.86	0.4	ug/L	4.04		95.5	28-145	10.4	28	
Parathion	3.53	0.4	ug/L	4.00		88.2	52-121	9.50	26	
Famphur	3.83	0.4	ug/L	4.02		95.3	44-144	6.33	28	

Surrogate: 2-Nitro-m-xylene 7.50 ug/L 8.34 89.9 38-122

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chlorinated Phenoxy Herbicides										
Batch 1HD1383 - EPA 8151A - EPA 8151A										

Blank (1HD1383-BLK1)										
Prepared: 04/23/24 13:35 Analyzed: 04/30/24 18:55										
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							



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1HD1596

Determination of Chlorinated Phenoxy Herbicides	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1383 - EPA 8151A - EPA 8151A										

Blank (1HD1383-BLK1) Prepared: 04/23/24 13:35 Analyzed: 04/30/24 18:55

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

LCS (1HD1383-BS1) Prepared: 04/23/24 13:35 Analyzed: 04/30/24 19:28

2,4-D	<2.0	2.0	ug/L	1.15		91.7	16-161			
2,4,5-TP (Silvex)	0.59	0.5	ug/L	0.575		103	35-141			
2,4,5-T	0.63	0.5	ug/L	0.575		110	54-149			
Dinoseb	0.52	0.5	ug/L	1.15		45.7	10-133			

Surrogate: 2,5-Dichlorobenzoic Acid 2.14 ug/L 2.02 106 31-116

LCS Dup (1HD1383-BSD1) Prepared: 04/23/24 13:35 Analyzed: 04/30/24 20:01

2,4-D	<2.0	2.0	ug/L	1.15		83.5	16-161	9.43	30	
2,4,5-TP (Silvex)	0.54	0.5	ug/L	0.575		93.0	35-141	9.78	30	
2,4,5-T	0.56	0.5	ug/L	0.575		98.3	54-149	10.9	30	
Dinoseb	<0.5	0.5	ug/L	1.15		39.6	10-133	14.3	30	

Surrogate: 2,5-Dichlorobenzoic Acid 1.85 ug/L 2.02 91.6 31-116

Determination of Organochlorine Insecticides & Metabolites	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1434 - 3520C NP/OC Cont Liq - EPA 8081

Blank (1HD1434-BLK1) Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:25

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							

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1HD1596

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Organochlorine Insecticides & Metabolites										
Batch 1HD1434 - 3520C NP/OC Cont Liq - EPA 8081										
Blank (1HD1434-BLK1)										
Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:25										
Surrogate: Tetrachloro-m-xylene	0.508		ug/L	0.600		84.6	10-121			
LCS (1HD1434-BS1)										
Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:40										
Alpha-BHC	0.208	0.05	ug/L	0.250		83.0	33-123			
Gamma-BHC [Lindane]	0.207	0.05	ug/L	0.250		82.8	34-120			
Beta-BHC	0.199	0.05	ug/L	0.250		79.6	33-125			
Heptachlor	0.240	0.05	ug/L	0.250		95.8	32-117			
Delta-BHC	0.235	0.05	ug/L	0.250		93.9	24-140			
Aldrin	0.193	0.05	ug/L	0.250		77.1	29-122			
Heptachlor Epoxide	0.208	0.05	ug/L	0.250		83.0	37-137			
Endosulfan I	0.227	0.05	ug/L	0.250		90.6	27-141			
4,4'-DDE	0.234	0.05	ug/L	0.250		93.7	38-147			
Dieldrin	0.212	0.05	ug/L	0.250		84.7	32-137			
Endrin	0.318	0.05	ug/L	0.250		127	25-142			
4,4'-DDD	0.275	0.05	ug/L	0.250		110	43-146			
Endosulfan II	0.232	0.05	ug/L	0.250		92.8	36-140			
4,4'-DDT	0.216	0.05	ug/L	0.250		86.6	39-140			
Endrin Aldehyde	0.211	0.05	ug/L	0.250		84.6	17-150			
Endosulfan Sulfate	0.234	0.05	ug/L	0.250		93.8	41-135			
Methoxychlor	0.289	0.05	ug/L	0.250		115	40-148			
Surrogate: Tetrachloro-m-xylene										
	0.498		ug/L	0.600		83.0	10-121			
LCS Dup (1HD1434-BSD1)										
Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:54										
Alpha-BHC	0.224	0.05	ug/L	0.250		89.5	33-123	7.50	30	
Gamma-BHC [Lindane]	0.222	0.05	ug/L	0.250		88.7	34-120	6.88	30	
Beta-BHC	0.216	0.05	ug/L	0.250		86.2	33-125	7.95	30	
Heptachlor	0.260	0.05	ug/L	0.250		104	32-117	8.28	30	
Delta-BHC	0.253	0.05	ug/L	0.250		101	24-140	7.50	30	
Aldrin	0.207	0.05	ug/L	0.250		82.6	29-122	6.86	30	
Heptachlor Epoxide	0.225	0.05	ug/L	0.250		90.0	37-137	8.06	30	
Endosulfan I	0.245	0.05	ug/L	0.250		98.2	27-141	8.02	30	
4,4'-DDE	0.252	0.05	ug/L	0.250		101	38-147	7.22	30	
Dieldrin	0.230	0.05	ug/L	0.250		92.0	32-137	8.23	30	
Endrin	0.345	0.05	ug/L	0.250		138	25-142	8.35	30	
4,4'-DDD	0.301	0.05	ug/L	0.250		121	43-146	9.24	30	
Endosulfan II	0.251	0.05	ug/L	0.250		100	36-140	7.83	30	
4,4'-DDT	0.234	0.05	ug/L	0.250		93.6	39-140	7.86	30	
Endrin Aldehyde	0.234	0.05	ug/L	0.250		93.5	17-150	10.0	30	
Endosulfan Sulfate	0.259	0.05	ug/L	0.250		103	41-135	9.82	30	
Methoxychlor	0.312	0.05	ug/L	0.250		125	40-148	7.73	30	
Surrogate: Tetrachloro-m-xylene										
	0.517		ug/L	0.600		86.2	10-121			



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CERTIFICATE OF ANALYSIS

1HD1596

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1436 - 3510C NP/OC Sep Fnl - EPA 8082

Blank (1HD1436-BLK1)										
Prepared: 04/24/24 10:53 Analyzed: 05/01/24 07:25										
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							
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							

Surrogate: Tetrachloro-m-xylene	0.547		ug/L	0.600		91.1	38-121			
Surrogate: Decachlorobiphenyl	0.421		ug/L	0.600		70.1	25-119			

LCS (1HD1436-BS1)										
Prepared: 04/24/24 10:53 Analyzed: 05/01/24 08:09										
Arochlor 1016	1.897	0.20	ug/L	2.60		73.0	25-126			
Arochlor 1260	2.747	0.20	ug/L	2.60		106	29-142			

Surrogate: Tetrachloro-m-xylene	0.544		ug/L	0.600		90.7	38-121			
Surrogate: Decachlorobiphenyl	0.603		ug/L	0.600		101	25-119			

LCS Dup (1HD1436-BSD1)										
Prepared: 04/24/24 10:53 Analyzed: 05/01/24 08:45										
Arochlor 1016	1.960	0.20	ug/L	2.60		75.4	25-126	3.28	30	
Arochlor 1260	2.872	0.20	ug/L	2.60		110	29-142	4.46	30	

Surrogate: Tetrachloro-m-xylene	0.537		ug/L	0.600		89.5	38-121			
Surrogate: Decachlorobiphenyl	0.518		ug/L	0.600		86.3	25-119			

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1387 - Wet Chem Preparation - EPA 376.2

Blank (1HD1387-BLK1)										
Prepared: 04/23/24 15:21 Analyzed: 04/23/24 15:55										
Sulfide, total	<0.10	0.10	mg/L							

LCS (1HD1387-BS1)										
Prepared: 04/23/24 15:21 Analyzed: 04/23/24 15:55										
Sulfide, total	0.248	0.10	mg/L	0.31		78.9	59-110			

Matrix Spike (1HD1387-MS1)										
Source: 1HD1596-02 Prepared: 04/23/24 15:21 Analyzed: 04/23/24 15:55										
Sulfide, total	0.320	0.15	mg/L	0.47	ND	67.7	50-150			

Matrix Spike Dup (1HD1387-MSD1)										
Source: 1HD1596-02 Prepared: 04/23/24 15:21 Analyzed: 04/23/24 15:55										
Sulfide, total	0.337	0.15	mg/L	0.47	ND	71.3	50-150	5.09	30	

Batch 1HD1564 - Wet Chem Preparation - EPA 9010B

Blank (1HD1564-BLK1)										
Prepared: 04/25/24 16:28 Analyzed: 04/26/24 14:44										
Cyanide, total	<0.005	0.005	mg/L							

LCS (1HD1564-BS1)										
Prepared: 04/25/24 16:28 Analyzed: 04/26/24 14:44										



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1HD1596

Determination of Conventional Chemistry Parameters	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1564 - Wet Chem Preparation - EPA 9010B

LCS (1HD1564-BS1) Prepared: 04/25/24 16:28 Analyzed: 04/26/24 14:44										
Cyanide, total	0.0274	0.005	mg/L	0.0300		91.5	66-136			
Matrix Spike (1HD1564-MS1) Source: 1HD1596-02 Prepared: 04/25/24 16:28 Analyzed: 04/26/24 14:44										
Cyanide, total	0.0300	0.005	mg/L	0.0300	ND	100	59-153			
Matrix Spike Dup (1HD1564-MSD1) Source: 1HD1596-02 Prepared: 04/25/24 16:28 Analyzed: 04/26/24 14:44										
Cyanide, total	0.0305	0.005	mg/L	0.0300	ND	102	59-153	1.49	30	

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1267 - EPA 7470A Hg Water - EPA 7470A

Blank (1HD1267-BLK1) Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:37										
Mercury, total	<0.00050	0.00050	mg/L							
LCS (1HD1267-BS1) Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:39										
Mercury, total	0.00260	0.00050	mg/L	0.00250		104	80-120			
Matrix Spike (1HD1267-MS1) Source: 1HD1237-06 Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:44										
Mercury, total	0.00252	0.00050	mg/L	0.00250	ND	101	75-125			
Matrix Spike Dup (1HD1267-MSD1) Source: 1HD1237-06 Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:46										
Mercury, total	0.00261	0.00050	mg/L	0.00250	ND	104	75-125	3.30	20	

Batch 1HD1478 - EPA 3005A Total Recoverable Metals - EPA 6020A

Blank (1HD1478-BLK1) Prepared: 04/24/24 16:10 Analyzed: 04/26/24 01:29										
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 (1HD1478-BS1) Prepared: 04/24/24 16:10 Analyzed: 04/26/24 01:47										
Antimony, total	0.0956	0.0020	mg/L	0.100		95.6	80-120			
Arsenic, total	0.100	0.0040	mg/L	0.100		100	80-120			



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CERTIFICATE OF ANALYSIS

1HD1596

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1478 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1HD1478-BS1)				Prepared: 04/24/24 16:10 Analyzed: 04/26/24 01:47						
Barium, total	0.110	0.0040	mg/L	0.100		110	80-120			
Beryllium, total	0.0957	0.0040	mg/L	0.100		95.7	80-120			
Cadmium, total	0.0986	0.0008	mg/L	0.100		98.6	80-120			
Chromium, total	0.0969	0.0080	mg/L	0.100		96.9	80-120			
Cobalt, total	0.103	0.0004	mg/L	0.100		103	80-120			
Copper, total	0.105	0.0040	mg/L	0.100		105	80-120			
Lead, total	0.102	0.0040	mg/L	0.100		102	80-120			
Nickel, total	0.102	0.0040	mg/L	0.100		102	80-120			
Selenium, total	0.1045	0.0040	mg/L	0.100		104	80-120			
Silver, total	0.104	0.0040	mg/L	0.100		104	80-120			
Thallium, total	0.103	0.0020	mg/L	0.100		103	80-120			
Tin, total	0.101	0.0200	mg/L	0.100		101	80-120			
Vanadium, total	0.0974	0.0200	mg/L	0.100		97.4	80-120			
Zinc, total	0.105	0.0200	mg/L	0.100		105	80-120			
Matrix Spike (1HD1478-MS1)				Source: 1HD0315-03RE3 Prepared: 04/24/24 16:10 Analyzed: 04/26/24 02:00						
Antimony, total	0.0956	0.0020	mg/L	0.100	ND	95.6	75-125			
Arsenic, total	0.101	0.0040	mg/L	0.100	0.0015	99.6	75-125			
Barium, total	0.356	0.0040	mg/L	0.100	0.262	94.0	75-125			
Beryllium, total	0.0934	0.0040	mg/L	0.100	ND	93.4	75-125			
Cadmium, total	0.0955	0.0008	mg/L	0.100	ND	95.5	75-125			
Chromium, total	0.0944	0.0080	mg/L	0.100	0.0007	93.6	75-125			
Cobalt, total	0.101	0.0004	mg/L	0.100	ND	101	75-125			
Copper, total	0.251	0.0040	mg/L	0.100	0.135	116	75-125			
Lead, total	0.0986	0.0040	mg/L	0.100	ND	98.6	75-125			
Nickel, total	0.0998	0.0040	mg/L	0.100	ND	99.8	75-125			
Selenium, total	0.1018	0.0040	mg/L	0.100	ND	102	75-125			
Silver, total	0.101	0.0040	mg/L	0.100	ND	101	75-125			
Thallium, total	0.101	0.0020	mg/L	0.100	0.0003	101	75-125			
Tin, total	0.100	0.0200	mg/L	0.100	ND	100	75-125			
Vanadium, total	0.102	0.0200	mg/L	0.100	ND	102	75-125			
Zinc, total	0.103	0.0200	mg/L	0.100	ND	103	75-125			
Matrix Spike Dup (1HD1478-MSD1)				Source: 1HD0315-03RE3 Prepared: 04/24/24 16:10 Analyzed: 04/26/24 02:06						
Antimony, total	0.0972	0.0020	mg/L	0.100	ND	97.2	75-125	1.65	20	
Arsenic, total	0.103	0.0040	mg/L	0.100	0.0015	101	75-125	1.43	20	
Barium, total	0.366	0.0040	mg/L	0.100	0.262	104	75-125	2.91	20	
Beryllium, total	0.0944	0.0040	mg/L	0.100	ND	94.4	75-125	1.02	20	
Cadmium, total	0.0963	0.0008	mg/L	0.100	ND	96.3	75-125	0.835	20	
Chromium, total	0.0954	0.0080	mg/L	0.100	0.0007	94.6	75-125	1.07	20	
Cobalt, total	0.104	0.0004	mg/L	0.100	ND	104	75-125	2.44	20	
Copper, total	0.339	0.0040	mg/L	0.100	0.135	204	75-125	29.8	20	QM-07
Lead, total	0.0999	0.0040	mg/L	0.100	ND	99.9	75-125	1.22	20	
Nickel, total	0.102	0.0040	mg/L	0.100	ND	102	75-125	2.55	20	
Selenium, total	0.1011	0.0040	mg/L	0.100	ND	101	75-125	0.694	20	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1478 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Matrix Spike Dup (1HD1478-MSD1) Source: 1HD0315-03RE3 Prepared: 04/24/24 16:10 Analyzed: 04/26/24 02:06										
Silver, total	0.100	0.0040	mg/L	0.100	ND	100	75-125	0.878	20	
Thallium, total	0.102	0.0020	mg/L	0.100	0.0003	101	75-125	0.679	20	
Tin, total	0.102	0.0200	mg/L	0.100	ND	102	75-125	1.29	20	
Vanadium, total	0.102	0.0200	mg/L	0.100	ND	102	75-125	0.427	20	
Zinc, total	0.104	0.0200	mg/L	0.100	ND	104	75-125	1.05	20	
Post Spike (1HD1478-PS1) Source: 1HD0315-03RE3 Prepared: 04/24/24 16:10 Analyzed: 04/26/24 02:12										
Antimony, total	0.0750		mg/L	0.0800	0.0002	93.5	80-120			
Arsenic, total	0.0818		mg/L	0.0800	0.0015	100	80-120			
Barium, total	0.343		mg/L	0.0800	0.262	102	80-120			
Beryllium, total	0.0735		mg/L	0.0800	0.000002	91.9	80-120			
Cadmium, total	0.0747		mg/L	0.0800	0.000004	93.3	80-120			
Chromium, total	0.0758		mg/L	0.0800	0.0007	93.8	80-120			
Cobalt, total	0.0831		mg/L	0.0800	0.00008	104	80-120			
Copper, total	0.214		mg/L	0.0800	0.135	98.3	80-120			
Lead, total	0.0797		mg/L	0.0800	0.0001	99.4	80-120			
Nickel, total	0.0816		mg/L	0.0800	0.0006	101	80-120			
Selenium, total	0.0760		mg/L	0.0800	0.0002	94.8	80-120			
Silver, total	0.0805		mg/L	0.0800	0.0001	100	80-120			
Thallium, total	0.0819		mg/L	0.0800	0.0003	102	80-120			
Tin, total	0.0802		mg/L	0.0800	0.0003	99.9	75-125			
Vanadium, total	0.0836		mg/L	0.0800	0.0056	97.5	80-120			
Zinc, total	0.0840		mg/L	0.0800	0.0075	95.6	80-120			

Definitions

- QM-07:** The spike recovery and/or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- 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

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.8°C

Cooler Inspection Checklist

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



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1596

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:

A rectangular box containing a handwritten signature in black ink that reads "Heather Murphy".

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/09/24 11:54



1 H D 1 5 9 6
HLW Engineering
PM: Heather Murphy

SITE INFORMATION

Sampler: TODD WHIPPLE

Project: Grundy Co. Landfill - New Reys
6033

REPORT TO

Todd Whipple
HLW Engineering
PO Box 214
Story City, IA 50246

INVOICE TO

Barbara Smith
Grundy County Landfill - Rilling
20424 220th St
Grundy Center, IA 50636

SPECIAL INSTRUCTIONS

None
Turn Around Time Standard RUSH, need by ___/___/___

LAB USE ONLY

Work Order: 1HD1596
Temperature: 0.8
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
-001	<u>92MW-15A</u>	Water	GRAB	<u>4/17/24</u>	<u>15:50</u>	<u>7</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>01</u>
-001	<u>MW-9</u>	Water	GRAB	<u>4/17/24</u>	<u>13:21</u>	<u>17</u>	Indfil-app2-inorg-6020 Indfil-app2-org	<u>02</u>
-001	<u>MW-11</u>	Water	GRAB	<u>4/17/24</u>	<u>15:12</u>	<u>8</u>	8270-110 Indfil-app1-metals-6020	<u>03</u>
-001	<u>MW-13</u>	Water	GRAB	<u>4/17/24</u>	<u>14:33</u>	<u>17</u>	Indfil-app2-inorg-6020 Indfil-app2-org	<u>04</u>
-001	<u>MW-14</u>	Water	GRAB	<u>4/17/24</u>	<u>13:53</u>	<u>16*</u>	Indfil-app2-inorg-6020 Indfil-app2-org	<u>05</u>
-001	<u>Duplicate</u>	Water	GRAB	<u>4/17/24</u>	<u>✓</u>	<u>1</u>	Indfil-app1-voc-group Indfil-app1-metals-6020	<u>06</u>

Relinquished By: Casey Wilson Date/Time: 4/18/24

Relinquished By: Maher Date/Time: 4/18/24
Received for Lab By: 9:39

Remarks: * Missing 1 Amber glass jar

Received By: _____ Date/Time: _____

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	4/17/2024	Arsenic	<4.0	4.0	2.239	19.661	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	4/17/2024	Barium	965.0	297.6737	751.693	1104.807	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	4/17/2024	Cobalt	10.8	11.6	3.930	10.720	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	4/17/2024	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	4/17/2024	Nickel	46.2	10.9	15.170	43.880	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	4/17/2024	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	4/17/2024	1,4 - dichlorobenzene	1.5	1.0	1.085	1.515	75.0
MW-9	4/19/16	Bis(2-ethylhexyl)phthalate	<10	6.0	5.000	5.000	6.0
MW-9	10/10/16	Bis(2-ethylhexyl)phthalate	<10	6.0	5.000	5.000	6.0
MW-9	4/4/17	Bis(2-ethylhexyl)phthalate	<10	6.0	5.000	5.000	6.0
MW-9	10/18/17	Bis(2-ethylhexyl)phthalate	NT	6.0	5.000	5.000	6.0
MW-9	4/12/18	Bis(2-ethylhexyl)phthalate	<6	6.0	3.000	3.000	6.0
MW-9	10/23/18	Bis(2-ethylhexyl)phthalate	<6	6.0	3.000	3.000	6.0
MW-9	4/8/2019	Bis(2-ethylhexyl)phthalate	<6	6.0	3.000	3.000	6.0
MW-9	10/4/2019	Bis(2-ethylhexyl)phthalate	<6	6.0	3.000	3.000	6.0
MW-9	4/9/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	10/1/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	4/1/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	10/4/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	4/6/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	10/4/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	3.000	3.000	6.0
MW-9	4/17/2024	Bis(2-ethylhexyl)phthalate	8.0	6.0	3.986	7.514	6.0
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	4/17/2024	chlorobenzene	1.4	1.0	1.699	5.701	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
MW-9	4/17/2024	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-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	4/17/2024	Barium	236.0	297.6737	215.773	329.727	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	4/17/2024	Cobalt	3.9	11.6	0.380	19.970	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	4/17/2024	Nickel	4.6	10.9	3.187	10.263	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	4/17/2024	Bis(2-ethylhexyl)phthalate	<6	6	0.000	20.597	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	10/4/2023	phorate	<0.4	0.4	0.200	0.200	1.4
MW-11	4/17/2024	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-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	4/17/2024	Barium	434.0	297.6737	317.517	421.483	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	4/17/2024	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	4/17/2024	Cobalt	11.6	11.6	4.851	12.949	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	4/17/2024	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	4/17/2024	Nickel	89.9	10.9	64.942	104.608	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	4/17/2024	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	4/17/2024	1,4 - dichlorobenzene	2.4	1.0	1.550	2.800	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	4/17/2024	Benzene	<1.0	1.0	0.500	0.500	5.0
MW-13	4/19/16	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/10/16	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	4/4/17	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/18/17	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	4/12/18	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/23/18	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	4/8/2019	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/4/2019	Bis(2-ethylhexyl)phthalate	<6	6.0	---	---	6.0
MW-13	4/9/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/1/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0

MW-13	4/1/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/4/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	4/6/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	10/4/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-13	4/17/2024	Bis(2-ethylhexyl)phthalate	7.0	6.0	2.986	6.514	6.0
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	4/17/2024	Chlorobenzene	1.8	1.0	0.248	1.702	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	4/17/2024	chloroethane	2.8	1.0	0.000	2.428	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	4/17/2024	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
MW-13	4/17/2024	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-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	4/17/2024	Arsenic	<4.0	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	4/17/2024	Barium	1040.0	297.6737	829.191	1557.309	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	4/17/2024	Cobalt	4.1	11.6	3.253	19.547	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	4/17/2024	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	4/17/2024	Nickel	31.6	10.9	29.235	55.065	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	4/17/2024	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	4/17/2024	1,4 - dichlorobenzene	<1.0	1.0	0.410	1.090	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	4/17/2024	benzene	<1.0	1.0	0.500	0.500	5.0
MW-14	4/19/16	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/10/16	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	4/4/17	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/18/17	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	4/12/18	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/23/18	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	4/8/2019	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/4/2019	Bis(2-ethylhexyl)phthalate	<6	6.0	---	---	6.0
MW-14	4/9/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/1/2020	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0

MW-14	4/1/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/4/2021	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	4/6/2022	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	10/4/2023	Bis(2-ethylhexyl)phthalate	NT	6.0	---	---	6.0
MW-14	4/17/2024	Bis(2-ethylhexyl)phthalate	72.0	6.0	0.000	60.994	6.0
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	4/17/2024	chlorobenzene	<1.0	1.0	0.000	5.414	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	4/17/2024	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	4/17/2024	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	4/17/2024	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
MW-14	4/17/2024	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 2024, approximately 57,300 gallons of leachate (Appendix G.3) were hauled to the Grundy Center POTW.

Leachate level measurements were completed semi-annually, as per the Revised Permit dated September 28, 2023 (Doc # 107802). Measurements for 2013 through 2024 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

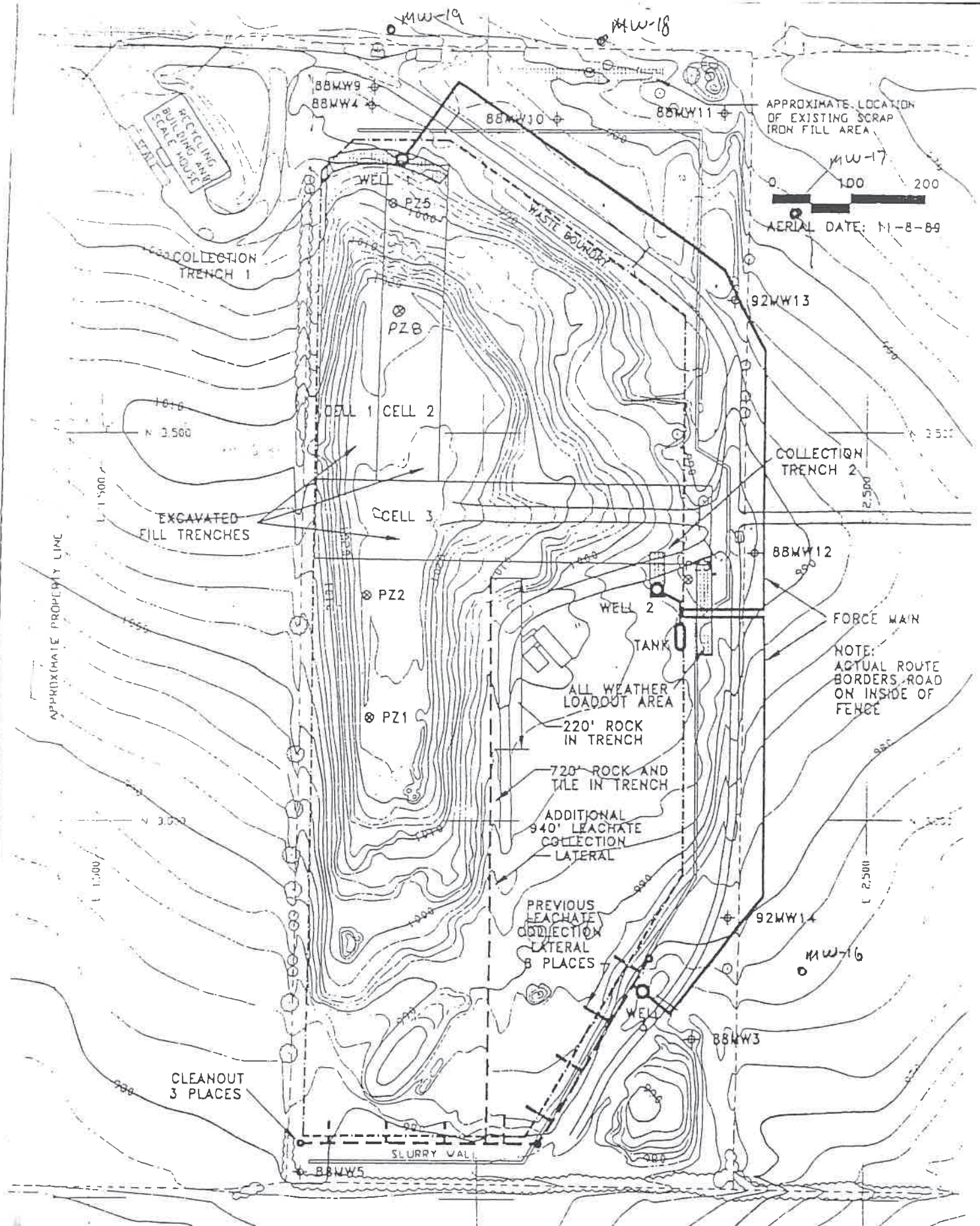
The leachate lines were cleaned on August 17, 2023. As per IDNR regulations, the lines should be cleaned every 3 years (next cleaning will be tentatively scheduled for 2026).

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



APPROXIMATE LOCATION OF EXISTING SCRAP IRON FILL AREA

MW-17

0 100 200

AERIAL DATE: 11-8-89

NOTE: ACTUAL ROUTE BORDERS ROAD ON INSIDE OF FENCE

Appendix G.2 – Leachate Well Check and Tank Level

	Bi-Weekly Leachate Well Check and Tank Level			
	Grundy County Sanitary Landfill			
	2024			
DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
01-02-24	OK	OK	OK	4,413 gal
01-09-24	OK	OK	OK	4,413 gal
01-11-24	OK	OK	OK	4,413 gal
01-16-24	OK	OK	OK	4,413 gal
01-23-24	OK	OK	OK	4,413 gal
01-25-24	OK	OK	OK	4,413 gal
01-30-24	OK	OK	OK	4,413 gal
02-05-24	OK	OK	OK	4,413 gal
02-08-24	OK	OK	OK	4,413 gal
02-13-24	OK	OK	OK	4,413 gal
02-15-24	OK	OK	OK	4,413 gal
02-20-24	OK	OK	OK	4,413 gal
02-22-24	OK	OK	OK	4,413 gal
02-27-24	OK	OK	OK	4,413 gal
03-05-24	OK	OK	OK	4,413 gal
03-07-24	OK	OK	OK	4,413 gal
03-12-24	OK	OK	OK	4,413 gal
03-14-24	OK	OK	OK	4,413 gal
03-19-24	OK	OK	OK	4,413 gal
03-28-24	OK	OK	OK	4,413 gal
04-02-24	OK	OK	OK	4,413 gal
04-04-24	OK	OK	OK	4,413 gal
04-09-24	Pumped	Pumped	Pumped	7,783 gal
04-11-24	OK	OK	OK	7,783 gal
04-18-24	OK	OK	OK	7,783 gal
04-23-24	OK	Hauled 1,000 gal	OK	6,534 gal

	Bi-Weekly Leachate Well Check and Tank Level			
	Grundy County Sanitary Landfill			
	2024			
DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
04-24-24	OK	Hauled 1,000 gal	OK	5,480 gal
04-25-24	Pumped	Hauled 1,000 gal	Pumped	6,920 gal
04-29-24	OK	Hauled 1,000 gal	OK	5,879 gal
04-30-24	Pumped	Hauled 1,000 gal	Pumped	5,879 gal
05-01-24	OK	Hauled 1,000 gal	OK	4,813 gal
05-02-24	Pumped	Hauled 1,000 gal	Pumped	8,887 gal
05-06-24	OK	Hauled 1,000 gal	OK	7,901 gal
05-07-24	OK	Hauled 1,000 gal	OK	6,919 gal
05-09-24	Pumped	OK	OK	9,435 gal
05-14-24	OK	Hauled 1,000 gal	OK	8,359 gal
05-15-24	OK	Hauled 1,000 gal	OK	7,296 gal
05-16-24	OK	Hauled 1,000 gal	Pumped	7,296 gal
05-22-24	OK	Hauled 1,200 gal	OK	6,000 gal
05-23-24	OK	Hauled 1,200 gal	OK	4,679 gal
05-24-24	OK	Hauled 1,200 gal	OK	3,234 gal
05-28-24	Pumped	Hauled 1,200 gal	Pumped	8,247 gal
05-29-24	OK	Hauled 1,200 gal	OK	7,100 gal
05-30-24	OK	Hauled 1,200 gal	OK	5,900 gal
05-31-24	OK	Hauled 1,200 gal	OK	4,813 gal
06-04-24	Pumped	Hauled 1,200 gal	Pumped	4,148 gal
06-05-24	OK	Hauled 1,200 gal	OK	2,853 gal
06-06-24	Pumped	Hauled 1,200 gal	Pumped	3,622 gal
06-07-24	OK	Hauled 1,200 gal	OK	2,481 gal
06-11-24	Pumped	Hauled 1,200 gal	Pumped	3,884 gal
06-12-24	OK	Hauled 1,200 gal	OK	2,604 gal
06-13-24	OK	Hauled 1,200 gal	OK	1,338 gal

	Bi-Weekly Leachate Well Check and Tank Level			
	Grundy County Sanitary Landfill			
	2024			
DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
06-17-24	Pumped	Hauled 1,200 gal	Pumped	6,792 gal
06-19-24	OK	Hauled 1,000 gal	OK	5,614 gal
06-20-24	Pumped	Hauled 1,000 gal	Pumped	6,012 gal
06-25-24	OK	Hauled 1,000 gal	OK	5,080 gal
06-27-24	Pumped	Hauled 1,000 gal	Pumped	9,081 gal
07-03-24	OK	Hauled 1,000 gal	OK	8,018 gal
07-09-24	OK	Hauled 1,000 gal	OK	6,919 gal
07-10-24	OK	Hauled 1,000 gal	OK	5,879 gal
07-11-24	Pumped	Hauled 1,000 gal	Pumped	8,576 gal
07-18-24	OK	Hauled 1,000 gal	OK	7,542 gal
07-23-24	OK	Hauled 1,000 gal	OK	6,534 gal
07-24-24	OK	Hauled 1,000 gal	OK	5,480 gal
07-25-24	Pumped	Hauled 1,000 gal	Pumped	6,663 gal
07-30-24	OK	Hauled 900 gal	OK	5,746 gal
07-31-24	OK	Hauled 900 gal	OK	4,813 gal
08-01-24	Pumped	Hauled 900 gal	Pumped	8,785 gal
08-06-24	OK	Hauled 900 gal	OK	7,901 gal
08-08-24	OK	Hauled 900 gal	OK	7,045 gal
08-13-24	Pumped	Hauled 900 gal	Pumped	7,901 gal
08-15-24	OK	Hauled 900 gal	OK	6,919 gal
08-20-24	OK	Hauled 900 gal	OK	6,011 gal
08-22-24	Pumped	Hauled 900 gal	Pumped	6,404 gal
08-27-24	OK	Hauled 900 gal	OK	5,480 gal
08-29-24	OK	Hauled 900 gal	OK	4,546 gal
09-03-24	OK	Hauled 900 gal	OK	3,622 gal
09-05-24	Pumped	Hauled 900 gal	Pumped	5,480 gal

	Bi-Weekly Leachate Well Check and Tank Level			
	Grundy County Sanitary Landfill			
	2024			
DATE	NORTH WELL	CENTER WELL	SOUTH WELL	COLLECTION TANK LEVEL
09-10-24	OK	OK	OK	5,480 gal
09-12-24	OK	OK	OK	5,480 gal
09-17-24	OK	OK	OK	5,480 gal
09-24-24	OK	OK	OK	5,480 gal
09-26-24	OK	OK	OK	5,480 gal
09-30-24	OK	Hauled 900 gal	OK	4,679 gal
10-03-24	OK	Hauled 900 gal	OK	3,752 gal
10-08-24	Pumped	Hauled 900 gal	Pumped	4,148 gal
10-10-24	OK	Hauled 900 gal	OK	3,234 gal
10-17-24	OK	OK	OK	3,234 gal
10-22-24	OK	OK	OK	3,234 gal
10-24-24	OK	OK	OK	3,234 gal
10-29-24	OK	OK	OK	3,234 gal
11-05-24	OK	OK	OK	3,234 gal
11-07-24	OK	OK	OK	3,234 gal
11-14-24	OK	OK	OK	3,234 gal
11-19-24	OK	OK	OK	3,234 gal
11-21-24	OK	OK	OK	3,234 gal
11-25-24	OK	OK	OK	3,234 gal
12-03-24	OK	OK	OK	3,234 gal
12-05-24	OK	OK	OK	3,234 gal
12-10-24	OK	OK	OK	3,234 gal
12-12-24	OK	OK	OK	3,234 gal

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

	Leachate Collection	
	Grundy County Sanitary Landfill	
	2024	
Date	Leachate Volume	Hauled to
04-23-24	1000 gal.	GCWWTP
04-24-24	1000 gal.	GCWWTP
04-25-24	1000 gal.	GCWWTP
04-29-24	1000 gal.	GCWWTP
04-30-24	1000 gal.	GCWWTP
05-01-24	1000 gal.	GCWWTP
05-02-24	1000 gal.	GCWWTP
05-06-24	1000 gal.	GCWWTP
05-07-24	1000 gal.	GCWWTP
05-14-24	1000 gal.	GCWWTP
05-15-24	1000 gal.	GCWWTP
05-16-24	1000 gal.	GCWWTP
05-22-24	1200 gal.	GCWWTP
05-23-24	1200 gal.	GCWWTP
05-24-24	1200 gal.	GCWWTP
05-28-24	1200 gal.	GCWWTP
05-29-24	1200 gal.	GCWWTP
05-30-24	1200 gal.	GCWWTP
05-31-24	1200 gal.	GCWWTP
06-04-24	1200 gal.	GCWWTP
06-05-24	1200 gal.	GCWWTP
06-06-24	1200 gal.	GCWWTP
06-07-24	1200 gal.	GCWWTP
06-11-24	1200 gal.	GCWWTP
06-12-24	1200 gal.	GCWWTP
06-13-24	1200 gal.	GCWWTP
06-17-24	1200 gal.	GCWWTP
06-19-24	1000 gal.	GCWWTP
06-20-24	1000 gal.	GCWWTP

	Leachate Collection	
	Grundy County Sanitary Landfill	
	2024	
Date	Leachate Volume	Hauled to
06-25-24	1000 gal.	GCWWTP
06-27-24	1000 gal.	GCWWTP
07-03-24	1000 gal.	GCWWTP
07-09-24	1000 gal.	GCWWTP
07-10-24	1000 gal.	GCWWTP
07-11-24	1000 gal.	GCWWTP
07-18-24	1000 gal.	GCWWTP
07-23-24	1000 gal.	GCWWTP
07-24-24	1000 gal.	GCWWTP
07-25-24	1000 gal.	GCWWTP
07-30-24	900 gal.	GCWWTP
07-31-24	900 gal.	GCWWTP
08-01-24	900 gal.	GCWWTP
08-06-24	900 gal.	GCWWTP
08-08-24	900 gal.	GCWWTP
08-13-24	900 gal.	GCWWTP
08-15-24	900 gal.	GCWWTP
08-20-24	900 gal.	GCWWTP
08-22-24	900 gal.	GCWWTP
08-27-24	900 gal.	GCWWTP
08-29-24	900 gal.	GCWWTP
09-03-24	900 gal.	GCWWTP
09-05-24	900 gal.	GCWWTP
09-30-24	900 gal.	GCWWTP
10-03-24	900 gal.	GCWWTP
10-08-24	900 gal.	GCWWTP
10-10-24	900 gal.	GCWWTP
Total	57300 gal.	

Appendix G.4 - Semi-Annual Leachate Level Measurements

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

Well/TOC	PZ-1 1024				PZ-2 1027				PZ-5 1003.12				PZ-8 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	11.18	991.94	979.00	12.94	Dry	Dry	981.00	Dry
07/02/13	22.35	1001.65	995	6.65	18.50	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

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

Well/TOC	PZ-1 1024				PZ-2 1027				PZ-5 1003.12				PZ-8 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)
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	22.58	1001.42	995	6.42	17.42	1009.58	999	10.58	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	21.13	1002.87	995	7.87	17.11	1009.89	999	10.89	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry

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

Well/TOC	PZ-1 1024				PZ-2 1027				PZ-5 1003.12				PZ-8 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)
01/16/19	22.34	1001.66	995	6.66	18.20	1008.8	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	981.00	Dry
10/04/19	22.48	1001.52	995	6.52	16.48	1010.52	999	11.52	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/01/19	22.45	1001.55	995	6.55	16.80	1010.2	999	11.20	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/01/19	22.41	1001.59	995	6.59	16.74	1010.26	999	11.26	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/01/20	22.35	1001.65	995	6.65	16.71	1010.29	999	11.29	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/01/20	22.05	1001.95	995	6.95	16.60	1010.4	999	11.40	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/01/20	21.95	1002.05	995	7.05	15.85	1011.15	999	12.15	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/01/20	21.60	1002.40	995	7.40	15.35	1011.65	999	12.65	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/01/20	21.68	1002.32	995	7.32	15.70	1011.3	999	12.30	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/01/20	21.73	1002.27	995	7.27	16.02	1010.98	999	11.98	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/01/20	22.04	1001.96	995	6.96	16.41	1010.59	999	11.59	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/01/20	22.07	1001.93	995	6.93	16.79	1010.21	999	11.21	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/01/20	22.01	1001.99	995	6.99	17.02	1009.98	999	10.98	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/01/20	21.95	1002.05	995	7.05	16.90	1010.1	999	11.10	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/01/20	21.97	1002.03	995	7.03	19.94	1007.06	999	8.06	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/01/20	22.03	1001.97	995	6.97	17.00	1010	999	11.00	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/01/21	22.40	1001.60	995	6.60	16.80	1010.2	999	11.20	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/01/21	22.20	1001.80	995	6.80	16.73	1010.27	999	11.27	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/01/21	21.97	1002.03	995	7.03	16.35	1010.65	999	11.65	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/01/21	22.35	1001.65	995	6.65	16.69	1010.31	999	11.31	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/01/21	22.70	1001.30	995	6.30	16.89	1010.11	999	11.11	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/01/21	22.73	1001.27	995	6.27	17.05	1009.95	999	10.95	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/01/21	22.80	1001.20	995	6.20	18.10	1008.9	999	9.90	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/01/21	22.93	1001.07	995	6.07	18.37	1008.63	999	9.63	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/01/21	22.10	1001.90	995	6.90	18.03	1008.97	999	9.97	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/01/21	21.95	1002.05	995	7.05	17.83	1009.17	999	10.17	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/01/21	21.87	1002.13	995	7.13	18.00	1009	999	10.00	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/01/21	22.47	1001.53	995	6.53	18.10	1008.9	999	9.90	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry

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

Well/TOC	PZ-1 1024				PZ-2 1027				PZ-5 1003.12				PZ-8 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)
01/01/22	21.73	1002.27	995	7.27	17.97	1009.03	999	10.03	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/01/22	22.29	1001.71	995	6.71	18.23	1008.77	999	9.77	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/01/22	22.57	1001.43	995	6.43	17.92	1009.08	999	10.08	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/01/22	22.63	1001.37	995	6.37	18.15	1008.85	999	9.85	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/01/22	22.75	1001.25	995	6.25	17.83	1009.17	999	10.17	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/01/22	22.70	1001.30	995	6.30	17.87	1009.13	999	10.13	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/01/22	22.45	1001.55	995	6.55	17.67	1009.33	999	10.33	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/01/22	21.98	1002.02	995	7.02	17.59	1009.41	999	10.41	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
09/01/22	22.28	1001.72	995	6.72	17.35	1009.65	999	10.65	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/01/22	22.50	1001.50	995	6.50	17.40	1009.6	999	10.60	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
11/01/22	21.80	1002.20	995	7.20	17.38	1009.62	999	10.62	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
12/01/22	22.10	1001.90	995	6.90	17.69	1009.31	999	10.31	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
01/01/23	22.34	1001.66	995	6.66	18.00	1009	999	10.00	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
02/01/23	22.79	1001.21	995	6.21	18.77	1008.23	999	9.23	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
03/01/23	22.73	1001.27	995	6.27	18.35	1008.65	999	9.65	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/01/23	22.91	1001.09	995	6.09	18.21	1008.79	999	9.79	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
05/01/23	23.56	1000.44	995	5.44	18.65	1008.35	999	9.35	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
06/01/23	23.41	1000.59	995	5.59	18.37	1008.63	999	9.63	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
07/01/23	22.87	1001.13	995	6.13	18.31	1008.69	999	9.69	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
08/01/23	23.87	1000.13	995	5.13	18.92	1008.08	999	9.08	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/04/23	---	---	---	---	19.70	1007.3	999	8.30	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
04/17/24	24.98	999.02	995	4.02	13.60	1013.4	999	14.40	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry
10/22/24	Dry	Dry	Dry	Dry	21.27	1005.73	999	6.73	Dry	Dry	979.00	Dry	Dry	Dry	981.00	Dry

Frequency of leachate head level measurements changed to semi-annually in the Revised Closure Permit dated September 28, 2023

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-](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)	Carbon tetrachloride	Pentachlorophenol
Mercury, Total (as Hg)	Bromodichloromethane	
Nickel, Total (as Ni)	1,1,2,2-Tetrachloroethane	
Selenium, Total (as Se)	1,2-Dichloropropane	
Silver, Total (as Ag)	1,3-Dichloropropene	
Zinc, Total (as Zn)	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)“f”}*

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)“g”}*

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



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Project Description

Leachate

For:

Todd Whipple

HLW Engineering

PO Box 314

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Thursday, May 2, 2024

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac Laboratories, Inc., 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



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

HLW Engineering

Todd Whipple
PO Box 314
Story City, IA 50248

Project Name: Leachate

Project / PO Number: N/A
Received: 04/18/2024
Reported: 05/02/2024

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>
_____	1HD1599-01	Aqueous	GRAB		04/17/24 14:46	04/18/24 09:39



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Analytical Testing Parameters

Client Sample ID:	_____	Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:46
Lab Sample ID:	1HD1599-01		

Determination of Volatile Organic Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 624								
Chloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Vinyl Chloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Bromomethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Chloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,1-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Methylene Chloride	<5.0	5.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,1-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Chloroform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,1,1-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Carbon Tetrachloride	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Benzene	2.3	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,2-Dichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Trichloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,2-Dichloropropane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Bromodichloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
2-Chloroethylvinyl ether	<10.0	10.0	ug/L	1	C-07	04/25/24 0000	04/25/24 1753	LJS
cis-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Toluene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
trans-1,3-Dichloropropene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,1,2-Trichloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Tetrachloroethylene	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Dibromochloromethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Chlorobenzene	6.4	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Ethylbenzene	1.1	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Bromoform	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L	1		04/23/24 0000	04/23/24 1843	LJS
Surrogate: 1,2-Dichloroethane-d4	98.3	Limit: 66-134	% Rec	1		04/23/24 0000	04/23/24 1843	LJS
Surrogate: 1,2-Dichloroethane-d4	96.7	Limit: 66-134	% Rec	1		04/25/24 0000	04/25/24 1753	LJS
Surrogate: Toluene-d8	97.8	Limit: 91-113	% Rec	1		04/23/24 0000	04/23/24 1843	LJS
Surrogate: Toluene-d8	97.6	Limit: 91-113	% Rec	1		04/25/24 0000	04/25/24 1753	LJS
Surrogate: 4-Bromofluorobenzene	96.9	Limit: 83-112	% Rec	1		04/23/24 0000	04/23/24 1843	LJS
Surrogate: 4-Bromofluorobenzene	99.0	Limit: 83-112	% Rec	1		04/25/24 0000	04/25/24 1753	LJS

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 625								
Bis(2-Chloroethyl) Ether	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2-Chlorophenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
1,3-Dichlorobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Client Sample ID:		Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:46
Lab Sample ID:	1HD1599-01		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
1,4-Dichlorobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzyl Alcohol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
1,2-Dichlorobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Bis[2-Chloroisopropyl]ether	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
n-Nitroso-di-n-propylamine	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Hexachloroethane	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Nitrobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Isophorone	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2-Nitrophenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4-Dimethylphenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Bis (2-Chloroethoxy) Methane	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzoic acid	<50	50	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4-Dichlorophenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
1,2,4-Trichlorobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Naphthalene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Hexachlorobutadiene	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
4-Chloro-3-methylphenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Hexachlorocyclopentadiene	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4,6-Trichlorophenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4,5-Trichlorophenol	<50	50	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2-Chloronaphthalene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Dimethylphthalate	<15	15	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Acenaphthylene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,6-Dinitrotoluene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Acenaphthene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4-Dinitrophenol	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Dibenzofuran	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
2,4-Dinitrotoluene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
4-Nitrophenol	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Diethyl Phthalate	<30	30	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Fluorene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
4-Chlorophenyl Phenyl Ether	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
4,6-Dinitro-2-methylphenol	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
N-Nitrosodiphenylamine	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
4-Bromophenyl Phenyl Ether	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Hexachlorobenzene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Pentachlorophenol	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Phenanthrene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Anthracene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Di-n-butyl Phthalate	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Fluoranthene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Pyrene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Butyl Benzyl Phthalate	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP

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CERTIFICATE OF ANALYSIS

1HD1599

Client Sample ID:		Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:46
Lab Sample ID:	1HD1599-01		

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Benzo(a)anthracene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Chrysene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Bis(2-Ethylhexyl) Phthalate	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Di-n-octyl Phthalate	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Indeno(1,2,3-cd)Pyrene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
3,3'-Dichlorobenzidine	<20	20	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzo(b)Fluoranthene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzo(k)Fluoranthene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzo(a)Pyrene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Dibenzo(a,h)anthracene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Benzo(g,h,i)perylene	<10	10	ug/L	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: 2-Fluorophenol	92.1	Limit: 19-139	% Rec	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: Phenol-d6	96.5	Limit: 14-154	% Rec	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: Nitrobenzene-d5	104	Limit: 17-146	% Rec	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: 2-Fluorobiphenyl	96.6	Limit: 18-122	% Rec	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: 2,4,6-Tribromophenol	92.4	Limit: 21-151	% Rec	1		04/23/24 1026	04/26/24 2053	EPP
Surrogate: Terphenyl-dl4	121	Limit: 27-131	% Rec	1		04/23/24 1026	04/26/24 2053	EPP

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
EPA 3520C/EPA 608								
Gamma-BHC [Lindane]	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Beta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Heptachlor	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Delta-BHC	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Aldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Heptachlor Epoxide	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Endosulfan I	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
4,4'-DDE	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Dieldrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Endrin	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
4,4'-DDD	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Endosulfan II	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
4,4'-DDT	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Endrin Aldehyde	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Endosulfan Sulfate	<0.05	0.05	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Chlordane	<0.10	0.10	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Toxaphene	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1016	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1221	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1232	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1242	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1248	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Arochlor 1254	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP



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CERTIFICATE OF ANALYSIS

1HD1599

Client Sample ID:		Collected By:	Whipple, Todd
Sample Matrix:	Aqueous	Collection Date:	04/17/2024 14:46
Lab Sample ID:	1HD1599-01		

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
Arochlor 1260	<0.20	0.20	ug/L	1		04/24/24 1049	05/01/24 1028	EPP
Surrogate: Decachlorobiphenyl	87.0	Limit: 19-120	% Rec	1		04/24/24 1049	05/01/24 1028	EPP
Surrogate: Tetrachloro-m-xylene	81.4	Limit: 30-119	% Rec	1		04/24/24 1049	05/01/24 1028	EPP
Determination of Conventional Chemistry Parameters	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
5310B								
Total Organic Carbon	92.6	2.50	mg/L	5		04/25/24 0000	04/25/24 1951	CSM
SM 4500 H+ B								
pH	7.2	0.5	pH	1	I-03		04/23/24 1630	BSS
SM 5210 B								
BOD (5 day)	17	6	mg/L	3	I-02		04/20/24 1622	MND
TIMBERLINE								
Nitrogen, Ammonia	162	10.0	mg/L	100		04/29/24 1118	04/29/24 1525	LJS
USGS I-1750-85								
Total Dissolved Solids (TDS)	1790	5	mg/L	1		04/22/24 1436	04/23/24 0740	MEAH
USGS I-3765-85								
Total Suspended Solids (TSS)	58	1	mg/L	1		04/24/24 0937	04/24/24 1400	MEAH
Determination of Total Metals	Result	RL	Units	DF	Note	Prepared	Analyzed	Analyst
200.7								
Iron, total	11.7	0.100	mg/L	1		04/22/24 1702	04/25/24 0111	JAR
245.1								
Mercury, total	<0.00050	0.00050	mg/L	1		04/19/24 1724	04/23/24 0920	JAR
EPA 200.8								
Arsenic, total	0.0067	0.0020	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Barium, total	0.499	0.0020	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Cadmium, total	<0.0002	0.0002	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Chromium, total	0.0033	0.0020	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Copper, total	<0.0020	0.0020	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Lead, total	0.0013	0.0008	mg/L	4		04/26/24 1548	04/29/24 2326	RVV
Nickel, total	0.0371	0.0040	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Selenium, total	<0.0040	0.0040	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Silver, total	<0.0020	0.0020	mg/L	4		04/24/24 0713	04/25/24 1743	JAR
Zinc, total	<0.0200	0.0200	mg/L	4		04/24/24 0713	04/25/24 1743	JAR



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
245.1	1HD1267	1HD1267-BLK1	
		1HD1267-BS1	
		1HD1267-MS1	1HD1237-06
		1HD1267-MSD1	1HD1237-06
		1HD1599-01	

Method	Batch	Laboratory ID	Client / Source ID
USGS I-1750-85	1HD1318	1HD1318-BS1	
		1HD1318-DUP1	1HD1574-01
		1HD1318-BLK1	
		1HD1599-01	

Method	Batch	Laboratory ID	Client / Source ID
200.7	1HD1341	1HD1341-BLK1	
		1HD1341-BS1	
		1HD1341-MS1	1HD1382-02
		1HD1341-MSD1	1HD1382-02
		1HD1341-PS1	1HD1382-02
1HD1599-01			

Method	Batch	Laboratory ID	Client / Source ID
SM 5210 B	1HD1346	1HD1346-BLK1	
		1HD1346-SRM1	
		1HD1599-01	
		1HD1346-DUP1	1HD1651-01

Method	Batch	Laboratory ID	Client / Source ID
EPA 625	1HD1367	1HD1367-BLK1	
		1HD1367-BS1	
		1HD1367-BSD1	
		1HD1599-01	

Method	Batch	Laboratory ID	Client / Source ID
SM 4500 H+ B	1HD1396	1HD1599-01	
		1HD1396-DUP1	1HD1599-01
		1HD1396-SRM2	
		1HD1396-SRM1	

Method	Batch	Laboratory ID	Client / Source ID
EPA 624	1HD1408	1HD1408-BS1	
		1HD1408-BSD1	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

EPA 624	1HD1408	1HD1408-BLK1	
		1HD1599-01	_____
		1HD1408-MS1	1HD1532-04
		1HD1408-MSD1	1HD1532-04

Method	Batch	Laboratory ID	Client / Source ID
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EPA 200.8	1HD1411	1HD1411-BLK1	
		1HD1411-BS1	
		1HD1411-MS1	1HD1364-01
		1HD1411-MSD1	1HD1364-01
		1HD1411-PS1	1HD1364-01
		1HD1599-01	_____

Method	Batch	Laboratory ID	Client / Source ID
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USGS I-3765-85	1HD1422	1HD1422-BLK1	
		1HD1422-DUP1	1HD1449-01
		1HD1422-BS1	
		1HD1599-01	_____

Method	Batch	Laboratory ID	Client / Source ID
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EPA 608	1HD1434	1HD1434-BLK1	
		1HD1434-BS1	
		1HD1434-BSD1	
		1HD1599-01	_____

Method	Batch	Laboratory ID	Client / Source ID
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EPA 624	1HD1572	1HD1572-BS1	
		1HD1572-BSD1	
		1HD1572-BLK1	
		1HD1599-01RE1	_____
		1HD1572-MS1	1HD1698-01
		1HD1572-MSD1	1HD1698-01

Method	Batch	Laboratory ID	Client / Source ID
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5310B	1HD1588	1HD1588-BS1	
		1HD1588-BSD1	
		1HD1588-BLK1	
		1HD1599-01	_____
		1HD1588-MS1	1HD1298-02
		1HD1588-MSD1	1HD1298-02

Method	Batch	Laboratory ID	Client / Source ID
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EPA 200.8	1HD1619	1HD1619-BLK1	
		1HD1619-BS1	
		1HD1619-MS1	1HD1550-01RE1

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CERTIFICATE OF ANALYSIS

1HD1599

EPA 200.8	1HD1619	1HD1619-MSD1	1HD1550-01RE1
		1HD1619-PS1	1HD1550-01RE1
		1HD1599-01RE1	_____

Method	Batch	Laboratory ID	Client / Source ID
TIMBERLINE	1HD1665	1HD1665-BLK1	
		1HD1665-BS1	
		1HD1665-MS1	2HD0578-03
		1HD1665-MSD1	2HD0578-03
		1HD1599-01	_____

Batch Quality Control Summary: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1408 - EPA 5030B - EPA 624

Blank (1HD1408-BLK1) Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46

Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
2-Chloroethylvinyl ether	<10.0	10.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							

Surrogate: 1,2-Dichloroethane-d4 51.8 ug/L 50.1 103 66-134



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 624										
Blank (1HD1408-BLK1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:46										
Surrogate: Toluene-d8	49.7		ug/L	50.4		98.7	91-113			
Surrogate: 4-Bromofluorobenzene	48.6		ug/L	50.1		96.9	83-112			
LCS (1HD1408-BS1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 09:38										
Chloromethane	35.96	1.0	ug/L	30.6		117	63-145			
Vinyl Chloride	35.51	1.0	ug/L	30.2		117	68-145			
Bromomethane	30.25	1.0	ug/L	28.8		105	69-150			
Chloroethane	38.95	1.0	ug/L	31.6		123	74-134			
1,1-Dichloroethylene	54.20	1.0	ug/L	50.0		108	76-139			
Methylene Chloride	51.84	5.0	ug/L	50.0		104	67-141			
trans-1,2-Dichloroethylene	53.70	1.0	ug/L	50.0		107	71-137			
1,1-Dichloroethane	51.84	1.0	ug/L	50.0		104	72-130			
cis-1,2-Dichloroethylene	50.21	1.0	ug/L	50.0		100	81-134			
2-Butanone (MEK)	91.25	10.0	ug/L	102		89.6	44-158			
Chloroform	50.51	1.0	ug/L	50.0		101	76-132			
1,1,1-Trichloroethane	49.46	1.0	ug/L	50.0		98.9	65-122			
Carbon Tetrachloride	52.74	1.0	ug/L	50.0		105	66-132			
Benzene	50.94	1.0	ug/L	50.0		102	77-130			
1,2-Dichloroethane	48.82	1.0	ug/L	50.0		97.6	75-124			
Trichloroethylene	50.80	1.0	ug/L	50.0		102	79-126			
1,2-Dichloropropane	50.57	1.0	ug/L	50.0		101	79-128			
Dibromomethane	51.42	1.0	ug/L	50.0		103	71-139			
Bromodichloromethane	49.96	1.0	ug/L	50.0		99.9	76-122			
cis-1,3-Dichloropropene	49.40	1.0	ug/L	50.0		98.8	74-122			
Toluene	48.89	1.0	ug/L	50.0		97.8	76-128			
trans-1,3-Dichloropropene	50.85	1.0	ug/L	50.0		102	73-125			
1,1,2-Trichloroethane	50.24	1.0	ug/L	50.0		100	74-126			
Tetrachloroethylene	50.30	1.0	ug/L	50.0		101	68-124			
Dibromochloromethane	51.03	1.0	ug/L	50.0		102	76-125			
Chlorobenzene	50.14	1.0	ug/L	50.0		100	77-120			
Ethylbenzene	51.98	1.0	ug/L	50.0		104	76-118			
Xylenes, total	157.3	2.0	ug/L	150		105	74-121			
Bromoform	48.10	1.0	ug/L	50.0		96.2	68-128			
1,1,2,2-Tetrachloroethane	48.77	1.0	ug/L	50.0		97.5	62-128			
1,3-Dichlorobenzene	51.26	1.0	ug/L	50.0		103	72-123			
1,4-Dichlorobenzene	49.35	1.0	ug/L	50.0		98.7	75-120			
1,2-Dichlorobenzene	50.94	1.0	ug/L	50.0		102	72-121			
Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	79-129			
Surrogate: 1,2-Dichloroethane-d4	50.6		ug/L	50.1		101	66-134			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	91-113			
Surrogate: 4-Bromofluorobenzene	50.4		ug/L	50.1		101	83-112			
LCS Dup (1HD1408-BSD1)										
Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01										



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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 624										

LCS Dup (1HD1408-BSD1)

Prepared: 04/23/24 00:00 Analyzed: 04/23/24 10:01

Chloromethane	34.15	1.0	ug/L	30.6		111	63-145	5.16	27	
Vinyl Chloride	33.22	1.0	ug/L	30.2		110	68-145	6.66	30	
Bromomethane	30.50	1.0	ug/L	28.8		106	69-150	0.823	30	
Chloroethane	37.41	1.0	ug/L	31.6		118	74-134	4.03	29	
1,1-Dichloroethylene	51.03	1.0	ug/L	50.0		102	76-139	6.02	30	
Methylene Chloride	50.42	5.0	ug/L	50.0		101	67-141	2.78	25	
trans-1,2-Dichloroethylene	50.79	1.0	ug/L	50.0		102	71-137	5.57	29	
1,1-Dichloroethane	48.98	1.0	ug/L	50.0		98.0	72-130	5.67	27	
cis-1,2-Dichloroethylene	47.83	1.0	ug/L	50.0		95.7	81-134	4.86	23	
2-Butanone (MEK)	79.76	10.0	ug/L	102		78.3	44-158	13.4	25	
Chloroform	48.30	1.0	ug/L	50.0		96.6	76-132	4.47	26	
1,1,1-Trichloroethane	46.64	1.0	ug/L	50.0		93.3	65-122	5.87	29	
Carbon Tetrachloride	49.78	1.0	ug/L	50.0		99.6	66-132	5.77	30	
Benzene	48.87	1.0	ug/L	50.0		97.7	77-130	4.15	27	
1,2-Dichloroethane	47.62	1.0	ug/L	50.0		95.2	75-124	2.49	25	
Trichloroethylene	49.00	1.0	ug/L	50.0		98.0	79-126	3.61	28	
1,2-Dichloropropane	49.30	1.0	ug/L	50.0		98.6	79-128	2.54	26	
Dibromomethane	50.60	1.0	ug/L	50.0		101	71-139	1.61	27	
Bromodichloromethane	48.54	1.0	ug/L	50.0		97.1	76-122	2.88	24	
cis-1,3-Dichloropropene	48.22	1.0	ug/L	50.0		96.4	74-122	2.42	27	
Toluene	47.13	1.0	ug/L	50.0		94.3	76-128	3.67	28	
trans-1,3-Dichloropropene	49.94	1.0	ug/L	50.0		99.9	73-125	1.81	27	
1,1,2-Trichloroethane	49.57	1.0	ug/L	50.0		99.1	74-126	1.34	26	
Tetrachloroethylene	48.32	1.0	ug/L	50.0		96.6	68-124	4.02	28	
Dibromochloromethane	50.39	1.0	ug/L	50.0		101	76-125	1.26	23	
Chlorobenzene	48.76	1.0	ug/L	50.0		97.5	77-120	2.79	27	
Ethylbenzene	49.99	1.0	ug/L	50.0		100	76-118	3.90	27	
Xylenes, total	151.5	2.0	ug/L	150		101	74-121	3.78	27	
Bromoform	47.28	1.0	ug/L	50.0		94.6	68-128	1.72	25	
1,1,2,2-Tetrachloroethane	48.79	1.0	ug/L	50.0		97.6	62-128	0.0410	28	
1,3-Dichlorobenzene	49.76	1.0	ug/L	50.0		99.6	72-123	2.97	29	
1,4-Dichlorobenzene	47.97	1.0	ug/L	50.0		95.9	75-120	2.84	26	
1,2-Dichlorobenzene	50.06	1.0	ug/L	50.0		100	72-121	1.74	30	

Surrogate: Dibromofluoromethane	50.9		ug/L	50.2		102	79-129			
Surrogate: 1,2-Dichloroethane-d4	49.9		ug/L	50.1		99.6	66-134			
Surrogate: Toluene-d8	50.3		ug/L	50.4		99.8	91-113			
Surrogate: 4-Bromofluorobenzene	50.3		ug/L	50.1		100	83-112			

Matrix Spike (1HD1408-MS1)

Source: 1HD1532-04

Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51

Chloromethane	321.3	10.0	ug/L	306	ND	105	50-155			
Vinyl Chloride	319.2	10.0	ug/L	302	ND	106	64-148			
Bromomethane	222.6	10.0	ug/L	288	ND	77.3	50-159			
Chloroethane	351.5	10.0	ug/L	316	ND	111	65-144			

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1408 - EPA 5030B - EPA 624

Matrix Spike (1HD1408-MS1) Source: 1HD1532-04 Prepared: 04/23/24 00:00 Analyzed: 04/23/24 19:51

1,1-Dichloroethylene	470.3	10.0	ug/L	500	ND	94.1	78-139			
Methylene Chloride	464.0	50.0	ug/L	500	ND	92.8	65-144			
trans-1,2-Dichloroethylene	473.0	10.0	ug/L	500	ND	94.6	67-142			
1,1-Dichloroethane	465.8	10.0	ug/L	500	ND	93.2	71-133			
cis-1,2-Dichloroethylene	541.4	10.0	ug/L	500	ND	108	76-142			
2-Butanone (MEK)	982.2	100	ug/L	1020	ND	96.5	48-169			
Chloroform	452.5	10.0	ug/L	500	ND	90.5	75-133			
1,1,1-Trichloroethane	439.5	10.0	ug/L	500	ND	87.9	66-120			
Carbon Tetrachloride	431.3	10.0	ug/L	500	ND	86.3	67-132			
Benzene	485.0	10.0	ug/L	500	ND	97.0	79-128			
1,2-Dichloroethane	475.0	10.0	ug/L	500	ND	95.0	74-124			
Trichloroethylene	480.4	10.0	ug/L	500	ND	96.1	82-122			
1,2-Dichloropropane	487.6	10.0	ug/L	500	ND	97.5	80-126			
Dibromomethane	503.7	10.0	ug/L	500	ND	101	62-141			
Bromodichloromethane	469.7	10.0	ug/L	500	ND	93.9	77-119			
cis-1,3-Dichloropropene	458.1	10.0	ug/L	500	ND	91.6	69-120			
Toluene	468.3	10.0	ug/L	500	ND	93.7	80-125			
trans-1,3-Dichloropropene	480.0	10.0	ug/L	500	ND	96.0	70-122			
1,1,2-Trichloroethane	494.9	10.0	ug/L	500	ND	99.0	73-127			
Tetrachloroethylene	482.8	10.0	ug/L	500	ND	96.6	70-122			
Dibromochloromethane	488.7	10.0	ug/L	500	ND	97.7	75-122			
Chlorobenzene	487.5	10.0	ug/L	500	ND	97.5	81-114			
Ethylbenzene	501.3	10.0	ug/L	500	ND	100	79-113			
Xylenes, total	1511	20.0	ug/L	1500	ND	101	79-114			
Bromoform	468.8	10.0	ug/L	500	ND	93.8	66-126			
1,1,2,2-Tetrachloroethane	499.7	10.0	ug/L	500	ND	99.9	56-132			
1,3-Dichlorobenzene	497.1	10.0	ug/L	500	ND	99.5	69-125			
1,4-Dichlorobenzene	481.2	10.0	ug/L	500	ND	96.2	73-119			
1,2-Dichlorobenzene	500.8	10.0	ug/L	500	ND	100	71-117			

Surrogate: Dibromofluoromethane	472		ug/L	502		94.1	79-129			
Surrogate: 1,2-Dichloroethane-d4	471		ug/L	501		94.0	66-134			
Surrogate: Toluene-d8	499		ug/L	504		99.0	91-113			
Surrogate: 4-Bromofluorobenzene	499		ug/L	501		99.5	83-112			

Matrix Spike Dup (1HD1408-MSD1) Source: 1HD1532-04 Prepared: 04/23/24 00:00 Analyzed: 04/23/24 20:14

Chloromethane	302.2	10.0	ug/L	306	ND	98.6	50-155	6.13	19	
Vinyl Chloride	300.5	10.0	ug/L	302	ND	99.4	64-148	6.04	24	
Bromomethane	229.6	10.0	ug/L	288	ND	79.7	50-159	3.10	17	
Chloroethane	336.9	10.0	ug/L	316	ND	106	65-144	4.24	28	
1,1-Dichloroethylene	448.3	10.0	ug/L	500	ND	89.7	78-139	4.79	20	
Methylene Chloride	447.2	50.0	ug/L	500	ND	89.4	65-144	3.69	16	
trans-1,2-Dichloroethylene	450.8	10.0	ug/L	500	ND	90.2	67-142	4.81	18	
1,1-Dichloroethane	444.2	10.0	ug/L	500	ND	88.8	71-133	4.75	16	



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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1408 - EPA 5030B - EPA 624										
Matrix Spike Dup (1HD1408-MSD1)	Source: 1HD1532-04			Prepared: 04/23/24 00:00 Analyzed: 04/23/24 20:14						
cis-1,2-Dichloroethylene	520.3	10.0	ug/L	500	ND	104	76-142	3.97	17	
2-Butanone (MEK)	963.8	100	ug/L	1020	ND	94.7	48-169	1.89	17	
Chloroform	435.1	10.0	ug/L	500	ND	87.0	75-133	3.92	16	
1,1,1-Trichloroethane	423.1	10.0	ug/L	500	ND	84.6	66-120	3.80	15	
Carbon Tetrachloride	436.9	10.0	ug/L	500	ND	87.4	67-132	1.29	15	
Benzene	469.9	10.0	ug/L	500	ND	94.0	79-128	3.16	12	
1,2-Dichloroethane	459.9	10.0	ug/L	500	ND	92.0	74-124	3.23	12	
Trichloroethylene	462.8	10.0	ug/L	500	ND	92.6	82-122	3.73	13	
1,2-Dichloropropane	469.6	10.0	ug/L	500	ND	93.9	80-126	3.76	10	
Dibromomethane	488.3	10.0	ug/L	500	ND	97.7	62-141	3.10	11	
Bromodichloromethane	458.7	10.0	ug/L	500	ND	91.7	77-119	2.37	10	
cis-1,3-Dichloropropene	443.2	10.0	ug/L	500	ND	88.6	69-120	3.31	10	
Toluene	454.6	10.0	ug/L	500	ND	90.9	80-125	2.97	12	
trans-1,3-Dichloropropene	463.1	10.0	ug/L	500	ND	92.6	70-122	3.58	10	
1,1,2-Trichloroethane	483.8	10.0	ug/L	500	ND	96.8	73-127	2.27	10	
Tetrachloroethylene	475.0	10.0	ug/L	500	ND	95.0	70-122	1.63	15	
Dibromochloromethane	483.7	10.0	ug/L	500	ND	96.7	75-122	1.03	12	
Chlorobenzene	472.5	10.0	ug/L	500	ND	94.5	81-114	3.12	12	
Ethylbenzene	489.5	10.0	ug/L	500	ND	97.9	79-113	2.38	13	
Xylenes, total	1481	20.0	ug/L	1500	ND	98.7	79-114	1.99	12	
Bromoform	468.7	10.0	ug/L	500	ND	93.7	66-126	0.0213	16	
1,1,2,2-Tetrachloroethane	491.2	10.0	ug/L	500	ND	98.2	56-132	1.72	29	
1,3-Dichlorobenzene	480.9	10.0	ug/L	500	ND	96.3	69-125	3.31	18	
1,4-Dichlorobenzene	465.2	10.0	ug/L	500	ND	93.0	73-119	3.38	21	
1,2-Dichlorobenzene	484.4	10.0	ug/L	500	ND	96.9	71-117	3.33	23	
<i>Surrogate: Dibromofluoromethane</i>	469		ug/L	502		93.5	79-129			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	464		ug/L	501		92.7	66-134			
<i>Surrogate: Toluene-d8</i>	497		ug/L	504		98.7	91-113			
<i>Surrogate: 4-Bromofluorobenzene</i>	499		ug/L	501		99.5	83-112			

Batch 1HD1572 - EPA 5030B - EPA 624

Blank (1HD1572-BLK1)			Prepared: 04/25/24 00:00 Analyzed: 04/25/24 10:53							
Chloromethane	<1.0	1.0	ug/L							
Vinyl Chloride	<1.0	1.0	ug/L							
Bromomethane	<1.0	1.0	ug/L							
Chloroethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
Chloroform	<1.0	1.0	ug/L							

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1572 - EPA 5030B - EPA 624										
Blank (1HD1572-BLK1)										
				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 10:53						
1,1,1-Trichloroethane	<1.0	1.0	ug/L							
Carbon Tetrachloride	<1.0	1.0	ug/L							
Benzene	<1.0	1.0	ug/L							
1,2-Dichloroethane	<1.0	1.0	ug/L							
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
2-Chloroethylvinyl ether	<10.0	10.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
Toluene	<1.0	1.0	ug/L							
trans-1,3-Dichloropropene	<1.0	1.0	ug/L							
1,1,2-Trichloroethane	<1.0	1.0	ug/L							
Tetrachloroethylene	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Bromoform	<1.0	1.0	ug/L							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4										
	47.5		ug/L	50.1		94.9	66-134			
Surrogate: Toluene-d8										
	49.0		ug/L	50.4		97.2	91-113			
Surrogate: 4-Bromofluorobenzene										
	48.4		ug/L	50.1		96.6	83-112			
LCS (1HD1572-BS1)										
				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 09:45						
Surrogate: Dibromofluoromethane										
	46.3		ug/L	50.2		92.2	79-129			
Surrogate: 1,2-Dichloroethane-d4										
	46.8		ug/L	50.1		93.5	66-134			
Surrogate: Toluene-d8										
	49.6		ug/L	50.4		98.3	91-113			
Surrogate: 4-Bromofluorobenzene										
	50.0		ug/L	50.1		99.8	83-112			
LCS Dup (1HD1572-BSD1)										
				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 10:07						
Surrogate: Dibromofluoromethane										
	46.2		ug/L	50.2		92.2	79-129			
Surrogate: 1,2-Dichloroethane-d4										
	46.2		ug/L	50.1		92.2	66-134			
Surrogate: Toluene-d8										
	49.4		ug/L	50.4		98.0	91-113			
Surrogate: 4-Bromofluorobenzene										
	50.3		ug/L	50.1		100	83-112			
Matrix Spike (1HD1572-MS1)										
			Source: 1HD1698-01							
				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 19:02						
2-Chloroethylvinyl ether	1013	100	ug/L	1000	ND	101	10-157			
Surrogate: Dibromofluoromethane										
	467		ug/L	502		93.2	79-129			
Surrogate: 1,2-Dichloroethane-d4										
	474		ug/L	501		94.7	66-134			
Surrogate: Toluene-d8										
	499		ug/L	504		99.0	91-113			
Surrogate: 4-Bromofluorobenzene										
	500		ug/L	501		99.6	83-112			
Matrix Spike Dup (1HD1572-MSD1)										
			Source: 1HD1698-01							
				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 19:25						
2-Chloroethylvinyl ether	1000	100	ug/L	1000	ND	99.8	10-157	1.29	30	
Surrogate: Dibromofluoromethane										
	471		ug/L	502		93.8	79-129			
Surrogate: 1,2-Dichloroethane-d4										
	473		ug/L	501		94.4	66-134			

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1572 - EPA 5030B - EPA 624

Matrix Spike Dup (1HD1572-MSD1) Source: 1HD1698-01 Prepared: 04/25/24 00:00 Analyzed: 04/25/24 19:25

Surrogate: Toluene-d8	498		ug/L	504		98.8	91-113			
Surrogate: 4-Bromofluorobenzene	500		ug/L	501		99.8	83-112			

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1367 - 3520C BNA Cont Liq - EPA 625

Blank (1HD1367-BLK1) Prepared: 04/23/24 10:26 Analyzed: 04/26/24 16:47

Bis(2-Chloroethyl) Ether	<10	10	ug/L							
2-Chlorophenol	<10	10	ug/L							
1,3-Dichlorobenzene	<10	10	ug/L							
1,4-Dichlorobenzene	<10	10	ug/L							
Benzyl Alcohol	<10	10	ug/L							
1,2-Dichlorobenzene	<10	10	ug/L							
Bis[2-Chloroisopropyl]ether	<10	10	ug/L							
n-Nitroso-di-n-propylamine	<10	10	ug/L							
Hexachloroethane	<10	10	ug/L							
Nitrobenzene	<10	10	ug/L							
Isophorone	<10	10	ug/L							
2-Nitrophenol	<10	10	ug/L							
2,4-Dimethylphenol	<10	10	ug/L							
Bis (2-Chloroethoxy) Methane	<10	10	ug/L							
Benzoic acid	<50	50	ug/L							
2,4-Dichlorophenol	<10	10	ug/L							
1,2,4-Trichlorobenzene	<10	10	ug/L							
Naphthalene	<10	10	ug/L							
Hexachlorobutadiene	<20	20	ug/L							
4-Chloro-3-methylphenol	<10	10	ug/L							
Hexachlorocyclopentadiene	<20	20	ug/L							
2,4,6-Trichlorophenol	<10	10	ug/L							
2,4,5-Trichlorophenol	<50	50	ug/L							
2-Chloronaphthalene	<10	10	ug/L							
Dimethylphthalate	<15	15	ug/L							
Acenaphthylene	<10	10	ug/L							
2,6-Dinitrotoluene	<10	10	ug/L							
Acenaphthene	<10	10	ug/L							
2,4-Dinitrophenol	<20	20	ug/L							
Dibenzofuran	<10	10	ug/L							
2,4-Dinitrotoluene	<10	10	ug/L							
4-Nitrophenol	<10	10	ug/L							
Diethyl Phthalate	<30	30	ug/L							

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Base/Neutral/Acid Extractable Compounds										
Batch 1HD1367 - 3520C BNA Cont Liq - EPA 625										

Blank (1HD1367-BLK1)

Prepared: 04/23/24 10:26 Analyzed: 04/26/24 16:47

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

<i>Surrogate: 2-Fluorophenol</i>	32.2		ug/L	29.6		109	19-139			
<i>Surrogate: Phenol-d6</i>	34.2		ug/L	30.5		112	14-154			
<i>Surrogate: Nitrobenzene-d5</i>	33.5		ug/L	30.0		111	17-146			
<i>Surrogate: 2-Fluorobiphenyl</i>	26.4		ug/L	28.8		91.8	18-122			
<i>Surrogate: 2,4,6-Tribromophenol</i>	30.5		ug/L	29.7		102	21-151			
<i>Surrogate: Terphenyl-d14</i>	32.7		ug/L	28.8		113	27-131			

LCS (1HD1367-BS1)

Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:11

Bis(2-Chloroethyl) Ether	20.8	10	ug/L	25.0		83.2	35-150			
2-Chlorophenol	24.7	10	ug/L	25.0		99.0	51-117			
1,3-Dichlorobenzene	16.2	10	ug/L	25.0		64.6	27-91.3			
1,4-Dichlorobenzene	17.1	10	ug/L	25.0		68.4	28-92.6			
Benzyl Alcohol	16.9	10	ug/L	25.0		67.4	22-147			
1,2-Dichlorobenzene	17.9	10	ug/L	25.0		71.5	32-94.8			
Bis[2-Chloroisopropyl]ether	22.7	10	ug/L	25.0		90.8	40-125			
n-Nitroso-di-n-propylamine	22.5	10	ug/L	25.0		89.9	47-136			
Hexachloroethane	13.4	10	ug/L	25.0		53.6	13-110			
Nitrobenzene	21.6	10	ug/L	25.0		86.5	46-133			
Isophorone	21.9	10	ug/L	25.0		87.6	48-130			



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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1367 - 3520C BNA Cont Liq - EPA 625										
LCS (1HD1367-BS1)				Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:11						
2-Nitrophenol	22.4	10	ug/L	25.0		89.7	54-116			
2,4-Dimethylphenol	22.9	10	ug/L	25.0		91.7	47-121			
Bis (2-Chloroethoxy) Methane	21.5	10	ug/L	25.0		86.1	25-110			
2,4-Dichlorophenol	22.8	10	ug/L	25.0		91.2	50-118			
1,2,4-Trichlorobenzene	16.8	10	ug/L	25.0		67.3	27-95.5			
Naphthalene	19.5	10	ug/L	25.0		78.0	42-107			
Hexachlorobutadiene	<20	20	ug/L	25.0		39.5	10-110			
4-Chloro-3-methylphenol	23.2	10	ug/L	25.0		93.0	54-138			
Hexachlorocyclopentadiene	<20	20	ug/L	25.0		17.4	10-110			
2,4,6-Trichlorophenol	24.3	10	ug/L	25.0		97.0	46-127			
2,4,5-Trichlorophenol	<50	50	ug/L	25.0		98.1	62-119			
2-Chloronaphthalene	19.5	10	ug/L	25.0		77.9	38-118			
Dimethylphthalate	24.0	15	ug/L	25.0		95.8	58-125			
Acenaphthylene	21.0	10	ug/L	25.0		83.8	41-116			
2,6-Dinitrotoluene	24.2	10	ug/L	25.0		97.0	58-126			
Acenaphthene	20.5	10	ug/L	25.0		82.2	45-117			
2,4-Dinitrophenol	27.5	20	ug/L	25.0		110	21-138			
Dibenzofuran	20.3	10	ug/L	25.0		81.3	51-126			
2,4-Dinitrotoluene	24.2	10	ug/L	25.0		97.0	52-134			
4-Nitrophenol	27.0	10	ug/L	25.0		108	41-149			
Diethyl Phthalate	<30	30	ug/L	25.0		99.5	53-132			
Fluorene	21.4	10	ug/L	25.0		85.5	47-126			
4-Chlorophenyl Phenyl Ether	19.2	10	ug/L	25.0		77.0	47-124			
4,6-Dinitro-2-methylphenol	25.4	20	ug/L	25.0		102	50-139			
N-Nitrosodiphenylamine	24.5	10	ug/L	25.0		98.0	29-129			
4-Bromophenyl Phenyl Ether	22.3	10	ug/L	25.0		89.3	48-125			
Hexachlorobenzene	22.0	10	ug/L	25.0		87.9	29-137			
Pentachlorophenol	27.5	20	ug/L	25.0		110	15-154			
Phenanthrene	22.8	10	ug/L	25.0		91.4	45-136			
Anthracene	22.8	10	ug/L	25.0		91.4	43-135			
Di-n-butyl Phthalate	25.3	10	ug/L	25.0		101	42-153			
Fluoranthene	22.8	10	ug/L	25.0		91.2	42-143			
Pyrene	25.4	10	ug/L	25.0		102	40-146			
Butyl Benzyl Phthalate	26.0	10	ug/L	25.0		104	40-151			
Benzo(a)anthracene	23.1	10	ug/L	25.0		92.6	48-136			
Chrysene	24.1	10	ug/L	25.0		96.3	50-136			
Bis(2-Ethylhexyl) Phthalate	28.1	10	ug/L	25.0		113	34-180			
Di-n-octyl Phthalate	26.0	10	ug/L	25.0		104	40-165			
Indeno(1,2,3-cd)Pyrene	20.8	10	ug/L	25.0		83.2	39-152			
Benzo(b)Fluoranthene	24.1	10	ug/L	25.0		96.4	52-140			
Benzo(k)Fluoranthene	25.0	10	ug/L	25.0		99.9	47-147			
Benzo(a)Pyrene	23.9	10	ug/L	25.0		95.6	38-142			

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1367 - 3520C BNA Cont Liq - EPA 625										
LCS (1HD1367-BS1)				Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:11						
Dibenzo(a,h)anthracene	21.0	10	ug/L	25.0		84.0	37-153			
Benzo(g,h,i)perylene	19.4	10	ug/L	25.0		77.8	39-157			
<i>Surrogate: 2-Fluorophenol</i>	26.8		ug/L	29.6		90.7	19-139			
<i>Surrogate: Phenol-d6</i>	25.9		ug/L	30.5		85.1	14-154			
<i>Surrogate: Nitrobenzene-d5</i>	26.2		ug/L	30.0		87.2	17-146			
<i>Surrogate: 2-Fluorobiphenyl</i>	25.0		ug/L	28.8		86.7	18-122			
<i>Surrogate: 2,4,6-Tribromophenol</i>	29.9		ug/L	29.7		101	21-151			
<i>Surrogate: Terphenyl-d14</i>	30.5		ug/L	28.8		106	27-131			
LCS Dup (1HD1367-BS1)				Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:36						
Bis(2-Chloroethyl) Ether	21.2	10	ug/L	25.0		84.8	35-150	1.95	30	
2-Chlorophenol	23.4	10	ug/L	25.0		93.6	51-117	5.61	27	
1,3-Dichlorobenzene	16.2	10	ug/L	25.0		64.8	27-91.3	0.309	30	
1,4-Dichlorobenzene	16.8	10	ug/L	25.0		67.0	28-92.6	2.07	30	
Benzyl Alcohol	24.9	10	ug/L	25.0		99.7	22-147	38.6	30	QR-02
1,2-Dichlorobenzene	17.9	10	ug/L	25.0		71.4	32-94.8	0.112	30	
Bis[2-Chloroisopropyl]ether	20.7	10	ug/L	25.0		82.7	40-125	9.36	26	
n-Nitroso-di-n-propylamine	20.8	10	ug/L	25.0		83.2	47-136	7.72	29	
Hexachloroethane	12.0	10	ug/L	25.0		47.8	13-110	11.4	30	
Nitrobenzene	20.1	10	ug/L	25.0		80.5	46-133	7.14	19	
Isophorone	21.2	10	ug/L	25.0		84.8	48-130	3.29	23	
2-Nitrophenol	22.1	10	ug/L	25.0		88.3	54-116	1.62	25	
2,4-Dimethylphenol	21.6	10	ug/L	25.0		86.6	47-121	5.75	29	
Bis (2-Chloroethoxy) Methane	21.0	10	ug/L	25.0		83.9	25-110	2.54	30	
2,4-Dichlorophenol	22.0	10	ug/L	25.0		88.0	50-118	3.62	21	
1,2,4-Trichlorobenzene	17.5	10	ug/L	25.0		69.9	27-95.5	3.79	30	
Naphthalene	19.4	10	ug/L	25.0		77.5	42-107	0.618	26	
Hexachlorobutadiene	<20	20	ug/L	25.0		44.4	10-110	11.6	30	
4-Chloro-3-methylphenol	22.2	10	ug/L	25.0		88.6	54-138	4.76	12	
Hexachlorocyclopentadiene	<20	20	ug/L	25.0		33.5	10-110	63.2	30	QR-02
2,4,6-Trichlorophenol	23.2	10	ug/L	25.0		93.0	46-127	4.29	21	
2,4,5-Trichlorophenol	<50	50	ug/L	25.0		97.0	62-119	1.07	15	
2-Chloronaphthalene	19.7	10	ug/L	25.0		78.8	38-118	1.17	24	
Dimethylphthalate	23.5	15	ug/L	25.0		94.2	58-125	1.77	20	
Acenaphthylene	20.8	10	ug/L	25.0		83.2	41-116	0.671	30	
2,6-Dinitrotoluene	23.4	10	ug/L	25.0		93.5	58-126	3.65	20	
Acenaphthene	20.8	10	ug/L	25.0		83.2	45-117	1.31	27	
2,4-Dinitrophenol	29.6	20	ug/L	25.0		118	21-138	7.53	22	
Dibenzofuran	20.1	10	ug/L	25.0		80.3	51-126	1.29	15	
2,4-Dinitrotoluene	23.0	10	ug/L	25.0		91.9	52-134	5.42	22	
4-Nitrophenol	25.8	10	ug/L	25.0		103	41-149	4.51	28	
Diethyl Phthalate	<30	30	ug/L	25.0		95.9	53-132	3.64	22	
Fluorene	21.0	10	ug/L	25.0		84.1	47-126	1.65	27	

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of Base/Neutral/Acid Extractable Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1367 - 3520C BNA Cont Liq - EPA 625

LCS Dup (1HD1367-BSD1)

Prepared: 04/23/24 10:26 Analyzed: 04/26/24 17:36

4-Chlorophenyl Phenyl Ether	19.0	10	ug/L	25.0		75.9	47-124	1.41	20	
4,6-Dinitro-2-methylphenol	25.3	20	ug/L	25.0		101	50-139	0.474	25	
N-Nitrosodiphenylamine	23.3	10	ug/L	25.0		93.1	29-129	5.11	30	
4-Bromophenyl Phenyl Ether	21.3	10	ug/L	25.0		85.0	48-125	4.91	18	
Hexachlorobenzene	21.3	10	ug/L	25.0		85.3	29-137	2.96	30	
Pentachlorophenol	28.9	20	ug/L	25.0		116	15-154	4.86	29	
Phenanthrene	22.5	10	ug/L	25.0		89.9	45-136	1.68	27	
Anthracene	22.2	10	ug/L	25.0		88.9	43-135	2.75	28	
Di-n-butyl Phthalate	24.1	10	ug/L	25.0		96.2	42-153	5.06	29	
Fluoranthene	22.0	10	ug/L	25.0		87.8	42-143	3.80	30	
Pyrene	24.6	10	ug/L	25.0		98.5	40-146	3.08	25	
Butyl Benzyl Phthalate	25.6	10	ug/L	25.0		102	40-151	1.55	29	
Benzo(a)anthracene	22.1	10	ug/L	25.0		88.6	48-136	4.42	30	
Chrysene	23.5	10	ug/L	25.0		94.1	50-136	2.35	30	
Bis(2-Ethylhexyl) Phthalate	28.6	10	ug/L	25.0		114	34-180	1.52	30	
Di-n-octyl Phthalate	24.4	10	ug/L	25.0		97.7	40-165	6.42	30	
Indeno(1,2,3-cd)Pyrene	20.5	10	ug/L	25.0		82.0	39-152	1.45	30	
Benzo(b)Fluoranthene	24.2	10	ug/L	25.0		96.6	52-140	0.290	30	
Benzo(k)Fluoranthene	23.4	10	ug/L	25.0		93.8	47-147	6.32	30	
Benzo(a)Pyrene	23.2	10	ug/L	25.0		93.0	38-142	2.72	30	
Dibenzo(a,h)anthracene	20.7	10	ug/L	25.0		82.7	37-153	1.54	30	
Benzo(g,h,i)perylene	20.3	10	ug/L	25.0		81.1	39-157	4.18	30	

Surrogate: 2-Fluorophenol	51.6		ug/L	29.6		174	19-139			S-AC
Surrogate: Phenol-d6	27.5		ug/L	30.5		90.2	14-154			
Surrogate: Nitrobenzene-d5	23.0		ug/L	30.0		76.5	17-146			
Surrogate: 2-Fluorobiphenyl	24.2		ug/L	28.8		83.9	18-122			
Surrogate: 2,4,6-Tribromophenol	26.8		ug/L	29.7		90.2	21-151			
Surrogate: Terphenyl-d14	29.3		ug/L	28.8		102	27-131			

Determination of Organochlorine Insecticides & PCBs	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 1HD1434 - 3520C NP/OC Cont Liq - EPA 608

Blank (1HD1434-BLK1)

Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:25

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							

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1HD1599

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Organochlorine Insecticides & PCBs										
Batch 1HD1434 - 3520C NP/OC Cont Liq - EPA 608										
Blank (1HD1434-BLK1)										
				Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:25						
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							
Chlordane	<0.10	0.10	ug/L							
Toxaphene	<0.20	0.20	ug/L							
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							
Arochlor 1254	<0.20	0.20	ug/L							
Arochlor 1260	<0.20	0.20	ug/L							
<i>Surrogate: Tetrachloro-m-xylene</i>	0.508		ug/L	0.600		84.6	30-119			
<i>Surrogate: Decachlorobiphenyl</i>	0.427		ug/L	0.600		71.2	19-120			
LCS (1HD1434-BS1)										
				Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:40						
Gamma-BHC [Lindane]	0.207	0.05	ug/L	0.250		82.8	37-127			
Beta-BHC	0.199	0.05	ug/L	0.250		79.6	36-131			
Heptachlor	0.240	0.05	ug/L	0.250		95.8	36-128			
Delta-BHC	0.235	0.05	ug/L	0.250		93.9	29-147			
Aldrin	0.193	0.05	ug/L	0.250		77.1	41-120			
Heptachlor Epoxide	0.208	0.05	ug/L	0.250		83.0	50-132			
Endosulfan I	0.227	0.05	ug/L	0.250		90.6	50-133			
4,4'-DDE	0.234	0.05	ug/L	0.250		93.7	46-140			
Dieldrin	0.212	0.05	ug/L	0.250		84.7	41-138			
Endrin	0.318	0.05	ug/L	0.250		127	32-152			
4,4'-DDD	0.275	0.05	ug/L	0.250		110	44-150			
Endosulfan II	0.232	0.05	ug/L	0.250		92.8	45-141			
4,4'-DDT	0.216	0.05	ug/L	0.250		86.6	46-145			
Endrin Aldehyde	0.211	0.05	ug/L	0.250		84.6	33-145			
Endosulfan Sulfate	0.234	0.05	ug/L	0.250		93.8	52-133			
<i>Surrogate: Tetrachloro-m-xylene</i>	0.498		ug/L	0.600		83.0	30-119			
<i>Surrogate: Decachlorobiphenyl</i>	0.635		ug/L	0.600		106	19-120			
LCS Dup (1HD1434-BSD1)										
				Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:54						
Gamma-BHC [Lindane]	0.222	0.05	ug/L	0.250		88.7	37-127	6.88	30	
Beta-BHC	0.216	0.05	ug/L	0.250		86.2	36-131	7.95	30	

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CERTIFICATE OF ANALYSIS

1HD1599

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Organochlorine Insecticides & PCBs										
Batch 1HD1434 - 3520C NP/OC Cont Liq - EPA 608										

LCS Dup (1HD1434-BSD1)										
Prepared: 04/24/24 10:49 Analyzed: 05/01/24 07:54										
Heptachlor	0.260	0.05	ug/L	0.250		104	36-128	8.28	30	
Delta-BHC	0.253	0.05	ug/L	0.250		101	29-147	7.50	30	
Aldrin	0.207	0.05	ug/L	0.250		82.6	41-120	6.86	30	
Heptachlor Epoxide	0.225	0.05	ug/L	0.250		90.0	50-132	8.06	30	
Endosulfan I	0.245	0.05	ug/L	0.250		98.2	50-133	8.02	30	
4,4'-DDE	0.252	0.05	ug/L	0.250		101	46-140	7.22	30	
Dieldrin	0.230	0.05	ug/L	0.250		92.0	41-138	8.23	30	
Endrin	0.345	0.05	ug/L	0.250		138	32-152	8.35	30	
4,4'-DDD	0.301	0.05	ug/L	0.250		121	44-150	9.24	30	
Endosulfan II	0.251	0.05	ug/L	0.250		100	45-141	7.83	30	
4,4'-DDT	0.234	0.05	ug/L	0.250		93.6	46-145	7.86	30	
Endrin Aldehyde	0.234	0.05	ug/L	0.250		93.5	33-145	10.0	30	
Endosulfan Sulfate	0.259	0.05	ug/L	0.250		103	52-133	9.82	30	
Surrogate: Tetrachloro-m-xylene	0.517		ug/L	0.600		86.2	30-119			
Surrogate: Decachlorobiphenyl	0.640		ug/L	0.600		107	19-120			

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Conventional Chemistry Parameters										

Batch 1HD1318 - Wet Chem Preparation - USGS I-1750-85

Blank (1HD1318-BLK1)										
Prepared: 04/22/24 14:36 Analyzed: 04/23/24 07:40										
Total Dissolved Solids (TDS)	<5	5	mg/L							
LCS (1HD1318-BS1)										
Prepared: 04/22/24 14:36 Analyzed: 04/23/24 07:40										
Total Dissolved Solids (TDS)	99	5	mg/L	100		99.3	71-114			
Duplicate (1HD1318-DUP1)										
Source: 1HD1574-01 Prepared: 04/22/24 14:36 Analyzed: 04/23/24 07:40										
Total Dissolved Solids (TDS)	1130	5	mg/L		1130			0.235	30	

Batch 1HD1346 - General Prep Micro - SM 5210 B

Blank (1HD1346-BLK1)										
Prepared & Analyzed: 04/20/24 15:45										
BOD (5 day)	<2	2	mg/L							B-06
Duplicate (1HD1346-DUP1)										
Source: 1HD1651-01 Prepared & Analyzed: 04/20/24 16:26										
BOD (5 day)	161	20	mg/L		161			0.186	29	
Reference (1HD1346-SRM1)										
Prepared & Analyzed: 04/20/24 15:56										
BOD (5 day)	189	100	mg/L	198		95.4	84.6-115.4			

Batch 1HD1396 - Wet Chem Preparation - SM 4500 H+ B

Duplicate (1HD1396-DUP1)										
Source: 1HD1599-01 Prepared & Analyzed: 04/23/24 16:30										
pH	7.2	0.5	pH		7.2			0.0692	10	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Determination of	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Determination of Conventional Chemistry Parameters										
Batch 1HD1396 - Wet Chem Preparation - SM 4500 H+ B										
Reference (1HD1396-SRM1)				Prepared & Analyzed: 04/23/24 16:30						
pH	7.0	0.5	pH	7.00		100	90-110			
Reference (1HD1396-SRM2)				Prepared & Analyzed: 04/23/24 16:30						
pH	7.1	0.5	pH	7.00		101	90-110			
Batch 1HD1422 - Wet Chem Preparation - USGS I-3765-85										
Blank (1HD1422-BLK1)				Prepared: 04/24/24 09:37 Analyzed: 04/24/24 14:00						
Total Suspended Solids (TSS)	<1	1	mg/L							
LCS (1HD1422-BS1)				Prepared: 04/24/24 09:37 Analyzed: 04/24/24 14:00						
Total Suspended Solids (TSS)	13.3	1	mg/L	15.0		88.7	74-114			
Duplicate (1HD1422-DUP1)				Source: 1HD1449-01 Prepared: 04/24/24 09:37 Analyzed: 04/24/24 14:00						
Total Suspended Solids (TSS)	101	1	mg/L		93.0			8.25	30	
Batch 1HD1588 - TOC/DOC - 5310B										
Blank (1HD1588-BLK1)				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 11:01						
Total Organic Carbon	<0.50	0.50	mg/L							
LCS (1HD1588-BS1)				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 10:30						
Total Organic Carbon	5.47	0.50	mg/L	5.00		109	86-120			
LCS Dup (1HD1588-BSD1)				Prepared: 04/25/24 00:00 Analyzed: 04/25/24 10:47						
Total Organic Carbon	5.43	0.50	mg/L	5.00		109	86-120	0.697	10	
Matrix Spike (1HD1588-MS1)				Source: 1HD1298-02 Prepared: 04/25/24 00:00 Analyzed: 04/25/24 21:08						
Total Organic Carbon	6.09	0.50	mg/L	5.00	0.32	115	81-128			
Matrix Spike Dup (1HD1588-MSD1)				Source: 1HD1298-02 Prepared: 04/25/24 00:00 Analyzed: 04/25/24 21:23						
Total Organic Carbon	6.16	0.50	mg/L	5.00	0.32	117	81-128	1.19	10	
Batch 1HD1665 - General Prep HPLC/IC - TIMBERLINE										
Blank (1HD1665-BLK1)				Prepared: 04/29/24 11:18 Analyzed: 04/29/24 13:43						
Nitrogen, Ammonia	<0.10	0.10	mg/L							
LCS (1HD1665-BS1)				Prepared: 04/29/24 11:18 Analyzed: 04/29/24 13:45						
Nitrogen, Ammonia	5.31	0.10	mg/L	5.00		106	90-114			
Matrix Spike (1HD1665-MS1)				Source: 2HD0578-03 Prepared: 04/29/24 11:18 Analyzed: 04/29/24 13:46						
Nitrogen, Ammonia	5.59	0.10	mg/L	5.00	0.0879	110	84-115			
Matrix Spike Dup (1HD1665-MSD1)				Source: 2HD0578-03 Prepared: 04/29/24 11:18 Analyzed: 04/29/24 13:48						
Nitrogen, Ammonia	5.67	0.10	mg/L	5.00	0.0879	112	84-115	1.28	20	
Determination of Total Metals										
	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1267 - EPA 7470A Hg Water - 245.1										



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1267 - EPA 7470A Hg Water - 245.1										
Blank (1HD1267-BLK1)				Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:37						
Mercury, total	<0.00050	0.00050	mg/L							
LCS (1HD1267-BS1)				Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:39						
Mercury, total	0.00260	0.00050	mg/L	0.00250		104	85-115			
Matrix Spike (1HD1267-MS1)				Source: 1HD1237-06 Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:44						
Mercury, total	0.00252	0.00050	mg/L	0.00250	ND	101	70-130			
Matrix Spike Dup (1HD1267-MSD1)				Source: 1HD1237-06 Prepared: 04/19/24 17:24 Analyzed: 04/23/24 08:46						
Mercury, total	0.00261	0.00050	mg/L	0.00250	ND	104	70-130	3.30	10	
Batch 1HD1341 - EPA 200.2 Total ICP-OES (200.7) - 200.7										
Blank (1HD1341-BLK1)				Prepared: 04/22/24 17:02 Analyzed: 04/24/24 22:15						
Iron, total	<0.100	0.100	mg/L							
LCS (1HD1341-BS1)				Prepared: 04/22/24 17:02 Analyzed: 04/24/24 22:20						
Iron, total	2.33	0.100	mg/L	2.20		106	85-115			
Matrix Spike (1HD1341-MS1)				Source: 1HD1382-02 Prepared: 04/22/24 17:02 Analyzed: 04/24/24 22:45						
Iron, total	2.34	0.100	mg/L	2.20	0.068	103	70-130			
Matrix Spike Dup (1HD1341-MSD1)				Source: 1HD1382-02 Prepared: 04/22/24 17:02 Analyzed: 04/24/24 22:51						
Iron, total	2.29	0.100	mg/L	2.20	0.068	101	70-130	2.05	20	
Post Spike (1HD1341-PS1)				Source: 1HD1382-02 Prepared: 04/22/24 17:02 Analyzed: 04/24/24 22:57						
Iron, total	9.00		mg/L	8.80	0.068	101	85-115			
Batch 1HD1411 - EPA 200.2 Total ICP-MS - EPA 200.8										
Blank (1HD1411-BLK1)				Prepared: 04/24/24 07:13 Analyzed: 04/25/24 16:29						
Arsenic, total	<0.0020	0.0020	mg/L							
Barium, total	<0.0020	0.0020	mg/L							
Cadmium, total	<0.0002	0.0002	mg/L							
Chromium, total	<0.0020	0.0020	mg/L							
Copper, total	<0.0020	0.0020	mg/L							
Lead, total	0.0011	0.0008	mg/L							QB-04
Nickel, total	<0.0040	0.0040	mg/L							
Selenium, total	<0.0040	0.0040	mg/L							
Silver, total	<0.0020	0.0020	mg/L							
Zinc, total	<0.0200	0.0200	mg/L							
LCS (1HD1411-BS1)				Prepared: 04/24/24 07:13 Analyzed: 04/25/24 16:36						
Arsenic, total	0.0969	0.0020	mg/L	0.100		96.9	85-115			
Barium, total	0.108	0.0020	mg/L	0.100		108	85-115			
Cadmium, total	0.0946	0.0002	mg/L	0.100		94.6	85-115			
Chromium, total	0.0970	0.0020	mg/L	0.100		97.0	85-115			
Copper, total	0.101	0.0020	mg/L	0.100		101	85-115			
Lead, total	0.100	0.0008	mg/L	0.100		100	85-115			
Nickel, total	0.100	0.0040	mg/L	0.100		100	85-115			
Selenium, total	0.0969	0.0040	mg/L	0.100		96.9	85-115			



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Determination of Total Metals	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1HD1411 - EPA 200.2 Total ICP-MS - EPA 200.8										
LCS (1HD1411-BS1) Prepared: 04/24/24 07:13 Analyzed: 04/25/24 16:36										
Silver, total	0.0999	0.0020	mg/L	0.100		99.9	85-115			
Zinc, total	0.101	0.0200	mg/L	0.100		101	85-115			
Matrix Spike (1HD1411-MS1) Source: 1HD1364-01 Prepared: 04/24/24 07:13 Analyzed: 04/25/24 16:48										
Arsenic, total	0.103	0.0020	mg/L	0.100	0.0019	102	70-130			
Barium, total	0.206	0.0020	mg/L	0.100	0.0956	111	70-130			
Cadmium, total	0.0958	0.0002	mg/L	0.100	ND	95.8	70-130			
Chromium, total	0.0969	0.0020	mg/L	0.100	ND	96.9	70-130			
Copper, total	0.101	0.0020	mg/L	0.100	0.0012	100	70-130			
Lead, total	0.101	0.0008	mg/L	0.100	ND	101	70-130			
Nickel, total	0.104	0.0040	mg/L	0.100	0.0014	103	70-130			
Selenium, total	0.102	0.0040	mg/L	0.100	0.0038	98.2	70-130			
Silver, total	0.102	0.0020	mg/L	0.100	ND	102	70-130			
Zinc, total	0.105	0.0200	mg/L	0.100	ND	105	70-130			
Matrix Spike Dup (1HD1411-MSD1) Source: 1HD1364-01 Prepared: 04/24/24 07:13 Analyzed: 04/25/24 16:54										
Arsenic, total	0.102	0.0020	mg/L	0.100	0.0019	100	70-130	1.56	20	
Barium, total	0.209	0.0020	mg/L	0.100	0.0956	113	70-130	1.31	20	
Cadmium, total	0.0973	0.0002	mg/L	0.100	ND	97.3	70-130	1.54	20	
Chromium, total	0.0985	0.0020	mg/L	0.100	ND	98.5	70-130	1.58	20	
Copper, total	0.101	0.0020	mg/L	0.100	0.0012	99.6	70-130	0.675	20	
Lead, total	0.100	0.0008	mg/L	0.100	ND	100	70-130	0.331	20	
Nickel, total	0.102	0.0040	mg/L	0.100	0.0014	101	70-130	1.95	20	
Selenium, total	0.101	0.0040	mg/L	0.100	0.0038	97.6	70-130	0.578	20	
Silver, total	0.102	0.0020	mg/L	0.100	ND	102	70-130	0.0502	20	
Zinc, total	0.0995	0.0200	mg/L	0.100	ND	99.5	70-130	5.62	20	
Post Spike (1HD1411-PS1) Source: 1HD1364-01 Prepared: 04/24/24 07:13 Analyzed: 04/25/24 17:12										
Arsenic, total	0.0806		mg/L	0.0800	0.0019	98.4	70-130			
Barium, total	0.177		mg/L	0.0800	0.0956	102	70-130			
Cadmium, total	0.0732		mg/L	0.0800	0.00006	91.4	70-130			
Chromium, total	0.0761		mg/L	0.0800	0.0005	94.5	70-130			
Copper, total	0.0791		mg/L	0.0800	0.0012	97.4	70-130			
Lead, total	0.0792		mg/L	0.0800	0.0003	98.6	70-130			
Nickel, total	0.0820		mg/L	0.0800	0.0014	101	70-130			
Selenium, total	0.0800		mg/L	0.0800	0.0038	95.3	70-130			
Silver, total	0.0794		mg/L	0.0800	0.0002	99.0	70-130			
Zinc, total	0.0789		mg/L	0.0800	0.0081	88.5	70-130			

Batch 1HD1619 - EPA 200.2 Total ICP-MS - EPA 200.8

Blank (1HD1619-BLK1) Prepared: 04/26/24 15:48 Analyzed: 04/29/24 22:37										
Lead, total	<0.0008	0.0008	mg/L							
LCS (1HD1619-BS1) Prepared: 04/26/24 15:48 Analyzed: 04/29/24 22:43										
Lead, total	0.0966	0.0008	mg/L	0.100		96.6	85-115			
Matrix Spike (1HD1619-MS1) Source: 1HD1550-01RE1 Prepared: 04/26/24 15:48 Analyzed: 04/29/24 22:55										



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1HD1599

Table with columns: Determination of Total Metals, Result, RL, Units, Spike Level, Source Result, %REC, %REC Limits, RPD, RPD Limit, Notes. Rows include Matrix Spike (1HD1619-MS1), Matrix Spike Dup (1HD1619-MSD1), and Post Spike (1HD1619-PS1).

Definitions

- B-06: Unseeded Blank equals .32mg/L
C-07: Sample received in an inappropriate container for this analysis.
I-02: This result was analyzed outside of the EPA recommended holding time.
I-03: Analyte required to be analyzed within 15 minutes of sampling.
QB-04: The method blank contains analyte at a concentration above the MRL.
QR-02: The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable.
RL: Reporting Limit
RPD: Relative Percent Difference
S-AC: Acid surrogate recovery outside of control limits.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.0°C

Cooler Inspection Checklist

Table with 4 columns: Item, Yes/No, Item, Yes/No. Rows: Custody Seals, COC/Labels Agree, Received On Ice.

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.

Reviewed and Approved By:

Handwritten signature of Heather Murphy

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
05/02/24 15:50



1 H D 1 5 9 9

HLW Engineering
PM: Heather Murphy

SITE INFORMATION

Sampler: _____
Project: Grundy Co. Landfill - Leachate
Leachate

REPORT TO

Todd Whipple
HLW Engineering
PO Box 214
Story City, IA 50246

Barbara Smith
Grundy County Landfill - Rilling
20424 220th St
Grundy Center, IA 50636

SPECIAL INSTRUCTIONS

None
Turn Around Time Standard RUSH, need by ___/___/___

LAB USE ONLY

Work Order IHD1599
Temperature 0.0
Turn-Cooler: No

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

Sample Type Date Time Number of Containers

Lab Sample Number

Number	Sample Identification / Client ID	Matrix	Date	Time	Number of Containers	Analyses	Lab Sample Number
-001		Water	4/17/24	14:46	12	624@dibromochloromethane 625-116 as-t-200.8 bod-5210 cr-t-200.8 cu-t-200.8 hg-t-245.1 ni-t-200.8 pb-t-200.8 se-t-200.8 toc-5310b zn-t-200.8	01

Relinquished By [Signature] Date/Time 4/18/24

Relinquished By Maher Date/Time 4/18/24
Received for Lab By 9:39

Remarks:

Received By _____ Date/Time _____

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 #
CV51698 - CV51700
9470-44 - 9470-46
 Information Sheet #
WW0411-44

Date Received:
04/11/2024

Date Reported:
04/16/2024

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 #: CV51698 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 04/10/2024 03:15 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	44	mg/L	20 LOD	1	04/11/24	04/16/24	JSP-MEF
pH (1925)	EPA 150.1	6.9	S.U.	NA	NA	NA	04/11/24	MEF
Total Suspended Solids	USGS I 3765-85	47	mg/L	4.000	NA	NA	04/15/24	JSP
Sample #: CV51699 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 04/10/2024 03:15 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	152	mg/L	1.6580	10	NA	04/12/24 11:56AM	CB
Sample #: CV51700 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 04/10/2024 03:15 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	155	mg/L	12	10	NA	04/15/24	CB

Report Authorized by:

Date: 04/16/2024

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation
 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.

Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
 20434 220th St
 Grundy Center, IA 50638

Laboratory Sample #
CW00738 - CW00740
 1570-98 - 1571-00
 Information Sheet #
WW0509-98

Date Received:
05/09/2024

Date Reported:
05/22/2024

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 #: CW00738 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/08/2024 03:15 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	44	mg/L	20 LOD	1	05/09/24	05/14/24	MEF-MEF
pH (1925)	EPA 150.1	7.2	S.U.	NA	NA	NA	05/09/24	MEF-JSP
Total Suspended Solids	USGS I 3765-85	118	mg/L	4.000	NA	NA	05/13/24	JSP
Sample #: CW00739 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/08/2024 03:15 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	95	mg/L	0.8290	5	NA	05/15/24 12:24PM	CB
Sample #: CW00740 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 05/08/2024 03:15 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	99	mg/L	6.0745	5	NA	05/21/24	CB

Report Authorized by:

Date: 05/22/2024

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation

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.

Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
 20434 220th St
 Grundy Center, IA 50638

Laboratory Sample #
CW68070 - CW68072
3970-82 - 3970-84
 Information Sheet #
WW0613-82

Date Received:
06/13/2024

Date Reported:
06/18/2024

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 #: CW68070 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/13/2024 03:15 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	20	mg/L	20 LOD	1	06/13/24	06/18/24	MEF
pH (1925)	EPA 150.1	8.02	S.U.	NA	NA	NA	06/13/24	MEF
Total Suspended Solids	USGS I 3765-85	154	mg/L	4.000	NA	NA	06/13/24	JSP
Sample #: CW68071 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/13/2024 03:15 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	150	mg/L	0.8290	5	NA	06/17/24 01:42PM	CB
Sample #: CW68072 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 06/13/2024 03:15 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	149	mg/L	12	10	NA	06/17/24	CB

Report Authorized by:

Date: 06/18/2024

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation

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.

Water Analysis



Submitted By: EW50638702
 GRUNDY CO LANDFILL
 20434 220th St
 Grundy Center, IA 50638

Laboratory Sample #
 CX30864 - CX30866
 6270-33 - 6270-35
 Information Sheet #
 WW0718-33

Date Received:
 07/18/2024

Date Reported:
 07/25/2024

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 #: CX30864 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/17/2024 03:15 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	<20	mg/L	20 LOD	1	07/18/24	07/23/24	MEF
pH (1925)	EPA 150.1	6.91	S.U.	NA	NA	NA	07/18/24	MEF
Total Suspended Solids	USGS I 3765-85	54	mg/L	4.000	NA	NA	07/22/24	JSP
Sample #: CX30865 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/17/2024 03:15 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	169	mg/L	1.6580	10	NA	07/22/24 04:36PM	CB
Sample #: CX30866 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 07/17/2024 03:15 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	160	mg/L	12	10	NA	07/24/24	CB

Report Authorized by:

Date: 07/25/2024

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation

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.

Water Analysis



Submitted By: EW50638702
 GRUNDY CO LANDFILL
 20434 220th St
 Grundy Center, IA 50638

Laboratory Sample #
 CX53172 - CX53174
 7770-83 - 7770-85
 Information Sheet #
 WW0808-83

Date Received:
 08/08/2024

Date Reported:
 08/14/2024

IA Lab ID Number 061
 EPA Lab ID Number 46
 NPDES

Test Name (Contaminant ID)	Method	Results	Units	LOQ	Dilution Factor	Prep Date	Test Date	Analyst
Sample #: CX53172 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 08/08/2024 08:15 AM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	21	mg/L	20 LOD	1	08/08/24	08/13/24	MEF
pH (1925)	EPA 150.1	6.74	S.U.	NA	NA	NA	08/08/24	JSP
Total Suspended Solids	USGS I 3765-85	48	mg/L	4.000	NA	NA	08/13/24	JSP
Sample #: CX53173 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 08/08/2024 08:15 AM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	143	mg/L	1.6580	10	NA	08/09/24 03:12PM	CB
Sample #: CX53174 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 08/08/2024 08:15 AM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	142	mg/L	6.0745	5	NA	08/12/24	CB

Report Authorized by:

Date: 08/14/2024

LOQ units are the same as Result units and are adjusted to reflect dilution.

LOQ = Limit of Quantitation
 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.

Water Analysis



Submitted By: **EW50638702**
GRUNDY CO LANDFILL
 20434 220th St
 Grundy Center, IA 50638

Laboratory Sample #
CY18072 - CY18074
1270-52 - 1270-54
 Information Sheet #
WW0926-52

Date Received:
09/26/2024

Date Reported:
10/03/2024

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 #: CY18072 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 09/25/2024 03:00 PM		Collection Point: Sample Date:				
Carb Biochem Oxygen Demand (5 day)	SM5210 B	11	mg/L	4 LOD	1	09/26/24	10/01/24	MEF
pH (1925)	EPA 150.1	6.88	S.U.	NA	NA	NA	09/26/24	MEF
Total Suspended Solids	USGS I 3765-85	51	mg/L	4.000	NA	NA	09/30/24	JSP
Sample #: CY18073 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 09/25/2024 03:00 PM		Collection Point: Sample Date:				
Ammonia (1003)	ATP Case No. N08-0004	176	mg/L	1.6580	10	NA	09/27/24 01:39PM	CB
Sample #: CY18074 Type: GRAB Collector: CHAD BROWN		Sample Location: COLLECTION TANK Date/Time Collected: 09/25/2024 03:00 PM		Collection Point: Sample Date:				
Total Kjeldahl Nitrogen	SM4500NH3c/NorgC ATP Case No. N08-0004	177	mg/L	12	10	NA	10/02/24	CB

Report Authorized by:

Date: 10/03/2024

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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Appendix H

Gas Monitoring Report

Gas Monitoring Report

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).

Explosive gas monitoring was performed semi-annually at the facility in 2024. Figure 1 illustrates the locations of the subsurface gas monitoring points.

Explosive gas concentrations were undetected or below regulatory action levels during the 2024 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
2024**

Location/Date	4/17/24	10/22/24
	% 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