

**2026 DELINEATION REPORT
GROUNDWATER ASSESSMENT NEAR MW-16 & MW-18**

**PAGE COUNTY SANITARY LANDFILL
73-SDP-01-75P
CLARINDA, IOWA**

by:
HLW Engineering Group
204 West Broad Street
P.O. Box 314
Story City, Iowa 50248
(515) 733-4144

June, 2026



P.N. 6047.200

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**PAGE COUNTY SANITARY LANDFILL
73-SDP-01-75P**

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Prepared 6/30/2026 by:



Todd Whipple, CPG

TABLE OF CONTENTS

Introduction
Study Area
Field Study Methods
Waste Boundary Delineation
Horizontal Delineation of Arsenic
Horizontal Delineation of Methane
Characterization of Subsurface Conditions
Vertical Delineation
Conclusions
Recommendations

FIGURES

Figure	1 –	Site Plan – Active Landfill
	2 -	Site Plan – Area of Interest
	3 -	Water Table Contour Map – March 2026
	4 -	Horizontal Delineation – Arsenic
	5 -	Horizontal Delineation - VOC
	6 -	Horizontal Delineation - Methane
	7 -	Horizontal Delineation - pH
	8 -	Horizontal Delineation – DO & ORP
	9 -	Site Plan – Cross Section Key
	10 -	Cross Section A-A' – Arsenic & Methane
	11 -	Cross Section B-B' – Arsenic & Methane
	12 -	Cross Section C-C' – Arsenic & Methane

APPENDICES

Appendix	A -	Aerial Photographs – 1938, 2008, 2025
	B -	Soil Boring Logs (MW-54 to MW-56)
	C -	Monitoring Well Construction Documentation Forms
	D -	Laboratory Analytical Results March 2026 & June 2026
	E -	Summary of VOC Detections

2026 Delineation Report

Introduction

The Page County Sanitary Landfill Facility is illustrated in Figure 1, *Site Plan – Active Landfill Area*; Figure 2 *Site Plan – Area of Interest*; and Figure 3, *Groundwater Contour Map* (March 5, 2026).

Arsenic at MW-18 (Figure 2) has demonstrated elevated concentrations since prior to 2014. As illustrated on Groundwater Contour Map (Figure 3), MW-18 (constructed 2009) is in a position that is both hydraulically downgradient from the waste mass and hydraulically upgradient from existing MW-16 (constructed 1993). MW-16 is located hydraulically downgradient from the waste boundary.

Historically, monitored natural attenuation (MNA) was recognized as the corrective action in the vicinity of MW-16 and MW-18 based on the diminished arsenic levels recorded between MW-18 (upgradient) and MW-16 (downgradient) along the groundwater flow path (Figure 3).

The 2025 Annual Water Quality Report (Doc #115956) identified an initial arsenic SSL at MW-16. Arsenic is also identified as the compound that has exhibited SSL at MW-18. Based on the recently recorded SSL at MW-16, it appears that additional delineation and evaluation is warranted in the vicinity of MW-18 and MW-16.

Further, it appears that additional remedy may be required to augment the existing MNA, or supplemental source control may be required to restrict impacts at MW-18 and MW-16.

Study Area

This study is focused near MW-16 and MW-18 situated in the northeast corner of the site along the north side of the landfill (Figure 2).

Physical features including a former railroad bed exist in the Study area (pre-1930's to 1970's - Appendix A). Additionally, site haul roads traversed the area of interest in 2008 when a sedimentation basin was constructed at the north end of the area of interest (Appendix A). The topography of the site slopes downhill to the north toward the sedimentation basin and the groundwater surface slopes to the southwest (Figure 3). A 2025 aerial view is also included in Attachment A to illustrate the current site conditions.

Field Study Methods

On March 4, 2026, and March 5, 2026, three (3) soil borings were advanced in locations approximately 50 feet north of existing monitoring wells MW-16 and MW-18 (Figure 2).

2026 Delineation Report

Each soil boring was continuously sampled and was completed as a 2-inch diameter monitoring well (MW-54, MW-55, and MW-56). Monitoring well construction conforms to IAC 113.10(2)"c".

This field study incorporates the three (3) soil monitoring wells (MW-54 through MW-56) and two (2) existing monitoring wells MW-16 and MW-18.

Soil Boring Logs and Monitoring Well Construction information for MW-54 through MW-56 is included in Appendix B and Appendix C, respectively. All monitoring points utilized in this study area are illustrated on the attached figures.

Monitoring wells MW-55 and MW-56 were developed on April 6, 2026, following construction and full hydration. MW-54 remained dry on April 6, 2026 (30+ days following construction). Water elevation data and water samples were collected from all original monitoring wells on site on March 5, 2026.

Water samples were collected from MW-55 and MW-56 on June 3, 2026. MW-54 was dry on June 3, 2026. Figure 3 illustrates the groundwater table contours based on the water elevation data collected March 5, 2026, and April 6, 2026. A table summarizing the water elevation data is included in Figure 3.

Waste Boundary Delineation

On March 4, 2026, landfill equipment was utilized to excavate in the field to confirm the location of the waste boundary near MW-16 and MW-18. The field excavation activities did confirm the location of the waste boundary near MW-16 and MW-18 is accurately illustrated on the site Figures.

Delineation of Arsenic

In accordance with IAC 567-113.10(6)g(1)1 a groundwater assessment has been completed to delineate the limits of the arsenic in the vicinity of MW-16 and MW-18.

MW-16, MW-18, MW-55, and MW-56 were sampled during distinct field events performed on March 5, 2026, and June 3, 2026, and water samples were analyzed for total arsenic. The laboratory Analytical Reports are included in Appendix D.

Summary tables of the detected compounds are presented below. Compound concentrations that are reported above the Statistical Prediction Limit are in **bold** text. Compound concentrations that are reported above the IAC 567, Chapter 137 Statewide Standards for Protected Groundwater are highlighted in yellow.

2026 Delineation Report

<i>All compounds in ug/L</i>			<i>Arsenic</i>				
Date	Prediction Limit	GWPS	MW-16	MW-18	MW-54	MW-55	MW-56
3/5/2026	5.6	10.0	4.32	29.2	---	---	---
6/3/2026	5.6	10.0	---	---	Dry	20.5	6.61

Figure 4 is offered as the horizontal delineation of impact by arsenic. Based on review of Figure 4, the concentration of arsenic appears to diminish in the downgradient direction (northwest with groundwater flow direction). Arsenic exceeds the GWPS (10.0 ug/L) at MW-18 and MW-55 but drops below the GWPS at MW-16 and MW-56.

Delineation of Methane in Groundwater Near MW-16 & MW-18

There have been no verified detections of volatile organic compounds (VOC) at MW-18. Historic detections of low-level VOC compounds are recorded in MW-16 (Appendix E). Based on the VOC present in the subsurface near MW-16 (Figure 5), the potential for landfill gas impacts near MW-16 and MW-18 warranted investigation.

Samples were collected for dissolved methane, ethane, and ethene at MW-16, MW-18, MW-55, and MW-56 during distinct field events performed on March 5, 2026, and June 3, 2026. Results from the sampling events are included on the table below. Note that ethane and ethene have not been detected at any sampling point during any sampling event.

<i>All compounds in ug/L</i>			<i>Methane*</i>				
Date	Prediction Limit	GWPS	MW-16	MW-18	MW-54	MW-55	MW-56
3/5/2026	N/A	N/A	8.15	<5.0	---	---	---
6/3/2026	N/A	N/A	---	---	Dry	<5.0	224.0

* Ethane & Ethene were undetected.

Figure 5 is offered as the horizontal delineation of impact by VOC. Figure 6 is offered as the horizontal delineation of impact by methane. Figure 5 and Figure 6 illustrate low level impact by VOC and methane are limited to MW-16 and MW-56. Detected concentrations of VOC and methane do not exceed GWPS.

Characterization of Subsurface Conditions

Water was collected at monitoring points in the study area on June 3, 2026. The groundwater was analyzed in the field for temperature, dissolved oxygen, specific conductance, pH, and oxidation-reduction potential (ORP) to characterize subsurface conditions in the study area. A summary of the testing results is presented in the table below.

2026 Delineation Report

Monitoring Point	Temperature Degrees C	Dissolved Oxygen (%)	Dissolved Oxygen (mg/L)	Specific Conductance (us/cm)	pH	Oxidation-Reduction Potential (mv)
MW-16	12.4	29.5	3.05	2294	6.47	-102.9
MW-18	11.3	14.0	1.56	1045	6.40	-39.7
MW-54	Dry	Dry	Dry	Dry	Dry	Dry
MW-55	12.0	25.1	2.60	2229	6.80	+32.5
MW-56	12.6	42.6	46.6	1397	6.67	-79.0

Figure 7 summarizes the pH data, while Figure 8 summarizes the dissolved oxygen (DO) and the Oxidation-Reduction Potential (ORP) recorded at the monitoring wells. The field characterization data (pH, DO, and ORP) is useful in identifying the subsurface conditions in the area of interest that may attribute to the elevated arsenic concentrations.

It is apparent that a reducing environment (negative ORP) exists throughout the area of interest, except at MW-55. The ORP generally becomes more negative to the west across the area of interest. This observation confirms that the reducing environment is likely to extend from the waste mass outward to the northwest.

Review of the field data indicates that the dissolved oxygen concentration is lowest at MW-18. Generally, dissolved oxygen content increases from east to west in the study area.

The pH is described as neutral to slightly below neutral (acidic). The lowest pH is recorded at MW18.

Vertical Delineation in Groundwater Near MW-16 and MW-18

Cross sections A-A through C-C (Figure 9 through Figure 12) are included. Figure 9 illustrates the Cross Section Line locations in the study area. Figure 10 is the North-South Cross Section A-A' which runs through MW-16. Figure 11 is the North-South Cross Section B-B' which runs through MW-18. Figure 12 is the East-West Cross Section C-C' which runs through MW-16 and MW-18. The cross sections include ground surface, the water table, the well sections, and the approximate location of the waste mass.

The interpreted limits of the arsenic impact and methane impact are illustrated on the cross sections Figure 10, Figure 11, and Figure 12. The vertical limits of impact are defined based on water quality testing results March 5, 2026, and June 3, 2026.

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It is noted that MW-54 is recorded as dry on April 6, 2026, and June 3, 2026. Review of the dry condition of MW-54 on Cross Section A-A (Figure 11) and Cross Section B-B (Figure 12) suggests that the till formation at MW-54 is drained (north to the sedimentation basin). Flow is predominantly to the west and recharge of the till soils at MW-54 may be lacking.

Based on the geologic data and the water quality data presented, the horizontal and vertical limits are defined.

Conclusions

Groundwater is confirmed to demonstrate west and northwest components of flow based on water elevation data collected March 4, 2026, and April 6, 2026.

The horizontal and vertical delineation is complete in the area of interest.

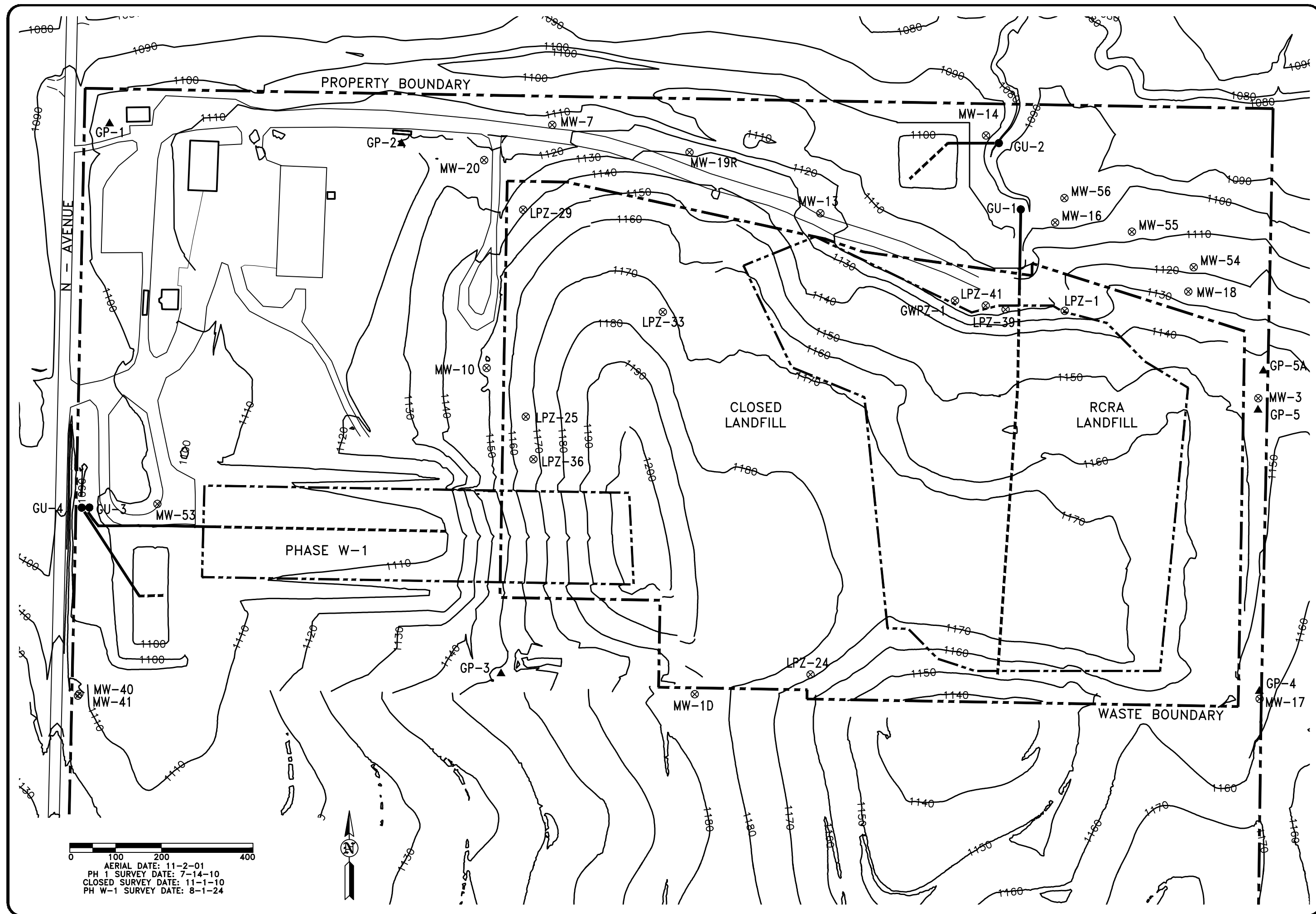
Arsenic impact appears to diminish and resolve by natural attenuation in the area of interest. Arsenic is greatest at MW-18 (east) and diminishes downgradient (hydraulically) and dropping below the GWPS at MW-16 and MW-56.

Methane dissolved in water and dissolved VOC impact are limited to MW-16 and MW-56 in the study area.

Characterization of the subsurface conditions in the study area indicates a reducing environment. The reducing environment appears to extend throughout the area of interest. Dissolved oxygen appears to be rather normal, while pH is slightly acidic throughout the area of interest.

Recommendations

It is recommended that an Assessment of Corrective Measures (ACM) be completed in accordance with IAC 113.10(7) related to the elevated arsenic concentration at MW-16 and MW-18. The ACM completion date is proposed as August 15, 2026.

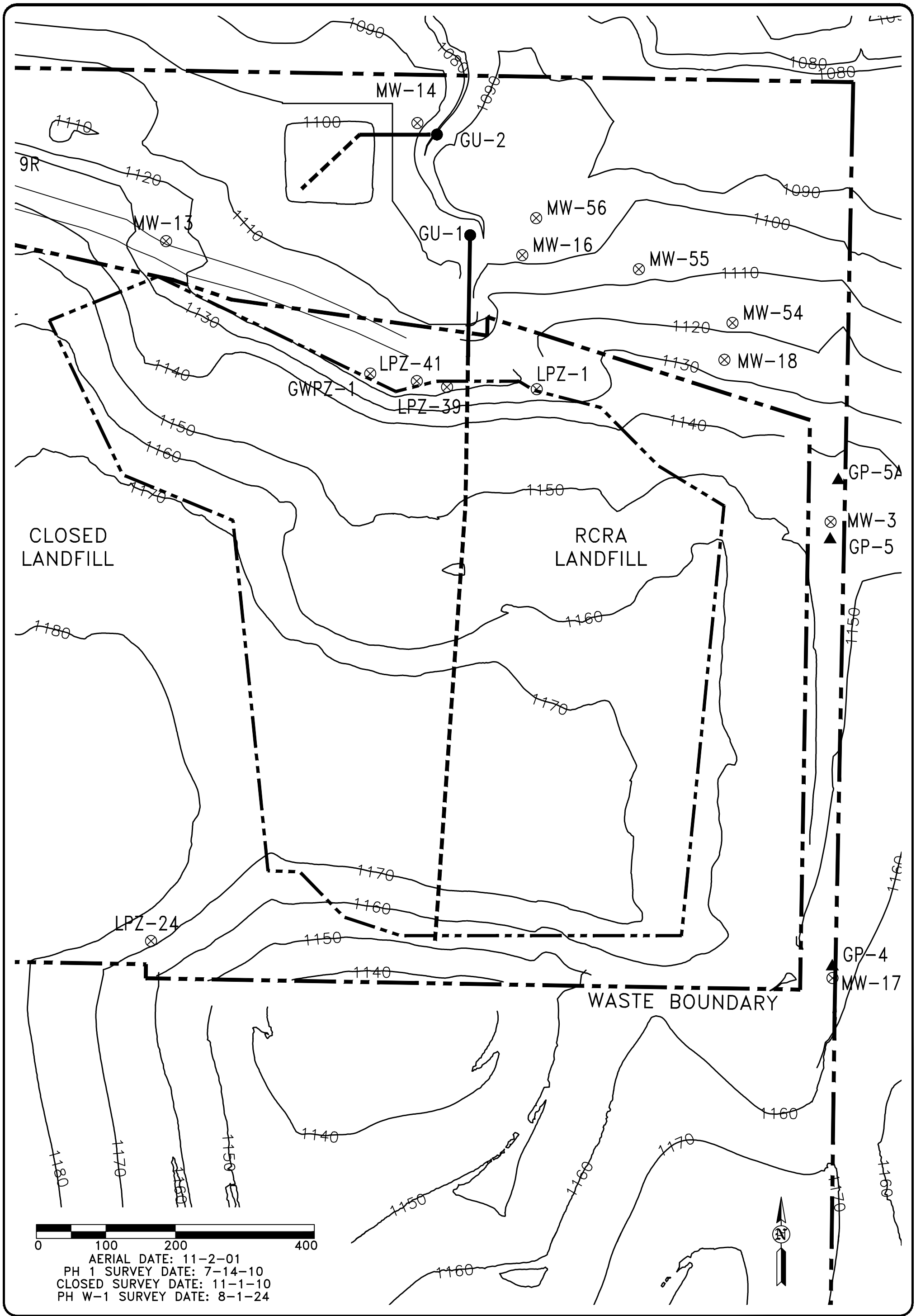


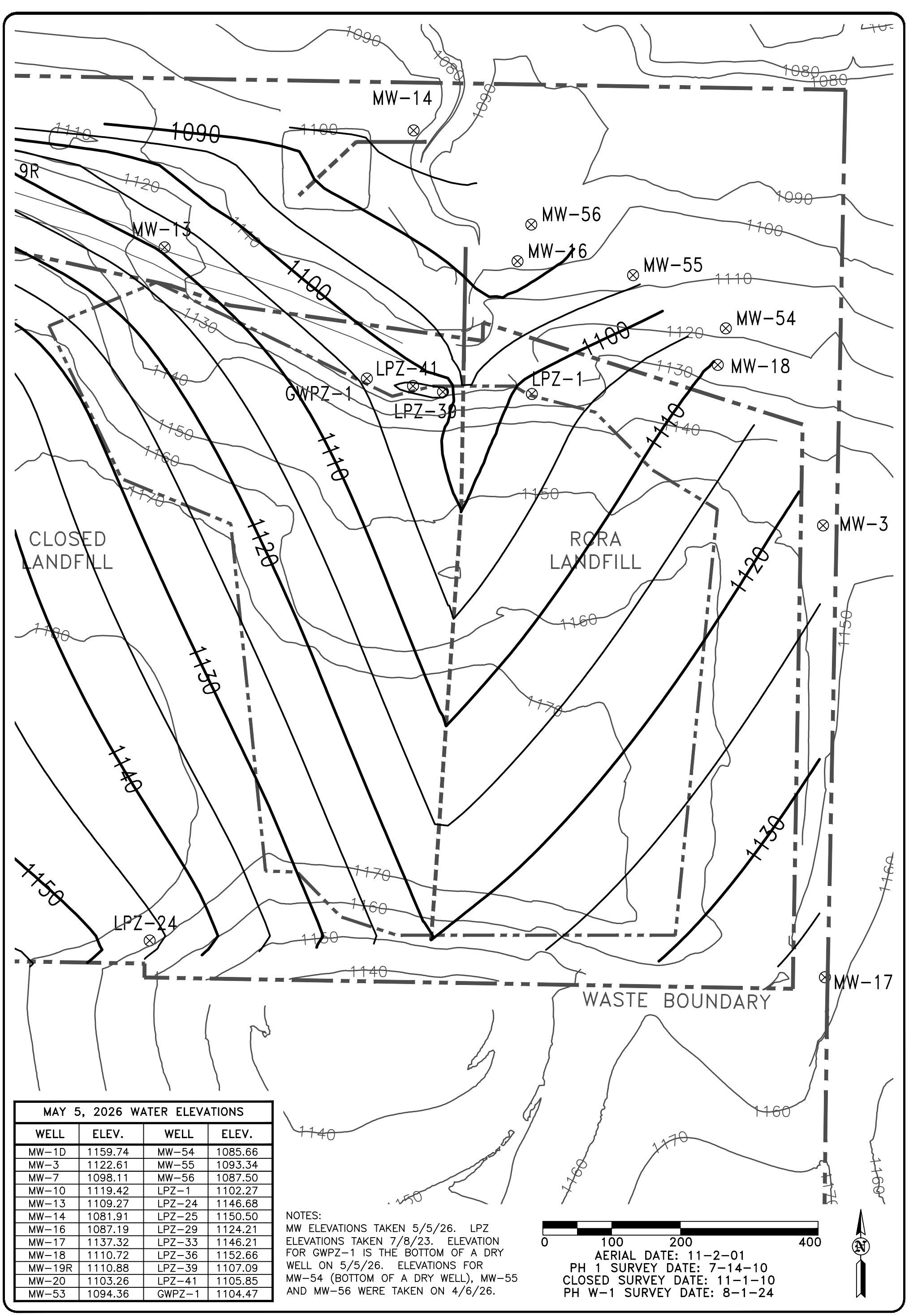
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 FAX: (515) 733-4146

FIGURE: 1

REVISION	NO.	DATE
DRAWN	6047	6-19-26
DRA		

SITE PLAN - LANDFILL AREA
 PAGE COUNTY SANITARY LANDFILL
 CLARINDA, IOWA



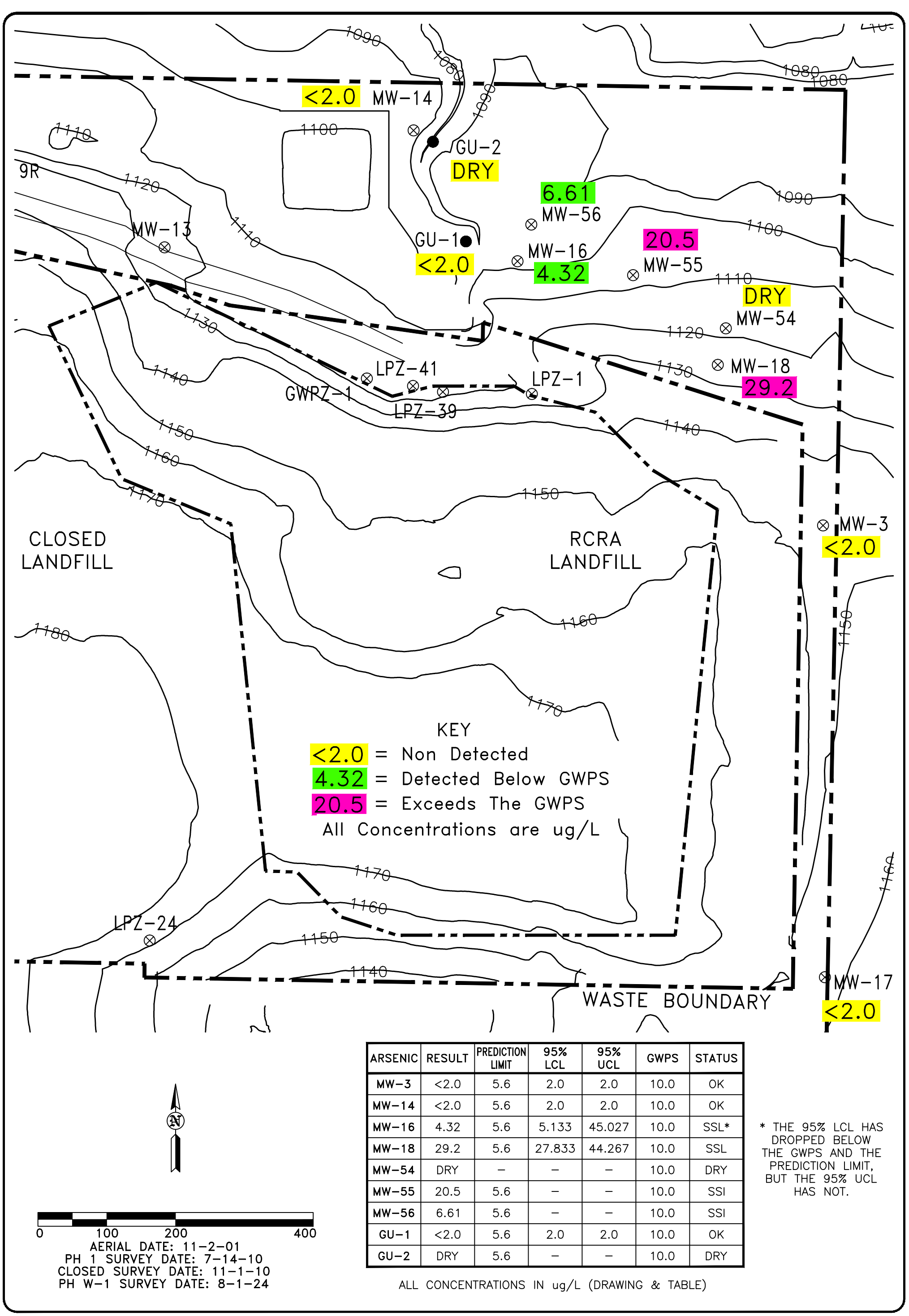


MAY 5, 2026 WATER ELEVATIONS			
WELL	ELEV.	WELL	ELEV.
MW-1D	1159.74	MW-54	1085.66
MW-3	1122.61	MW-55	1093.34
MW-7	1098.11	MW-56	1087.50
MW-10	1119.42	LPZ-1	1102.27
MW-13	1109.27	LPZ-24	1146.68
MW-14	1081.91	LPZ-25	1150.50
MW-16	1087.19	LPZ-29	1124.21
MW-17	1137.32	LPZ-33	1146.21
MW-18	1110.72	LPZ-36	1152.66
MW-19R	1110.88	LPZ-39	1107.09
MW-20	1103.26	LPZ-41	1105.85
MW-53	1094.36	GWPZ-1	1104.47

NOTES:
MW ELEVATIONS TAKEN 5/5/26. LPZ
ELEVATIONS TAKEN 7/8/23. ELEVATION
FOR GWPZ-1 IS THE BOTTOM OF A DRY
WELL ON 5/5/26. ELEVATIONS FOR
MW-54 (BOTTOM OF A DRY WELL), MW-55
AND MW-56 WERE TAKEN ON 4/6/26.

0 100 200 400
AERIAL DATE: 11-2-01
PH 1 SURVEY DATE: 7-14-10
CLOSED SURVEY DATE: 11-1-10
PH W-1 SURVEY DATE: 8-1-24

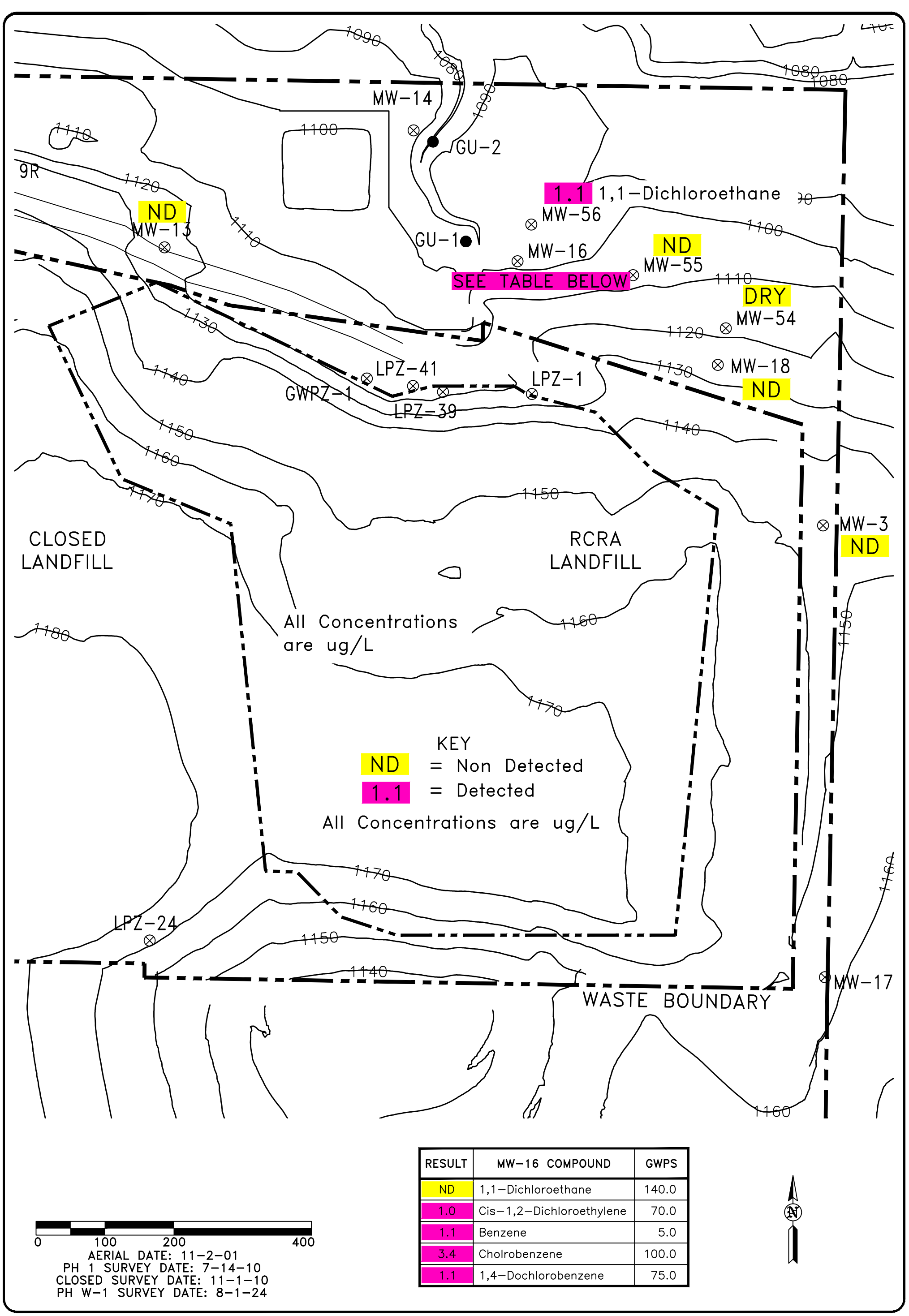




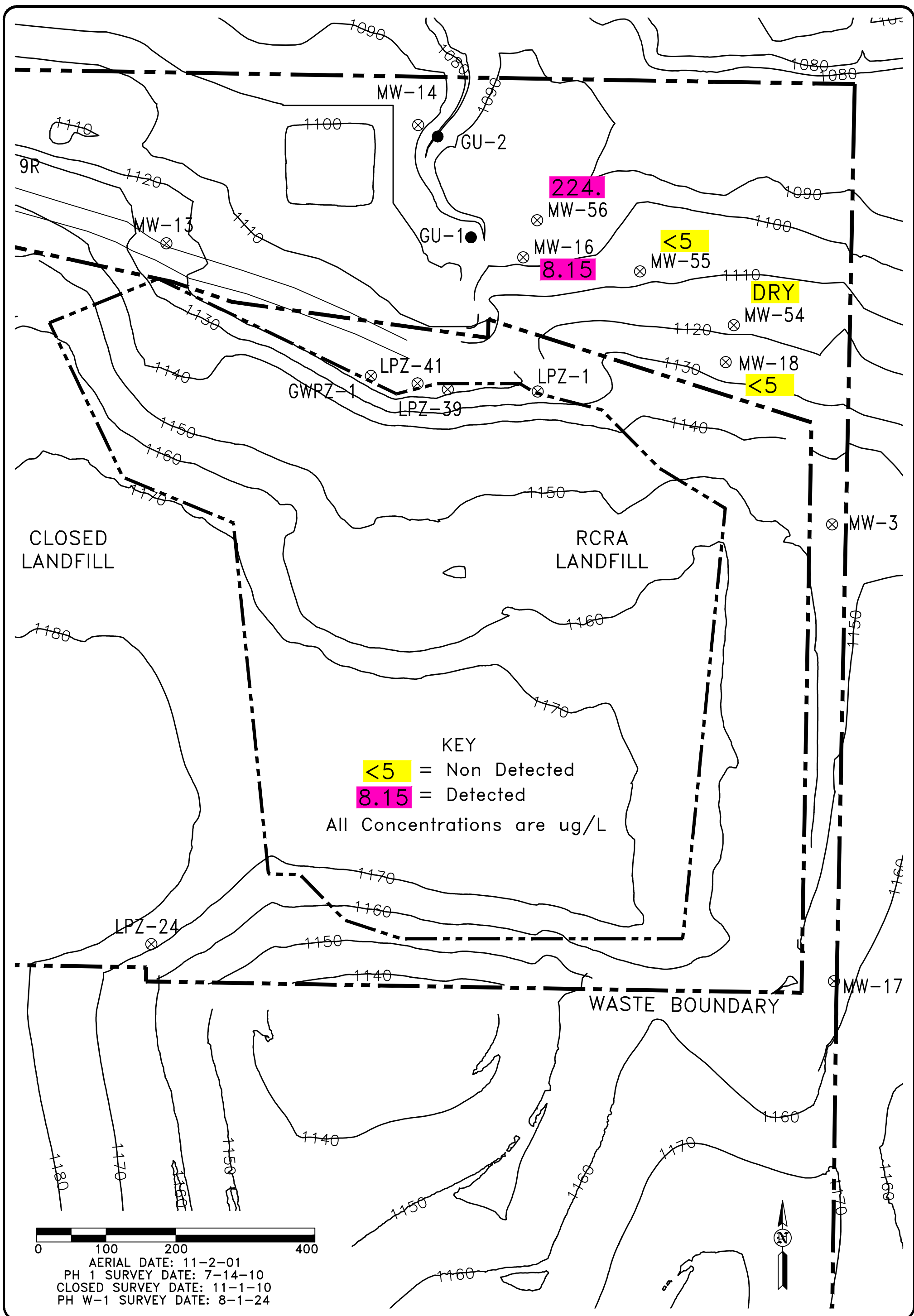
ARSENIC	RESULT	PREDICTION LIMIT	95% LCL	95% UCL	GWPS	STATUS
MW-3	<2.0	5.6	2.0	2.0	10.0	OK
MW-14	<2.0	5.6	2.0	2.0	10.0	OK
MW-16	4.32	5.6	5.133	45.027	10.0	SSL*
MW-18	29.2	5.6	27.833	44.267	10.0	SSL
MW-54	DRY	-	-	-	10.0	DRY
MW-55	20.5	5.6	-	-	10.0	SSI
MW-56	6.61	5.6	-	-	10.0	SSI
GU-1	<2.0	5.6	2.0	2.0	10.0	OK
GU-2	DRY	5.6	-	-	10.0	DRY

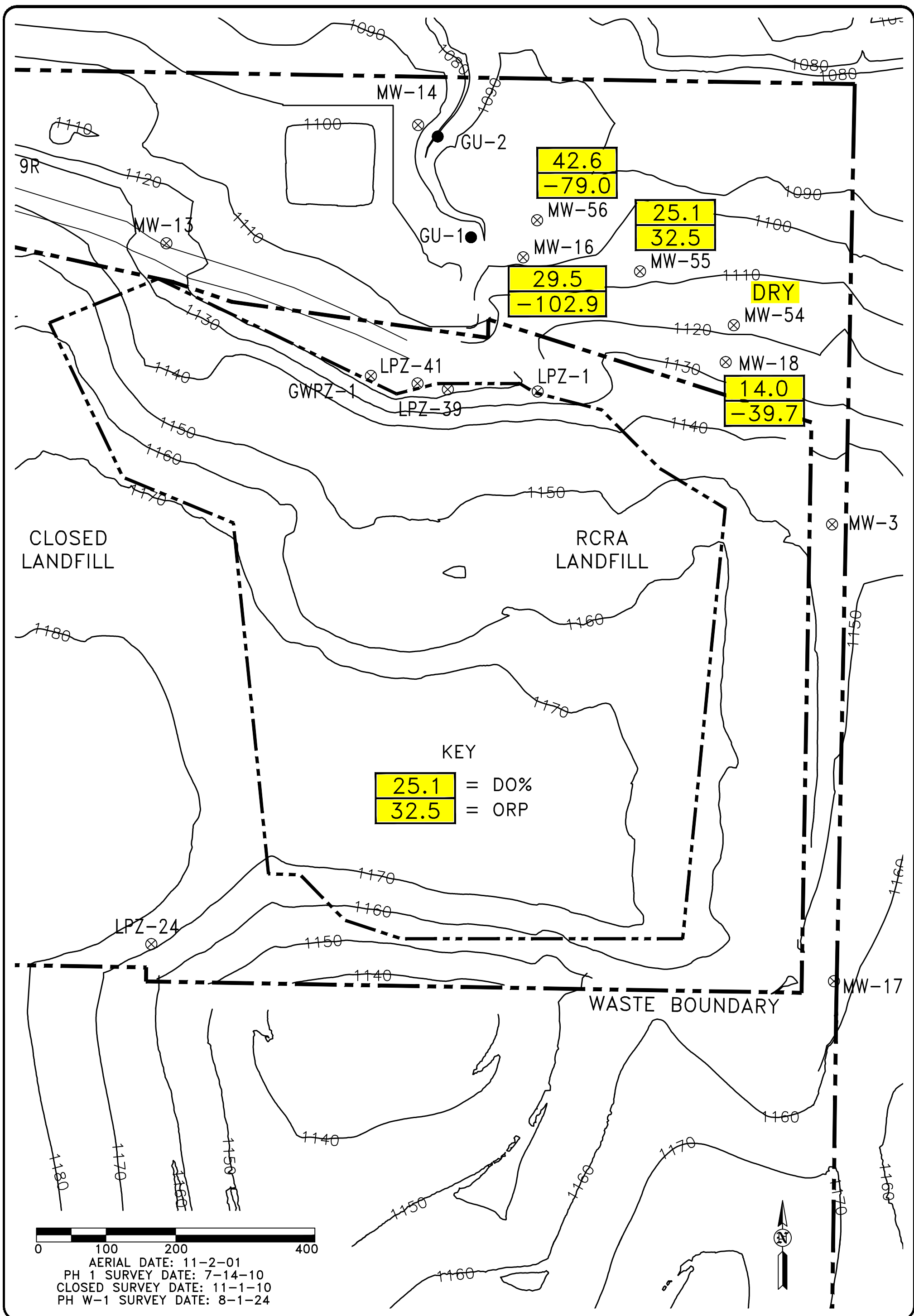
* THE 95% LCL HAS DROPPED BELOW THE GWPS AND THE PREDICTION LIMIT, BUT THE 95% UCL HAS NOT.

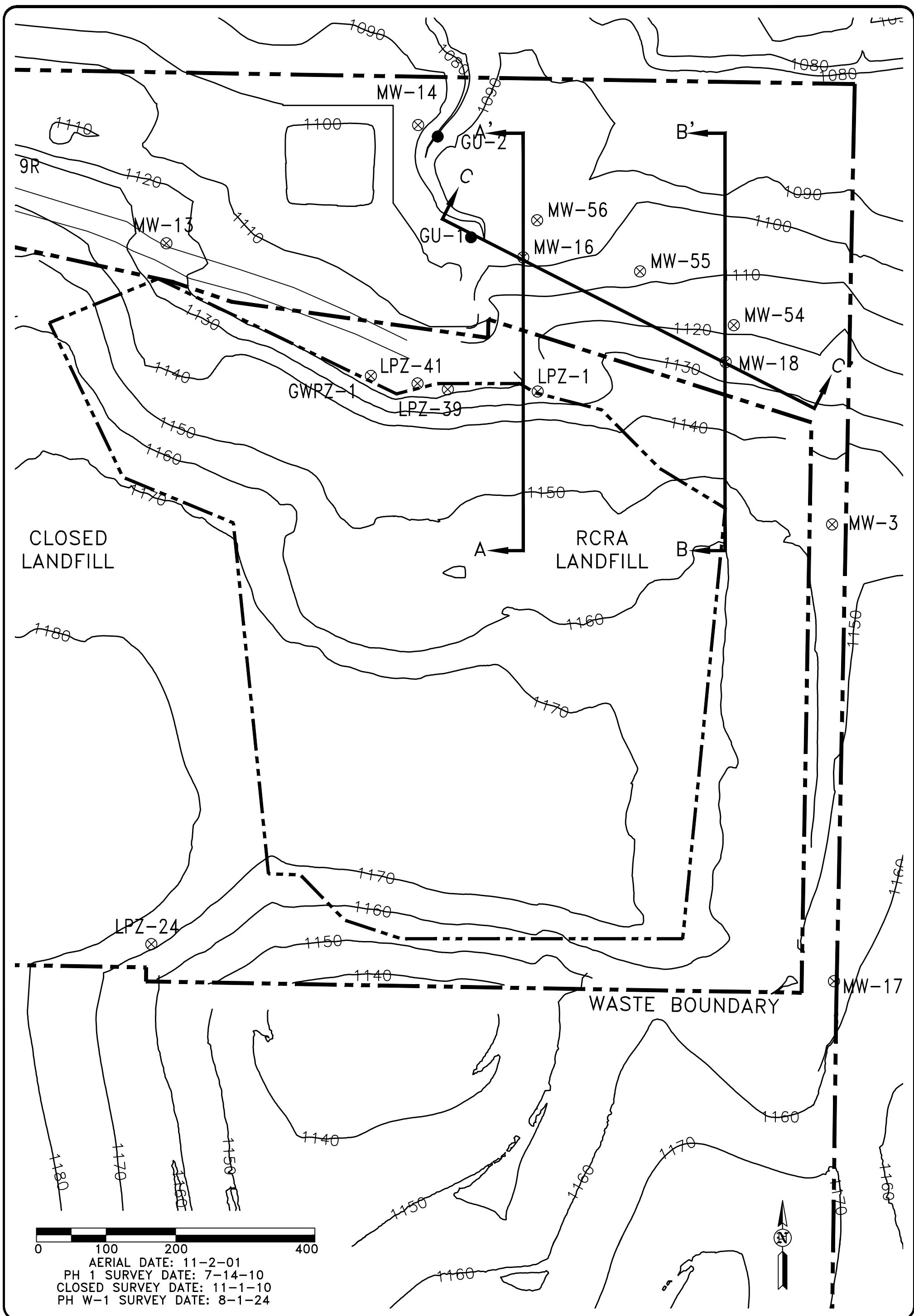
ALL CONCENTRATIONS IN ug/L (DRAWING & TABLE)



RESULT	MW-16 COMPOUND	GWPS
ND	1,1-Dichloroethane	140.0
1.0	Cis-1,2-Dichloroethylene	70.0
1.1	Benzene	5.0
3.4	Cholrobenzene	100.0
1.1	1,4-Dochlorobenzene	75.0







AERIAL DATE: 11-2-01
PH 1 SURVEY DATE: 7-14-10
CLOSED SURVEY DATE: 11-1-10
PH W-1 SURVEY DATE: 8-1-24

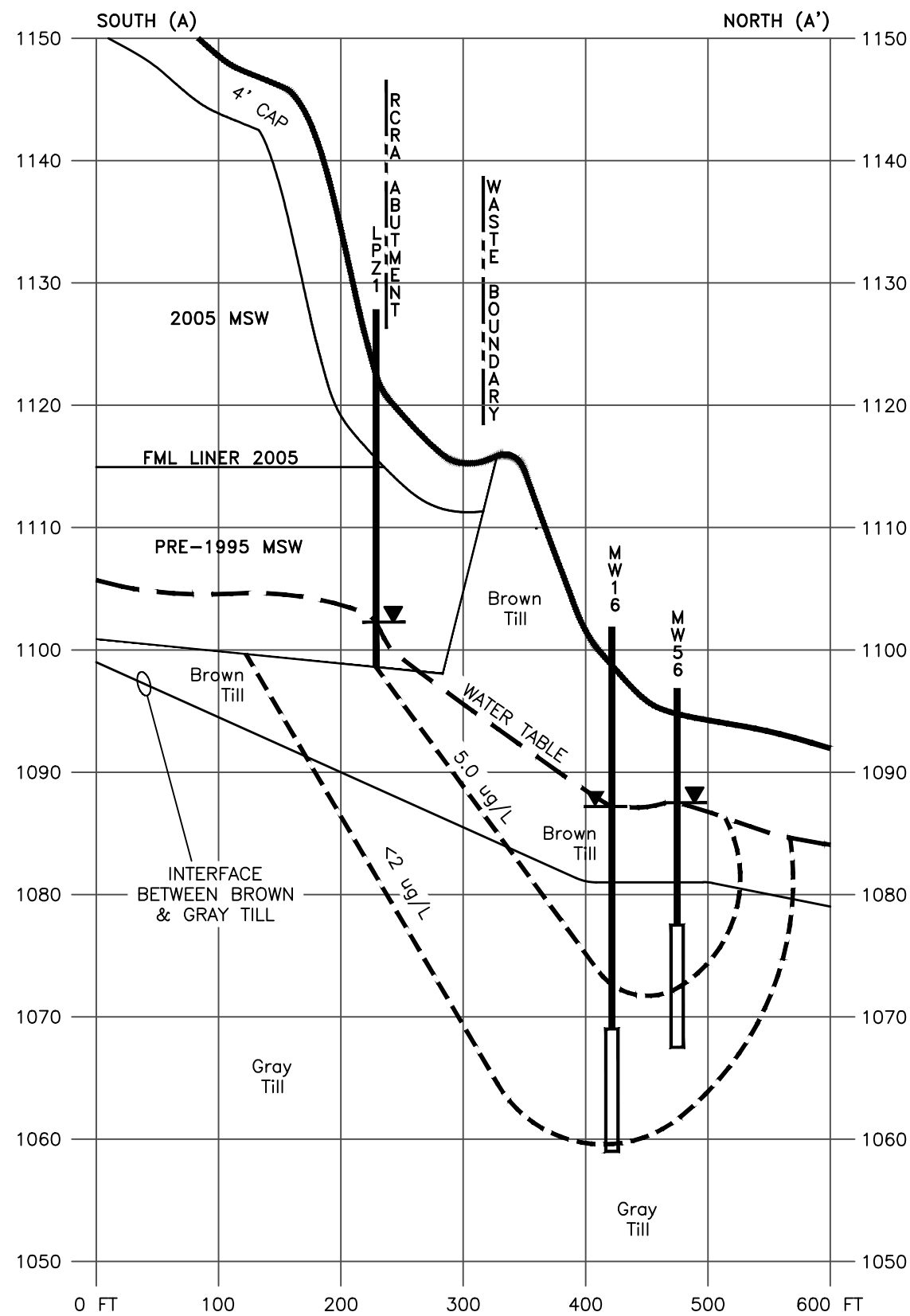


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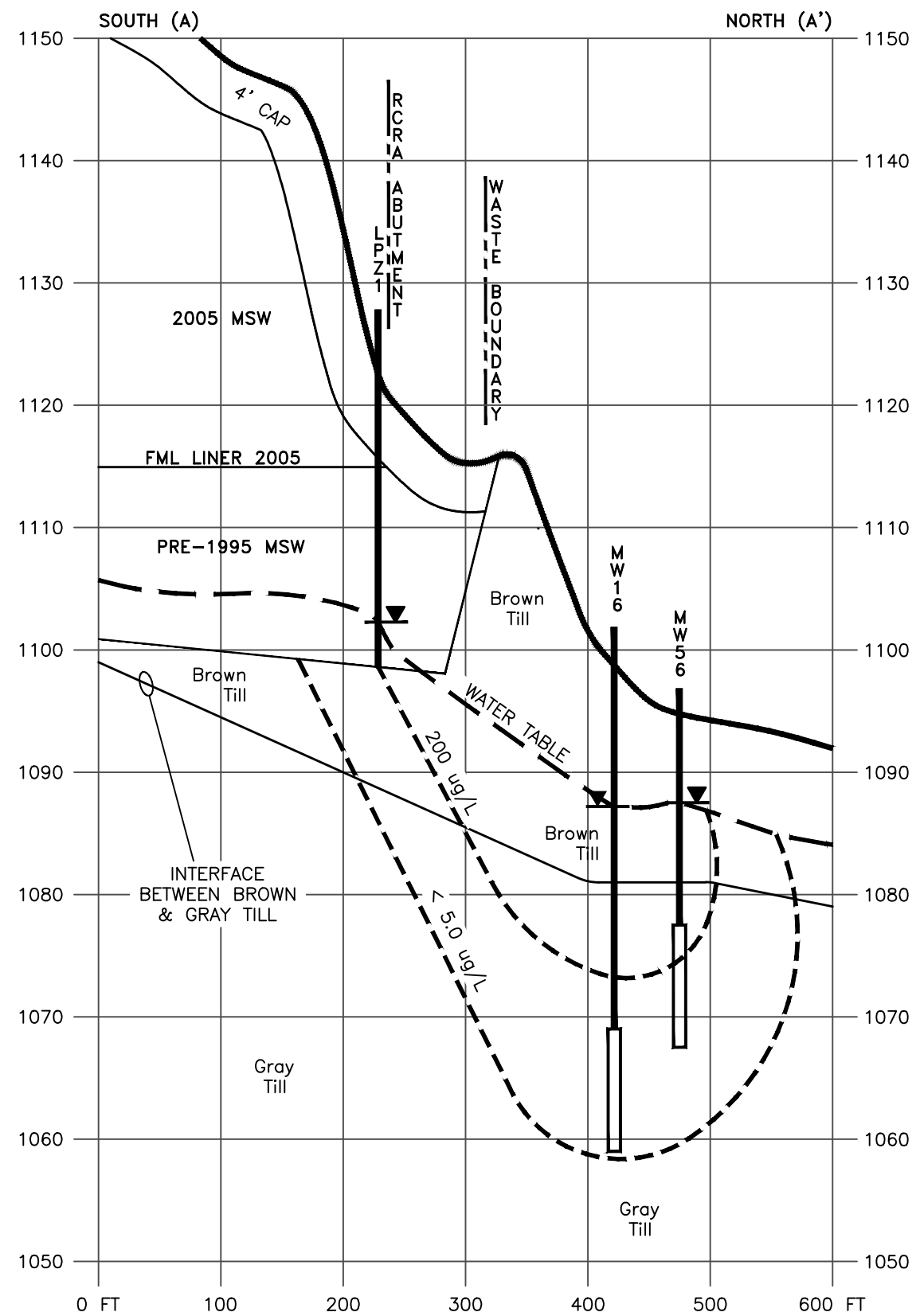
CROSS-SECTION KEY
PAGE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

FIGURE:		9	
REVISION	NO.	DATE	
DRAWN DRA	PROJECT NO. 6047	DATE 6-19-26	



ARSENIC RESULTS (ug/L)		
DATE	MW-16	MW-56
3-4-26	4.32	-
6-3-26	-	6.61

NOTES:
VIEW LOOKING WEST.
ELEVATIONS HAVE BEEN SCALED
UP BY A FACTOR OF 10.



METHANE RESULTS (ug/L)		
DATE	MW-16	MW-56
3-4-26	8.15	-
6-3-26	-	224.0

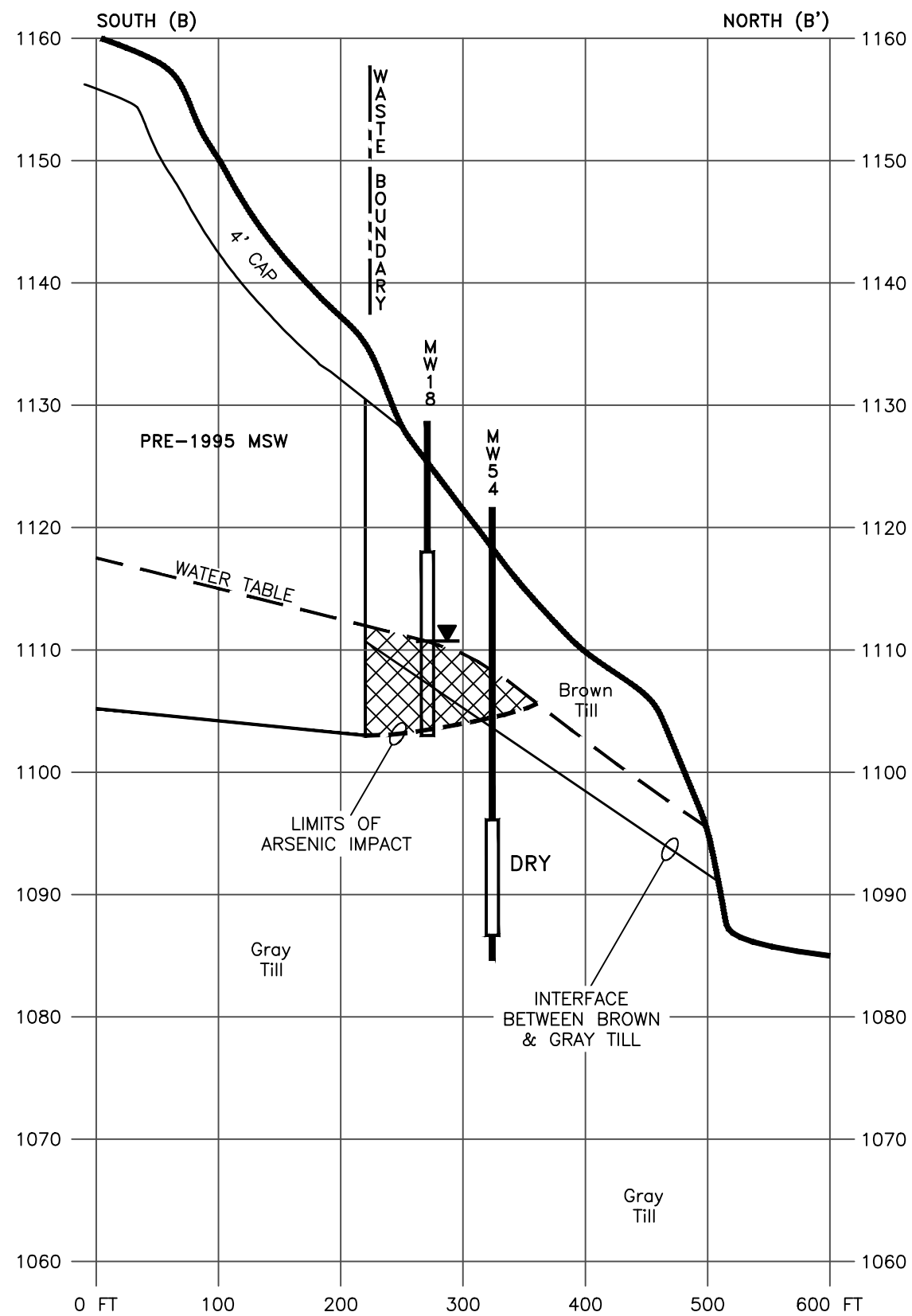


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CROSS SECTION A-A'
ARSENIC & METHANE
PAGEE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

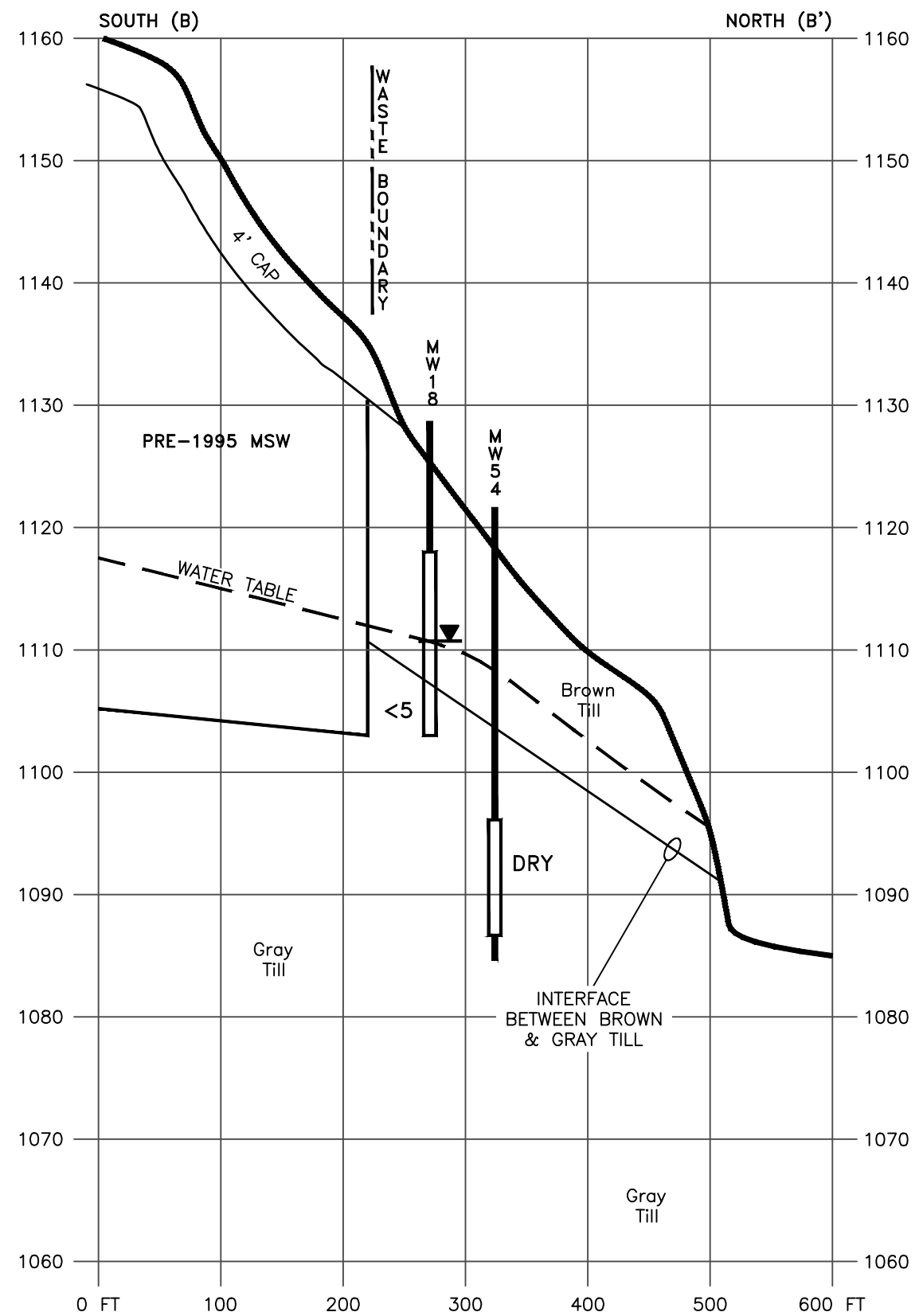
FIGURE: 10

REVISION	NO.	DATE
DRAWN	6047	6-19-26
DRA		



ARSENIC RESULTS (ug/L)		
DATE	MW-16	MW-54
3-4-26	29.2	—
6-3-26	—	DRY

NOTES:
VIEW LOOKING WEST.
ELEVATIONS HAVE BEEN SCALED
UP BY A FACTOR OF 10.



METHANE RESULTS (ug/L)		
DATE	MW-16	MW-54
3-4-26	<5.0	—
6-3-26	—	DRY

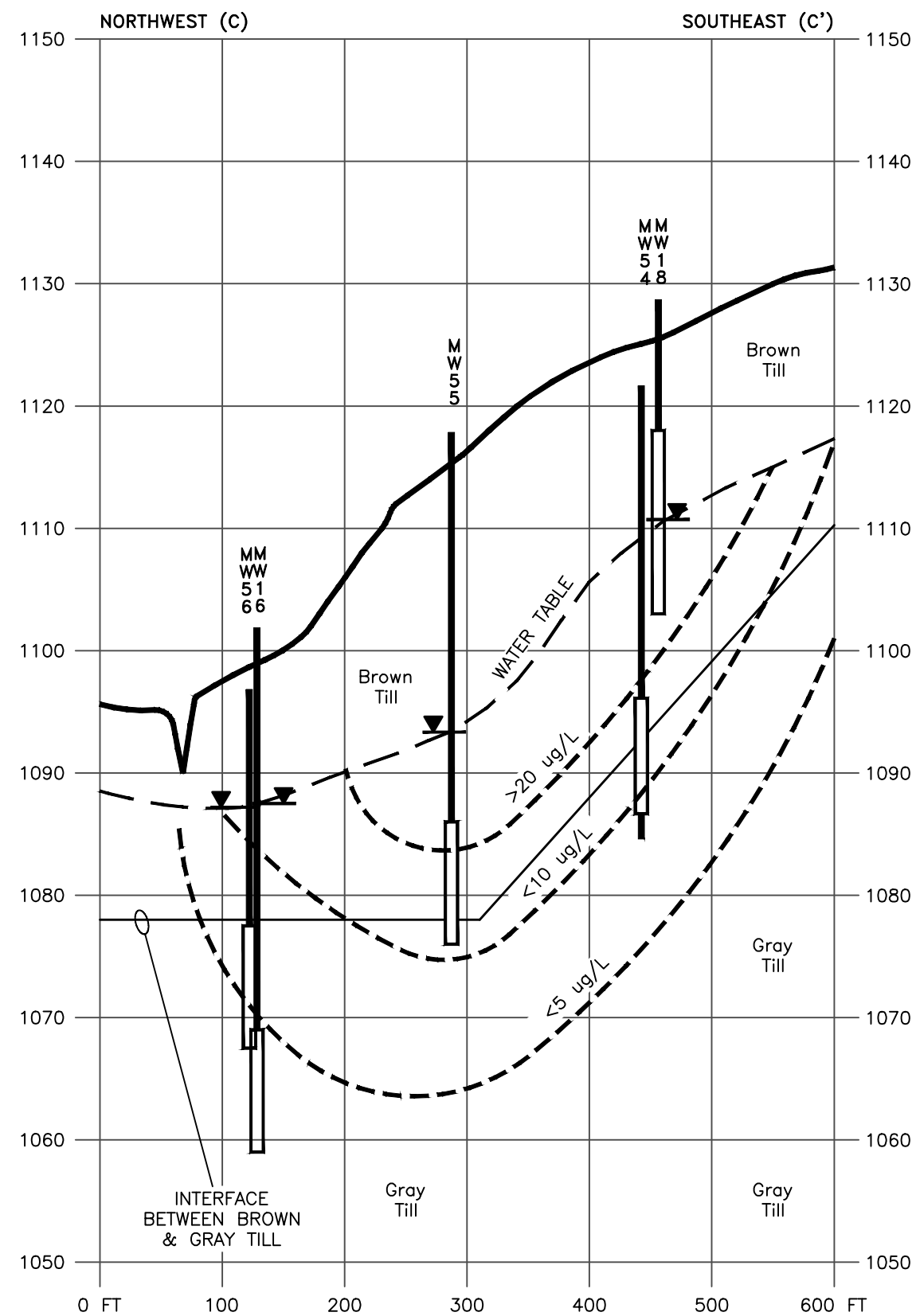


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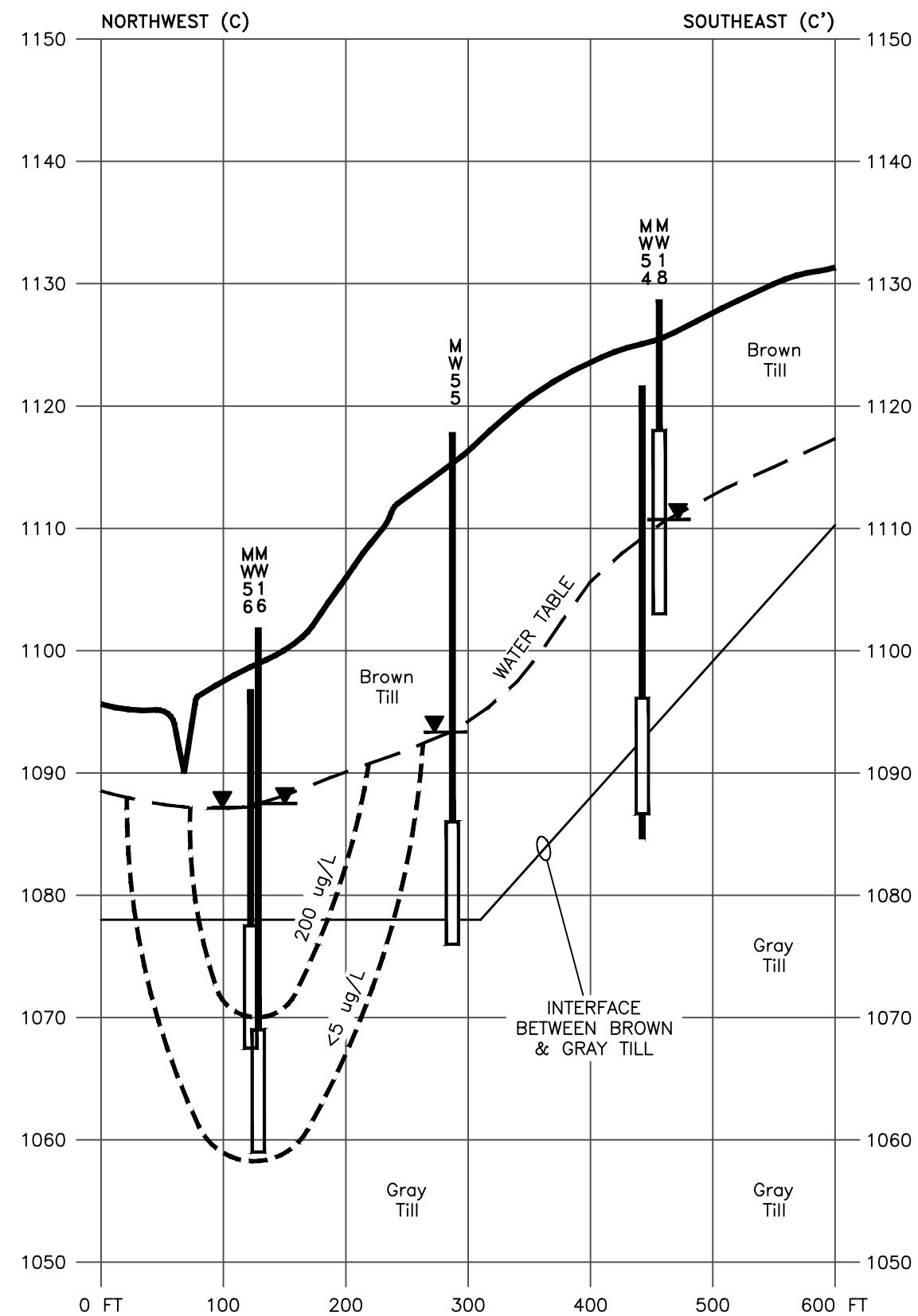
CROSS SECTION B-B
ARSENIC & METHANE
PAGEE COUNTY SANITARY LANDFILL
CLARINDA, IOWA

FIGURE: 11

REVISION	NO.	DATE
DRAWN	6047	6-19-26
DRA		



NOTES:
VIEW LOOKING NORTHEAST.
ELEVATIONS HAVE BEEN SCALED
UP BY A FACTOR OF 10.
MW-54, MW-55 AND MW-56
ARE BEHIND THE SECTION.



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CROSS SECTION C-C'
ARSENIC & METHANE
PAGEE COUNTY SANITARY LANDFILL
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FIGURE:

12

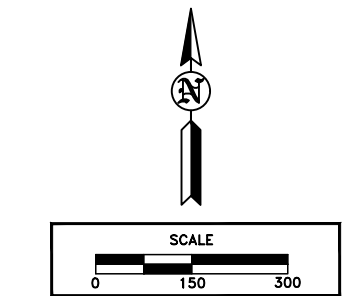
REVISION	NO.	DATE
DRAWN	PROJECT NO.	DATE
DRA	6047	6-19-26

APPENDIX A

Aerial Photographs – 1938, 2008, and 2025



- EXISTING WASTE BOUNDARY
- EXISTING COMPOSITE LINED BOUNDARY
- PROPERTY BOUNDARY
- PROPOSED WASTE BOUNDARY
- RAILROAD



AERIAL DATED JULY 11, 1938

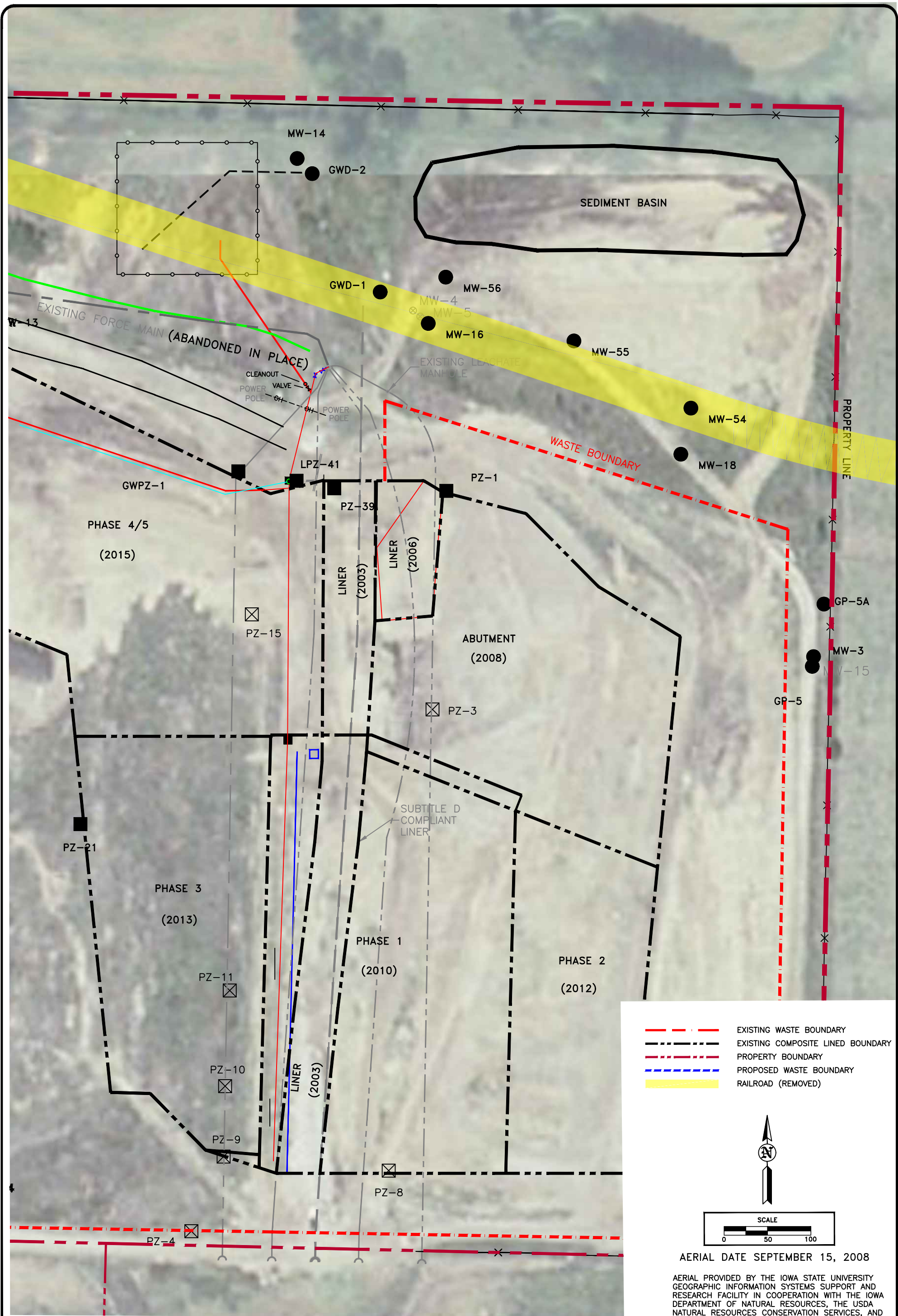
AERIAL PROVIDED BY THE IOWA STATE UNIVERSITY GEOGRAPHIC INFORMATION SYSTEMS SUPPORT AND RESEARCH FACILITY IN COOPERATION WITH THE IOWA DEPARTMENT OF NATURAL RESOURCES, THE USDA NATURAL RESOURCES CONSERVATION SERVICES, AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

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OVERALL AERIAL MAP
1938
PAGE COUNTY SANITARY LANDFILL
PAGE COUNTY, IOWA

FIGURE: 1		NO.	DATE
REVISION		PROJECT NO.	DATE
DRAWN	JGH	6047-26A	5/07/26



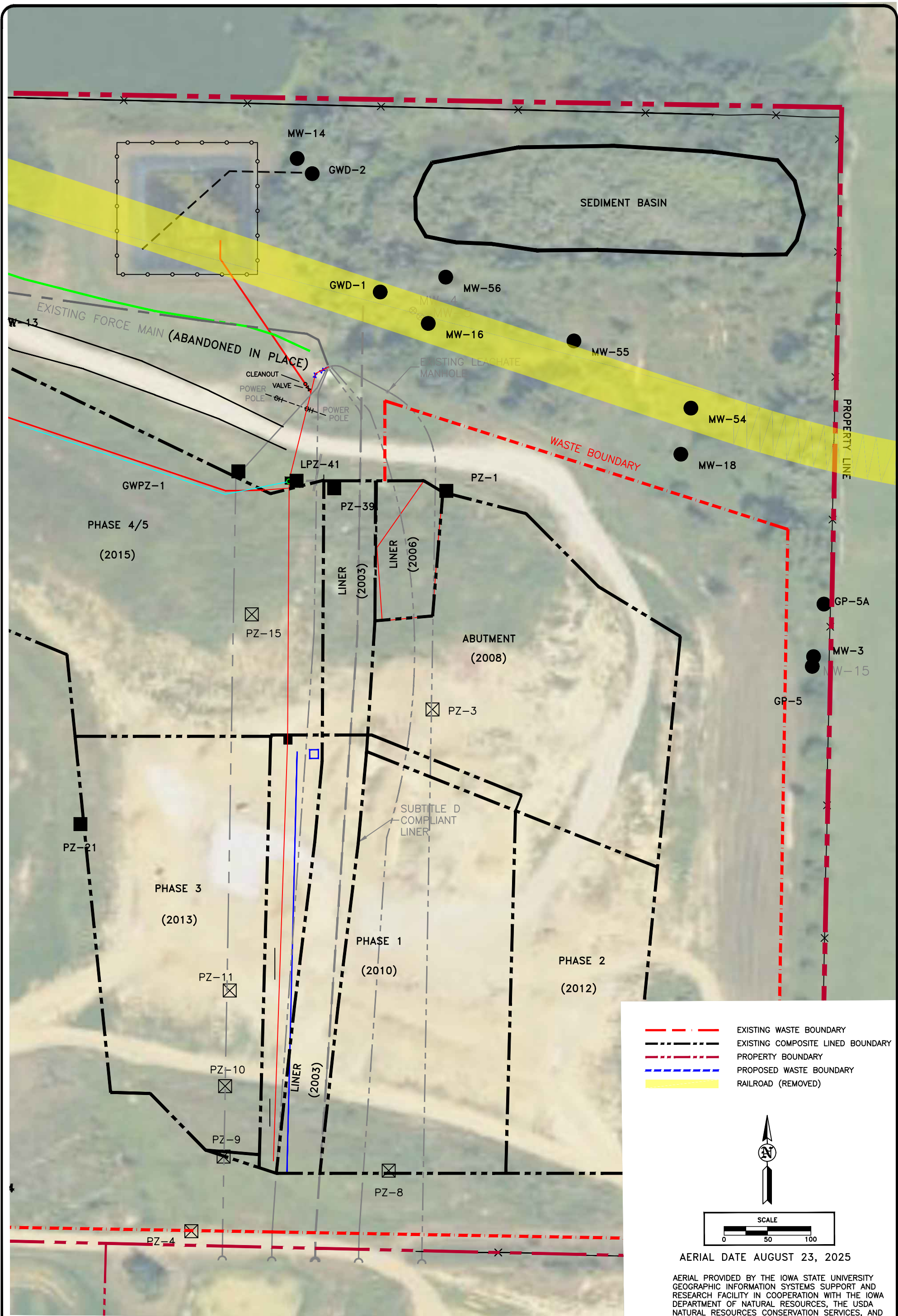
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OVERALL AERIAL MAP 2008

PAGE COUNTY SANITARY LANDFILL
PAGE COUNTY, IOWA

FIGURE: 2

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6047-26A	DATE 5/07/26



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OVERALL AERIAL MAP 2025

PAGE COUNTY SANITARY LANDFILL
PAGE COUNTY, IOWA

FIGURE: 3

REVISION	NO.	DATE
DRAWN JGH	PROJECT NO. 6047-26A	DATE 5/07/26

APPENDIX B

Soil Boring Logs



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HLW Engineering Group

LOG OF TEST BORING

Drillers Team Services -Jerome Hobson Boring No. MW 54 HLW Observer JGH
HLW Project No. 6047-26A

Date Drilled 3/04/26 Project Page County SLF
Surface Elevation 1117.6 ft 75-SDP-01-75P
Depth Drilled 33 ft MW 16 & MW 18 ACM
Drilling Method 7 1/4" HOLLOW STEM AUGER
Depth to Water Dry ft @ completion (▽), Dry ft @ 20 hrs.(▼), _____ ft @ _____ hrs.

DEPTH FT	WELL DETAIL	SAMPLE		COLOR	MC %	CONSISTENCY	ELEV	SOIL DESCRIPTION
		NO.	TYPE					
0								
5		1	CS	Brown	Damp	Firm	4	Clay Till
10		2	CS	Brown & Gray				Clay Till - Some Stones and Lime Striations
15		3	CS				14	
20		4	CS	Gray			17.5	Clay Till
25		5	CS	Brown			21.5	
30		6	CS	Dark Gray				
35		7	CS					
40								

E.O.B @ 33'



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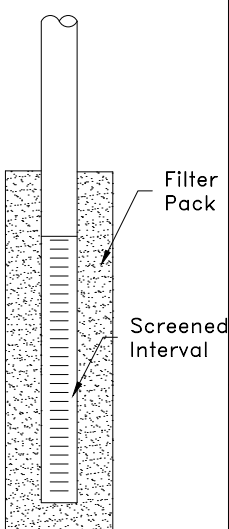
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LOG OF TEST BORING

Drillers Team Services - Jerome Hobson Boring No. MW 56 HLW Observer JGH
HLW Project No. 6047-26A

Date Drilled 3/04/26 - 3/05/26 Project Page County SLF
Surface Elevation 1092.0 ft 75-SDP-01-75P
Depth Drilled 25.0 ft MW 16 & MW 18 ACM
Drilling Method 7 1/4" HOLLOW STEM AUGER
Depth to Water 9.0 ft @ completion (▽), 9.0 ft @ 4 hrs.(▼), _____ ft @ _____ hrs.

DEPTH FT	WELL DETAIL	SAMPLE		COLOR	MC %	CONSISTENCY	ELEV	SOIL DESCRIPTION
		NO.	TYPE					
0		1	CS	Dark Brown	Damp	Soft	4	Clay Till
5		2	CS		Moist			
10		3	CS	Brown	Wet		10.5	
15				Dark Gray	Moist	Medium	12	
20		4	CS					
25		5	CS	Light Gray	Damp	Firm	21	
E.O.B @ 24.5'								
30								
35								
40								

APPENDIX C

Monitoring Well Construction Documentation Forms

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Page County Sanitary Landfill Permit No.: 73-SDP-01-75P
Well/Piezometer No.: MW-54 Date Started: 3/04/26 Date Completed: 3/04/26
Applicable Requirements¹: ☒ 567 IAC 113 ☐ 567 IAC 115 ☐ Site Permit
☐ 567 IAC 114 ☐ 567 IAC 139 ☐ Other: _____

A. SURVEYED LOCATION² AND ELEVATION OF POINT

Elevations (MSL): Ground Surface: 1117.6 Top of Protective Casing: 1120.27
Top of Well Casing: 1120.11
Site Coordinates: Northing: 278,223.95 Easting: 1,194,562.46
World Coordinates: Latitude: _____ Longitude: _____
Elevation and Coordinate Systems: State Plane, Iowa South

B. SOIL BORING INFORMATION

Certified Well Contractor Team Services, Inc
Address 717 Se 6th Street City, State, Zip Code Des Moines, IA 50309
Name of driller Jerome Hobson Cert No. 9062
Drilling method HSA Drilling fluid None Bore hole diameter 7.25 in
Soil sampling method Continuous Sampler Depth of boring 33.0 ft

C. MONITORING WELL INSTALLATION

Casing material: <u>PVC - SCH 40</u>	Placement method: <u>Poured</u>
Length of casing: <u>24.45 ft</u>	Quantity: <u>1.0 cu ft</u>
Casing diameter: <u>2"</u>	Backfill (if different from seal): _____
Casing joint type: <u>Threaded</u>	Material: <u>Bentonite Grout</u>
Casing/screen joint type: <u>Threaded</u>	Placement method: <u>Tremied</u>
Screen material: <u>PVC - SCH 40</u>	Quantity: <u>2.3 cu ft</u>
Screen opening size: <u>0.006 in</u>	Surface seal design: <u>Concrete</u>
Screen length: <u>10 ft</u>	Material of protective casing: <u>Steel</u>
	Material of grout between
	protective casing and well casing: <u>Concrete</u>
Depth of Well: <u>34.45 ft</u>	Protective cap: <u>Yes</u>
Filter Pack: _____	Material: <u>Steel</u>
Material: <u>Silica Sand</u>	Vented?: ☒ Y ☐ N Locking?: ☒ Y ☐ N
Grain Size: <u>0.02 to 0.03 effective size</u>	
Quantity: <u>3.5 cu ft</u>	Well cap: <u>Yes</u>
Seal (minimum 3 ft. length above filter pack): _____	Material: <u>PVC</u>
Material: <u>Bentonite Chips</u>	Vented?: ☒ Y ☐ N

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level Dry Stabilization time 20 hrs
Well development method N/A
Average depth of frost line 40 in

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirements, then 567 IAC Chapter 39 shall apply, which requires use of the Well Log (Well Record) Form, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to ± 30 feet is acceptable when an aerial photograph showing the location (pin) is included with this form. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

MW-54

Well and Boring Logs

Elevations: ± 0.01 ft. MSL

Depths: ± 0.1 ft from Ground Surface

Top of protective casing (TOP)

Elevation C 1120.27

Top of Well Casing (TOC)

Elevation B 1120.11

Ground surface (GS)

Elevation A 1117.6

Depth Use 0

Top of backfill

Base of concrete plug and bentonite grout

Elevation A-W 1113.6

Depth W 4.0

Base of Protective Casing

Elevation C-A = 1112.27

Depth PC-C-A = 5.5

Base of Backfill, Top of Seal

Elevation A-X = 1102.6

Depth X 15.0

Top of Filter Pack, Base of Seal

Elevation A-Y = 1098.0

Depth Y 19.0

Top of Screen (TOS)

Elevation B-TD-S-WP = 1095.86

Depth A-TOS^{elev} = 21.7 24

Bottom of Screen (BOS)

Elevation B-TD-WP = 1085.86

Depth A-BOS^{elev} = 31.7 34

Bottom of Well

Elevation 1085.66

Depth 34.45

Bottom of Filter Pack

Elevation A-Z = 1084.6

Depth Z 33.0

Required Data:

- Elevations for A, B, and C shall be surveyed.
- Depths for W, X, Y, and Z shall be field measured following completion of each item.
- Lengths of the Protective Casing (PC), Screen (S), and Well Point (WP) shall be field measured prior to installation of each item.
- The total Depth (TD) from the Top of Well Casing to the Bottom of Well Point shall be field measured following installation.

PC: 8.0 ft

S: 10 ft

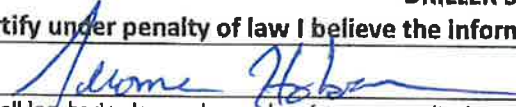
WP: 0.25 ft

TD: 34.45 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature



Certification #

9062

Date

3-10-26

Note: Attach well log, boring log, and map showing new monitoring well/piezometer location in relation to existing wells or piezometers.

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov. DNR prefers that the forms be completed and submitted electronically.

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Page County Sanitary Landfill Permit No.: 73-SDP-01-75P
Well/Piezometer No.: MW-55 Date Started: 3/04/26 Date Completed: 3/04/26
Applicable Requirements¹: ☒ 567 IAC 113 ☐ 567 IAC 115 ☐ Site Permit
☐ 567 IAC 114 ☐ 567 IAC 139 ☐ Other: _____

A. SURVEYED LOCATION² AND ELEVATION OF POINT

Elevations (MSL): Ground Surface: 1106.2 Top of Protective Casing: 1109.05
Top of Well Casing: 1108.84
Site Coordinates: Northing: 278,301.36 Easting: 1,194,427.68
World Coordinates: Latitude: _____ Longitude: _____
Elevation and Coordinate Systems: State Plane, Iowa South

B. SOIL BORING INFORMATION

Certified Well Contractor Team Services, Inc
Address 717 Se 6th Street City, State, Zip Code Des Moines, IA 50309
Name of driller Jerome Hobson Cert No. 9062
Drilling method HSA Drilling fluid None Bore hole diameter 7.25 in
Soil sampling method Continuous Sampler Depth of boring 31.5 ft

C. MONITORING WELL INSTALLATION

Casing material: <u>PVC - SCH 40</u>	Placement method: <u>Poured</u>
Length of casing: <u>22.45 ft</u>	Quantity: <u>1.1 cu ft</u>
Casing diameter: <u>2"</u>	Backfill (if different from seal): _____
Casing joint type: <u>Threaded</u>	Material: <u>Bentonite Grout</u>
Casing/screen joint type: <u>Threaded</u>	Placement method: <u>Tremied</u>
Screen material: <u>PVC - SCH 40</u>	Quantity: <u>2.4 cu ft</u>
Screen opening size: <u>0.006 in</u>	Surface seal design: <u>Concrete</u>
Screen length: <u>10 ft</u>	Material of protective casing: <u>Steel</u>
Depth of Well: <u>32.45 ft</u>	Material of grout between protective casing and well casing: <u>Concrete</u>
Filter Pack: _____	Protective cap: <u>Yes</u>
Material: <u>Silica Sand</u>	Material: <u>Steel</u>
Grain Size: <u>0.02 to 0.03 effective size</u>	Vented?: ☒ Y ☐ N Locking?: ☐ Y ☐ N
Quantity: <u>3.6 cu ft</u>	Well cap: <u>Yes</u>
Seal (minimum 3 ft. length above filter pack): _____	Material: <u>PVC</u>
Material: <u>Bentonite Chips</u>	Vented?: ☒ Y ☐ N

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level Dry Stabilization time 20 hrs
Well development method N/A
Average depth of frost line 40 in

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirements, then 567 IAC Chapter 39 shall apply, which requires use of the Well Log (Well Record) Form, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

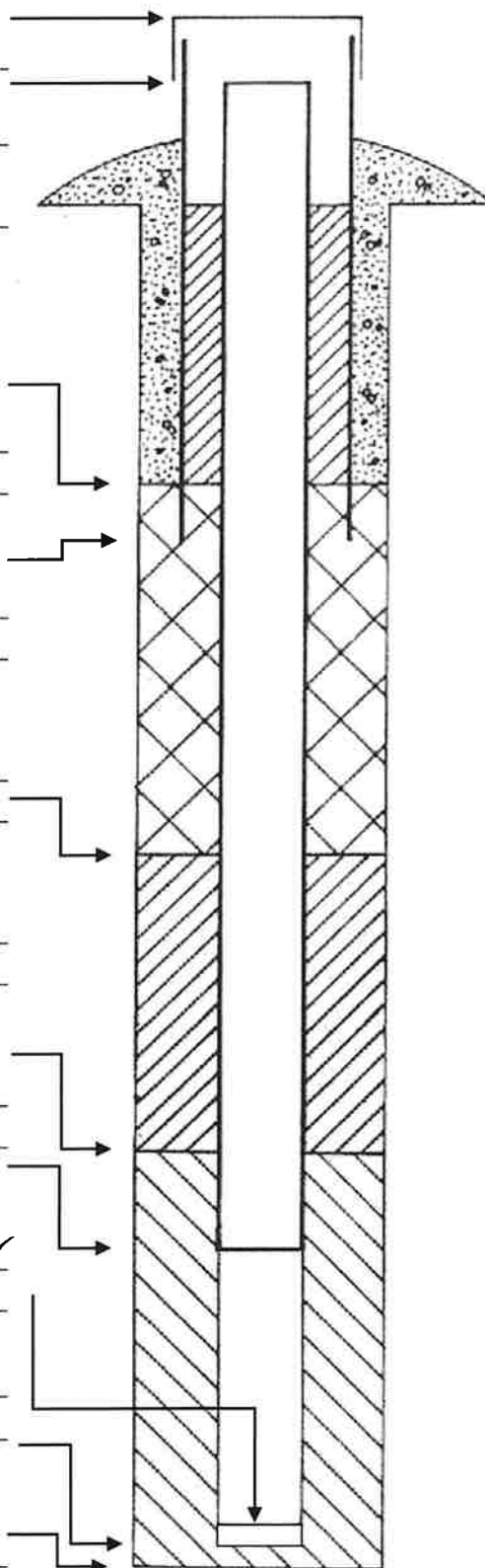
² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to +/- 30 feet is acceptable when an aerial photograph showing the location (pin) is included with this form. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

MW-55 Well and Boring Logs

Elevations: ± 0.01 ft. MSL

Depths: ± 0.1 ft from Ground Surface

Top of protective casing (TOP)	
Elevation	C 1109.05
Top of Well Casing (TOC)	
Elevation	B 1108.84
Ground surface (GS)	
Elevation	A 1106.2
Depth Use 0	
Top of backfill	
Base of concrete plug and bentonite grout	
Elevation	A-W 1102.2
Depth	W 4.0
Base of Protective Casing	
Elevation	C-A = 1103.7
Depth	PC-C-A = 5.3
Base of Backfill, Top of Seal	
Elevation	A-X = 1092.9
Depth	X 13.3
Top of Filter Pack, Base of Seal	
Elevation	A-Y = 1088.7
Depth	Y 17.5
Top of Screen (TOS)	
Elevation	B-TD-S-WP = 22.20
Depth	A-TOS ^{elev} = 1086.64
Bottom of Screen (BOS)	
Elevation	B-TD-WP = 1076.64 ✓
Depth	A-BOS ^{elev} = 32.20
Bottom of Well	
Elevation	1076.39
Depth	32.45
Bottom of Filter Pack	
Elevation	A-Z = 1074.7
Depth	Z 31.5



Required Data:

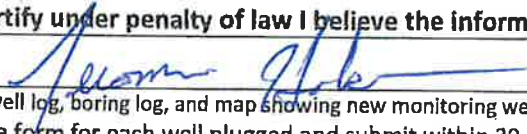
- Elevations for A, B, and C shall be surveyed.
- Depths for W, X, Y, and Z shall be field measured following completion of each item.
- Lengths of the Protective Casing (PC), Screen (S), and Well Point (WP) shall be field measured prior to installation of each item.
- The total Depth (TD) from the Top of Well Casing to the Bottom of Well Point shall be field measured following installation.

PC:	8.0 ft	S:	10 ft
WP:	0.25 ft	TD:	32.45 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature



Certification #

9062

Date

3-10-26

Note: Attach well log, boring log, and map showing new monitoring well/piezometer location in relation to existing wells or piezometers.

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov. DNR prefers that the forms be completed and submitted electronically.

MONITORING WELL / PIEZOMETER CONSTRUCTION DOCUMENTATION FORM

Disposal Site Name: Page County Sanitary Landfill Permit No.: 73-SDP-01-75P
Well/Piezometer No.: MW-56 Date Started: 3/04/26 Date Completed: 3/05/26
Applicable Requirements¹: ☒ 567 IAC 113 ☐ 567 IAC 115 ☐ Site Permit
☐ 567 IAC 114 ☐ 567 IAC 139 ☐ Other: _____

A. SURVEYED LOCATION² AND ELEVATION OF POINT

Elevations (MSL): Ground Surface: 1092.0 Top of Protective Casing: 1095.11
Top of Well Casing: 1094.99
Site Coordinates: Northing: 278,374.89 Easting: 1,194,279.92
World Coordinates: Latitude: _____ Longitude: _____
Elevation and Coordinate Systems: State Plane, Iowa South

B. SOIL BORING INFORMATION

Certified Well Contractor Team Services, Inc
Address 717 Se 6th Street City, State, Zip Code Des Moines, IA 50309
Name of driller Jerome Hobson Cert No. 9062
Drilling method HSA Drilling fluid None Bore hole diameter 7.25 in
Soil sampling method Continuous Sampler Depth of boring 24.5 ft

C. MONITORING WELL INSTALLATION

Casing material: PVC - SCH 40 Placement method: Poured through HSA
Length of casing: 16.70 ft Quantity: 0.8 cu ft
Casing diameter: 2" Backfill (if different from seal): _____
Casing joint type: Threaded Material: Bentonite Chips
Casing/screen joint type: Threaded Placement method: Poured
Screen material: PVC - SCH 40 Quantity: 1.0 ft
Screen opening size: 0.006 in Surface seal design: Concrete
Screen length: 10 ft Material of protective casing: Steel
Material of grout between
protective casing and well casing: Concrete
Depth of Well: 27.70 ft Protective cap: Yes
Filter Pack: Material: Steel
Material: Silica Sand Vented?: ☒ Y ☐ N Locking?: ☒ Y ☐ N
Grain Size: 0.02 to 0.03 effective size Well cap: Yes
Quantity: 3.4 cu ft Material: PVC
Seal (minimum 3 ft. length above filter pack): Vented?: ☒ Y ☐ N
Material: Bentonite Chips

D. GROUNDWATER MEASUREMENT (± 0.01 foot below top of inner well casing)

Water level 9.00 ft Stabilization time 4 hrs
Well development method Over pump with Waterra Pump
Average depth of frost line 40 in

¹ Refer to the site's permit to determine applicable requirements. Note that some sites may only be regulated by their permit versus current landfill chapters. If the permit and rule are silent regarding applicable requirements, then 567 IAC Chapter 39 shall apply, which requires use of the Well Log (Well Record) Form, not this form. If the applicable requirements have been modified and approved by the DNR, then note under Other.

² The location does not need to be surveyed by a licensed surveyor. A handheld GPS reading accurate to ± 30 feet is acceptable when an aerial photograph showing the location (pin) is included with this form. The site coordinates should be the same coordinate system currently used for survey control and mapping of the site.

MW - 56

Well and Boring Logs

Elevations: ± 0.01 ft. MSL

Depths: ± 0.1 ft from Ground Surface

Top of protective casing (TOP)

Elevation C 1095.11

Top of Well Casing (TOC)

Elevation B 1094.99

Ground surface (GS)

Elevation A 1092.0

Depth Use 0

Top of backfill

Base of concrete plug and bentonite grout

Elevation A-W 1088.0

Depth W 4.0

Base of Protective Casing

Elevation C-A = 1087.1

Depth PC-C-A = 4.9

Base of Backfill, Top of Seal

Elevation A-X = 1084.0

Depth X 8.0

Top of Filter Pack, Base of Seal

Elevation A-Y = 1081.0

Depth Y 11.0

Top of Screen (TOS)

Elevation B-TD-S-WP = 1078.54

Depth A-TOS^{elev} = 13.5 ^{16.25}

Bottom of Screen (BOS)

Elevation B-TD-WP = 1068.54

Depth A-BOS^{elev} = 23.5 ^{26.25}

Bottom of Well

Elevation 1068.29

Depth 26.70 ✓

Bottom of Filter Pack

Elevation A-Z = 1067.5

Depth Z 24.5

Required Data:

- Elevations for A, B, and C shall be surveyed.
- Depths for W, X, Y, and Z shall be field measured following completion of each item.
- Lengths of the Protective Casing (PC), Screen (S), and Well Point (WP) shall be field measured prior to installation of each item.
- The total Depth (TD) from the Top of Well Casing to the Bottom of Well Point shall be field measured following installation.

PC: 8.0 ft

S: 10 ft

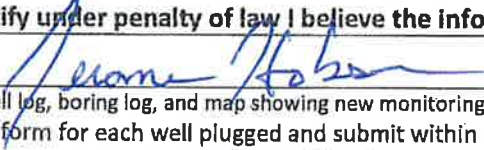
WP: 0.25 ft

TD: 26.70 ft

DRILLER'S CERTIFICATION

I certify under penalty of law I believe the information reported above is true, accurate, and complete.

Signature



Certification #

9062

Date

3-10-26

Note: Attach well log, boring log, and map showing new monitoring well/piezometer location in relation to existing wells or piezometers.

Complete one form for each well plugged and submit within 30 days to the local county agent, DNR project officer, and Erik Day with the DNR's Water Supply Section at erik.day@dnr.iowa.gov. DNR prefers that the forms be completed and submitted electronically.

APPENDIX D

Laboratory Analytical Results
March 5, 2026 & June 3, 2026



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JC0768

Project Description

6047

For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Monday, March 23, 2026

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

1JC0768

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: 6047

Project / PO Number: N/A
Received: 03/06/2026
Reported: 03/23/2026

Case Narrative

Containers collected for Appendix I instead of originally requested Appendix II due to low well volume.

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>
MW-1D	1JC0768-01	Aqueous	GRAB		03/04/26 08:23	03/06/26 10:50
MW-3	1JC0768-02	Aqueous	GRAB		03/04/26 00:32	03/06/26 10:50
MW-7	1JC0768-03	Aqueous	GRAB		03/05/26 10:03	03/06/26 10:50
MW-10	1JC0768-04	Aqueous	GRAB		03/05/26 10:28	03/06/26 10:50
MW-13	1JC0768-05	Aqueous	GRAB		03/04/26 11:06	03/06/26 10:50
MW-14	1JC0768-06	Aqueous	GRAB		03/04/26 10:38	03/06/26 10:50
MW-16	1JC0768-07	Aqueous	GRAB		03/04/26 10:17	03/06/26 10:50
MW-17 (b)	1JC0768-08	Aqueous	GRAB		03/04/26 09:55	03/06/26 10:50
MW-18	1JC0768-09	Aqueous	GRAB		03/04/26 09:00	03/06/26 10:50
MW-19	1JC0768-10	Aqueous	GRAB		03/04/26 11:23	03/06/26 10:50
MW-20	1JC0768-11	Aqueous	GRAB		03/05/26 11:48	03/06/26 10:50
GWD-1	1JC0768-12	Aqueous	GRAB		03/05/26 11:29	03/06/26 10:50
Duplicate	1JC0768-13	Aqueous	GRAB		03/05/26 10:54	03/06/26 10:50
MW-44 (b)	1JC0768-14	Aqueous	GRAB		03/04/26 08:48	03/06/26 10:50
MW-53	1JC0768-15	Aqueous	GRAB		03/05/26 10:54	03/06/26 10:50



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JC0768

Analytical Testing Parameters

Client Sample ID: MW-1D
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-01

Collected By: JGH
Collection Date: 03/04/2026 8:23

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Acetone	<10.0	10.0	ug/L		03/18/26 0000	03/18/26 1553	BHF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1647	RAF

Microbac Laboratories, Inc., Newton

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



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-1D
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-01

Collected By: JGH
Collection Date: 03/04/2026 8:23

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1647	RAF
Surrogate: Dibromofluoromethane	99.5	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: Dibromofluoromethane	99.5	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: Dibromofluoromethane	100	Limit: 75-136	% Rec		03/18/26 0000	03/18/26 1553	BHF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: 1,2-Dichloroethane-d4	103	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: 1,2-Dichloroethane-d4	92.1	Limit: 61-142	% Rec		03/18/26 0000	03/18/26 1553	BHF
Surrogate: Toluene-d8	99.4	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-121	% Rec		03/18/26 0000	03/18/26 1553	BHF
Surrogate: Toluene-d8	99.4	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: 4-Bromofluorobenzene	98.7	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: 4-Bromofluorobenzene	98.7	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1647	RAF
Surrogate: 4-Bromofluorobenzene	93.9	Limit: 80-116	% Rec		03/18/26 0000	03/18/26 1553	BHF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1803	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1803	RVV
Barium	0.820	0.00100	mg/L		03/10/26 1551	03/12/26 1803	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1803	RVV
Chromium	0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1803	RVV
Cobalt	0.00512	0.000500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1803	RVV
Nickel	0.0198	0.00500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1803	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1803	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1803	RVV
Zinc	0.00503	0.00500	mg/L		03/10/26 1551	03/12/26 1803	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-3
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-02

Collected By: JGH
Collection Date: 03/04/2026 0:32

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF

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1JC0768

Client Sample ID: MW-3
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-02

Collected By: JGH
Collection Date: 03/04/2026 0:32

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1710	RAF
Surrogate: Dibromofluoromethane	99.4	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: Dibromofluoromethane	99.4	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: Toluene-d8	99.3	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: Toluene-d8	99.3	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: 4-Bromofluorobenzene	96.3	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1710	RAF
Surrogate: 4-Bromofluorobenzene	96.3	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1710	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1813	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1813	RVV
Barium	0.278	0.00100	mg/L		03/10/26 1551	03/12/26 1813	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1813	RVV
Chromium	0.00389	0.00100	mg/L		03/10/26 1551	03/12/26 1813	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1813	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Selenium	0.00396	0.00200	mg/L		03/10/26 1551	03/12/26 1813	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1813	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1813	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1813	RVV

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Page 6 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-03

Collected By: JGH
Collection Date: 03/05/2026 10:03

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF

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Page 7 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-7
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-03

Collected By: JGH
Collection Date: 03/05/2026 10:03

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1733	RAF
Surrogate: Dibromofluoromethane	97.5	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: Dibromofluoromethane	97.5	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: 1,2-Dichloroethane-d4	99.2	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: 1,2-Dichloroethane-d4	99.2	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: Toluene-d8	98.7	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: Toluene-d8	98.7	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1733	RAF
Surrogate: 4-Bromofluorobenzene	96.6	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1733	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1816	RVV
Arsenic	0.00638	0.00200	mg/L		03/10/26 1551	03/12/26 1816	RVV
Barium	0.284	0.00100	mg/L		03/10/26 1551	03/12/26 1816	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Cadmium	0.000259	0.000200	mg/L		03/10/26 1551	03/12/26 1816	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1816	RVV
Cobalt	0.00980	0.000500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1816	RVV
Nickel	0.0216	0.00500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1816	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1816	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1816	RVV
Zinc	0.00676	0.00500	mg/L		03/10/26 1551	03/12/26 1816	RVV

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Page 8 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-10
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-04

Collected By: JGH
Collection Date: 03/05/2026 10:28

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-10
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-04

Collected By: JGH
Collection Date: 03/05/2026 10:28

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1756	RAF
Surrogate: Dibromofluoromethane	97.2	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: Dibromofluoromethane	97.2	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: 1,2-Dichloroethane-d4	99.5	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: 1,2-Dichloroethane-d4	99.5	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: Toluene-d8	98.9	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: Toluene-d8	98.9	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: 4-Bromofluorobenzene	97.8	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1756	RAF
Surrogate: 4-Bromofluorobenzene	97.8	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1756	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1819	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1819	RVV
Barium	0.413	0.00100	mg/L		03/10/26 1551	03/12/26 1819	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1819	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1819	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1819	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1819	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1819	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1819	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1819	RVV

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Page 10 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-13
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-05

Collected By: JGH
Collection Date: 03/04/2026 11:06

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-13
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-05

Collected By: JGH
Collection Date: 03/04/2026 11:06

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1818	RAF
Surrogate: Dibromofluoromethane	98.4	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: Dibromofluoromethane	98.4	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: Toluene-d8	98.2	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: Toluene-d8	98.2	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: 4-Bromofluorobenzene	96.9	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1818	RAF
Surrogate: 4-Bromofluorobenzene	96.9	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1818	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1821	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1821	RVV
Barium	0.0568	0.00100	mg/L		03/10/26 1551	03/12/26 1821	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1821	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1821	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1821	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Selenium	0.00242	0.00200	mg/L		03/10/26 1551	03/12/26 1821	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1821	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1821	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1821	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-14
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-06

Collected By: JGH
Collection Date: 03/04/2026 10:38

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-14
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-06

Collected By: JGH
Collection Date: 03/04/2026 10:38

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1841	RAF
Surrogate: Dibromofluoromethane	99.0	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: Dibromofluoromethane	99.0	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: Toluene-d8	98.6	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: Toluene-d8	98.6	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: 4-Bromofluorobenzene	95.2	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1841	RAF
Surrogate: 4-Bromofluorobenzene	95.2	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1841	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1824	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1824	RVV
Barium	0.118	0.00100	mg/L		03/10/26 1551	03/12/26 1824	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1824	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1824	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1824	RVV
Nickel	0.00566	0.00500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1824	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1824	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1824	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1824	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-07

Collected By: JGH
Collection Date: 03/04/2026 10:17

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA RSK-175							
Methane	8.15	5.00	ug/L			03/16/26 1422	KJB
Ethene	<5.00	5.00	ug/L			03/16/26 1422	KJB
Ethane	<5.00	5.00	ug/L			03/16/26 1422	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
cis-1,2-Dichloroethylene	1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Benzene	1.1	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-16
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-07

Collected By: JGH
Collection Date: 03/04/2026 10:17

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Chlorobenzene	3.4	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,4-Dichlorobenzene	1.1	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1904	RAF
Surrogate: Dibromofluoromethane	97.8	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: Dibromofluoromethane	97.8	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: Toluene-d8	97.8	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: Toluene-d8	97.8	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: 4-Bromofluorobenzene	98.3	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1904	RAF
Surrogate: 4-Bromofluorobenzene	98.3	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1904	RAF
Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1831	RVV
Arsenic	0.00432	0.00200	mg/L		03/10/26 1551	03/12/26 1831	RVV
Barium	0.280	0.00100	mg/L		03/10/26 1551	03/12/26 1831	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Cadmium	0.000201	0.000200	mg/L		03/10/26 1551	03/12/26 1831	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1831	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1831	RVV
Nickel	0.0270	0.00500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Selenium	0.00373	0.00200	mg/L		03/10/26 1551	03/12/26 1831	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1831	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1831	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1831	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-17 (b)
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-08

Collected By: JGH
Collection Date: 03/04/2026 9:55

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-17 (b)
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-08

Collected By: JGH
Collection Date: 03/04/2026 9:55

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1927	RAF
Surrogate: Dibromofluoromethane	99.8	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: Dibromofluoromethane	99.8	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: 1,2-Dichloroethane-d4	100	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1927	RAF
Surrogate: 4-Bromofluorobenzene	96.5	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1927	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1834	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1834	RVV
Barium	0.0936	0.00100	mg/L		03/10/26 1551	03/12/26 1834	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1834	RVV
Chromium	0.00108	0.00100	mg/L		03/10/26 1551	03/12/26 1834	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1834	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Selenium	0.00316	0.00200	mg/L		03/10/26 1551	03/12/26 1834	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1834	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1834	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1834	RVV

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Page 18 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-18
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-09

Collected By: JGH
Collection Date: 03/04/2026 9:00

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA RSK-175							
Methane	<5.00	5.00	ug/L			03/16/26 1437	KJB
Ethene	<5.00	5.00	ug/L			03/16/26 1437	KJB
Ethane	<5.00	5.00	ug/L			03/16/26 1437	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-18
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-09

Collected By: JGH
Collection Date: 03/04/2026 9:00

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 1950	RAF
Surrogate: Dibromofluoromethane	99.2	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: Dibromofluoromethane	99.2	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: Toluene-d8	99.2	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: Toluene-d8	99.2	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: 4-Bromofluorobenzene	95.5	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 1950	RAF
Surrogate: 4-Bromofluorobenzene	95.5	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 1950	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1844	RVV
Arsenic	0.0292	0.00200	mg/L		03/10/26 1551	03/12/26 1844	RVV
Barium	0.338	0.00100	mg/L		03/10/26 1551	03/12/26 1844	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Cadmium	0.000404	0.000200	mg/L		03/10/26 1551	03/12/26 1844	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1844	RVV
Cobalt	0.000847	0.000500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1844	RVV
Nickel	0.00593	0.00500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1844	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1844	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1844	RVV
Zinc	0.00576	0.00500	mg/L		03/10/26 1551	03/12/26 1844	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-19
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-10

Collected By: JGH
Collection Date: 03/04/2026 11:23

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1-Dichloroethane	3.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
cis-1,2-Dichloroethylene	2.7	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-19
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-10

Collected By: JGH
Collection Date: 03/04/2026 11:23

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2013	RAF
Surrogate: Dibromofluoromethane	98.4	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: Dibromofluoromethane	98.4	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: 1,2-Dichloroethane-d4	99.6	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: 1,2-Dichloroethane-d4	99.6	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: Toluene-d8	98.5	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: Toluene-d8	98.5	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: 4-Bromofluorobenzene	97.3	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 2013	RAF
Surrogate: 4-Bromofluorobenzene	97.3	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2013	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1847	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1847	RVV
Barium	0.235	0.00100	mg/L		03/10/26 1551	03/12/26 1847	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1847	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1847	RVV
Cobalt	0.000811	0.000500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1847	RVV
Nickel	0.00593	0.00500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1847	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1847	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1847	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1847	RVV

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Page 22 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-20
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-11

Collected By: JGH
Collection Date: 03/05/2026 11:48

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-20
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-11

Collected By: JGH
Collection Date: 03/05/2026 11:48

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2036	RAF
Surrogate: Dibromofluoromethane	99.4	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: Dibromofluoromethane	99.4	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: Toluene-d8	98.9	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: Toluene-d8	98.9	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: 4-Bromofluorobenzene	95.7	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 2036	RAF
Surrogate: 4-Bromofluorobenzene	95.7	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2036	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1849	RVV
Arsenic	0.0642	0.00200	mg/L		03/10/26 1551	03/12/26 1849	RVV
Barium	1.76	0.0100	mg/L		03/10/26 1551	03/13/26 1105	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Cadmium	0.000237	0.000200	mg/L		03/10/26 1551	03/12/26 1849	RVV
Chromium	0.00422	0.00100	mg/L		03/10/26 1551	03/12/26 1849	RVV
Cobalt	0.00592	0.000500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Copper	0.00732	0.00500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Lead	0.00309	0.00100	mg/L		03/10/26 1551	03/12/26 1849	RVV
Nickel	0.0159	0.00500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1849	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1849	RVV
Vanadium	0.0105	0.00200	mg/L		03/10/26 1551	03/12/26 1849	RVV
Zinc	0.0329	0.00500	mg/L		03/10/26 1551	03/12/26 1849	RVV

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Page 24 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: GWD-1
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-12

Collected By: JGH
Collection Date: 03/05/2026 11:29

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Vinyl Chloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Bromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Chloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Acetone	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Methyl Iodide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Carbon Disulfide	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Methylene Chloride	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Vinyl Acetate	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Bromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Chloroform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Benzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Trichloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Dibromomethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Bromodichloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Toluene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Dibromochloromethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Chlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Ethylbenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Xylenes, total	<2.0	2.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Styrene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Bromoform	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: GWD-1
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-12

Collected By: JGH
Collection Date: 03/05/2026 11:29

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2058	RAF
Surrogate: Dibromofluoromethane	101	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: Dibromofluoromethane	101	Limit: 75-136	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: 1,2-Dichloroethane-d4	102	Limit: 61-142	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: Toluene-d8	98.8	Limit: 82-121	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 80-116	% Rec		03/11/26 0000	03/11/26 2058	RAF
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2058	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1852	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1852	RVV
Barium	0.224	0.00100	mg/L		03/10/26 1551	03/12/26 1852	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1852	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1852	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1852	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1852	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1852	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1852	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1852	RVV

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Page 26 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: Duplicate
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-13

Collected By: JGH
Collection Date: 03/05/2026 10:54

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Vinyl Chloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Bromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Chloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Acetone	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Methyl Iodide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Carbon Disulfide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Methylene Chloride	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2121	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Vinyl Acetate	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Bromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Chloroform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Benzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Trichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Dibromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Bromodichloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Toluene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Tetrachloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Dibromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Chlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Ethylbenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Xylenes, total	<2.0	2.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Styrene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Bromoform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF

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Page 27 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: Duplicate
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-13

Collected By: JGH
Collection Date: 03/05/2026 10:54

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2116	BHF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec		03/17/26 0000	03/17/26 2116	BHF
Surrogate: Dibromofluoromethane	98.2	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2121	RAF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec		03/17/26 0000	03/17/26 2116	BHF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2121	RAF
Surrogate: Toluene-d8	103	Limit: 82-121	% Rec		03/17/26 0000	03/17/26 2116	BHF
Surrogate: Toluene-d8	97.8	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2121	RAF
Surrogate: 4-Bromofluorobenzene	97.4	Limit: 80-116	% Rec		03/17/26 0000	03/17/26 2116	BHF
Surrogate: 4-Bromofluorobenzene	95.9	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2121	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1854	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1854	RVV
Barium	0.0918	0.00100	mg/L		03/10/26 1551	03/12/26 1854	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1854	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1854	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1854	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1854	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1854	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1854	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1854	RVV

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Page 28 of 53



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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-44 (b)
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-14

Collected By: JGH
Collection Date: 03/04/2026 8:48

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Vinyl Chloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Bromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Chloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Acetone	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Methyl Iodide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Carbon Disulfide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Methylene Chloride	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2144	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Vinyl Acetate	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Bromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Chloroform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Benzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Trichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Dibromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Bromodichloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Toluene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Tetrachloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Dibromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Chlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Ethylbenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Xylenes, total	<2.0	2.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Styrene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Bromoform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-44 (b)
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-14

Collected By: JGH
Collection Date: 03/04/2026 8:48

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2142	BHF
Surrogate: Dibromofluoromethane	97.7	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2144	RAF
Surrogate: Dibromofluoromethane	105	Limit: 75-136	% Rec		03/17/26 0000	03/17/26 2142	BHF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 61-142	% Rec		03/17/26 0000	03/17/26 2142	BHF
Surrogate: 1,2-Dichloroethane-d4	99.9	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2144	RAF
Surrogate: Toluene-d8	99.8	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2144	RAF
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec		03/17/26 0000	03/17/26 2142	BHF
Surrogate: 4-Bromofluorobenzene	93.5	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2144	RAF
Surrogate: 4-Bromofluorobenzene	94.8	Limit: 80-116	% Rec		03/17/26 0000	03/17/26 2142	BHF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1902	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1902	RVV
Barium	0.133	0.00100	mg/L		03/10/26 1551	03/12/26 1902	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1902	RVV
Chromium	0.00180	0.00100	mg/L		03/10/26 1551	03/12/26 1902	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1902	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1902	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1902	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1902	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1902	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-53
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-15

Collected By: JGH
Collection Date: 03/05/2026 10:54

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Vinyl Chloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Bromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Chloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Trichlorofluoromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Acetone	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Methyl Iodide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Carbon Disulfide	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Methylene Chloride	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Acrylonitrile	<5.0	5.0	ug/L		03/11/26 0000	03/11/26 2207	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Vinyl Acetate	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
2-Butanone (MEK)	<10.0	10.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Bromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Chloroform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Carbon Tetrachloride	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Benzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,2-Dichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Trichloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,2-Dichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Dibromomethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Bromodichloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Toluene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Tetrachloroethylene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
2-Hexanone (MBK)	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Dibromochloromethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,2-Dibromoethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Chlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Ethylbenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Xylenes, total	<2.0	2.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Styrene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Bromoform	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF

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CERTIFICATE OF ANALYSIS

1JC0768

Client Sample ID: MW-53
Sample Matrix: Aqueous
Lab Sample ID: 1JC0768-15

Collected By: JGH
Collection Date: 03/05/2026 10:54

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
1,2,3-Trichloropropane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		03/17/26 0000	03/17/26 2207	BHF
Surrogate: Dibromofluoromethane	100	Limit: 57-128	% Rec		03/11/26 0000	03/11/26 2207	RAF
Surrogate: Dibromofluoromethane	106	Limit: 75-136	% Rec		03/17/26 0000	03/17/26 2207	BHF
Surrogate: 1,2-Dichloroethane-d4	104	Limit: 61-142	% Rec		03/17/26 0000	03/17/26 2207	BHF
Surrogate: 1,2-Dichloroethane-d4	101	Limit: 49-135	% Rec		03/11/26 0000	03/11/26 2207	RAF
Surrogate: Toluene-d8	102	Limit: 82-121	% Rec		03/17/26 0000	03/17/26 2207	BHF
Surrogate: Toluene-d8	99.1	Limit: 82-116	% Rec		03/11/26 0000	03/11/26 2207	RAF
Surrogate: 4-Bromofluorobenzene	98.8	Limit: 80-116	% Rec		03/17/26 0000	03/17/26 2207	BHF
Surrogate: 4-Bromofluorobenzene	96.0	Limit: 77-114	% Rec		03/11/26 0000	03/11/26 2207	RAF

Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1905	RVV
Arsenic	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1905	RVV
Barium	0.0882	0.00100	mg/L		03/10/26 1551	03/12/26 1905	RVV
Beryllium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Cadmium	<0.000200	0.000200	mg/L		03/10/26 1551	03/12/26 1905	RVV
Chromium	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1905	RVV
Cobalt	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Copper	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Lead	<0.00100	0.00100	mg/L		03/10/26 1551	03/12/26 1905	RVV
Nickel	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Selenium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1905	RVV
Silver	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Thallium	<0.000500	0.000500	mg/L		03/10/26 1551	03/12/26 1905	RVV
Vanadium	<0.00200	0.00200	mg/L		03/10/26 1551	03/12/26 1905	RVV
Zinc	<0.00500	0.00500	mg/L		03/10/26 1551	03/12/26 1905	RVV

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CERTIFICATE OF ANALYSIS

1JC0768

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1JC0509	1JC0509-BLK1	
		1JC0509-BS1	
		1JC0768-01	MW-1D
		1JC0509-MS1	1JC0768-01
		1JC0509-MSD1	1JC0768-01
		1JC0509-PS1	1JC0768-01
		1JC0768-02	MW-3
		1JC0768-03	MW-7
		1JC0768-04	MW-10
		1JC0768-05	MW-13
		1JC0768-06	MW-14
		1JC0768-07	MW-16
		1JC0768-08	MW-17 (b)
		1JC0509-MS2	1JC0768-08
		1JC0509-MSD2	1JC0768-08
		1JC0509-PS2	1JC0768-08
		1JC0768-09	MW-18
		1JC0768-10	MW-19
		1JC0768-11	MW-20
		1JC0768-12	GWD-1
		1JC0768-13	Duplicate
		1JC0768-14	MW-44 (b)
		1JC0768-15	MW-53
		1JC0768-11RE1	MW-20
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JC0628	1JC0628-BLK1	
		1JC0628-BLK1	
		1JC0768-01	MW-1D
		1JC0768-02	MW-3
		1JC0768-03	MW-7
		1JC0768-04	MW-10
		1JC0768-05	MW-13
		1JC0768-06	MW-14
		1JC0768-07	MW-16
		1JC0768-08	MW-17 (b)
		1JC0768-09	MW-18
		1JC0768-10	MW-19
		1JC0768-11	MW-20
		1JC0768-12	GWD-1
		1JC0768-13	Duplicate
		1JC0768-14	MW-44 (b)
		1JC0768-15	MW-53
		1JC0628-MS1	1JC0768-01
		1JC0628-MSD1	1JC0768-01
		1JC0628-BS1	
		1JC0628-BSD1	
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JC0892	1JC0892-BS1	
		1JC0892-BSD1	

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CERTIFICATE OF ANALYSIS

1JC0768

Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JC0892	1JC0892-BLK1	
		1JC0768-13	Duplicate
		1JC0768-14	MW-44 (b)
		1JC0768-15	MW-53
		1JC0892-MS1	3JC0063-05
		1JC0892-MSD1	3JC0063-05
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JC0990	1JC0990-BS1	
		1JC0990-BSD1	
		1JC0990-BLK1	
		1JC0768-01RE1	MW-1D
		1JC0990-MS1	3JC0032-06RE1
Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B6C0921	B6C0921-BLK1	
		1JC0768-07	MW-16
		1JC0768-09	MW-18
		B6C0921-BS1	
		B6C0921-BSD1	

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
Batch 1JC0628 - EPA 5030B - EPA 8260D										
Blank (1JC0628-BLK1)				Prepared: 03/11/26 00:00 Analyzed: 03/11/26 10:28						
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							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<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							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<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							

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
Blank (1JC0628-BLK1)				Prepared: 03/11/26 00:00 Analyzed: 03/11/26 10:28						
Trichloroethylene	<1.0	1.0	ug/L							
1,2-Dichloropropane	<1.0	1.0	ug/L							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
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							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
1,1,2,2-Tetrachloroethane	<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-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	49.2		ug/L	50.2		97.9	57-128			
Surrogate: Dibromofluoromethane	48.8		ug/L	50.2		97.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.8		ug/L	50.4		99.0	49-135			
Surrogate: 1,2-Dichloroethane-d4	49.5		ug/L	50.4		98.3	61-142			
Surrogate: Toluene-d8	49.8		ug/L	50.5		98.7	82-116			
Surrogate: Toluene-d8	49.4		ug/L	50.5		97.8	82-121			
Surrogate: 4-Bromofluorobenzene	48.8		ug/L	50.2		97.3	77-114			
Surrogate: 4-Bromofluorobenzene	48.4		ug/L	50.2		96.5	80-116			
LCS (1JC0628-BS1)				Prepared: 03/11/26 00:00 Analyzed: 03/11/26 23:38						
Chloromethane	22.55	1.0	ug/L	30.3		74.4	63-155			
Vinyl Chloride	23.74	1.0	ug/L	30.2		78.5	70-154			
Bromomethane	22.14	1.0	ug/L	30.1		73.5	52-176			
Chloroethane	24.07	1.0	ug/L	30.3		79.4	72-148			
Trichlorofluoromethane	25.57	1.0	ug/L	30.3		84.4	70-152			
1,1-Dichloroethylene	55.55	1.0	ug/L	50.1		111	70-148			
Acetone	110.9	10.0	ug/L	100		111	43-172			
Methyl Iodide	141.3	1.0	ug/L	100		141	69-170			
Carbon Disulfide	111.9	1.0	ug/L	100		112	72-162			

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
LCS (1JC0628-BS1)				Prepared: 03/11/26 00:00 Analyzed: 03/11/26 23:38						
Methylene Chloride	48.04	5.0	ug/L	50.1		95.9	68-142			
Acrylonitrile	50.90	5.0	ug/L	50.4		101	33-163			
trans-1,2-Dichloroethylene	54.72	1.0	ug/L	50.1		109	66-148			
1,1-Dichloroethane	54.21	1.0	ug/L	50.1		108	66-143			
Vinyl Acetate	172.4	5.0	ug/L	131		131	43-153			
cis-1,2-Dichloroethylene	52.33	1.0	ug/L	50.4		104	71-149			
2-Butanone (MEK)	114.1	10.0	ug/L	100		114	52-159			
Bromochloromethane	53.66	1.0	ug/L	50.4		106	69-143			
Chloroform	51.07	1.0	ug/L	50.1		102	69-144			
1,1,1-Trichloroethane	55.18	1.0	ug/L	50.1		110	62-129			
Carbon Tetrachloride	55.98	1.0	ug/L	50.1		112	63-141			
Benzene	52.91	1.0	ug/L	50.4		105	71-134			
1,2-Dichloroethane	51.32	1.0	ug/L	50.1		102	72-132			
Trichloroethylene	53.14	1.0	ug/L	50.1		106	71-135			
1,2-Dichloropropane	52.56	1.0	ug/L	50.1		105	69-136			
Dibromomethane	52.21	1.0	ug/L	50.4		104	73-147			
Bromodichloromethane	53.16	1.0	ug/L	50.1		106	68-129			
cis-1,3-Dichloropropene	51.48	1.0	ug/L	50.1		103	65-134			
4-Methyl-2-pentanone (MIBK)	115.0	5.0	ug/L	100		115	58-147			
Toluene	53.79	1.0	ug/L	50.5		107	72-133			
trans-1,3-Dichloropropene	52.15	1.0	ug/L	50.1		104	67-130			
1,1,2-Trichloroethane	52.54	1.0	ug/L	50.1		105	69-135			
Tetrachloroethylene	54.56	1.0	ug/L	50.1		109	69-130			
2-Hexanone (MBK)	121.9	5.0	ug/L	100		122	55-144			
Dibromochloromethane	53.94	1.0	ug/L	50.1		108	73-127			
1,2-Dibromoethane	53.13	1.0	ug/L	50.2		106	67-132			
Chlorobenzene	52.63	1.0	ug/L	50.1		105	72-123			
1,1,1,2-Tetrachloroethane	54.78	1.0	ug/L	50.3		109	73-127			
Ethylbenzene	54.01	1.0	ug/L	50.2		108	71-127			
Xylenes, total	161.9	2.0	ug/L	151		107	74-127			
Styrene	55.41	1.0	ug/L	50.4		110	66-126			
Bromoform	54.28	1.0	ug/L	50.1		108	68-130			
1,2,3-Trichloropropane	53.48	1.0	ug/L	50.3		106	63-136			
trans-1,4-Dichloro-2-butene	116.0	5.0	ug/L	100		116	54-134			
1,1,2,2-Tetrachloroethane	52.04	1.0	ug/L	50.1		104	61-131			
1,4-Dichlorobenzene	52.08	1.0	ug/L	50.1		104	70-129			
1,2-Dichlorobenzene	54.35	1.0	ug/L	50.1		108	69-126			
1,2-Dibromo-3-chloropropane	57.87	5.0	ug/L	50.1		115	50-143			
Surrogate: Dibromofluoromethane	49.7		ug/L	50.2		98.9	57-128			
Surrogate: Dibromofluoromethane	49.7		ug/L	50.2		98.9	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.8		ug/L	50.4		99.0	49-135			
Surrogate: 1,2-Dichloroethane-d4	49.8		ug/L	50.4		99.0	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.5		99.2	82-116			

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
LCS (1JC0628-BS1)				Prepared: 03/11/26 00:00 Analyzed: 03/11/26 23:38						
Surrogate: Toluene-d8	50.0		ug/L	50.5		99.2	82-121			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.2		101	77-114			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.2		101	80-116			
LCS Dup (1JC0628-BS1)				Prepared: 03/11/26 00:00 Analyzed: 03/12/26 00:01						
Chloromethane	20.92	1.0	ug/L	30.3		69.0	63-155	7.50	24	
Vinyl Chloride	21.89	1.0	ug/L	30.2		72.4	70-154	8.11	25	
Bromomethane	21.36	1.0	ug/L	30.1		70.9	52-176	3.59	27	
Chloroethane	22.40	1.0	ug/L	30.3		73.9	72-148	7.19	25	
Trichlorofluoromethane	23.62	1.0	ug/L	30.3		77.9	70-152	7.93	26	
1,1-Dichloroethylene	50.74	1.0	ug/L	50.1		101	70-148	9.05	24	
Acetone	110.4	10.0	ug/L	100		110	43-172	0.479	30	
Methyl Iodide	132.5	1.0	ug/L	100		132	69-170	6.46	30	
Carbon Disulfide	102.5	1.0	ug/L	100		103	72-162	8.77	24	
Methylene Chloride	45.15	5.0	ug/L	50.1		90.1	68-142	6.20	21	
Acrylonitrile	49.20	5.0	ug/L	50.4		97.7	33-163	3.40	28	
trans-1,2-Dichloroethylene	50.86	1.0	ug/L	50.1		102	66-148	7.31	27	
1,1-Dichloroethane	51.07	1.0	ug/L	50.1		102	66-143	5.97	24	
Vinyl Acetate	165.8	5.0	ug/L	131		126	43-153	3.86	30	
cis-1,2-Dichloroethylene	50.21	1.0	ug/L	50.4		99.7	71-149	4.13	26	
2-Butanone (MEK)	111.8	10.0	ug/L	100		112	52-159	2.07	27	
Bromochloromethane	52.25	1.0	ug/L	50.4		104	69-143	2.66	23	
Chloroform	48.50	1.0	ug/L	50.1		96.8	69-144	5.16	23	
1,1,1-Trichloroethane	51.11	1.0	ug/L	50.1		102	62-129	7.66	24	
Carbon Tetrachloride	51.91	1.0	ug/L	50.1		104	63-141	7.54	25	
Benzene	50.53	1.0	ug/L	50.4		100	71-134	4.60	24	
1,2-Dichloroethane	52.21	1.0	ug/L	50.1		104	72-132	1.72	24	
Trichloroethylene	49.84	1.0	ug/L	50.1		99.5	71-135	6.41	24	
1,2-Dichloropropane	50.77	1.0	ug/L	50.1		101	69-136	3.46	24	
Dibromomethane	50.56	1.0	ug/L	50.4		100	73-147	3.21	25	
Bromodichloromethane	51.79	1.0	ug/L	50.1		103	68-129	2.61	22	
cis-1,3-Dichloropropene	50.15	1.0	ug/L	50.1		100	65-134	2.62	23	
4-Methyl-2-pentanone (MIBK)	116.7	5.0	ug/L	100		117	58-147	1.47	27	
Toluene	51.63	1.0	ug/L	50.5		102	72-133	4.10	24	
trans-1,3-Dichloropropene	51.90	1.0	ug/L	50.1		104	67-130	0.481	24	
1,1,2-Trichloroethane	52.06	1.0	ug/L	50.1		104	69-135	0.918	23	
Tetrachloroethylene	51.18	1.0	ug/L	50.1		102	69-130	6.39	25	
2-Hexanone (MBK)	121.6	5.0	ug/L	100		122	55-144	0.271	25	
Dibromochloromethane	52.70	1.0	ug/L	50.1		105	73-127	2.33	22	
1,2-Dibromoethane	52.05	1.0	ug/L	50.2		104	67-132	2.05	24	
Chlorobenzene	50.27	1.0	ug/L	50.1		100	72-123	4.59	23	
1,1,1,2-Tetrachloroethane	52.80	1.0	ug/L	50.3		105	73-127	3.68	24	
Ethylbenzene	51.05	1.0	ug/L	50.2		102	71-127	5.63	26	

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
LCS Dup (1JC0628-BSD1)										
Prepared: 03/11/26 00:00 Analyzed: 03/12/26 00:01										
Xylenes, total	153.4	2.0	ug/L	151		102	74-127	5.41	25	
Styrene	53.74	1.0	ug/L	50.4		107	66-126	3.06	23	
Bromoform	52.78	1.0	ug/L	50.1		105	68-130	2.80	23	
1,2,3-Trichloropropane	52.59	1.0	ug/L	50.3		104	63-136	1.68	24	
trans-1,4-Dichloro-2-butene	114.6	5.0	ug/L	100		115	54-134	1.21	27	
1,1,2,2-Tetrachloroethane	52.07	1.0	ug/L	50.1		104	61-131	0.0576	29	
1,4-Dichlorobenzene	50.46	1.0	ug/L	50.1		101	70-129	3.16	24	
1,2-Dichlorobenzene	52.06	1.0	ug/L	50.1		104	69-126	4.30	26	
1,2-Dibromo-3-chloropropane	57.59	5.0	ug/L	50.1		115	50-143	0.485	30	
Surrogate: Dibromofluoromethane	49.3		ug/L	50.2		98.2	57-128			
Surrogate: Dibromofluoromethane	49.3		ug/L	50.2		98.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	49.3		ug/L	50.4		97.9	49-135			
Surrogate: 1,2-Dichloroethane-d4	49.3		ug/L	50.4		97.9	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.5		99.1	82-116			
Surrogate: Toluene-d8	50.0		ug/L	50.5		99.1	82-121			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.2		99.9	77-114			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.2		99.9	80-116			
Matrix Spike (1JC0628-MS1)										
Source: 1JC0768-01 Prepared: 03/11/26 00:00 Analyzed: 03/11/26 22:53										
Chloromethane	216.5	10.0	ug/L	303	ND	71.4	61-152			
Vinyl Chloride	229.6	10.0	ug/L	302	ND	75.9	66-149			
Bromomethane	212.5	10.0	ug/L	301	ND	70.5	43-171			
Chloroethane	228.9	10.0	ug/L	303	ND	75.5	69-148			
Trichlorofluoromethane	248.5	10.0	ug/L	303	ND	82.0	62-163			
1,1-Dichloroethylene	532.9	10.0	ug/L	501	ND	106	70-148			
Acetone	1096	100	ug/L	1000	ND	110	45-173			
Methyl Iodide	1297	10.0	ug/L	1000	ND	130	62-167			
Carbon Disulfide	1086	10.0	ug/L	1000	ND	109	71-163			
Methylene Chloride	455.1	50.0	ug/L	501	ND	90.8	69-140			
Acrylonitrile	502.5	50.0	ug/L	504	ND	99.8	32-159			
trans-1,2-Dichloroethylene	522.0	10.0	ug/L	501	ND	104	69-144			
1,1-Dichloroethane	517.7	10.0	ug/L	501	ND	103	70-138			
Vinyl Acetate	1719	50.0	ug/L	1310	ND	131	58-142			
cis-1,2-Dichloroethylene	507.8	10.0	ug/L	504	ND	101	68-151			
2-Butanone (MEK)	1101	100	ug/L	1000	ND	110	50-160			
Bromochloromethane	513.4	10.0	ug/L	504	ND	102	65-143			
Chloroform	488.9	10.0	ug/L	501	ND	97.6	71-143			
1,1,1-Trichloroethane	527.2	10.0	ug/L	501	ND	105	63-133			
Carbon Tetrachloride	526.1	10.0	ug/L	501	ND	105	63-142			
Benzene	509.8	10.0	ug/L	504	ND	101	69-133			
1,2-Dichloroethane	504.0	10.0	ug/L	501	ND	101	63-138			
Trichloroethylene	501.2	10.0	ug/L	501	ND	100	71-133			
1,2-Dichloropropane	505.9	10.0	ug/L	501	ND	101	69-132			
Dibromomethane	506.0	10.0	ug/L	504	ND	100	70-147			

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
Matrix Spike (1JC0628-MS1)	Source: 1JC0768-01			Prepared: 03/11/26 00:00 Analyzed: 03/11/26 22:53						
Bromodichloromethane	508.4	10.0	ug/L	501	ND	102	67-130			
cis-1,3-Dichloropropene	488.0	10.0	ug/L	501	ND	97.4	61-126			
4-Methyl-2-pentanone (MIBK)	1138	50.0	ug/L	1000	ND	114	55-147			
Toluene	516.0	10.0	ug/L	505	ND	102	71-133			
trans-1,3-Dichloropropene	506.3	10.0	ug/L	501	ND	101	63-124			
1,1,2-Trichloroethane	517.1	10.0	ug/L	501	ND	103	69-133			
Tetrachloroethylene	530.3	10.0	ug/L	501	ND	106	70-124			
2-Hexanone (MBK)	1173	50.0	ug/L	1000	ND	117	53-141			
Dibromochloromethane	519.2	10.0	ug/L	501	ND	104	74-122			
1,2-Dibromoethane	515.8	10.0	ug/L	502	ND	103	66-127			
Chlorobenzene	503.6	10.0	ug/L	501	ND	101	76-116			
1,1,1,2-Tetrachloroethane	522.3	10.0	ug/L	503	ND	104	77-121			
Ethylbenzene	520.6	10.0	ug/L	502	ND	104	73-124			
Xylenes, total	1556	20.0	ug/L	1510	ND	103	75-123			
Styrene	533.8	10.0	ug/L	504	ND	106	70-120			
Bromoform	518.4	10.0	ug/L	501	ND	103	70-124			
1,2,3-Trichloropropane	534.9	10.0	ug/L	503	ND	106	62-135			
trans-1,4-Dichloro-2-butene	1160	50.0	ug/L	1000	ND	116	50-120			
1,1,2,2-Tetrachloroethane	514.7	10.0	ug/L	501	ND	103	63-126			
1,4-Dichlorobenzene	496.5	10.0	ug/L	501	ND	99.1	72-119			
1,2-Dichlorobenzene	513.8	10.0	ug/L	501	ND	103	71-117			
1,2-Dibromo-3-chloropropane	580.6	50.0	ug/L	501	ND	116	49-134			
Surrogate: Dibromofluoromethane	494		ug/L	502		98.4	57-128			
Surrogate: Dibromofluoromethane	494		ug/L	502		98.4	75-136			
Surrogate: 1,2-Dichloroethane-d4	502		ug/L	504		99.7	49-135			
Surrogate: 1,2-Dichloroethane-d4	502		ug/L	504		99.7	61-142			
Surrogate: Toluene-d8	497		ug/L	505		98.5	82-116			
Surrogate: Toluene-d8	497		ug/L	505		98.5	82-121			
Surrogate: 4-Bromofluorobenzene	509		ug/L	502		101	77-114			
Surrogate: 4-Bromofluorobenzene	509		ug/L	502		101	80-116			
Matrix Spike Dup (1JC0628-MSD1)	Source: 1JC0768-01			Prepared: 03/11/26 00:00 Analyzed: 03/11/26 23:16						
Chloromethane	205.9	10.0	ug/L	303	ND	67.9	61-152	5.02	26	
Vinyl Chloride	217.7	10.0	ug/L	302	ND	72.0	66-149	5.32	23	
Bromomethane	200.0	10.0	ug/L	301	ND	66.4	43-171	6.06	29	
Chloroethane	221.1	10.0	ug/L	303	ND	72.9	69-148	3.47	25	
Trichlorofluoromethane	232.0	10.0	ug/L	303	ND	76.6	62-163	6.87	25	
1,1-Dichloroethylene	500.8	10.0	ug/L	501	ND	99.9	70-148	6.21	22	
Acetone	1074	100	ug/L	1000	ND	107	45-173	2.05	30	
Methyl Iodide	1266	10.0	ug/L	1000	ND	127	62-167	2.43	24	
Carbon Disulfide	1013	10.0	ug/L	1000	ND	101	71-163	7.02	22	
Methylene Chloride	433.2	50.0	ug/L	501	ND	86.5	69-140	4.93	19	
Acrylonitrile	488.3	50.0	ug/L	504	ND	97.0	32-159	2.87	30	
trans-1,2-Dichloroethylene	489.6	10.0	ug/L	501	ND	97.7	69-144	6.41	22	

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0628 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1JC0628-MSD1) Source: 1JC0768-01 Prepared: 03/11/26 00:00 Analyzed: 03/11/26 23:16										
1,1-Dichloroethane	492.8	10.0	ug/L	501	ND	98.4	70-138	4.93	20	
Vinyl Acetate	1634	50.0	ug/L	1310	ND	125	58-142	5.03	24	
cis-1,2-Dichloroethylene	472.7	10.0	ug/L	504	ND	93.9	68-151	7.16	22	
2-Butanone (MEK)	1060	100	ug/L	1000	ND	106	50-160	3.72	23	
Bromochloromethane	495.0	10.0	ug/L	504	ND	98.2	65-143	3.65	22	
Chloroform	461.0	10.0	ug/L	501	ND	92.0	71-143	5.87	21	
1,1,1-Trichloroethane	494.3	10.0	ug/L	501	ND	98.6	63-133	6.44	23	
Carbon Tetrachloride	497.1	10.0	ug/L	501	ND	99.2	63-142	5.67	22	
Benzene	481.1	10.0	ug/L	504	ND	95.4	69-133	5.79	18	
1,2-Dichloroethane	489.9	10.0	ug/L	501	ND	97.8	63-138	2.84	20	
Trichloroethylene	477.4	10.0	ug/L	501	ND	95.3	71-133	4.86	23	
1,2-Dichloropropane	480.6	10.0	ug/L	501	ND	95.9	69-132	5.13	20	
Dibromomethane	476.0	10.0	ug/L	504	ND	94.5	70-147	6.11	22	
Bromodichloromethane	484.1	10.0	ug/L	501	ND	96.7	67-130	4.90	21	
cis-1,3-Dichloropropene	469.4	10.0	ug/L	501	ND	93.7	61-126	3.89	21	
4-Methyl-2-pentanone (MIBK)	1100	50.0	ug/L	1000	ND	110	55-147	3.43	23	
Toluene	491.0	10.0	ug/L	505	ND	97.3	71-133	4.97	19	
trans-1,3-Dichloropropene	482.6	10.0	ug/L	501	ND	96.4	63-124	4.79	21	
1,1,2-Trichloroethane	491.9	10.0	ug/L	501	ND	98.2	69-133	5.00	19	
Tetrachloroethylene	488.8	10.0	ug/L	501	ND	97.6	70-124	8.14	24	
2-Hexanone (MBK)	1145	50.0	ug/L	1000	ND	115	53-141	2.36	24	
Dibromochloromethane	493.5	10.0	ug/L	501	ND	98.6	74-122	5.08	21	
1,2-Dibromoethane	486.6	10.0	ug/L	502	ND	96.9	66-127	5.83	23	
Chlorobenzene	473.2	10.0	ug/L	501	ND	94.5	76-116	6.22	21	
1,1,1,2-Tetrachloroethane	491.5	10.0	ug/L	503	ND	97.6	77-121	6.08	25	
Ethylbenzene	486.0	10.0	ug/L	502	ND	96.9	73-124	6.87	20	
Xylenes, total	1454	20.0	ug/L	1510	ND	96.3	75-123	6.78	20	
Styrene	502.1	10.0	ug/L	504	ND	99.7	70-120	6.12	23	
Bromoform	499.1	10.0	ug/L	501	ND	99.6	70-124	3.79	22	
1,2,3-Trichloropropane	507.2	10.0	ug/L	503	ND	101	62-135	5.32	28	
trans-1,4-Dichloro-2-butene	1077	50.0	ug/L	1000	ND	108	50-120	7.38	26	
1,1,2,2-Tetrachloroethane	485.9	10.0	ug/L	501	ND	97.0	63-126	5.76	24	
1,4-Dichlorobenzene	472.8	10.0	ug/L	501	ND	94.3	72-119	4.89	24	
1,2-Dichlorobenzene	493.9	10.0	ug/L	501	ND	98.6	71-117	3.95	24	
1,2-Dibromo-3-chloropropane	549.4	50.0	ug/L	501	ND	110	49-134	5.52	28	
Surrogate: Dibromofluoromethane	493		ug/L	502		98.2	57-128			
Surrogate: Dibromofluoromethane	493		ug/L	502		98.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	500		ug/L	504		99.2	49-135			
Surrogate: 1,2-Dichloroethane-d4	500		ug/L	504		99.2	61-142			
Surrogate: Toluene-d8	503		ug/L	505		99.6	82-116			
Surrogate: Toluene-d8	503		ug/L	505		99.6	82-121			
Surrogate: 4-Bromofluorobenzene	500		ug/L	502		99.7	77-114			
Surrogate: 4-Bromofluorobenzene	500		ug/L	502		99.7	80-116			

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
Blank (1JC0892-BLK1)				Prepared: 03/17/26 00:00 Analyzed: 03/17/26 10:41						
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							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<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							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<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							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
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							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L							

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1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
Blank (1JC0892-BLK1)				Prepared: 03/17/26 00:00 Analyzed: 03/17/26 10:41						
1,4-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dichlorobenzene	<1.0	1.0	ug/L							
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	50.1		ug/L	50.2		99.8	75-136			
Surrogate: 1,2-Dichloroethane-d4	48.1		ug/L	50.4		95.5	61-142			
Surrogate: Toluene-d8	51.4		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.2		101	80-116			
LCS (1JC0892-BS1)				Prepared: 03/17/26 00:00 Analyzed: 03/17/26 09:25						
Chloromethane	31.60	1.0	ug/L	30.3		104	63-155			
Vinyl Chloride	32.30	1.0	ug/L	30.2		107	70-154			
Bromomethane	31.10	1.0	ug/L	30.1		103	52-176			
Chloroethane	31.07	1.0	ug/L	30.3		102	72-148			
Trichlorofluoromethane	32.68	1.0	ug/L	30.3		108	70-152			
1,1-Dichloroethylene	50.86	1.0	ug/L	50.1		101	70-148			
Acetone	91.76	10.0	ug/L	100		91.8	43-172			
Methyl Iodide	110.3	1.0	ug/L	100		110	69-170			
Carbon Disulfide	103.0	1.0	ug/L	100		103	72-162			
Methylene Chloride	51.30	5.0	ug/L	50.1		102	68-142			
trans-1,2-Dichloroethylene	52.32	1.0	ug/L	50.1		104	66-148			
1,1-Dichloroethane	49.13	1.0	ug/L	50.1		98.1	66-143			
Vinyl Acetate	139.3	5.0	ug/L	131		106	43-153			
cis-1,2-Dichloroethylene	51.43	1.0	ug/L	50.4		102	71-149			
2-Butanone (MEK)	95.98	10.0	ug/L	100		96.0	52-159			
Bromochloromethane	49.46	1.0	ug/L	50.4		98.1	69-143			
Chloroform	50.57	1.0	ug/L	50.1		101	69-144			
1,1,1-Trichloroethane	51.98	1.0	ug/L	50.1		104	62-129			
Carbon Tetrachloride	54.87	1.0	ug/L	50.1		110	63-141			
Benzene	51.14	1.0	ug/L	50.4		101	71-134			
1,2-Dichloroethane	48.49	1.0	ug/L	50.1		96.8	72-132			
Trichloroethylene	50.56	1.0	ug/L	50.1		101	71-135			
1,2-Dichloropropane	48.79	1.0	ug/L	50.1		97.4	69-136			
Dibromomethane	48.32	1.0	ug/L	50.4		95.9	73-147			
Bromodichloromethane	49.10	1.0	ug/L	50.1		98.0	68-129			
cis-1,3-Dichloropropene	47.53	1.0	ug/L	50.1		94.9	65-134			
4-Methyl-2-pentanone (MIBK)	86.33	5.0	ug/L	100		86.3	58-147			
Toluene	48.02	1.0	ug/L	50.5		95.1	72-133			
trans-1,3-Dichloropropene	45.64	1.0	ug/L	50.1		91.1	67-130			
1,1,2-Trichloroethane	48.81	1.0	ug/L	50.1		97.4	69-135			
Tetrachloroethylene	46.75	1.0	ug/L	50.1		93.3	69-130			
2-Hexanone (MBK)	83.27	5.0	ug/L	100		83.3	55-144			
Dibromochloromethane	46.58	1.0	ug/L	50.1		93.0	73-127			
1,2-Dibromoethane	46.22	1.0	ug/L	50.2		92.0	67-132			

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
LCS (1JC0892-BS1)										
Prepared: 03/17/26 00:00 Analyzed: 03/17/26 09:25										
Chlorobenzene	46.94	1.0	ug/L	50.1		93.7	72-123			
1,1,1,2-Tetrachloroethane	47.80	1.0	ug/L	50.3		94.9	73-127			
Ethylbenzene	48.89	1.0	ug/L	50.2		97.4	71-127			
Xylenes, total	147.9	2.0	ug/L	151		97.9	74-127			
Styrene	49.01	1.0	ug/L	50.4		97.3	66-126			
Bromoform	42.91	1.0	ug/L	50.1		85.6	68-130			
1,2,3-Trichloropropane	42.86	1.0	ug/L	50.3		85.1	63-136			
trans-1,4-Dichloro-2-butene	84.74	5.0	ug/L	100		84.7	54-134			
1,1,2,2-Tetrachloroethane	43.79	1.0	ug/L	50.1		87.4	61-131			
1,4-Dichlorobenzene	49.62	1.0	ug/L	50.1		99.0	70-129			
1,2-Dichlorobenzene	46.39	1.0	ug/L	50.1		92.6	69-126			
1,2-Dibromo-3-chloropropane	44.27	5.0	ug/L	50.1		88.3	50-143			
Surrogate: Dibromofluoromethane	51.1		ug/L	50.2		102	75-136			
Surrogate: 1,2-Dichloroethane-d4	50.4		ug/L	50.4		100	61-142			
Surrogate: Toluene-d8	49.9		ug/L	50.5		98.8	82-121			
Surrogate: 4-Bromofluorobenzene	50.5		ug/L	50.2		101	80-116			
LCS Dup (1JC0892-BSD1)										
Prepared: 03/17/26 00:00 Analyzed: 03/17/26 09:51										
Chloromethane	32.66	1.0	ug/L	30.3		108	63-155	3.30	24	
Vinyl Chloride	32.17	1.0	ug/L	30.2		106	70-154	0.403	25	
Bromomethane	33.03	1.0	ug/L	30.1		110	52-176	6.02	27	
Chloroethane	33.09	1.0	ug/L	30.3		109	72-148	6.30	25	
Trichlorofluoromethane	33.39	1.0	ug/L	30.3		110	70-152	2.15	26	
1,1-Dichloroethylene	52.05	1.0	ug/L	50.1		104	70-148	2.31	24	
Acetone	93.93	10.0	ug/L	100		93.9	43-172	2.34	30	
Methyl Iodide	114.9	1.0	ug/L	100		115	69-170	4.07	30	
Carbon Disulfide	105.9	1.0	ug/L	100		106	72-162	2.79	24	
Methylene Chloride	52.07	5.0	ug/L	50.1		104	68-142	1.49	21	
trans-1,2-Dichloroethylene	54.31	1.0	ug/L	50.1		108	66-148	3.73	27	
1,1-Dichloroethane	51.25	1.0	ug/L	50.1		102	66-143	4.22	24	
Vinyl Acetate	149.4	5.0	ug/L	131		114	43-153	6.97	30	
cis-1,2-Dichloroethylene	52.55	1.0	ug/L	50.4		104	71-149	2.15	26	
2-Butanone (MEK)	101.2	10.0	ug/L	100		101	52-159	5.30	27	
Bromochloromethane	50.92	1.0	ug/L	50.4		101	69-143	2.91	23	
Chloroform	51.97	1.0	ug/L	50.1		104	69-144	2.73	23	
1,1,1-Trichloroethane	53.26	1.0	ug/L	50.1		106	62-129	2.43	24	
Carbon Tetrachloride	56.99	1.0	ug/L	50.1		114	63-141	3.79	25	
Benzene	52.28	1.0	ug/L	50.4		104	71-134	2.20	24	
1,2-Dichloroethane	50.25	1.0	ug/L	50.1		100	72-132	3.56	24	
Trichloroethylene	51.97	1.0	ug/L	50.1		104	71-135	2.75	24	
1,2-Dichloropropane	49.56	1.0	ug/L	50.1		98.9	69-136	1.57	24	
Dibromomethane	50.16	1.0	ug/L	50.4		99.6	73-147	3.74	25	
Bromodichloromethane	49.61	1.0	ug/L	50.1		99.0	68-129	1.03	22	

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CERTIFICATE OF ANALYSIS

1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
LCS Dup (1JC0892-BSD1)				Prepared: 03/17/26 00:00 Analyzed: 03/17/26 09:51						
cis-1,3-Dichloropropene	49.33	1.0	ug/L	50.1		98.5	65-134	3.72	23	
4-Methyl-2-pentanone (MIBK)	88.17	5.0	ug/L	100		88.2	58-147	2.11	27	
Toluene	49.23	1.0	ug/L	50.5		97.5	72-133	2.49	24	
trans-1,3-Dichloropropene	47.32	1.0	ug/L	50.1		94.5	67-130	3.61	24	
1,1,2-Trichloroethane	48.86	1.0	ug/L	50.1		97.5	69-135	0.102	23	
Tetrachloroethylene	49.21	1.0	ug/L	50.1		98.2	69-130	5.13	25	
2-Hexanone (MBK)	88.46	5.0	ug/L	100		88.5	55-144	6.04	25	
Dibromochloromethane	48.49	1.0	ug/L	50.1		96.8	73-127	4.02	22	
1,2-Dibromoethane	47.83	1.0	ug/L	50.2		95.2	67-132	3.42	24	
Chlorobenzene	49.64	1.0	ug/L	50.1		99.1	72-123	5.59	23	
1,1,1,2-Tetrachloroethane	50.71	1.0	ug/L	50.3		101	73-127	5.91	24	
Ethylbenzene	50.34	1.0	ug/L	50.2		100	71-127	2.92	26	
Xylenes, total	154.1	2.0	ug/L	151		102	74-127	4.12	25	
Styrene	51.00	1.0	ug/L	50.4		101	66-126	3.98	23	
Bromoform	45.58	1.0	ug/L	50.1		91.0	68-130	6.03	23	
1,2,3-Trichloropropane	45.68	1.0	ug/L	50.3		90.7	63-136	6.37	24	
trans-1,4-Dichloro-2-butene	89.12	5.0	ug/L	100		89.1	54-134	5.04	27	
1,1,2,2-Tetrachloroethane	44.57	1.0	ug/L	50.1		89.0	61-131	1.77	29	
1,4-Dichlorobenzene	48.98	1.0	ug/L	50.1		97.7	70-129	1.30	24	
1,2-Dichlorobenzene	47.18	1.0	ug/L	50.1		94.2	69-126	1.69	26	
1,2-Dibromo-3-chloropropane	45.82	5.0	ug/L	50.1		91.4	50-143	3.44	30	
Surrogate: Dibromofluoromethane	50.4		ug/L	50.2		100	75-136			
Surrogate: 1,2-Dichloroethane-d4	50.0		ug/L	50.4		99.3	61-142			
Surrogate: Toluene-d8	50.0		ug/L	50.5		99.0	82-121			
Surrogate: 4-Bromofluorobenzene	49.0		ug/L	50.2		97.7	80-116			
Matrix Spike (1JC0892-MS1)				Source: 3JC0063-05 Prepared: 03/17/26 00:00 Analyzed: 03/17/26 22:32						
Chloromethane	354.0	10.0	ug/L	303	ND	117	61-152			
Vinyl Chloride	368.7	10.0	ug/L	302	ND	122	66-149			
Bromomethane	299.5	10.0	ug/L	301	ND	99.4	43-171			
Chloroethane	357.5	10.0	ug/L	303	ND	118	69-148			
Trichlorofluoromethane	366.6	10.0	ug/L	303	ND	121	62-163			
1,1-Dichloroethylene	571.0	10.0	ug/L	501	ND	114	70-148			
Acetone	1282	100	ug/L	1000	ND	128	45-173			
Methyl Iodide	1078	10.0	ug/L	1000	ND	108	62-167			
Carbon Disulfide	1172	10.0	ug/L	1000	ND	117	71-163			
Methylene Chloride	607.9	50.0	ug/L	501	ND	121	69-140			
trans-1,2-Dichloroethylene	617.0	10.0	ug/L	501	ND	123	69-144			
1,1-Dichloroethane	584.6	10.0	ug/L	501	ND	117	70-138			
Vinyl Acetate	1686	50.0	ug/L	1310	ND	128	58-142			
cis-1,2-Dichloroethylene	612.2	10.0	ug/L	504	ND	122	68-151			
2-Butanone (MEK)	1234	100	ug/L	1000	ND	123	50-160			
Bromochloromethane	582.4	10.0	ug/L	504	ND	116	65-143			

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1JC0768

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
Matrix Spike (1JC0892-MS1) Source: 3JC0063-05 Prepared: 03/17/26 00:00 Analyzed: 03/17/26 22:32										
Chloroform	581.5	10.0	ug/L	501	ND	116	71-143			
1,1,1-Trichloroethane	584.3	10.0	ug/L	501	ND	117	63-133			
Carbon Tetrachloride	611.8	10.0	ug/L	501	ND	122	63-142			
Benzene	597.5	10.0	ug/L	504	ND	118	69-133			
1,2-Dichloroethane	578.6	10.0	ug/L	501	ND	116	63-138			
Trichloroethylene	571.9	10.0	ug/L	501	ND	114	71-133			
1,2-Dichloropropane	567.5	10.0	ug/L	501	ND	113	69-132			
Dibromomethane	577.5	10.0	ug/L	504	ND	115	70-147			
Bromodichloromethane	571.0	10.0	ug/L	501	ND	114	67-130			
cis-1,3-Dichloropropene	551.6	10.0	ug/L	501	ND	110	61-126			
4-Methyl-2-pentanone (MIBK)	1173	50.0	ug/L	1000	ND	117	55-147			
Toluene	566.5	10.0	ug/L	505	ND	112	71-133			
trans-1,3-Dichloropropene	551.0	10.0	ug/L	501	ND	110	63-124			
1,1,2-Trichloroethane	605.7	10.0	ug/L	501	ND	121	69-133			
Tetrachloroethylene	561.4	10.0	ug/L	501	ND	112	70-124			
2-Hexanone (MBK)	1170	50.0	ug/L	1000	ND	117	53-141			
Dibromochloromethane	587.0	10.0	ug/L	501	ND	117	74-122			
1,2-Dibromoethane	580.0	10.0	ug/L	502	ND	115	66-127			
Chlorobenzene	579.1	10.0	ug/L	501	ND	116	76-116			
1,1,1,2-Tetrachloroethane	590.5	10.0	ug/L	503	ND	117	77-121			
Ethylbenzene	580.6	10.0	ug/L	502	ND	116	73-124			
Xylenes, total	1766	20.0	ug/L	1510	ND	117	75-123			
Styrene	590.2	10.0	ug/L	504	ND	117	70-120			
Bromoform	574.5	10.0	ug/L	501	ND	115	70-124			
1,2,3-Trichloropropane	603.6	10.0	ug/L	503	ND	120	62-135			
trans-1,4-Dichloro-2-butene	1039	50.0	ug/L	1000	ND	104	50-120			
1,1,2,2-Tetrachloroethane	566.1	10.0	ug/L	501	ND	113	63-126			
1,4-Dichlorobenzene	583.4	10.0	ug/L	501	ND	116	72-119			
1,2-Dichlorobenzene	587.9	10.0	ug/L	501	ND	117	71-117			
1,2-Dibromo-3-chloropropane	642.9	50.0	ug/L	501	ND	128	49-134			
Surrogate: Dibromofluoromethane	506		ug/L	502		101	75-136			
Surrogate: 1,2-Dichloroethane-d4	530		ug/L	504		105	61-142			
Surrogate: Toluene-d8	498		ug/L	505		98.8	82-121			
Surrogate: 4-Bromofluorobenzene	502		ug/L	502		100	80-116			
Matrix Spike Dup (1JC0892-MSD1) Source: 3JC0063-05 Prepared: 03/17/26 00:00 Analyzed: 03/17/26 22:57										
Chloromethane	264.7	10.0	ug/L	303	ND	87.3	61-152	28.9	26	R1
Vinyl Chloride	274.9	10.0	ug/L	302	ND	90.9	66-149	29.1	23	R1
Bromomethane	242.7	10.0	ug/L	301	ND	80.6	43-171	21.0	29	
Chloroethane	245.6	10.0	ug/L	303	ND	81.0	69-148	37.1	25	R1
Trichlorofluoromethane	268.0	10.0	ug/L	303	ND	88.4	62-163	31.1	25	R1
1,1-Dichloroethylene	407.1	10.0	ug/L	501	ND	81.2	70-148	33.5	22	R1
Acetone	937.4	100	ug/L	1000	ND	93.7	45-173	31.0	30	R1

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0892 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1JC0892-MSD1) Source: 3JC0063-05 Prepared: 03/17/26 00:00 Analyzed: 03/17/26 22:57										
Methyl Iodide	894.8	10.0	ug/L	1000	ND	89.5	62-167	18.5	24	
Carbon Disulfide	836.3	10.0	ug/L	1000	ND	83.6	71-163	33.4	22	R1
Methylene Chloride	411.1	50.0	ug/L	501	ND	82.0	69-140	38.6	19	R1
trans-1,2-Dichloroethylene	436.8	10.0	ug/L	501	ND	87.2	69-144	34.2	22	R1
1,1-Dichloroethane	410.6	10.0	ug/L	501	ND	82.0	70-138	35.0	20	R1
Vinyl Acetate	1150	50.0	ug/L	1310	ND	87.6	58-142	37.8	24	R1
cis-1,2-Dichloroethylene	410.4	10.0	ug/L	504	ND	81.5	68-151	39.5	22	R1
2-Butanone (MEK)	849.5	100	ug/L	1000	ND	85.0	50-160	36.9	23	R1
Bromochloromethane	417.0	10.0	ug/L	504	ND	82.7	65-143	33.1	22	R1
Chloroform	422.7	10.0	ug/L	501	ND	84.4	71-143	31.6	21	R1
1,1,1-Trichloroethane	419.7	10.0	ug/L	501	ND	83.7	63-133	32.8	23	R1
Carbon Tetrachloride	433.7	10.0	ug/L	501	ND	86.6	63-142	34.1	22	R1
Benzene	427.4	10.0	ug/L	504	ND	84.7	69-133	33.2	18	R1
1,2-Dichloroethane	423.2	10.0	ug/L	501	ND	84.5	63-138	31.0	20	R1
Trichloroethylene	417.2	10.0	ug/L	501	ND	83.3	71-133	31.3	23	R1
1,2-Dichloropropane	407.1	10.0	ug/L	501	ND	81.3	69-132	32.9	20	R1
Dibromomethane	427.8	10.0	ug/L	504	ND	84.9	70-147	29.8	22	R1
Bromodichloromethane	395.3	10.0	ug/L	501	ND	78.9	67-130	36.4	21	R1
cis-1,3-Dichloropropene	391.8	10.0	ug/L	501	ND	78.2	61-126	33.9	21	R1
4-Methyl-2-pentanone (MIBK)	808.7	50.0	ug/L	1000	ND	80.9	55-147	36.8	23	R1
Toluene	402.5	10.0	ug/L	505	ND	79.7	71-133	33.8	19	R1
trans-1,3-Dichloropropene	393.2	10.0	ug/L	501	ND	78.5	63-124	33.4	21	R1
1,1,2-Trichloroethane	432.9	10.0	ug/L	501	ND	86.4	69-133	33.3	19	R1
Tetrachloroethylene	401.0	10.0	ug/L	501	ND	80.0	70-124	33.3	24	R1
2-Hexanone (MBK)	849.8	50.0	ug/L	1000	ND	85.0	53-141	31.7	24	R1
Dibromochloromethane	410.0	10.0	ug/L	501	ND	81.9	74-122	35.5	21	R1
1,2-Dibromoethane	426.1	10.0	ug/L	502	ND	84.8	66-127	30.6	23	R1
Chlorobenzene	410.2	10.0	ug/L	501	ND	81.9	76-116	34.1	21	R1
1,1,1,2-Tetrachloroethane	419.5	10.0	ug/L	503	ND	83.3	77-121	33.9	25	R1
Ethylbenzene	419.0	10.0	ug/L	502	ND	83.5	73-124	32.3	20	R1
Xylenes, total	1265	20.0	ug/L	1510	ND	83.7	75-123	33.1	20	R1
Styrene	423.9	10.0	ug/L	504	ND	84.2	70-120	32.8	23	R1
Bromoform	385.8	10.0	ug/L	501	ND	77.0	70-124	39.3	22	R1
1,2,3-Trichloropropane	407.4	10.0	ug/L	503	ND	80.9	62-135	38.8	28	R1
trans-1,4-Dichloro-2-butene	718.7	50.0	ug/L	1000	ND	71.9	50-120	36.4	26	R1
1,1,2,2-Tetrachloroethane	402.3	10.0	ug/L	501	ND	80.3	63-126	33.8	24	R1
1,4-Dichlorobenzene	406.5	10.0	ug/L	501	ND	81.1	72-119	35.7	24	R1
1,2-Dichlorobenzene	414.0	10.0	ug/L	501	ND	82.6	71-117	34.7	24	R1
1,2-Dibromo-3-chloropropane	487.5	50.0	ug/L	501	ND	97.3	49-134	27.5	28	
Surrogate: Dibromofluoromethane	483		ug/L	502		96.2	75-136			
Surrogate: 1,2-Dichloroethane-d4	497		ug/L	504		98.7	61-142			
Surrogate: Toluene-d8	495		ug/L	505		98.1	82-121			
Surrogate: 4-Bromofluorobenzene	518		ug/L	502		103	80-116			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0990 - EPA 5030B - EPA 8260D										
Blank (1JC0990-BLK1)				Prepared: 03/18/26 00:00 Analyzed: 03/18/26 15:30						
Acetone	<10.0	10.0	ug/L							
Surrogate: Dibromofluoromethane	52.2		ug/L	50.2		104	75-136			
Surrogate: 1,2-Dichloroethane-d4	53.6		ug/L	50.4		106	61-142			
Surrogate: Toluene-d8	49.4		ug/L	50.5		97.8	82-121			
Surrogate: 4-Bromofluorobenzene	49.2		ug/L	50.2		98.0	80-116			
LCS (1JC0990-BS1)				Prepared: 03/18/26 00:00 Analyzed: 03/18/26 09:33						
Acetone	104.3	10.0	ug/L	100		104	43-172			
Surrogate: Dibromofluoromethane	49.8		ug/L	50.2		99.1	75-136			
Surrogate: 1,2-Dichloroethane-d4	50.8		ug/L	50.4		101	61-142			
Surrogate: Toluene-d8	49.7		ug/L	50.5		98.4	82-121			
Surrogate: 4-Bromofluorobenzene	50.2		ug/L	50.2		100	80-116			
LCS Dup (1JC0990-BSD1)				Prepared: 03/18/26 00:00 Analyzed: 03/18/26 09:56						
Acetone	105.1	10.0	ug/L	100		105	43-172	0.783	30	
Surrogate: Dibromofluoromethane	50.4		ug/L	50.2		100	75-136			
Surrogate: 1,2-Dichloroethane-d4	50.6		ug/L	50.4		100	61-142			
Surrogate: Toluene-d8	50.1		ug/L	50.5		99.3	82-121			
Surrogate: 4-Bromofluorobenzene	50.1		ug/L	50.2		99.8	80-116			
Matrix Spike (1JC0990-MS1)				Source: 3JC0032-06RE1 Prepared: 03/18/26 00:00 Analyzed: 03/18/26 20:27						
Acetone	1314	100	ug/L	1000	ND	131	45-173			
Surrogate: Dibromofluoromethane	505		ug/L	502		101	75-136			
Surrogate: 1,2-Dichloroethane-d4	512		ug/L	504		102	61-142			
Surrogate: Toluene-d8	504		ug/L	505		99.9	82-121			
Surrogate: 4-Bromofluorobenzene	505		ug/L	502		101	80-116			
Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0509 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1JC0509-BLK1)				Prepared: 03/10/26 15:51 Analyzed: 03/12/26 17:46						
Antimony	<0.00100	0.00100	mg/L							
Arsenic	<0.00200	0.00200	mg/L							
Barium	<0.00100	0.00100	mg/L							
Beryllium	<0.000500	0.000500	mg/L							
Cadmium	<0.000200	0.000200	mg/L							
Chromium	<0.00100	0.00100	mg/L							
Cobalt	<0.000500	0.000500	mg/L							
Copper	<0.00500	0.00500	mg/L							
Lead	<0.00100	0.00100	mg/L							
Nickel	<0.00500	0.00500	mg/L							
Selenium	<0.00200	0.00200	mg/L							

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Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Notes
Batch 1JC0509 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1JC0509-BLK1)				Prepared: 03/10/26 15:51 Analyzed: 03/12/26 17:46						
Silver	<0.00500	0.00500	mg/L							
Thallium	<0.000500	0.000500	mg/L							
Vanadium	<0.00200	0.00200	mg/L							
Zinc	<0.00500	0.00500	mg/L							
LCS (1JC0509-BS1)				Prepared: 03/10/26 15:51 Analyzed: 03/12/26 17:48						
Antimony	0.0989	0.00400	mg/L	0.100		98.9	80-120			
Arsenic	0.0964	0.00800	mg/L	0.100		96.4	80-120			
Barium	0.106	0.00400	mg/L	0.100		106	80-120			
Beryllium	0.0984	0.00200	mg/L	0.100		98.4	80-120			
Cadmium	0.0986	0.000800	mg/L	0.100		98.6	80-120			
Chromium	0.0972	0.00400	mg/L	0.100		97.2	80-120			
Cobalt	0.0992	0.00200	mg/L	0.100		99.2	80-120			
Copper	0.102	0.0200	mg/L	0.100		102	80-120			
Lead	0.100	0.00400	mg/L	0.100		100	80-120			
Nickel	0.0975	0.0200	mg/L	0.100		97.5	80-120			
Selenium	0.0959	0.00800	mg/L	0.100		95.9	80-120			
Silver	0.102	0.0200	mg/L	0.100		102	80-120			
Thallium	0.101	0.00200	mg/L	0.100		101	80-120			
Vanadium	0.0972	0.00800	mg/L	0.100		97.2	80-120			
Zinc	0.102	0.0200	mg/L	0.100		102	80-120			
Matrix Spike (1JC0509-MS1)		Source: 1JC0768-01		Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:06						
Antimony	0.105	0.00400	mg/L	0.100	ND	105	75-125			M6
Arsenic	0.104	0.00800	mg/L	0.100	ND	104	75-125			
Barium	0.800	0.00400	mg/L	0.100	0.820	NR	75-125			
Beryllium	0.104	0.00200	mg/L	0.100	ND	104	75-125			
Cadmium	0.104	0.000800	mg/L	0.100	ND	104	75-125			
Chromium	0.104	0.00400	mg/L	0.100	ND	104	75-125			
Cobalt	0.107	0.00200	mg/L	0.100	0.00512	102	75-125			
Copper	0.102	0.0200	mg/L	0.100	ND	102	75-125			
Lead	0.106	0.00400	mg/L	0.100	ND	106	75-125			
Nickel	0.118	0.0200	mg/L	0.100	0.0198	98.1	75-125			
Selenium	0.105	0.00800	mg/L	0.100	ND	105	75-125			
Silver	0.107	0.0200	mg/L	0.100	ND	107	75-125			
Thallium	0.107	0.00200	mg/L	0.100	ND	107	75-125			
Vanadium	0.107	0.00800	mg/L	0.100	0.00144	105	75-125			
Zinc	0.109	0.0200	mg/L	0.100	ND	109	75-125			
Matrix Spike (1JC0509-MS2)		Source: 1JC0768-08		Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:36						
Antimony	0.0958	0.00400	mg/L	0.100	ND	95.8	75-125			
Arsenic	0.0943	0.00800	mg/L	0.100	ND	94.3	75-125			
Barium	0.190	0.00400	mg/L	0.100	0.0936	96.0	75-125			
Beryllium	0.0959	0.00200	mg/L	0.100	ND	95.9	75-125			
Cadmium	0.0943	0.000800	mg/L	0.100	ND	94.3	75-125			
Chromium	0.0957	0.00400	mg/L	0.100	ND	95.7	75-125			

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1JC0768

Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0509 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Matrix Spike (1JC0509-MS2) Source: 1JC0768-08 Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:36										
Cobalt	0.0942	0.00200	mg/L	0.100	ND	94.2	75-125			
Copper	0.0933	0.0200	mg/L	0.100	ND	93.3	75-125			
Lead	0.0977	0.00400	mg/L	0.100	ND	97.7	75-125			
Nickel	0.0919	0.0200	mg/L	0.100	ND	91.9	75-125			
Selenium	0.100	0.00800	mg/L	0.100	ND	100	75-125			
Silver	0.0997	0.0200	mg/L	0.100	ND	99.7	75-125			
Thallium	0.100	0.00200	mg/L	0.100	ND	100	75-125			
Vanadium	0.0960	0.00800	mg/L	0.100	ND	96.0	75-125			
Zinc	0.0977	0.0200	mg/L	0.100	ND	97.7	75-125			
Matrix Spike Dup (1JC0509-MSD1) Source: 1JC0768-01 Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:08										
Antimony	0.0937	0.00400	mg/L	0.100	ND	93.7	75-125	11.4	20	
Arsenic	0.0928	0.00800	mg/L	0.100	ND	92.8	75-125	11.2	20	
Barium	0.705	0.00400	mg/L	0.100	0.820	NR	75-125	12.7	20	M6
Beryllium	0.0941	0.00200	mg/L	0.100	ND	94.1	75-125	10.2	20	
Cadmium	0.0926	0.000800	mg/L	0.100	ND	92.6	75-125	11.7	20	
Chromium	0.0929	0.00400	mg/L	0.100	ND	92.9	75-125	11.0	20	
Cobalt	0.0957	0.00200	mg/L	0.100	0.00512	90.6	75-125	11.0	20	
Copper	0.0924	0.0200	mg/L	0.100	ND	92.4	75-125	9.74	20	
Lead	0.0949	0.00400	mg/L	0.100	ND	94.9	75-125	11.0	20	
Nickel	0.106	0.0200	mg/L	0.100	0.0198	86.2	75-125	10.6	20	
Selenium	0.0944	0.00800	mg/L	0.100	ND	94.4	75-125	11.1	20	
Silver	0.0980	0.0200	mg/L	0.100	ND	98.0	75-125	8.72	20	
Thallium	0.0969	0.00200	mg/L	0.100	ND	96.9	75-125	10.3	20	
Vanadium	0.0944	0.00800	mg/L	0.100	0.00144	93.0	75-125	12.1	20	
Zinc	0.0989	0.0200	mg/L	0.100	ND	98.9	75-125	9.48	20	
Matrix Spike Dup (1JC0509-MSD2) Source: 1JC0768-08 Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:39										
Antimony	0.101	0.00400	mg/L	0.100	ND	101	75-125	5.06	20	
Arsenic	0.0937	0.00800	mg/L	0.100	ND	93.7	75-125	0.600	20	
Barium	0.194	0.00400	mg/L	0.100	0.0936	100	75-125	2.28	20	
Beryllium	0.0959	0.00200	mg/L	0.100	ND	95.9	75-125	0.0417	20	
Cadmium	0.0986	0.000800	mg/L	0.100	ND	98.6	75-125	4.39	20	
Chromium	0.0955	0.00400	mg/L	0.100	ND	95.5	75-125	0.209	20	
Cobalt	0.0952	0.00200	mg/L	0.100	ND	95.2	75-125	0.988	20	
Copper	0.0956	0.0200	mg/L	0.100	ND	95.6	75-125	2.43	20	
Lead	0.0999	0.00400	mg/L	0.100	ND	99.9	75-125	2.20	20	
Nickel	0.0940	0.0200	mg/L	0.100	ND	94.0	75-125	2.30	20	
Selenium	0.101	0.00800	mg/L	0.100	ND	101	75-125	1.39	20	
Silver	0.101	0.0200	mg/L	0.100	ND	101	75-125	1.22	20	
Thallium	0.102	0.00200	mg/L	0.100	ND	102	75-125	1.81	20	
Vanadium	0.0954	0.00800	mg/L	0.100	ND	95.4	75-125	0.543	20	
Zinc	0.0986	0.0200	mg/L	0.100	ND	98.6	75-125	0.986	20	
Post Spike (1JC0509-PS1) Source: 1JC0768-01 Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:11										
Antimony	0.0216		mg/L	0.0200	0.000314	107	80-120			

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1JC0768

Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JC0509 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1JC0509-PS1)		Source: 1JC0768-01		Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:11						
Arsenic	0.0208		mg/L	0.0200	0.000711	100	80-120			M6
Barium	0.791		mg/L	0.0200	0.820	NR	80-120			
Beryllium	0.0208		mg/L	0.0200	0.0000500	104	80-120			
Cadmium	0.0213		mg/L	0.0200	0.000141	106	80-120			
Chromium	0.0215		mg/L	0.0200	0.00100	103	80-120			
Cobalt	0.0257		mg/L	0.0200	0.00512	103	80-120			
Copper	0.0216		mg/L	0.0200	0.00153	100	80-120			
Lead	0.0217		mg/L	0.0200	0.000328	107	80-120			
Nickel	0.0388		mg/L	0.0200	0.0198	95.1	80-120			
Selenium	0.0215		mg/L	0.0200	0.000913	103	80-120			
Silver	0.0214		mg/L	0.0200	0.000133	107	80-120			
Thallium	0.0212		mg/L	0.0200	0.0000170	106	80-120			
Vanadium	0.0224		mg/L	0.0200	0.00144	105	80-120			
Zinc	0.0251		mg/L	0.0200	0.00503	100	80-120			
Post Spike (1JC0509-PS2)		Source: 1JC0768-08		Prepared: 03/10/26 15:51 Analyzed: 03/12/26 18:42						
Antimony	0.0218		mg/L	0.0200	0.000259	108	80-120			
Arsenic	0.0199		mg/L	0.0200	0.000744	99.5	80-120			
Barium	0.113		mg/L	0.0200	0.0936	98.7	80-120			
Beryllium	0.0213		mg/L	0.0200	0.0000150	106	80-120			
Cadmium	0.0215		mg/L	0.0200	0.0000110	107	80-120			
Chromium	0.0221		mg/L	0.0200	0.00108	105	80-120			
Cobalt	0.0216		mg/L	0.0200	0.0000500	108	80-120			
Copper	0.0207		mg/L	0.0200	0.000442	101	80-120			
Lead	0.0219		mg/L	0.0200	0.0000180	109	80-120			
Nickel	0.0204		mg/L	0.0200	0.000480	99.4	80-120			
Selenium	0.0234		mg/L	0.0200	0.00316	101	80-120			
Silver	0.0218		mg/L	0.0200	0.0000410	109	80-120			
Thallium	0.0217		mg/L	0.0200	0.0000020	109	80-120			
Vanadium	0.0212		mg/L	0.0200	0.000198	106	80-120			
Zinc	0.0229		mg/L	0.0200	0.00204	104	80-120			

Batch Quality Control Summary: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6C0921 - 5021 - EPA RSK-175										
Blank (B6C0921-BLK1)	Prepared & Analyzed: 03/16/26 12:44									
Methane	<5.00	5.00	ug/L							
Ethene	<5.00	5.00	ug/L							
Ethane	<5.00	5.00	ug/L							

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JC0768

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch B6C0921 - 5021 - EPA RSK-175									
LCS (B6C0921-BS1) Prepared: 03/16/26 17:54 Analyzed: 03/16/26 18:10									
Methane	85.9	5.00	ug/L	85.64131		100	85-115		
Ethene	153	5.00	ug/L	149.7655		102	85-115		
Ethane	164	5.00	ug/L	160.4974		102	85-115		
LCS Dup (B6C0921-BSD1) Prepared & Analyzed: 03/16/26 18:25									
Methane	77.8	5.00	ug/L	85.64131		90.9	85-115	9.81	40
Ethene	140	5.00	ug/L	149.7655		93.7	85-115	8.62	40
Ethane	149	5.00	ug/L	160.4974		93.1	85-115	9.05	40

Definitions

M6:	Matrix spike recovery is outside of acceptance limits. The analyte concentration is greater than 4X the spiking level.
R1:	Duplicate RPD is outside acceptance criteria.
RL:	Reporting Limit
RPD:	Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 5.4°C

Cooler Inspection Checklist

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

Report Comments

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

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
03/23/26 16:56

CHAIN OF CUSTODY RECORD



600 East 17th Street South
Newton, IA 50208
Phone: 641-792-8451

Page 1 of 3
Printed: 2/4/2026 9:05:06AM

SITE INFORMATION

Sampler: JGH

Project: Page Co-New Regs
6047

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

SPECIAL INSTRUCTIONS

None

Turn Around Time

☒ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY



1 J C 0 7 6 8

HLW Engineering
PM: Heather Murphy

Temperature: 5.4 °C

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses		Lab Sample Number
01-001	MW-1D	Aqueous	GRAB	3/4/26	8:23	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	01
02-001	MW-3	Aqueous	GRAB	3/4/26	9:32	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	02
03-001	MW-7	Aqueous	GRAB	3/5/26	10:03	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	03
04-001	MW-10	Aqueous	GRAB	3/5/26	10:28	7	Indfil-app2-org	Indfill-app2-inorg-6020	04
05-001	MW-13	Aqueous	GRAB	3/4/26	11:06	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	05
06-001	MW-14	Aqueous	GRAB	3/4/26	10:38	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	06
07-001	MW-16	Aqueous	GRAB	3/4/26	10:17	10	Indfil-app1-metals-6020 permgas-rsk-175	Indfill-app1-voc-group	07
08-001	MW-17 (b)	Aqueous	GRAB	3/4/26	9:12	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	08
09-001	MW-18	Aqueous	GRAB	3/4/26	9:55	10	Indfil-app1-metals-6020 permgas-rsk-175	Indfill-app1-voc-group	09
10-001	MW-19 ^R	Aqueous	GRAB	3/4/26	11:23	7	Indfil-app1-metals-6020	Indfill-app1-voc-group	10

Relinquished By J. LO [Signature] Date/Time 3/6/26

Received By _____ Date/Time _____

Relinquished By _____ Date/Time _____

[Signature] 3/6/26 10:50
Received for Lab By _____ Date/Time _____

Remarks:

CHAIN OF CUSTODY RECORD



600 East 17th Street South
Newton, IA 50208
Phone: 641-792-8451

Page 2 of 3
Printed: 2/4/2026 9:05:06AM

SITE INFORMATION

Sampler: Le H

Project: Page Co-New Regs
6047

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

SPECIAL INSTRUCTIONS

None

Turn Around Time

☒ Standard ☐ RUSH, need by ___/___/___

LAB USE ONLY



1 J C 0 7 6 8

HLW Engineering
PM: Heather Murphy

Temperature: _____ °C

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses	Lab Sample Number
11-001	MW-20	Aqueous	GRAB	3/5/26	11:48	7	Indfil-app1-metals-6020 Indfil-app1-voc-group	
12-001	GWD-1	Aqueous	GRAB	3/5/26	11:29	7	Indfil-app1-metals-6020 Indfil-app1-voc-group	
13-001	Duplicate	Aqueous	GRAB	3/5/26	10:54	7	Indfil-app1-metals-6020 Indfil-app1-voc-group	
14-001	MW-44 (b)	Aqueous	GRAB	3/4/26	8:48	7	Indfil-app1-metals-6020 Indfil-app1-voc-group	
15-001	MW-53	Aqueous	GRAB	3/5/26	10:54	7	Indfil-app1-metals-6020 Indfil-app1-voc-group	
16-001	GWD-2 DRY	Aqueous	GRAB				Indfil-app1-metals-6020 Indfil-app1-voc-group	
17-001	GWD-3 DRY	Aqueous	GRAB				Indfil-app1-metals-6020 Indfil-app1-voc-group	
18-001	GWD-4 DRY	Aqueous	GRAB				Indfil-app1-metals-6020 Indfil-app1-voc-group	

Relinquished By J. C. [Signature]

Date/Time 3/6/26

Relinquished By David [Signature]

Date/Time 3/6/26

Received By

Date/Time

Received for Lab By

Date/Time

Remarks:



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JF0701

Project Description

6047

For:

Todd Whipple

HLW Engineering

204 West Broad St

Story City, IA 50248

Heather Murphy

Customer Relationship Specialist

Friday, June 12, 2026

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.

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JF0701

HLW Engineering

Todd Whipple
204 West Broad St
Story City, IA 50248

Project Name: 6047

Project / PO Number: N/A
Received: 06/04/2026
Reported: 06/12/2026

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>
MW-55	1JF0701-01	Aqueous	GRAB		06/03/26 11:05	06/04/26 11:09
MW-56	1JF0701-02	Aqueous	GRAB		06/03/26 10:23	06/04/26 11:09



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JF0701

Analytical Testing Parameters

Client Sample ID: MW-55
Sample Matrix: Aqueous
Lab Sample ID: 1JF0701-01

Collected By: Whipple, Todd
Collection Date: 06/03/2026 11:05

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA RSK-175							
Methane	<5.00	5.00	ug/L		06/11/26 1100	06/11/26 1404	KJB
Ethene	<5.00	5.00	ug/L		06/11/26 1100	06/11/26 1404	KJB
Ethane	<5.00	5.00	ug/L		06/11/26 1100	06/11/26 1404	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Vinyl Chloride	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Bromomethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Chloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Acetone	<10.0	10.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Methyl Iodide	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Carbon Disulfide	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Methylene Chloride	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Acrylonitrile	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1-Dichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Vinyl Acetate	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Bromochloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Chloroform	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Benzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Trichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Dibromomethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Bromodichloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Toluene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF

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Page 3 of 20



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JF0701

Client Sample ID: MW-55
Sample Matrix: Aqueous
Lab Sample ID: 1JF0701-01

Collected By: Whipple, Todd
Collection Date: 06/03/2026 11:05

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
2-Hexanone (MBK)	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Dibromochloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Chlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Ethylbenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Xylenes, total	<2.0	2.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Styrene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Bromoform	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1329	RAF
Surrogate: Dibromofluoromethane	118	Limit: 57-128	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: Dibromofluoromethane	118	Limit: 75-136	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: 1,2-Dichloroethane-d4	116	Limit: 49-135	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: 1,2-Dichloroethane-d4	116	Limit: 61-142	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: Toluene-d8	104	Limit: 82-116	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: Toluene-d8	104	Limit: 82-121	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: 4-Bromofluorobenzene	97.4	Limit: 80-116	% Rec		06/08/26 0000	06/08/26 1329	RAF
Surrogate: 4-Bromofluorobenzene	97.4	Limit: 77-114	% Rec		06/08/26 0000	06/08/26 1329	RAF
Metals Total by ICPMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1844	RVV
Arsenic	<0.00200	0.00200	mg/L		06/05/26 1607	06/08/26 1844	RVV
Barium	0.0205	0.00100	mg/L		06/05/26 1607	06/08/26 1844	RVV
Beryllium	<0.000500	0.000500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Cadmium	<0.000200	0.000200	mg/L		06/05/26 1607	06/08/26 1844	RVV
Chromium	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1844	RVV
Cobalt	<0.000500	0.000500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Copper	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Lead	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1844	RVV
Nickel	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Selenium	<0.00200	0.00200	mg/L		06/05/26 1607	06/08/26 1844	RVV
Silver	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Thallium	<0.000500	0.000500	mg/L		06/05/26 1607	06/08/26 1844	RVV
Vanadium	<0.00200	0.00200	mg/L		06/05/26 1607	06/08/26 1844	RVV
Zinc	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1844	RVV

Microbac Laboratories, Inc., Newton

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Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS

1JF0701

Client Sample ID: MW-56
Sample Matrix: Aqueous
Lab Sample ID: 1JF0701-02

Collected By: Whipple, Todd
Collection Date: 06/03/2026 10:23

Analyses Performed by: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA RSK-175							
Methane	224	5.00	ug/L		06/11/26 1100	06/11/26 1422	KJB
Ethene	<5.00	5.00	ug/L		06/11/26 1100	06/11/26 1422	KJB
Ethane	<5.00	5.00	ug/L		06/11/26 1100	06/11/26 1422	KJB

Analyses Performed by: Microbac Laboratories, Inc., Newton

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
EPA 5030B/EPA 8260D							
Chloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Vinyl Chloride	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Bromomethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Chloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Trichlorofluoromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Acetone	<10.0	10.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Methyl Iodide	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Carbon Disulfide	<1.0	1.0	ug/L		06/11/26 0000	06/11/26 1814	RAF
Methylene Chloride	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Acrylonitrile	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1-Dichloroethane	1.1	1.0	ug/L		06/11/26 0000	06/11/26 1814	RAF
Vinyl Acetate	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
2-Butanone (MEK)	<10.0	10.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Bromochloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Chloroform	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1,1-Trichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Carbon Tetrachloride	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Benzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2-Dichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Trichloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2-Dichloropropane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Dibromomethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Bromodichloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
cis-1,3-Dichloropropene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Toluene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
trans-1,3-Dichloropropene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1,2-Trichloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Tetrachloroethylene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
2-Hexanone (MBK)	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF

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CERTIFICATE OF ANALYSIS

1JF0701

Client Sample ID: MW-56
Sample Matrix: Aqueous
Lab Sample ID: 1JF0701-02

Collected By: Whipple, Todd
Collection Date: 06/03/2026 10:23

Determination of Volatile Organic Compounds	Result	RL	Units	Note	Prepared	Analyzed	Analyst
Dibromochloromethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2-Dibromoethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Chlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Ethylbenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Xylenes, total	<2.0	2.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Styrene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Bromoform	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2,3-Trichloropropane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
trans-1,4-Dichloro-2-butene	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,1,2,2-Tetrachloroethane	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,4-Dichlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2-Dichlorobenzene	<1.0	1.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
1,2-Dibromo-3-chloropropane	<5.0	5.0	ug/L		06/08/26 0000	06/08/26 1353	RAF
Surrogate: Dibromofluoromethane	119	Limit: 75-136	% Rec		06/11/26 0000	06/11/26 1814	RAF
Surrogate: Dibromofluoromethane	117	Limit: 57-128	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: Dibromofluoromethane	117	Limit: 75-136	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: 1,2-Dichloroethane-d4	122	Limit: 61-142	% Rec		06/11/26 0000	06/11/26 1814	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 61-142	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: 1,2-Dichloroethane-d4	112	Limit: 49-135	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: Toluene-d8	104	Limit: 82-121	% Rec		06/11/26 0000	06/11/26 1814	RAF
Surrogate: Toluene-d8	105	Limit: 82-116	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: Toluene-d8	105	Limit: 82-121	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: 4-Bromofluorobenzene	97.3	Limit: 80-116	% Rec		06/11/26 0000	06/11/26 1814	RAF
Surrogate: 4-Bromofluorobenzene	100	Limit: 77-114	% Rec		06/08/26 0000	06/08/26 1353	RAF
Surrogate: 4-Bromofluorobenzene	100	Limit: 80-116	% Rec		06/08/26 0000	06/08/26 1353	RAF
Metals Total by ICPMS							
EPA 3005A/EPA 6020A							
Antimony	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1900	RVV
Arsenic	0.00661	0.00200	mg/L		06/05/26 1607	06/08/26 1900	RVV
Barium	0.302	0.00100	mg/L		06/05/26 1607	06/08/26 1900	RVV
Beryllium	<0.000500	0.000500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Cadmium	<0.000200	0.000200	mg/L		06/05/26 1607	06/08/26 1900	RVV
Chromium	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1900	RVV
Cobalt	0.00319	0.000500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Copper	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Lead	<0.00100	0.00100	mg/L		06/05/26 1607	06/08/26 1900	RVV
Nickel	0.00656	0.00500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Selenium	<0.00200	0.00200	mg/L		06/05/26 1607	06/08/26 1900	RVV
Silver	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Thallium	<0.000500	0.000500	mg/L		06/05/26 1607	06/08/26 1900	RVV
Vanadium	<0.00200	0.00200	mg/L		06/05/26 1607	06/08/26 1900	RVV
Zinc	<0.00500	0.00500	mg/L		06/05/26 1607	06/08/26 1900	RVV

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CERTIFICATE OF ANALYSIS

1JF0701



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CERTIFICATE OF ANALYSIS

1JF0701

Batch Log Summary

Method	Batch	Laboratory ID	Client / Source ID
EPA 6020A	1JF0396	1JF0396-BLK1	
		1JF0396-BS1	
		1JF0701-01	MW-55
		1JF0396-MS1	1JF0701-01
		1JF0396-MSD1	1JF0701-01
		1JF0396-PS1	1JF0701-01
		1JF0701-02	MW-56
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JF0477	1JF0477-BS1	
		1JF0477-BSD1	
		1JF0477-BLK1	
		1JF0701-01	MW-55
		1JF0701-02	MW-56
		1JF0477-MS1	1JF0701-01
		1JF0477-MSD1	1JF0701-01
Method	Batch	Laboratory ID	Client / Source ID
EPA 8260D	1JF0712	1JF0712-BS1	
		1JF0712-BSD1	
		1JF0712-BLK1	
		1JF0701-02RE1	MW-56
		1JF0712-MS1	3JF0053-08
		1JF0712-MSD1	3JF0053-08
Method	Batch	Laboratory ID	Client / Source ID
EPA RSK-175	B6F0657	B6F0657-BLK1	
		B6F0657-BS1	
		B6F0657-BSD1	
		1JF0701-01	MW-55
		1JF0701-02	MW-56

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
Batch 1JF0477 - EPA 5030B - EPA 8260D										
Blank (1JF0477-BLK1)				Prepared: 06/08/26 00:00 Analyzed: 06/08/26 11:26						
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							
Trichlorofluoromethane	<1.0	1.0	ug/L							
1,1-Dichloroethylene	<1.0	1.0	ug/L							
Acetone	<10.0	10.0	ug/L							
Methyl Iodide	<1.0	1.0	ug/L							
Carbon Disulfide	<1.0	1.0	ug/L							
Methylene Chloride	<5.0	5.0	ug/L							
Acrylonitrile	<5.0	5.0	ug/L							

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
Blank (1JF0477-BLK1)				Prepared: 06/08/26 00:00 Analyzed: 06/08/26 11:26						
trans-1,2-Dichloroethylene	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Vinyl Acetate	<5.0	5.0	ug/L							
cis-1,2-Dichloroethylene	<1.0	1.0	ug/L							
2-Butanone (MEK)	<10.0	10.0	ug/L							
Bromochloromethane	<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							
Dibromomethane	<1.0	1.0	ug/L							
Bromodichloromethane	<1.0	1.0	ug/L							
cis-1,3-Dichloropropene	<1.0	1.0	ug/L							
4-Methyl-2-pentanone (MIBK)	<5.0	5.0	ug/L							
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							
2-Hexanone (MBK)	<5.0	5.0	ug/L							
Dibromochloromethane	<1.0	1.0	ug/L							
1,2-Dibromoethane	<1.0	1.0	ug/L							
Chlorobenzene	<1.0	1.0	ug/L							
1,1,1,2-Tetrachloroethane	<1.0	1.0	ug/L							
Ethylbenzene	<1.0	1.0	ug/L							
Xylenes, total	<2.0	2.0	ug/L							
Styrene	<1.0	1.0	ug/L							
Bromoform	<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							
1,1,2,2-Tetrachloroethane	<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-Dibromo-3-chloropropane	<5.0	5.0	ug/L							
Surrogate: Dibromofluoromethane	56.4		ug/L	50.2			112 57-128			
Surrogate: Dibromofluoromethane	56.4		ug/L	50.2			112 75-136			
Surrogate: 1,2-Dichloroethane-d4	54.8		ug/L	50.4			109 49-135			
Surrogate: 1,2-Dichloroethane-d4	54.8		ug/L	50.4			109 61-142			
Surrogate: Toluene-d8	50.9		ug/L	50.5			101 82-116			
Surrogate: Toluene-d8	50.9		ug/L	50.5			101 82-121			
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2			101 77-114			

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CERTIFICATE OF ANALYSIS

1JF0701

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D									
Blank (1JF0477-BLK1)									
Prepared: 06/08/26 00:00 Analyzed: 06/08/26 11:26									
Surrogate: 4-Bromofluorobenzene	50.8		ug/L	50.2		101	80-116		
LCS (1JF0477-BS1)									
Prepared: 06/08/26 00:00 Analyzed: 06/08/26 10:12									
Chloromethane	90.03	1.0	ug/L	60.6		148	63-155		
Vinyl Chloride	96.00	1.0	ug/L	60.5		159	70-154		Q2
Bromomethane	83.97	1.0	ug/L	60.2		139	52-176		
Chloroethane	101.5	1.0	ug/L	60.6		167	72-148		Q2
Trichlorofluoromethane	96.76	1.0	ug/L	60.6		160	70-152		Q2
1,1-Dichloroethylene	63.90	1.0	ug/L	50.1		127	70-148		
Acetone	119.9	10.0	ug/L	100		120	43-172		
Methyl Iodide	125.0	1.0	ug/L	100		125	69-170		
Carbon Disulfide	130.2	1.0	ug/L	100		130	72-162		
Methylene Chloride	64.12	5.0	ug/L	50.1		128	68-142		
Acrylonitrile	61.78	5.0	ug/L	50.4		123	33-163		
trans-1,2-Dichloroethylene	62.33	1.0	ug/L	50.1		124	66-148		
1,1-Dichloroethane	63.77	1.0	ug/L	50.1		127	66-143		
Vinyl Acetate	77.69	5.0	ug/L	50.0		155	43-153		Q2
cis-1,2-Dichloroethylene	61.30	1.0	ug/L	50.4		122	71-149		
2-Butanone (MEK)	122.1	10.0	ug/L	100		122	52-159		
Bromochloromethane	63.79	1.0	ug/L	50.4		127	69-143		
Chloroform	60.31	1.0	ug/L	50.1		120	69-144		
1,1,1-Trichloroethane	64.36	1.0	ug/L	50.1		128	62-129		
Carbon Tetrachloride	61.22	1.0	ug/L	50.1		122	63-141		
Benzene	58.71	1.0	ug/L	50.4		116	71-134		
1,2-Dichloroethane	58.62	1.0	ug/L	50.1		117	72-132		
Trichloroethylene	58.78	1.0	ug/L	50.1		117	71-135		
1,2-Dichloropropane	60.81	1.0	ug/L	50.1		121	69-136		
Dibromomethane	56.23	1.0	ug/L	50.4		112	73-147		
Bromodichloromethane	59.13	1.0	ug/L	50.1		118	68-129		
cis-1,3-Dichloropropene	60.75	1.0	ug/L	50.1		121	65-134		
4-Methyl-2-pentanone (MIBK)	118.2	5.0	ug/L	100		118	58-147		
Toluene	57.39	1.0	ug/L	50.5		114	72-133		
trans-1,3-Dichloropropene	60.89	1.0	ug/L	50.1		122	67-130		
1,1,2-Trichloroethane	57.67	1.0	ug/L	50.1		115	69-135		
Tetrachloroethylene	53.93	1.0	ug/L	50.1		108	69-130		
2-Hexanone (MBK)	108.3	5.0	ug/L	100		108	55-144		
Dibromochloromethane	54.60	1.0	ug/L	50.1		109	73-127		
1,2-Dibromoethane	54.27	1.0	ug/L	50.2		108	67-132		
Chlorobenzene	54.76	1.0	ug/L	50.1		109	72-123		
1,1,1,2-Tetrachloroethane	56.86	1.0	ug/L	50.3		113	73-127		
Ethylbenzene	53.39	1.0	ug/L	50.2		106	71-127		
Xylenes, total	162.1	2.0	ug/L	151		107	74-127		
Styrene	54.56	1.0	ug/L	50.4		108	66-126		

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CERTIFICATE OF ANALYSIS

1JF0701

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
LCS (1JF0477-BS1)										
				Prepared: 06/08/26 00:00 Analyzed: 06/08/26 10:12						
Bromoform	51.14	1.0	ug/L	50.1		102	68-130			
1,2,3-Trichloropropane	54.39	1.0	ug/L	50.3		108	63-136			
trans-1,4-Dichloro-2-butene	105.8	5.0	ug/L	100		106	54-134			
1,1,2,2-Tetrachloroethane	53.01	1.0	ug/L	50.1		106	61-131			
1,4-Dichlorobenzene	53.56	1.0	ug/L	50.1		107	70-129			
1,2-Dichlorobenzene	52.75	1.0	ug/L	50.1		105	69-126			
1,2-Dibromo-3-chloropropane	47.06	5.0	ug/L	50.1		93.9	50-143			
Surrogate: Dibromofluoromethane	54.2		ug/L	50.2		108	57-128			
Surrogate: Dibromofluoromethane	54.2		ug/L	50.2		108	75-136			
Surrogate: 1,2-Dichloroethane-d4	54.3		ug/L	50.4		108	49-135			
Surrogate: 1,2-Dichloroethane-d4	54.3		ug/L	50.4		108	61-142			
Surrogate: Toluene-d8	50.9		ug/L	50.5		101	82-116			
Surrogate: Toluene-d8	50.9		ug/L	50.5		101	82-121			
Surrogate: 4-Bromofluorobenzene	51.4		ug/L	50.2		102	77-114			
Surrogate: 4-Bromofluorobenzene	51.4		ug/L	50.2		102	80-116			
LCS Dup (1JF0477-BS1)										
				Prepared: 06/08/26 00:00 Analyzed: 06/08/26 10:37						
Chloromethane	94.18	1.0	ug/L	60.6		155	63-155	4.51	24	
Vinyl Chloride	98.12	1.0	ug/L	60.5		162	70-154	2.18	25	Q2
Bromomethane	89.84	1.0	ug/L	60.2		149	52-176	6.75	27	
Chloroethane	105.6	1.0	ug/L	60.6		174	72-148	3.92	25	Q2
Trichlorofluoromethane	100.1	1.0	ug/L	60.6		165	70-152	3.42	26	Q2
1,1-Dichloroethylene	66.25	1.0	ug/L	50.1		132	70-148	3.61	24	
Acetone	123.5	10.0	ug/L	100		123	43-172	2.93	30	
Methyl Iodide	126.9	1.0	ug/L	100		127	69-170	1.48	30	
Carbon Disulfide	136.1	1.0	ug/L	100		136	72-162	4.43	24	
Methylene Chloride	66.33	5.0	ug/L	50.1		132	68-142	3.39	21	
Acrylonitrile	64.56	5.0	ug/L	50.4		128	33-163	4.40	28	
trans-1,2-Dichloroethylene	64.05	1.0	ug/L	50.1		128	66-148	2.72	27	
1,1-Dichloroethane	65.06	1.0	ug/L	50.1		130	66-143	2.00	24	
Vinyl Acetate	72.02	5.0	ug/L	50.0		144	43-153	7.57	30	
cis-1,2-Dichloroethylene	63.37	1.0	ug/L	50.4		126	71-149	3.32	26	
2-Butanone (MEK)	129.9	10.0	ug/L	100		130	52-159	6.21	27	
Bromochloromethane	66.01	1.0	ug/L	50.4		131	69-143	3.42	23	
Chloroform	62.80	1.0	ug/L	50.1		125	69-144	4.05	23	
1,1,1-Trichloroethane	66.06	1.0	ug/L	50.1		132	62-129	2.61	24	Q2
Carbon Tetrachloride	63.55	1.0	ug/L	50.1		127	63-141	3.73	25	
Benzene	60.80	1.0	ug/L	50.4		121	71-134	3.50	24	
1,2-Dichloroethane	59.95	1.0	ug/L	50.1		120	72-132	2.24	24	
Trichloroethylene	60.71	1.0	ug/L	50.1		121	71-135	3.23	24	
1,2-Dichloropropane	62.26	1.0	ug/L	50.1		124	69-136	2.36	24	
Dibromomethane	57.02	1.0	ug/L	50.4		113	73-147	1.40	25	
Bromodichloromethane	61.67	1.0	ug/L	50.1		123	68-129	4.21	22	
cis-1,3-Dichloropropene	62.13	1.0	ug/L	50.1		124	65-134	2.25	23	

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Page 11 of 20



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CERTIFICATE OF ANALYSIS

1JF0701

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
LCS Dup (1JF0477-BSD1)				Prepared: 06/08/26 00:00 Analyzed: 06/08/26 10:37						
4-Methyl-2-pentanone (MIBK)	119.2	5.0	ug/L	100		119	58-147	0.851	27	
Toluene	58.96	1.0	ug/L	50.5		117	72-133	2.70	24	
trans-1,3-Dichloropropene	61.37	1.0	ug/L	50.1		123	67-130	0.785	24	
1,1,2-Trichloroethane	58.12	1.0	ug/L	50.1		116	69-135	0.777	23	
Tetrachloroethylene	57.58	1.0	ug/L	50.1		115	69-130	6.55	25	
2-Hexanone (MBK)	111.6	5.0	ug/L	100		112	55-144	2.93	25	
Dibromochloromethane	55.68	1.0	ug/L	50.1		111	73-127	1.96	22	
1,2-Dibromoethane	56.04	1.0	ug/L	50.2		112	67-132	3.21	24	
Chlorobenzene	57.01	1.0	ug/L	50.1		114	72-123	4.03	23	
1,1,1,2-Tetrachloroethane	57.46	1.0	ug/L	50.3		114	73-127	1.05	24	
Ethylbenzene	56.15	1.0	ug/L	50.2		112	71-127	5.04	26	
Xylenes, total	169.2	2.0	ug/L	151		112	74-127	4.27	25	
Styrene	56.23	1.0	ug/L	50.4		112	66-126	3.01	23	
Bromoform	52.60	1.0	ug/L	50.1		105	68-130	2.81	23	
1,2,3-Trichloropropane	54.34	1.0	ug/L	50.3		108	63-136	0.0920	24	
trans-1,4-Dichloro-2-butene	107.3	5.0	ug/L	100		107	54-134	1.44	27	
1,1,1,2-Tetrachloroethane	55.07	1.0	ug/L	50.1		110	61-131	3.81	29	
1,4-Dichlorobenzene	55.64	1.0	ug/L	50.1		111	70-129	3.81	24	
1,2-Dichlorobenzene	54.77	1.0	ug/L	50.1		109	69-126	3.76	26	
1,2-Dibromo-3-chloropropane	51.10	5.0	ug/L	50.1		102	50-143	8.23	30	
Surrogate: Dibromofluoromethane	53.0		ug/L	50.2		105	57-128			
Surrogate: Dibromofluoromethane	53.0		ug/L	50.2		105	75-136			
Surrogate: 1,2-Dichloroethane-d4	53.9		ug/L	50.4		107	49-135			
Surrogate: 1,2-Dichloroethane-d4	53.9		ug/L	50.4		107	61-142			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-116			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	50.9		ug/L	50.2		101	77-114			
Surrogate: 4-Bromofluorobenzene	50.9		ug/L	50.2		101	80-116			
Matrix Spike (1JF0477-MS1)				Source: 1JF0701-01		Prepared: 06/08/26 00:00 Analyzed: 06/08/26 18:48				
Chloromethane	946.7	10.0	ug/L	606	ND	156	61-152			M1
Vinyl Chloride	989.7	10.0	ug/L	605	ND	164	66-149			M1
Bromomethane	904.6	10.0	ug/L	602	ND	150	43-171			
Chloroethane	1057	10.0	ug/L	606	ND	174	69-148			M1
Trichlorofluoromethane	1018	10.0	ug/L	606	ND	168	62-163			M1
1,1-Dichloroethylene	680.8	10.0	ug/L	501	ND	136	70-148			
Acetone	1385	100	ug/L	1000	ND	139	45-173			
Methyl Iodide	1288	10.0	ug/L	1000	ND	129	62-167			
Carbon Disulfide	1366	10.0	ug/L	1000	ND	137	71-163			
Methylene Chloride	664.8	50.0	ug/L	501	ND	133	69-140			
Acrylonitrile	672.4	50.0	ug/L	504	ND	134	32-159			
trans-1,2-Dichloroethylene	650.5	10.0	ug/L	501	ND	130	69-144			
1,1-Dichloroethane	666.9	10.0	ug/L	501	ND	133	70-138			
Vinyl Acetate	830.1	50.0	ug/L	500	ND	166	58-142			M1

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1JF0701

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
Matrix Spike (1JF0477-MS1)	Source: 1JF0701-01			Prepared: 06/08/26 00:00 Analyzed: 06/08/26 18:48						
cis-1,2-Dichloroethylene	649.4	10.0	ug/L	504	ND	129	68-151			
2-Butanone (MEK)	1453	100	ug/L	1000	ND	145	50-160			
Bromochloromethane	687.1	10.0	ug/L	504	ND	136	65-143			
Chloroform	616.1	10.0	ug/L	501	ND	123	71-143			
1,1,1-Trichloroethane	669.9	10.0	ug/L	501	ND	134	63-133			M1
Carbon Tetrachloride	651.1	10.0	ug/L	501	ND	130	63-142			
Benzene	603.4	10.0	ug/L	504	ND	120	69-133			
1,2-Dichloroethane	591.8	10.0	ug/L	501	ND	118	63-138			
Trichloroethylene	592.3	10.0	ug/L	501	ND	118	71-133			
1,2-Dichloropropane	606.9	10.0	ug/L	501	ND	121	69-132			
Dibromomethane	588.8	10.0	ug/L	504	ND	117	70-147			
Bromodichloromethane	600.0	10.0	ug/L	501	ND	120	67-130			
cis-1,3-Dichloropropene	614.3	10.0	ug/L	501	ND	123	61-126			
4-Methyl-2-pentanone (MIBK)	1282	50.0	ug/L	1000	ND	128	55-147			
Toluene	574.0	10.0	ug/L	505	ND	114	71-133			
trans-1,3-Dichloropropene	606.3	10.0	ug/L	501	ND	121	63-124			
1,1,2-Trichloroethane	576.6	10.0	ug/L	501	ND	115	69-133			
Tetrachloroethylene	551.5	10.0	ug/L	501	ND	110	70-124			
2-Hexanone (MBK)	1195	50.0	ug/L	1000	ND	120	53-141			
Dibromochloromethane	547.0	10.0	ug/L	501	ND	109	74-122			
1,2-Dibromoethane	557.7	10.0	ug/L	502	ND	111	66-127			
Chlorobenzene	551.4	10.0	ug/L	501	ND	110	76-116			
1,1,1,2-Tetrachloroethane	548.4	10.0	ug/L	503	ND	109	77-121			
Ethylbenzene	539.0	10.0	ug/L	502	ND	107	73-124			
Xylenes, total	1633	20.0	ug/L	1510	ND	108	75-123			
Styrene	548.6	10.0	ug/L	504	ND	109	70-120			
Bromoform	521.6	10.0	ug/L	501	ND	104	70-124			
1,2,3-Trichloropropane	565.5	10.0	ug/L	503	ND	112	62-135			
trans-1,4-Dichloro-2-butene	1068	50.0	ug/L	1000	ND	107	50-120			
1,1,2,2-Tetrachloroethane	553.4	10.0	ug/L	501	ND	110	63-126			
1,4-Dichlorobenzene	523.5	10.0	ug/L	501	ND	104	72-119			
1,2-Dichlorobenzene	524.7	10.0	ug/L	501	ND	105	71-117			
1,2-Dibromo-3-chloropropane	510.6	50.0	ug/L	501	ND	102	49-134			
Surrogate: Dibromofluoromethane	570		ug/L	502		114	57-128			
Surrogate: Dibromofluoromethane	570		ug/L	502		114	75-136			
Surrogate: 1,2-Dichloroethane-d4	563		ug/L	504		112	49-135			
Surrogate: 1,2-Dichloroethane-d4	563		ug/L	504		112	61-142			
Surrogate: Toluene-d8	514		ug/L	505		102	82-116			
Surrogate: Toluene-d8	514		ug/L	505		102	82-121			
Surrogate: 4-Bromofluorobenzene	524		ug/L	502		104	77-114			
Surrogate: 4-Bromofluorobenzene	524		ug/L	502		104	80-116			
Matrix Spike Dup (1JF0477-MSD1)	Source: 1JF0701-01			Prepared: 06/08/26 00:00 Analyzed: 06/08/26 19:12						
Chloromethane	909.9	10.0	ug/L	606	ND	150	61-152	3.96	26	

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1JF0477-MSD1) Source: 1JF0701-01 Prepared: 06/08/26 00:00 Analyzed: 06/08/26 19:12										
Vinyl Chloride	949.6	10.0	ug/L	605	ND	157	66-149	4.14	23	M1
Bromomethane	900.0	10.0	ug/L	602	ND	149	43-171	0.510	29	
Chloroethane	1023	10.0	ug/L	606	ND	169	69-148	3.23	25	M1
Trichlorofluoromethane	975.1	10.0	ug/L	606	ND	161	62-163	4.33	25	
1,1-Dichloroethylene	631.9	10.0	ug/L	501	ND	126	70-148	7.45	22	
Acetone	1406	100	ug/L	1000	ND	141	45-173	1.46	30	
Methyl Iodide	1255	10.0	ug/L	1000	ND	126	62-167	2.63	24	
Carbon Disulfide	1308	10.0	ug/L	1000	ND	131	71-163	4.32	22	
Methylene Chloride	651.9	50.0	ug/L	501	ND	130	69-140	1.96	19	
Acrylonitrile	681.9	50.0	ug/L	504	ND	135	32-159	1.40	30	
trans-1,2-Dichloroethylene	637.9	10.0	ug/L	501	ND	127	69-144	1.96	22	
1,1-Dichloroethane	648.2	10.0	ug/L	501	ND	129	70-138	2.84	20	
Vinyl Acetate	712.1	50.0	ug/L	500	ND	142	58-142	15.3	24	
cis-1,2-Dichloroethylene	633.0	10.0	ug/L	504	ND	126	68-151	2.56	22	
2-Butanone (MEK)	1464	100	ug/L	1000	ND	146	50-160	0.699	23	
Bromochloromethane	684.7	10.0	ug/L	504	ND	136	65-143	0.350	22	
Chloroform	623.9	10.0	ug/L	501	ND	125	71-143	1.26	21	
1,1,1-Trichloroethane	649.2	10.0	ug/L	501	ND	130	63-133	3.14	23	
Carbon Tetrachloride	633.0	10.0	ug/L	501	ND	126	63-142	2.82	22	
Benzene	584.0	10.0	ug/L	504	ND	116	69-133	3.27	18	
1,2-Dichloroethane	592.3	10.0	ug/L	501	ND	118	63-138	0.0845	20	
Trichloroethylene	567.8	10.0	ug/L	501	ND	113	71-133	4.22	23	
1,2-Dichloropropane	599.6	10.0	ug/L	501	ND	120	69-132	1.21	20	
Dibromomethane	586.8	10.0	ug/L	504	ND	117	70-147	0.340	22	
Bromodichloromethane	596.5	10.0	ug/L	501	ND	119	67-130	0.585	21	
cis-1,3-Dichloropropene	591.7	10.0	ug/L	501	ND	118	61-126	3.75	21	
4-Methyl-2-pentanone (MIBK)	1275	50.0	ug/L	1000	ND	128	55-147	0.501	23	
Toluene	567.8	10.0	ug/L	505	ND	112	71-133	1.09	19	
trans-1,3-Dichloropropene	593.4	10.0	ug/L	501	ND	119	63-124	2.15	21	
1,1,2-Trichloroethane	580.1	10.0	ug/L	501	ND	116	69-133	0.605	19	
Tetrachloroethylene	525.1	10.0	ug/L	501	ND	105	70-124	4.90	24	
2-Hexanone (MBK)	1166	50.0	ug/L	1000	ND	117	53-141	2.45	24	
Dibromochloromethane	550.5	10.0	ug/L	501	ND	110	74-122	0.638	21	
1,2-Dibromoethane	545.4	10.0	ug/L	502	ND	109	66-127	2.23	23	
Chlorobenzene	541.2	10.0	ug/L	501	ND	108	76-116	1.87	21	
1,1,1,2-Tetrachloroethane	555.6	10.0	ug/L	503	ND	110	77-121	1.30	25	
Ethylbenzene	526.8	10.0	ug/L	502	ND	105	73-124	2.29	20	
Xylenes, total	1581	20.0	ug/L	1510	ND	105	75-123	3.19	20	
Styrene	546.2	10.0	ug/L	504	ND	108	70-120	0.438	23	
Bromoform	521.0	10.0	ug/L	501	ND	104	70-124	0.115	22	
1,2,3-Trichloropropane	521.6	10.0	ug/L	503	ND	104	62-135	8.08	28	
trans-1,4-Dichloro-2-butene	1059	50.0	ug/L	1000	ND	106	50-120	0.884	26	
1,1,2,2-Tetrachloroethane	540.3	10.0	ug/L	501	ND	108	63-126	2.40	24	

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Page 14 of 20



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CERTIFICATE OF ANALYSIS

1JF0701

Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0477 - EPA 5030B - EPA 8260D										
Matrix Spike Dup (1JF0477-MSD1)	Source: 1JF0701-01			Prepared: 06/08/26 00:00 Analyzed: 06/08/26 19:12						
1,4-Dichlorobenzene	520.3	10.0	ug/L	501	ND	104	72-119	0.613	24	
1,2-Dichlorobenzene	514.3	10.0	ug/L	501	ND	103	71-117	2.00	24	
1,2-Dibromo-3-chloropropane	502.0	50.0	ug/L	501	ND	100	49-134	1.70	28	
Surrogate: Dibromofluoromethane	575		ug/L	502		115	57-128			
Surrogate: Dibromofluoromethane	575		ug/L	502		115	75-136			
Surrogate: 1,2-Dichloroethane-d4	561		ug/L	504		111	49-135			
Surrogate: 1,2-Dichloroethane-d4	561		ug/L	504		111	61-142			
Surrogate: Toluene-d8	513		ug/L	505		102	82-116			
Surrogate: Toluene-d8	513		ug/L	505		102	82-121			
Surrogate: 4-Bromofluorobenzene	516		ug/L	502		103	77-114			
Surrogate: 4-Bromofluorobenzene	516		ug/L	502		103	80-116			
Batch 1JF0712 - EPA 5030B - EPA 8260D										
Blank (1JF0712-BLK1)	Prepared: 06/11/26 00:00 Analyzed: 06/11/26 13:20									
Carbon Disulfide	<1.0	1.0	ug/L							
1,1-Dichloroethane	<1.0	1.0	ug/L							
Surrogate: Dibromofluoromethane	57.7		ug/L	50.2		115	75-136			
Surrogate: 1,2-Dichloroethane-d4	59.1		ug/L	50.4		117	61-142			
Surrogate: Toluene-d8	51.6		ug/L	50.5		102	82-121			
Surrogate: 4-Bromofluorobenzene	50.0		ug/L	50.2		99.7	80-116			
LCS (1JF0712-BS1)	Prepared: 06/11/26 00:00 Analyzed: 06/11/26 12:06									
Carbon Disulfide	90.97	1.0	ug/L	100		91.0	72-162			
1,1-Dichloroethane	51.78	1.0	ug/L	50.1		103	66-143			
Surrogate: Dibromofluoromethane	53.4		ug/L	50.2		106	75-136			
Surrogate: 1,2-Dichloroethane-d4	57.0		ug/L	50.4		113	61-142			
Surrogate: Toluene-d8	50.4		ug/L	50.5		99.9	82-121			
Surrogate: 4-Bromofluorobenzene	51.6		ug/L	50.2		103	80-116			
LCS Dup (1JF0712-BSD1)	Prepared: 06/11/26 00:00 Analyzed: 06/11/26 12:30									
Carbon Disulfide	133.2	1.0	ug/L	100		133	72-162	37.7	24	R1
1,1-Dichloroethane	64.50	1.0	ug/L	50.1		129	66-143	21.9	24	
Surrogate: Dibromofluoromethane	57.0		ug/L	50.2		113	75-136			
Surrogate: 1,2-Dichloroethane-d4	57.5		ug/L	50.4		114	61-142			
Surrogate: Toluene-d8	50.3		ug/L	50.5		99.6	82-121			
Surrogate: 4-Bromofluorobenzene	50.9		ug/L	50.2		101	80-116			
Matrix Spike (1JF0712-MS1)	Source: 3JF0053-08			Prepared: 06/11/26 00:00 Analyzed: 06/11/26 19:52						
Carbon Disulfide	1311	10.0	ug/L	1000	ND	131	71-163			
1,1-Dichloroethane	642.4	10.0	ug/L	501	ND	128	70-138			
Surrogate: Dibromofluoromethane	583		ug/L	502		116	75-136			
Surrogate: 1,2-Dichloroethane-d4	605		ug/L	504		120	61-142			
Surrogate: Toluene-d8	505		ug/L	505		100	82-121			

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Determination of Volatile Organic Compounds	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0712 - EPA 5030B - EPA 8260D										
Matrix Spike (1JF0712-MS1)		Source: 3JF0053-08		Prepared: 06/11/26 00:00 Analyzed: 06/11/26 19:52						
Surrogate: 4-Bromofluorobenzene	523		ug/L	502		104	80-116			
Matrix Spike Dup (1JF0712-MSD1)		Source: 3JF0053-08		Prepared: 06/11/26 00:00 Analyzed: 06/11/26 20:17						
Carbon Disulfide	1295	10.0	ug/L	1000	ND	129	71-163	1.27	22	
1,1-Dichloroethane	637.0	10.0	ug/L	501	ND	127	70-138	0.844	20	
Surrogate: Dibromofluoromethane	580		ug/L	502		115	75-136			
Surrogate: 1,2-Dichloroethane-d4	611		ug/L	504		121	61-142			
Surrogate: Toluene-d8	518		ug/L	505		103	82-121			
Surrogate: 4-Bromofluorobenzene	511		ug/L	502		102	80-116			
Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0396 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Blank (1JF0396-BLK1)		Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:32								
Antimony	<0.00100	0.00100	mg/L							
Arsenic	<0.00200	0.00200	mg/L							
Barium	<0.00100	0.00100	mg/L							
Beryllium	<0.000500	0.000500	mg/L							
Cadmium	<0.000200	0.000200	mg/L							
Chromium	<0.00100	0.00100	mg/L							
Cobalt	<0.000500	0.000500	mg/L							
Copper	<0.00500	0.00500	mg/L							
Lead	<0.00100	0.00100	mg/L							
Nickel	<0.00500	0.00500	mg/L							
Selenium	<0.00200	0.00200	mg/L							
Silver	<0.00500	0.00500	mg/L							
Thallium	<0.000500	0.000500	mg/L							
Vanadium	<0.00200	0.00200	mg/L							
Zinc	<0.00500	0.00500	mg/L							
LCS (1JF0396-BS1)		Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:34								
Antimony	0.102	0.00400	mg/L	0.100		102	80-120			
Arsenic	0.103	0.00800	mg/L	0.100		103	80-120			
Barium	0.106	0.00400	mg/L	0.100		106	80-120			
Beryllium	0.104	0.00200	mg/L	0.100		104	80-120			
Cadmium	0.102	0.000800	mg/L	0.100		102	80-120			
Chromium	0.100	0.00400	mg/L	0.100		100	80-120			
Cobalt	0.101	0.00200	mg/L	0.100		101	80-120			
Copper	0.0969	0.0200	mg/L	0.100		96.9	80-120			
Lead	0.102	0.00400	mg/L	0.100		102	80-120			
Nickel	0.0975	0.0200	mg/L	0.100		97.5	80-120			
Selenium	0.104	0.00800	mg/L	0.100		104	80-120			
Silver	0.105	0.0200	mg/L	0.100		105	80-120			

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Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0396 - EPA 3005A Total Recoverable Metals - EPA 6020A										
LCS (1JF0396-BS1) Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:34										
Thallium	0.101	0.00200	mg/L	0.100		101	80-120			
Vanadium	0.0992	0.00800	mg/L	0.100		99.2	80-120			
Zinc	0.0981	0.0200	mg/L	0.100		98.1	80-120			
Matrix Spike (1JF0396-MS1) Source: 1JF0701-01 Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:47										
Antimony	0.0969	0.00400	mg/L	0.100	ND	96.9	75-125			
Arsenic	0.0956	0.00800	mg/L	0.100	ND	95.6	75-125			
Barium	0.118	0.00400	mg/L	0.100	0.0205	97.6	75-125			
Beryllium	0.0961	0.00200	mg/L	0.100	ND	96.1	75-125			
Cadmium	0.0949	0.000800	mg/L	0.100	ND	94.9	75-125			
Chromium	0.0926	0.00400	mg/L	0.100	ND	92.6	75-125			
Cobalt	0.0909	0.00200	mg/L	0.100	0.000120	90.8	75-125			
Copper	0.0885	0.0200	mg/L	0.100	ND	88.5	75-125			
Lead	0.0955	0.00400	mg/L	0.100	ND	95.5	75-125			
Nickel	0.0912	0.0200	mg/L	0.100	0.00203	89.2	75-125			
Selenium	0.0945	0.00800	mg/L	0.100	ND	94.5	75-125			
Silver	0.0961	0.0200	mg/L	0.100	ND	96.1	75-125			
Thallium	0.0970	0.00200	mg/L	0.100	ND	97.0	75-125			
Vanadium	0.0915	0.00800	mg/L	0.100	ND	91.5	75-125			
Zinc	0.0925	0.0200	mg/L	0.100	ND	92.5	75-125			
Matrix Spike Dup (1JF0396-MSD1) Source: 1JF0701-01 Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:55										
Antimony	0.104	0.00400	mg/L	0.100	ND	104	75-125	6.85	20	
Arsenic	0.100	0.00800	mg/L	0.100	ND	100	75-125	4.91	20	
Barium	0.124	0.00400	mg/L	0.100	0.0205	103	75-125	4.49	20	
Beryllium	0.103	0.00200	mg/L	0.100	ND	103	75-125	7.07	20	
Cadmium	0.101	0.000800	mg/L	0.100	ND	101	75-125	6.18	20	
Chromium	0.100	0.00400	mg/L	0.100	ND	100	75-125	8.20	20	
Cobalt	0.0982	0.00200	mg/L	0.100	0.000120	98.1	75-125	7.73	20	
Copper	0.0952	0.0200	mg/L	0.100	ND	95.2	75-125	7.31	20	
Lead	0.102	0.00400	mg/L	0.100	ND	102	75-125	6.29	20	
Nickel	0.0978	0.0200	mg/L	0.100	0.00203	95.8	75-125	6.99	20	
Selenium	0.101	0.00800	mg/L	0.100	ND	101	75-125	6.81	20	
Silver	0.105	0.0200	mg/L	0.100	ND	105	75-125	9.14	20	
Thallium	0.103	0.00200	mg/L	0.100	ND	103	75-125	6.34	20	
Vanadium	0.101	0.00800	mg/L	0.100	ND	101	75-125	9.81	20	
Zinc	0.0988	0.0200	mg/L	0.100	ND	98.8	75-125	6.59	20	
Post Spike (1JF0396-PS1) Source: 1JF0701-01 Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:57										
Antimony	0.0206		mg/L	0.0200	0.000140	102	80-120			
Arsenic	0.0196		mg/L	0.0200	0.000304	96.7	80-120			
Barium	0.0391		mg/L	0.0200	0.0205	93.2	80-120			
Beryllium	0.0194		mg/L	0.0200	0.0000120	97.1	80-120			
Cadmium	0.0196		mg/L	0.0200	0.0000060	98.1	80-120			
Chromium	0.0194		mg/L	0.0200	0.000396	95.3	80-120			
Cobalt	0.0193		mg/L	0.0200	0.000120	96.0	80-120			

Microbac Laboratories, Inc., Newton

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CERTIFICATE OF ANALYSIS

1JF0701

Metals Total by ICPMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1JF0396 - EPA 3005A Total Recoverable Metals - EPA 6020A										
Post Spike (1JF0396-PS1) Source: 1JF0701-01 Prepared: 06/05/26 16:07 Analyzed: 06/08/26 18:57										
Copper	0.0189		mg/L	0.0200	0.00127	88.3	80-120			
Lead	0.0199		mg/L	0.0200	0.000250	98.4	80-120			
Nickel	0.0200		mg/L	0.0200	0.00203	89.9	80-120			
Selenium	0.0204		mg/L	0.0200	0.00132	95.4	80-120			
Silver	0.0212		mg/L	0.0200	0.000300	106	80-120			
Thallium	0.0198		mg/L	0.0200	0.000070	98.8	80-120			
Vanadium	0.0196		mg/L	0.0200	0.000109	97.8	80-120			
Zinc	0.0200		mg/L	0.0200	0.00270	86.6	80-120			

Batch Quality Control Summary: Microbac Laboratories Inc., - Marietta, OH

Volatile Organic Compounds by GCMS	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B6F0657 - 5021 - EPA RSK-175										
Blank (B6F0657-BLK1) Prepared: 06/11/26 11:00 Analyzed: 06/11/26 11:13										
Methane	<5.00	5.00	ug/L							
Ethene	<5.00	5.00	ug/L							
Ethane	<5.00	5.00	ug/L							
Propane	<5.00	5.00	ug/L							
n-Butane	<5.00	5.00	ug/L							
LCS (B6F0657-BS1) Prepared: 06/11/26 11:00 Analyzed: 06/11/26 11:50										
Methane	106	5.00	ug/L	114.1884		92.8	85-115			
Ethene	188	5.00	ug/L	199.6873		93.9	85-115			
Ethane	200	5.00	ug/L	213.9965		93.4	85-115			
Propane	298	5.00	ug/L	313.9185		94.9	85-115			
n-Butane	398	5.00	ug/L	413.7764		96.3	85-115			
LCS Dup (B6F0657-BSD1) Prepared: 06/11/26 11:00 Analyzed: 06/11/26 12:15										
Methane	118	5.00	ug/L	114.1884		104	85-115	11.1	40	
Ethene	206	5.00	ug/L	199.6873		103	85-115	9.57	40	
Ethane	221	5.00	ug/L	213.9965		103	85-115	9.84	40	
Propane	327	5.00	ug/L	313.9185		104	85-115	9.14	40	
n-Butane	445	5.00	ug/L	413.7764		107	85-115	10.9	40	



Microbac Laboratories, Inc., Newton

CERTIFICATE OF ANALYSIS
1JF0701

Definitions

- M1: Matrix spike recovery is above acceptance limits.
- Q: One or more quality control criteria failed.
- Q2: LCS recovery is above acceptance limits.
- R1: Duplicate RPD is outside acceptance criteria.
- RL: Reporting Limit
- RPD: Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 0.5°C

Cooler Inspection Checklist

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

Report Comments

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

Reviewed and Approved By:

Heather Murphy
Customer Relationship Specialist
heather.murphy@microbac.com
06/12/26 16:42

CHAIN OF CUSTODY RECORD



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Phone: 641-792-8451

Page 1 of 1

Printed: 5/5/2026 10:07:50AM

SITE INFORMATION

Sampler: _____

Project: Page Co-New Regs
6047

SPECIAL INSTRUCTIONS

None

Turn Around Time

☐ Standard ☐ RUSH, need by ____/____/____

REPORT TO

Todd Whipple
HLW Engineering
204 West Broad St
Story City, IA 50248

INVOICE TO

Brian Ward
Page County Landfill Assoc.
2032 N Ave
Clarinda, IA 51632

LAB USE ONLY



1 J F 0 7 0 1

HLW Engineering
PM: Heather Murphy

Temperature: 0.5 °C

Number	Sample Identification / Client ID	Matrix	Sample Type	Date	Time	# Containers	Analyses	Lab Sample Number
13-001	Duplicate	Aqueous	GRAB	—	—	0	Indfil-app1-metals-6020	
19-001	MW-54	Aqueous	GRAB	—	—	0	Indfil-app1-metals-6020 Indfill-app1-voc-group Dissolved Gases RSK-175	
20-001	MW-55	Aqueous	GRAB	6/3/26	11:05	10	Indfil-app1-metals-6020 Indfill-app1-voc-group Dissolved Gases RSK-175	01
21-001	MW-56	Aqueous	GRAB	6/3/26	10:23	10	Indfil-app1-metals-6020 Indfill-app1-voc-group Dissolved Gases RSK-175	02

Relinquished By [Signature] Date/Time 6/4/26 11:09

Relinquished By _____ Date/Time _____

Received By _____ Date/Time _____

Received for Lab By [Signature] Date/Time 6/4/26 11:09

Remarks:

APPENDIX E

Summary of VOC Detections MW-16 & MW-18

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
1,4-dichlorobenzene	MW-16	10/06/2015		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-16	4/23/2016		1.6	1.0	ug/L
1,4-dichlorobenzene	MW-16	9/01/2016		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/22/2017		2.6	1.0	ug/L
1,4-dichlorobenzene	MW-16	10/13/2017		2.0	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/09/2018		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-16	9/06/2018		2.7	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/07/2019		3.8	1.0	ug/L
1,4-dichlorobenzene	MW-16	9/17/2020		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/25/2021		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-16	9/16/2021		2.2	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/16/2022		2.1	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/18/2024		1.8	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/10/2025		1.2	1.0	ug/L
1,4-dichlorobenzene	MW-16	9/08/2025		1.5	1.0	ug/L
1,4-dichlorobenzene	MW-16	3/04/2026		1.1	1.0	ug/L
Acetone	MW-16	10/13/2017		13.1	10.0	ug/L
Benzene	MW-16	9/23/1993		2.4	2.0	ug/L
Benzene	MW-16	3/10/1994		2.1	2.0	ug/L
Benzene	MW-16	4/07/1995		1.3	1.0	ug/L
Benzene	MW-16	10/04/1995		1.3	1.0	ug/L
Benzene	MW-16	9/17/1996		1.6	1.0	ug/L
Benzene	MW-16	3/20/1997		2.1	2.0	ug/L
Benzene	MW-16	9/11/1997		2.8	2.0	ug/L
Benzene	MW-16	3/18/1999		1.6	1.0	ug/L
Benzene	MW-16	9/01/1999		2.3	2.0	ug/L
Benzene	MW-16	4/04/2000		1.7	1.0	ug/L
Benzene	MW-16	9/28/2000		1.5	1.0	ug/L
Benzene	MW-16	3/30/2001		1.8	1.0	ug/L
Benzene	MW-16	10/08/2001		1.6	1.0	ug/L
Benzene	MW-16	4/04/2002		1.6	1.0	ug/L
Benzene	MW-16	9/16/2002		1.5	1.0	ug/L
Benzene	MW-16	4/02/2003		1.2	1.0	ug/L
Benzene	MW-16	9/23/2003		1.6	1.0	ug/L
Benzene	MW-16	9/09/2004		1.1	1.0	ug/L
Benzene	MW-16	4/14/2005		1.6	1.0	ug/L
Benzene	MW-16	9/30/2005		1.8	1.0	ug/L
Benzene	MW-16	4/05/2006		1.5	1.0	ug/L
Benzene	MW-16	4/28/2007		1.2	1.0	ug/L
Benzene	MW-16	9/27/2007		1.2	1.0	ug/L
Benzene	MW-16	4/16/2008		1.4	1.0	ug/L
Benzene	MW-16	6/17/2008		1.4	1.0	ug/L
Benzene	MW-16	8/20/2008		1.5	1.0	ug/L
Benzene	MW-16	10/16/2008		1.4	1.0	ug/L
Benzene	MW-16	12/04/2008		1.9	1.0	ug/L
Benzene	MW-16	3/16/2009		1.7	1.0	ug/L
Benzene	MW-16	9/24/2009		1.2	1.0	ug/L
Benzene	MW-16	4/19/2010		1.2	1.0	ug/L
Benzene	MW-16	9/29/2010		1.7	1.0	ug/L
Benzene	MW-16	5/03/2011		1.3	1.0	ug/L
Benzene	MW-16	10/11/2011		1.3	1.0	ug/L
Benzene	MW-16	4/23/2012		1.0	1.0	ug/L
Benzene	MW-16	9/10/2012		1.2	1.0	ug/L
Benzene	MW-16	10/11/2013		1.1	1.0	ug/L
Benzene	MW-16	10/06/2015		1.0	1.0	ug/L
Benzene	MW-16	9/01/2016		1.2	1.0	ug/L
Benzene	MW-16	3/22/2017		1.3	1.0	ug/L
Benzene	MW-16	10/13/2017		1.1	1.0	ug/L
Benzene	MW-16	9/06/2018		1.7	1.0	ug/L
Benzene	MW-16	3/07/2019		2.1	1.0	ug/L
Benzene	MW-16	4/02/2020		1.6	1.0	ug/L
Benzene	MW-16	3/25/2021		1.5	1.0	ug/L
Benzene	MW-16	9/16/2021		1.3	1.0	ug/L
Benzene	MW-16	3/16/2022		1.6	1.0	ug/L
Benzene	MW-16	3/18/2024		1.5	1.0	ug/L
Benzene	MW-16	3/10/2025		1.1	1.0	ug/L
Benzene	MW-16	3/04/2026		1.1	1.0	ug/L
Chlorobenzene	MW-16	4/16/2008		9.1	1.0	ug/L
Chlorobenzene	MW-16	6/17/2008		9.9	1.0	ug/L
Chlorobenzene	MW-16	8/20/2008		10.4	1.0	ug/L
Chlorobenzene	MW-16	10/16/2008		9.2	1.0	ug/L
Chlorobenzene	MW-16	12/04/2008		14.5	1.0	ug/L
Chlorobenzene	MW-16	3/16/2009		12.3	1.0	ug/L
Chlorobenzene	MW-16	9/24/2009		8.7	1.0	ug/L
Chlorobenzene	MW-16	4/19/2010		9.2	1.0	ug/L
Chlorobenzene	MW-16	9/29/2010		11.3	1.0	ug/L

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

Table 1

Historical Volatile Organic Compound Detections

Constituent	Well	Date	Identifier	Result	Limit	Units
Chlorobenzene	MW-16	5/03/2011		9.6	1.0	ug/L
Chlorobenzene	MW-16	10/11/2011		8.7	1.0	ug/L
Chlorobenzene	MW-16	4/23/2012		6.6	1.0	ug/L
Chlorobenzene	MW-16	9/10/2012		7.5	1.0	ug/L
Chlorobenzene	MW-16	4/04/2013		5.8	1.0	ug/L
Chlorobenzene	MW-16	10/11/2013		6.0	1.0	ug/L
Chlorobenzene	MW-16	4/23/2014		4.6	1.0	ug/L
Chlorobenzene	MW-16	9/18/2014		4.3	1.0	ug/L
Chlorobenzene	MW-16	4/29/2015		4.4	1.0	ug/L
Chlorobenzene	MW-16	10/06/2015		4.9	1.0	ug/L
Chlorobenzene	MW-16	4/23/2016		3.5	1.0	ug/L
Chlorobenzene	MW-16	9/01/2016		6.0	1.0	ug/L
Chlorobenzene	MW-16	3/22/2017		6.4	1.0	ug/L
Chlorobenzene	MW-16	10/13/2017		5.1	1.0	ug/L
Chlorobenzene	MW-16	3/09/2018		4.7	1.0	ug/L
Chlorobenzene	MW-16	9/06/2018		8.1	1.0	ug/L
Chlorobenzene	MW-16	3/07/2019		9.7	1.0	ug/L
Chlorobenzene	MW-16	9/26/2019		4.8	1.0	ug/L
Chlorobenzene	MW-16	4/02/2020		8.8	1.0	ug/L
Chlorobenzene	MW-16	9/17/2020		4.7	1.0	ug/L
Chlorobenzene	MW-16	3/25/2021		5.8	1.0	ug/L
Chlorobenzene	MW-16	9/16/2021		7.3	1.0	ug/L
Chlorobenzene	MW-16	3/16/2022		5.2	1.0	ug/L
Chlorobenzene	MW-16	9/01/2022		2.1	1.0	ug/L
Chlorobenzene	MW-16	3/24/2023		3.0	1.0	ug/L
Chlorobenzene	MW-16	3/18/2024		5.2	1.0	ug/L
Chlorobenzene	MW-16	9/25/2024		2.3	1.0	ug/L
Chlorobenzene	MW-16	3/10/2025		2.7	1.0	ug/L
Chlorobenzene	MW-16	9/08/2025		4.3	1.0	ug/L
Chlorobenzene	MW-16	3/04/2026		3.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	9/01/2016		1.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	10/13/2017		1.2	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	3/07/2019		1.4	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	3/25/2021		1.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	3/16/2022		2.1	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	3/10/2025		1.3	1.0	ug/L
Cis-1,2-dichloroethylene	MW-16	3/04/2026		1.0	1.0	ug/L
Dichlorodifluoromethane	MW-16	10/11/2011		4.0	1.0	ug/L
Dichlorodifluoromethane	MW-16	4/23/2012		5.0	1.0	ug/L
Dichlorodifluoromethane	MW-16	9/10/2012		3.6	1.0	ug/L
Dichlorodifluoromethane	MW-16	4/04/2013		4.3	1.0	ug/L
Dichlorodifluoromethane	MW-16	10/11/2013		2.9	1.0	ug/L
Dichlorodifluoromethane	MW-16	4/23/2014		4.3	1.0	ug/L
Dichlorodifluoromethane	MW-16	9/18/2014		3.6	1.0	ug/L
Dichlorodifluoromethane	MW-16	4/29/2015		2.6	1.0	ug/L
Dichlorodifluoromethane	MW-16	10/06/2015		2.9	1.0	ug/L
Dichlorodifluoromethane	MW-16	4/23/2016		3.2	1.0	ug/L
Dichlorodifluoromethane	MW-16	9/01/2016		3.6	1.0	ug/L
Dichlorodifluoromethane	MW-16	3/22/2017		2.2	1.0	ug/L
Dichlorodifluoromethane	MW-16	10/13/2017		1.6	1.0	ug/L
Dichlorodifluoromethane	MW-16	3/09/2018		3.0	1.0	ug/L
Dichlorodifluoromethane	MW-16	3/07/2019		4.6	1.0	ug/L
Methane	MW-16	3/04/2026		8.15	5.00	ug/L
Trichloroethylene	MW-16	9/23/1993		1.8	1.0	ug/L
Vinyl chloride	MW-16	6/17/2008		1.0	1.0	ug/L
Vinyl chloride	MW-16	9/24/2009		1.6	1.0	ug/L
Vinyl chloride	MW-16	3/07/2019		2.5	1.0	ug/L
1,1-dichloroethane	MW-18	4/23/2012		1.3	1.0	ug/L
Acetone	MW-18	10/13/2017		18	10	ug/L
Benzene	MW-18	10/13/2017		1.6	1.0	ug/L
Bromomethane	MW-18	10/11/2013		1.6	1.0	ug/L
Chloroethane	MW-18	10/13/2017		1.6	1.0	ug/L
Methyl iodide	MW-18	10/11/2013		1.5	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