

**Notice:** This form may be used to comply with the requirements of s. NR 716.14 (2), Wis. Adm. Code; however, use of this form is not required. An alternate format may be used. The rule requires that notification be provided to 1) property owners when someone else is conducting the sampling, 2) to occupants of property belonging to the responsible person, and 3) to owners and occupants of property that does not belong to the responsible person but has been affected by contamination arising on his or her property. Notification is required within 10 business days of receiving the sample results. Personal information collected will be used for program administration and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31-19.39, Wis. Stats.].

**NOTE:** Under s. NR 716.14, Wis. Adm. Code, the responsible party must also submit sample results and other required information to the DNR. We recommend that copies of the sample results notifications be included with that submittal, along with all attachments. Using the same format used for data presentation for a closure request may be helpful to all parties. See s. NR 716.14, Wis. Adm. Code for the full list of information to be submitted to the DNR.

**Notification of Property Owners and Occupants:**

This notification form has been provided to you in order to provide the results of environmental sampling that has been conducted on property that you own or occupy. Samples were collected in accordance with the methods identified in the site investigation work plan, in accordance with s. NR. 716.09 and 716.13, Wis. Adm. Code. This sampling was conducted as a result of contamination originating at the following location.

**Site Information**

Site Name	DNR ID # (BRRTS #)		
ONE HOUR MARTINIZING - MILWAUKEE	02-41-584106		
Address	City	State	ZIP Code
233 W. LAYTON AVENUE	MILWAUKEE	WI	53207

**Responsible Party**

The person(s) responsible for completing this environmental investigation is:

Property Owner

GOTTFRIED REAL ESTATE LLC

Address	City	State	ZIP Code
PO BOX 26	MUSKEGO	WI	53212
Contact Person	Phone Number (include area code) (414) 416-5665		
BRIAN GOTTFRIED			

Person or company that collected samples

UNITED ENGINEERING CONSULTANTS, INC.

**Sample Results (Results Attached)**

Reason for Sampling:  Routine  Other (define) \_\_\_\_\_

The contaminants that have been identified at this time on property that you own or occupy include:

<b>Contaminant</b>	<b>In Soil?</b>		<b>In Groundwater?</b>		This sampling event included sampling of a drinking water well.  <input type="radio"/> Yes <input checked="" type="radio"/> No
	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	
Gasoline	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Diesel or Fuel Oil	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Solvents	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Heavy Metals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Pesticides	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Other: _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

If yes, the sampled drinking water well had detectable contaminants.

Yes  No

**Contaminants in Vapor**

	<b>Yes</b>	<b>No</b>
Indoor Air	<input type="radio"/>	<input type="radio"/>
Sub-slab	<input type="radio"/>	<input type="radio"/>
Exterior Soil Gas	<input type="radio"/>	<input type="radio"/>

# Site Investigation Sample Results Notification

Form 4400-249 (R 03/14)

Page 2 of 2

**Attached are:**

- A map that shows the locations from which samples were collected. (The map needs to meet the requirements of s. NR 716.15 (4), Wis. Adm. Code.)
- A data table with specific contaminant levels at each sample location and whether or not the sample results exceed state standards.
- A copy of the laboratory results.

**You are not identified as the person that is responsible for this contamination.** However, your cooperation is important. Property owners may become legally responsible for contamination if they do not allow access to the person that is responsible so that person may complete the environmental investigation and clean up activities.

**Option for written exemption:** You have the option of requesting a written liability exemption from the DNR for contamination that originated on another property, or on property that you lease. To do this, you must present an adequate environmental assessment of your property and pay a \$700 fee for review of this information. If you are interested in this option, please see DNR publication # RR 589, "When Contamination Crosses a Property Line - Rights and Responsibilities of Property Owners", available at: [dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf](http://dnr.wi.gov/files/PDF/pubs/rr/rr589.pdf).

**Contact Information**

Please address questions regarding this notification, or requests for additional information to the contact person listed above, or to one of the following contacts:

**Environmental Consultant**

Company Name	Contact Person Last Name	First Name	
UNITED ENGINEERING CONSULTANTS	ANDERSON	NICHOLAS	
Address	City	State	ZIP Code
2938 S. 166TH STREET	NEW BERLIN	WI	53151
Phone # (inc. area code) (262) 785-1447	Email NAUEC@SBCGLOBAL.NET		

Select which agency:  Natural Resources       Agriculture, Trade and Consumer Protection

**State of Wisconsin Department of Natural Resources**

Contact Person Last Name	First Name	Phone # (inc. area code)	
HULSEY	HERA	(414) 263-8563	
Address	City	State	ZIP Code
1027 W. ST. PAUL AVENUE	MILWAUKEE	WI	53233
Email			
HERA.HULSEY@WISCONSIN.GOV			

## Legend

- Property Line
- COMB Combined Sewer Line
- NG Natural Gas Line
- V Water Line
- UE Underground Electric Line
- OHE Overhead Electric Line
- Guard Rail
- UP/CB/RR/BR Utility Pole/Catch Basin/Rest Room/ Boiler Room
- GP-29 Soil Boring Location (OBG)
- GP-1 Soil Boring Location (UEC)
- TW-1 Temporary Monitoring Well Location (UEC)
- MW-1 Monitoring Well Location

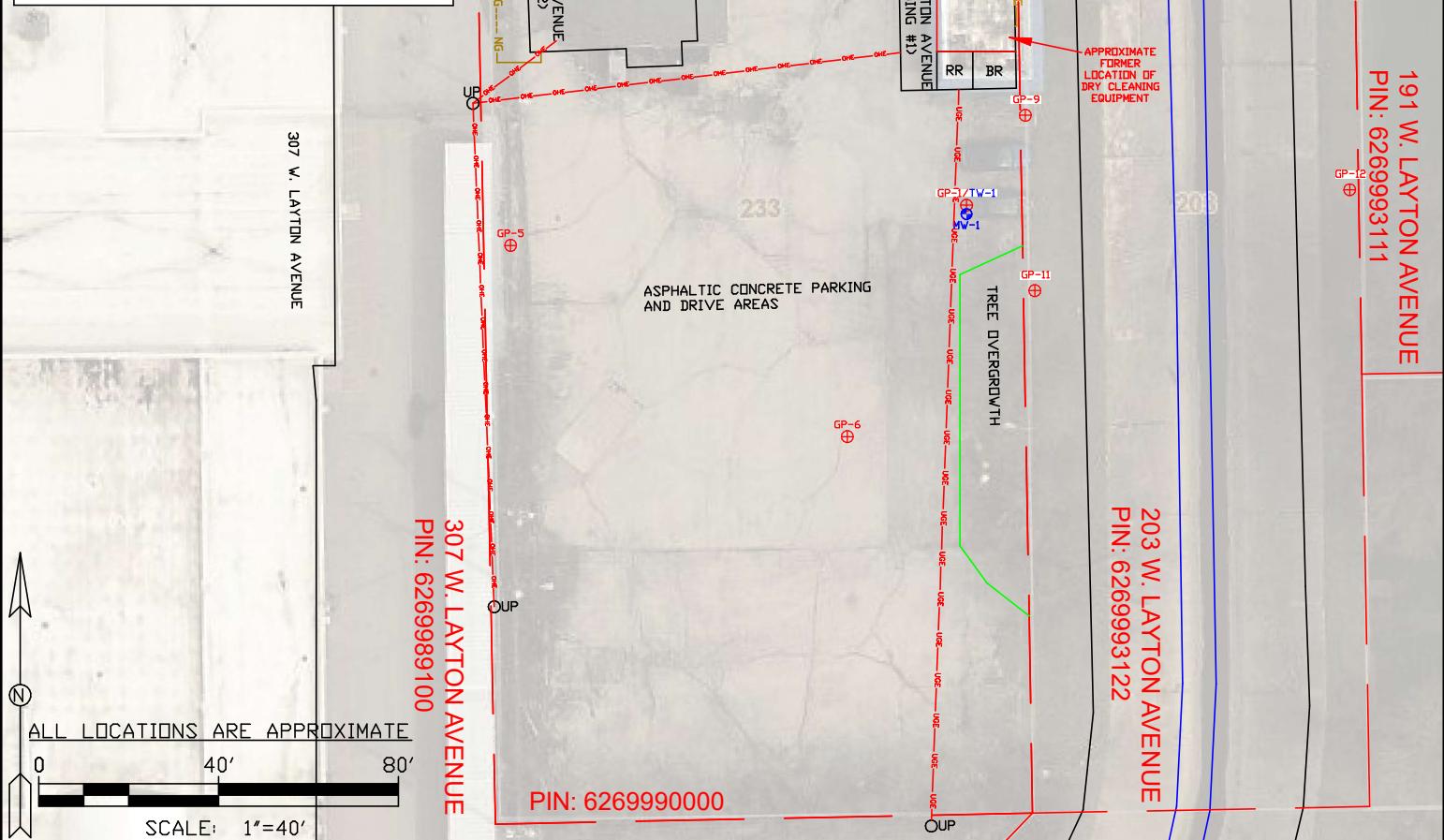


Figure 3: Soil Boring and Groundwater Monitoring Well Location Map

*United Engineering  
Consultants, Inc.*

2938 S. 166th Street  
New Berlin, WI 53151

Tel. (262) 785-1447  
Fax (262) 706-4400

#19006

DRAWN BY: NJA

DATE: 01/11/2023

Site Investigation Report  
One Hour Martinizing - Milwaukee /  
Wisconsin Auto Title Loans  
233/235 W. Layton Avenue  
Milwaukee, WI 53207



**Table 3**  
**Groundwater Analytical Results - VOC**  
**One Hour Martinizing - Milwaukee / Wisconsin Auto Title Loans**  
**233/235 W. Layton Avenue**  
**Milwaukee, Wisconsin 53207**

Analyte	MW-4		ES	PAL
	12/28/22	12/28/22 (R)		
<b>Volatile Organic Compounds (VOC) (Method: SW-846 8260B / PUBL-FW-140 / SW5030)</b>				
Acetone	<9.21Q	<9.21Q	9000	1800
Acrolein	<1.67	<1.67	-	-
Acrylonitrile	<0.628	<0.628	-	-
Benzene	<0.362	<0.362	5	0.5
Bromodichloromethane	<0.458	<0.458	0.6	0.06
Bromoform	<0.570	<0.570	4.4	0.44
Bromomethane	<6.07	<6.07	10	1
1-Butanol	<22.2	<22.2	-	-
2-Butanone	<4.79Q	<4.79Q	-	-
Carbon disulfide	<0.739	<0.739	1000	200
Carbon tetrachloride	<3.07	<3.07	5	0.5
Chlorobenzene	<0.350	<0.350	-	-
Chloroethane	<0.621	<0.621	400	80
Chloroform	<0.450	<0.450	6	0.6
Chloromethane	<1.30	<1.30	30	3
1,2-Dibromo-3-chloropropane	<2.60	<2.60	0.2	0.02
1,2-Dibromoethane (EDB)	<0.420	<0.420	0.05	0.005
1,1-Dichloroethane	<0.190	<0.190	850	85
1,2-Dichloroethane	<0.731	<0.731	5	0.5
1,1-Dichloroethene	<1.10	<1.10	7	0.7
cis-1,2-Dichloroethene	<0.652	<0.652	70	7
trans-1,2-Dichloroethene	<0.566	<0.566	100	20
1,2-Dichloropropane	<0.557	<0.557	5	0.5
Dibromochloromethane	<0.632	<0.632	700	140
cis-1,3-Dichloropropene	<0.408	<0.408	-	-
trans-1,3-Dichloropropene	<1.17	<1.17	-	-
1,3-Dichloropropene, Total	<1.48	<1.48	0.4	0.04
Ethylbenzene	<0.580	<0.580	700	140
2-Hexanone	<4.74	<4.74	-	-
4-Methyl-2-pentanone	<4.40	<4.40	-	-
Methyl tert-Butyl ether	<0.838	<0.838	60	12
Methylene chloride	<4.50	<4.50	5	0.5
Styrene	<1.17	<1.17	100	10
1,1,2,2-Tetrachloroethane	<0.713	<0.713	0.2	0.02
Tetrachloroethene	<0.646	<0.646	5	0.5
1,2,4-Trimethylbenzene	<0.753	<0.753	480	96
1,3,5-Trimethylbenzene	<0.351	<0.351		
Toluene	<0.510	<0.510	800	160
1,1,1-Trichloroethane	<0.719	<0.719	200	40
1,1,2-Trichloroethane	<0.198	<0.198	5	0.5
Trichloroethene	<0.939	<0.939	5	0.5
Vinyl acetate	<0.948	<0.948	-	-
Vinyl chloride	<0.582	<0.582	0.2	0.02
m,p-Xylene	<1.58	<1.58	-	-
o-Xylene	<0.660	<0.660	-	-
Xylenes, Total	<1.62	<1.62	2000	400

Notes: All results expressed as µg/L (parts per billion)

ES NR140 Enforcement Standard (Exceedances in **bold**)

PAL NR140 Preventive Action Limit (Exceedances in underline)

- ES/PAL not established for this compound

< Compound not detected at or above the Limit Of Detection (LOD)

J Compound detected between the LOD and Limit of Quantitation (LOQ)

S The quality control sample recovery is outside of laboratory control limits

S1 The percent recovery is above the limits, but analyte not detected in sample

B Analyte was present in the method blank

\* Not considered an exceedance per NR 140.14(3)

R Replicate sample collected per NR 716.13(6)c(1)



509 N. 3<sup>rd</sup> Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 [www.emt.com](http://www.emt.com)

## Analytical Report

Timothy J. Anderson  
United Engineering Consultants, Inc.  
2938 S. 166th St.  
New Berlin, WI 53151

January 13, 2023

Work Order: 23A0137

RE: UEC Analysis  
19006

Dear Timothy J. Anderson:

Enclosed are the analytical reports for the EMT Work Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me.

Sincerely,

Tim Witrzek  
Federal Program Manager  
847.967.6666  
[twitrzak@emt.com](mailto:twitrzak@emt.com)  
Approved for release: 1/13/2023 12:48:02PM

Approved by,

Nathan Fey  
Laboratory Operations Manager

The contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety. Detection and Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

State of Wisconsin Dept of Natural Resources, Cert No. 999888890

## Table of Contents

Cover Letter	1
Sample Summary	3
Case Narrative	4
Client Sample Results	5
Dates Report	13
Quality Control	14
Certified Analyses	36
List of Certifications	37
Qualifiers and Definitions	38
Chain of Custody	39



### Sample Summary

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	23A0137-01	Groundwater	12/28/22 11:10	01/04/23 13:00
MW-4	23A0137-02	Groundwater	12/28/22 10:10	01/04/23 13:00
MW-4R	23A0137-03	Groundwater	12/28/22 10:21	01/04/23 13:00
Trip Blank	23A0137-04	Groundwater	01/04/23 00:00	01/04/23 13:00



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## Case Narrative

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
           19006  
**Work Order:** 23A0137

**Date:** 01/13/2023

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Refer to Qualifiers and Definitions for quality and analytical clarifications or deviations.

Sample results only relate to the sample(s) received at the laboratory and analytes of interest tested.

### Work Order: 23A0137

The samples were received on 01/04/23 13:00. The temperature of the cooler(s) at receipt was:

Cooler	Temp C°
Default Cooler	4.6

Sample 04 (1 vial) contain larger than pea-sized (6 mm) air bubbles.

### GCMS Volatiles

#### 8260B VOC

22A0137-01, 02, 03, 04: In the LCSD associated with the samples' batch 2-butanone and acetone exceeded RPD criteria (20% for both) at 22% and 31%. This would indicate potential greater uncertainty in the calculated value for these compounds. As there was no positive detection, the exceedances did not impact sample results.


**Client Sample Results**

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-2  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 11:10  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-01

Analyses	EMT Reporting				MDL	Date/Time Analyzed		Batch	Analyst	DF				
	Result	Limit	Qual	Units										
<b>Volatile Organic Compounds by GC/MS</b>														
Method: SW8260B/D / SW5030														
1,1,1-Trichloroethane	< 0.719	4.00		ug/L	0.719	01/10/23 11:26	B3A0181	ZM1	1					
1,1,2,2-Tetrachloroethane	< 0.713	4.00		ug/L	0.713	01/10/23 11:26	B3A0181	ZM1	1					
1,1,2-Trichloroethane	< 0.198	2.00		ug/L	0.198	01/10/23 11:26	B3A0181	ZM1	1					
1,1-Dichloroethane	< 0.190	2.00		ug/L	0.190	01/10/23 11:26	B3A0181	ZM1	1					
1,1-Dichloroethene	< 1.10	8.00		ug/L	1.10	01/10/23 11:26	B3A0181	ZM1	1					
1,2,4-Trimethylbenzene	< 0.753	4.00		ug/L	0.753	01/10/23 11:26	B3A0181	ZM1	1					
1,2-Dibromo-3-chloropropane	< 2.60	20.0		ug/L	2.60	01/10/23 11:26	B3A0181	ZM1	1					
1,2-Dibromoethane	< 0.420	2.00		ug/L	0.420	01/10/23 11:26	B3A0181	ZM1	1					
1,2-Dichloroethane	< 0.731	4.00		ug/L	0.731	01/10/23 11:26	B3A0181	ZM1	1					
1,2-Dichloropropane	< 0.557	4.00		ug/L	0.557	01/10/23 11:26	B3A0181	ZM1	1					
1,3,5-Trimethylbenzene	< 0.351	2.00		ug/L	0.351	01/10/23 11:26	B3A0181	ZM1	1					
1-Butanol	< 22.2	200		ug/L	22.2	01/11/23 15:56	B3A0242	ZM1	1					
2-Butanone	< 4.79	28.0	Q	ug/L	4.79	01/10/23 11:26	B3A0181	ZM1	1					
2-Hexanone	< 4.74	28.0		ug/L	4.74	01/10/23 11:26	B3A0181	ZM1	1					
4-Methyl-2-pentanone	< 4.40	28.0		ug/L	4.40	01/10/23 11:26	B3A0181	ZM1	1					
Acetone	< 9.21	70.0	Q	ug/L	9.21	01/10/23 11:26	B3A0181	ZM1	1					
Acrolein	< 1.67	10.0		ug/L	1.67	01/09/23 16:26	B3A0219	KS1	1					
Acrylonitrile	< 0.628	4.00		ug/L	0.628	01/10/23 11:26	B3A0181	ZM1	1					
Benzene	< 0.362	2.00		ug/L	0.362	01/10/23 11:26	B3A0181	ZM1	1					
Bromodichloromethane	< 0.458	2.00		ug/L	0.458	01/10/23 11:26	B3A0181	ZM1	1					
Bromoform	< 0.570	4.00		ug/L	0.570	01/10/23 11:26	B3A0181	ZM1	1					
Bromomethane	< 6.07	40.0		ug/L	6.07	01/10/23 11:26	B3A0181	ZM1	1					
Carbon disulfide	< 0.739	4.00		ug/L	0.739	01/10/23 11:26	B3A0181	ZM1	1					
Carbon tetrachloride	< 3.07	20.0		ug/L	3.07	01/10/23 11:26	B3A0181	ZM1	1					
Chlorobenzene	< 0.350	2.00		ug/L	0.350	01/10/23 11:26	B3A0181	ZM1	1					
Chloroethane	< 0.621	4.00		ug/L	0.621	01/10/23 11:26	B3A0181	ZM1	1					
Chloroform	< 0.450	4.00		ug/L	0.450	01/10/23 11:26	B3A0181	ZM1	1					
Chloromethane	< 1.30	8.00		ug/L	1.30	01/10/23 11:26	B3A0181	ZM1	1					
cis-1,2-Dichloroethene	<b>5.13</b>	4.00		ug/L	0.652	01/10/23 11:26	B3A0181	ZM1	1					
cis-1,3-Dichloropropene	< 0.408	4.00		ug/L	0.408	01/10/23 11:26	B3A0181	ZM1	1					
Dibromochloromethane	< 0.632	4.00		ug/L	0.632	01/10/23 11:26	B3A0181	ZM1	1					
Ethylbenzene	< 0.580	4.00		ug/L	0.580	01/10/23 11:26	B3A0181	ZM1	1					
m,p-Xylene	< 1.58	8.00		ug/L	1.58	01/10/23 11:26	B3A0181	ZM1	1					
Methyl tert-butyl ether	< 0.838	4.00		ug/L	0.838	01/10/23 11:26	B3A0181	ZM1	1					
Methylene chloride	< 4.50	20.0		ug/L	4.50	01/10/23 11:26	B3A0181	ZM1	1					
Naphthalene	< 4.82	20.0		ug/L	4.82	01/10/23 11:26	B3A0181	ZM1	1					
o-Xylene	< 0.660	4.00		ug/L	0.660	01/10/23 11:26	B3A0181	ZM1	1					
Styrene	< 1.17	8.00		ug/L	1.17	01/10/23 11:26	B3A0181	ZM1	1					
<b>Tetrachloroethene</b>	<b>8.66</b>	4.00		ug/L	0.646	01/10/23 11:26	B3A0181	ZM1	1					
Toluene	< 0.510	4.00		ug/L	0.510	01/10/23 11:26	B3A0181	ZM1	1					
trans-1,2-Dichloroethene	< 0.566	4.00		ug/L	0.566	01/10/23 11:26	B3A0181	ZM1	1					
trans-1,3-Dichloropropene	< 1.17	8.00		ug/L	1.17	01/10/23 11:26	B3A0181	ZM1	1					
<b>Trichloroethene</b>	<b>2.71</b>	4.00	J	ug/L	0.939	01/10/23 11:26	B3A0181	ZM1	1					
Vinyl acetate	< 0.948	4.00		ug/L	0.948	01/10/23 11:26	B3A0181	ZM1	1					
Vinyl chloride	< 0.582	4.00		ug/L	0.582	01/10/23 11:26	B3A0181	ZM1	1					


**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-2  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 11:10  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-01 (Continued)

Analyses	EMT Reporting				MDL	Date/Time Analyzed				Batch	Analyst	DF				
	Result	Limit	Qual	Units												
<b>Volatile Organic Compounds by GC/MS (Continued)</b>																
Method: SW8260B/D / SW5030 (Continued)																
Xylenes, Total	< 1.62	12.0		ug/L		1.62		01/10/23 11:26	B3A0181	ZM1	1					
1,3-Dichloropropene, Total	< 1.48	8.00		ug/L		1.48		01/10/23 11:26	B3A0181	ZM1	1					
Surrogate: Dibromofluoromethane			Recovery: 97%		Limits: 84-137		01/10/23 11:26	B3A0181	ZM1	1						
Surrogate: 1,2-Dichloroethane-d4			Recovery: 101%		Limits: 74-140		01/10/23 11:26	B3A0181	ZM1	1						
Surrogate: Fluorobenzene			Recovery: 101%		Limits: 90-105		01/10/23 11:26	B3A0181	ZM1	1						
Surrogate: Toluene-d8			Recovery: 96%		Limits: 74-109		01/10/23 11:26	B3A0181	ZM1	1						
Surrogate: 4-Bromofluorobenzene			Recovery: 97%		Limits: 86-128		01/10/23 11:26	B3A0181	ZM1	1						
Surrogate: 1,2-Dichlorobenzene-d4			Recovery: 97%		Limits: 90-128		01/10/23 11:26	B3A0181	ZM1	1						


**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-4  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 10:10  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-02

Analyses	EMT Reporting				MDL	Date/Time Analyzed		Batch	Analyst	DF				
	Result	Limit	Qual	Units										
<b>Volatile Organic Compounds by GC/MS</b>														
Method: SW8260B/D / SW5030														
1,1,1-Trichloroethane	< 0.719	4.00		ug/L	0.719	01/10/23 11:52		B3A0181	ZM1	1				
1,1,2,2-Tetrachloroethane	< 0.713	4.00		ug/L	0.713	01/10/23 11:52		B3A0181	ZM1	1				
1,1,2-Trichloroethane	< 0.198	2.00		ug/L	0.198	01/10/23 11:52		B3A0181	ZM1	1				
1,1-Dichloroethane	< 0.190	2.00		ug/L	0.190	01/10/23 11:52		B3A0181	ZM1	1				
1,1-Dichloroethene	< 1.10	8.00		ug/L	1.10	01/10/23 11:52		B3A0181	ZM1	1				
1,2,4-Trimethylbenzene	< 0.753	4.00		ug/L	0.753	01/10/23 11:52		B3A0181	ZM1	1				
1,2-Dibromo-3-chloropropane	< 2.60	20.0		ug/L	2.60	01/10/23 11:52		B3A0181	ZM1	1				
1,2-Dibromoethane	< 0.420	2.00		ug/L	0.420	01/10/23 11:52		B3A0181	ZM1	1				
1,2-Dichloroethane	< 0.731	4.00		ug/L	0.731	01/10/23 11:52		B3A0181	ZM1	1				
1,2-Dichloropropane	< 0.557	4.00		ug/L	0.557	01/10/23 11:52		B3A0181	ZM1	1				
1,3,5-Trimethylbenzene	< 0.351	2.00		ug/L	0.351	01/10/23 11:52		B3A0181	ZM1	1				
1-Butanol	< 22.2	200		ug/L	22.2	01/11/23 16:21		B3A0242	ZM1	1				
2-Butanone	< 4.79	28.0	Q	ug/L	4.79	01/10/23 11:52		B3A0181	ZM1	1				
2-Hexanone	< 4.74	28.0		ug/L	4.74	01/10/23 11:52		B3A0181	ZM1	1				
4-Methyl-2-pentanone	< 4.40	28.0		ug/L	4.40	01/10/23 11:52		B3A0181	ZM1	1				
Acetone	< 9.21	70.0	Q	ug/L	9.21	01/10/23 11:52		B3A0181	ZM1	1				
Acrolein	< 1.67	10.0		ug/L	1.67	01/09/23 16:51		B3A0219	KS1	1				
Acrylonitrile	< 0.628	4.00		ug/L	0.628	01/10/23 11:52		B3A0181	ZM1	1				
Benzene	< 0.362	2.00		ug/L	0.362	01/10/23 11:52		B3A0181	ZM1	1				
Bromodichloromethane	< 0.458	2.00		ug/L	0.458	01/10/23 11:52		B3A0181	ZM1	1				
Bromoform	< 0.570	4.00		ug/L	0.570	01/10/23 11:52		B3A0181	ZM1	1				
Bromomethane	< 6.07	40.0		ug/L	6.07	01/10/23 11:52		B3A0181	ZM1	1				
Carbon disulfide	< 0.739	4.00		ug/L	0.739	01/10/23 11:52		B3A0181	ZM1	1				
Carbon tetrachloride	< 3.07	20.0		ug/L	3.07	01/10/23 11:52		B3A0181	ZM1	1				
Chlorobenzene	< 0.350	2.00		ug/L	0.350	01/10/23 11:52		B3A0181	ZM1	1				
Chloroethane	< 0.621	4.00		ug/L	0.621	01/10/23 11:52		B3A0181	ZM1	1				
Chloroform	< 0.450	4.00		ug/L	0.450	01/10/23 11:52		B3A0181	ZM1	1				
Chloromethane	< 1.30	8.00		ug/L	1.30	01/10/23 11:52		B3A0181	ZM1	1				
cis-1,2-Dichloroethene	< 0.652	4.00		ug/L	0.652	01/10/23 11:52		B3A0181	ZM1	1				
cis-1,3-Dichloropropene	< 0.408	4.00		ug/L	0.408	01/10/23 11:52		B3A0181	ZM1	1				
Dibromochloromethane	< 0.632	4.00		ug/L	0.632	01/10/23 11:52		B3A0181	ZM1	1				
Ethylbenzene	< 0.580	4.00		ug/L	0.580	01/10/23 11:52		B3A0181	ZM1	1				
m,p-Xylene	< 1.58	8.00		ug/L	1.58	01/10/23 11:52		B3A0181	ZM1	1				
Methyl tert-butyl ether	< 0.838	4.00		ug/L	0.838	01/10/23 11:52		B3A0181	ZM1	1				
Methylene chloride	< 4.50	20.0		ug/L	4.50	01/10/23 11:52		B3A0181	ZM1	1				
Naphthalene	< 4.82	20.0		ug/L	4.82	01/10/23 11:52		B3A0181	ZM1	1				
o-Xylene	< 0.660	4.00		ug/L	0.660	01/10/23 11:52		B3A0181	ZM1	1				
Styrene	< 1.17	8.00		ug/L	1.17	01/10/23 11:52		B3A0181	ZM1	1				
Tetrachloroethene	< 0.646	4.00		ug/L	0.646	01/10/23 11:52		B3A0181	ZM1	1				
Toluene	< 0.510	4.00		ug/L	0.510	01/10/23 11:52		B3A0181	ZM1	1				
trans-1,2-Dichloroethene	< 0.566	4.00		ug/L	0.566	01/10/23 11:52		B3A0181	ZM1	1				
trans-1,3-Dichloropropene	< 1.17	8.00		ug/L	1.17	01/10/23 11:52		B3A0181	ZM1	1				
Trichloroethene	< 0.939	4.00		ug/L	0.939	01/10/23 11:52		B3A0181	ZM1	1				
Vinyl acetate	< 0.948	4.00		ug/L	0.948	01/10/23 11:52		B3A0181	ZM1	1				
Vinyl chloride	< 0.582	4.00		ug/L	0.582	01/10/23 11:52		B3A0181	ZM1	1				


 509 N. 3<sup>rd</sup> Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 [www.emt.com](http://www.emt.com)
**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-4  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 10:10  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-02 (Continued)

Analyses	EMT Reporting				MDL	Date/Time Analyzed	Batch	Analyst	DF					
	Result	Limit	Qual	Units										
<b>Volatile Organic Compounds by GC/MS (Continued)</b>														
Method: SW8260B/D / SW5030 (Continued)														
Xylenes, Total	< 1.62	12.0	ug/L		1.62	01/10/23 11:52	B3A0181	ZM1	1					
1,3-Dichloropropene, Total	< 1.48	8.00	ug/L		1.48	01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: Dibromofluoromethane			Recovery: 98%	Limits: 84-137		01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: 1,2-Dichloroethane-d4			Recovery: 101%	Limits: 74-140		01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: Fluorobenzene			Recovery: 100%	Limits: 90-105		01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: Toluene-d8			Recovery: 100%	Limits: 74-109		01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: 4-Bromofluorobenzene			Recovery: 100%	Limits: 86-128		01/10/23 11:52	B3A0181	ZM1	1					
Surrogate: 1,2-Dichlorobenzene-d4			Recovery: 100%	Limits: 90-128		01/10/23 11:52	B3A0181	ZM1	1					


**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-4R  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 10:21  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-03

Analyses	EMT Reporting				MDL	Date/Time Analyzed		Batch	Analyst	DF				
	Result	Limit	Qual	Units										
<b>Volatile Organic Compounds by GC/MS</b>														
Method: SW8260B/D / SW5030														
1,1,1-Trichloroethane	< 0.719	4.00		ug/L	0.719	01/10/23 12:19	B3A0181	ZM1	1					
1,1,2,2-Tetrachloroethane	< 0.713	4.00		ug/L	0.713	01/10/23 12:19	B3A0181	ZM1	1					
1,1,2-Trichloroethane	< 0.198	2.00		ug/L	0.198	01/10/23 12:19	B3A0181	ZM1	1					
1,1-Dichloroethane	< 0.190	2.00		ug/L	0.190	01/10/23 12:19	B3A0181	ZM1	1					
1,1-Dichloroethene	< 1.10	8.00		ug/L	1.10	01/10/23 12:19	B3A0181	ZM1	1					
1,2,4-Trimethylbenzene	< 0.753	4.00		ug/L	0.753	01/10/23 12:19	B3A0181	ZM1	1					
1,2-Dibromo-3-chloropropane	< 2.60	20.0		ug/L	2.60	01/10/23 12:19	B3A0181	ZM1	1					
1,2-Dibromoethane	< 0.420	2.00		ug/L	0.420	01/10/23 12:19	B3A0181	ZM1	1					
1,2-Dichloroethane	< 0.731	4.00		ug/L	0.731	01/10/23 12:19	B3A0181	ZM1	1					
1,2-Dichloropropane	< 0.557	4.00		ug/L	0.557	01/10/23 12:19	B3A0181	ZM1	1					
1,3,5-Trimethylbenzene	< 0.351	2.00		ug/L	0.351	01/10/23 12:19	B3A0181	ZM1	1					
1-Butanol	< 22.2	200		ug/L	22.2	01/11/23 16:46	B3A0242	ZM1	1					
2-Butanone	< 4.79	28.0	Q	ug/L	4.79	01/10/23 12:19	B3A0181	ZM1	1					
2-Hexanone	< 4.74	28.0		ug/L	4.74	01/10/23 12:19	B3A0181	ZM1	1					
4-Methyl-2-pentanone	< 4.40	28.0		ug/L	4.40	01/10/23 12:19	B3A0181	ZM1	1					
Acetone	< 9.21	70.0	Q	ug/L	9.21	01/10/23 12:19	B3A0181	ZM1	1					
Acrolein	< 1.67	10.0		ug/L	1.67	01/09/23 17:16	B3A0219	KS1	1					
Acrylonitrile	< 0.628	4.00		ug/L	0.628	01/10/23 12:19	B3A0181	ZM1	1					
Benzene	< 0.362	2.00		ug/L	0.362	01/10/23 12:19	B3A0181	ZM1	1					
Bromodichloromethane	< 0.458	2.00		ug/L	0.458	01/10/23 12:19	B3A0181	ZM1	1					
Bromoform	< 0.570	4.00		ug/L	0.570	01/10/23 12:19	B3A0181	ZM1	1					
Bromomethane	< 6.07	40.0		ug/L	6.07	01/10/23 12:19	B3A0181	ZM1	1					
Carbon disulfide	< 0.739	4.00		ug/L	0.739	01/10/23 12:19	B3A0181	ZM1	1					
Carbon tetrachloride	< 3.07	20.0		ug/L	3.07	01/10/23 12:19	B3A0181	ZM1	1					
Chlorobenzene	< 0.350	2.00		ug/L	0.350	01/10/23 12:19	B3A0181	ZM1	1					
Chloroethane	< 0.621	4.00		ug/L	0.621	01/10/23 12:19	B3A0181	ZM1	1					
Chloroform	< 0.450	4.00		ug/L	0.450	01/10/23 12:19	B3A0181	ZM1	1					
Chloromethane	< 1.30	8.00		ug/L	1.30	01/10/23 12:19	B3A0181	ZM1	1					
cis-1,2-Dichloroethene	< 0.652	4.00		ug/L	0.652	01/10/23 12:19	B3A0181	ZM1	1					
cis-1,3-Dichloropropene	< 0.408	4.00		ug/L	0.408	01/10/23 12:19	B3A0181	ZM1	1					
Dibromochloromethane	< 0.632	4.00		ug/L	0.632	01/10/23 12:19	B3A0181	ZM1	1					
Ethylbenzene	< 0.580	4.00		ug/L	0.580	01/10/23 12:19	B3A0181	ZM1	1					
m,p-Xylene	< 1.58	8.00		ug/L	1.58	01/10/23 12:19	B3A0181	ZM1	1					
Methyl tert-butyl ether	< 0.838	4.00		ug/L	0.838	01/10/23 12:19	B3A0181	ZM1	1					
Methylene chloride	< 4.50	20.0		ug/L	4.50	01/10/23 12:19	B3A0181	ZM1	1					
Naphthalene	< 4.82	20.0		ug/L	4.82	01/10/23 12:19	B3A0181	ZM1	1					
o-Xylene	< 0.660	4.00		ug/L	0.660	01/10/23 12:19	B3A0181	ZM1	1					
Styrene	< 1.17	8.00		ug/L	1.17	01/10/23 12:19	B3A0181	ZM1	1					
Tetrachloroethene	< 0.646	4.00		ug/L	0.646	01/10/23 12:19	B3A0181	ZM1	1					
Toluene	< 0.510	4.00		ug/L	0.510	01/10/23 12:19	B3A0181	ZM1	1					
trans-1,2-Dichloroethene	< 0.566	4.00		ug/L	0.566	01/10/23 12:19	B3A0181	ZM1	1					
trans-1,3-Dichloropropene	< 1.17	8.00		ug/L	1.17	01/10/23 12:19	B3A0181	ZM1	1					
Trichloroethene	< 0.939	4.00		ug/L	0.939	01/10/23 12:19	B3A0181	ZM1	1					
Vinyl acetate	< 0.948	4.00		ug/L	0.948	01/10/23 12:19	B3A0181	ZM1	1					
Vinyl chloride	< 0.582	4.00		ug/L	0.582	01/10/23 12:19	B3A0181	ZM1	1					



### Client Sample Results

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
19006  
**Work Order:** 23A0137

**Client Sample ID:** MW-4R  
**Report Date:** 01/13/2023  
**Collection Date:** 12/28/2022 10:21  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-03 (Continued)

Analyses	EMT Reporting				MDL	Date/Time Analyzed				Batch	Analyst	DF				
	Result	Limit	Qual	Units												
<b>Volatile Organic Compounds by GC/MS (Continued)</b>																
Method: SW8260B/D / SW5030 (Continued)																
Xylenes, Total	< 1.62	12.0	ug/L		1.62	01/10/23 12:19	B3A0181	ZM1	1							
1,3-Dichloropropene, Total	< 1.48	8.00	ug/L		1.48	01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: Dibromofluoromethane			Recovery: 98%	Limits: 84-137		01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: 1,2-Dichloroethane-d4			Recovery: 100%	Limits: 74-140		01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: Fluorobenzene			Recovery: 99%	Limits: 90-105		01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: Toluene-d8			Recovery: 100%	Limits: 74-109		01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: 4-Bromofluorobenzene			Recovery: 102%	Limits: 86-128		01/10/23 12:19	B3A0181	ZM1	1							
Surrogate: 1,2-Dichlorobenzene-d4			Recovery: 101%	Limits: 90-128		01/10/23 12:19	B3A0181	ZM1	1							


**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** Trip Blank  
**Report Date:** 01/13/2023  
**Collection Date:** 01/04/2023 00:00  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-04

Analyses	EMT Reporting				MDL	Date/Time Analyzed		Batch	Analyst	DF				
	Result	Limit	Qual	Units										
<b>Volatile Organic Compounds by GC/MS</b>														
Method: SW8260B/D / SW5030														
1,1,1-Trichloroethane	< 0.719	4.00		ug/L	0.719	01/10/23 10:33		B3A0181	ZM1	1				
1,1,2,2-Tetrachloroethane	< 0.713	4.00		ug/L	0.713	01/10/23 10:33		B3A0181	ZM1	1				
1,1,2-Trichloroethane	< 0.198	2.00		ug/L	0.198	01/10/23 10:33		B3A0181	ZM1	1				
1,1-Dichloroethane	< 0.190	2.00		ug/L	0.190	01/10/23 10:33		B3A0181	ZM1	1				
1,1-Dichloroethene	< 1.10	8.00		ug/L	1.10	01/10/23 10:33		B3A0181	ZM1	1				
1,2,4-Trimethylbenzene	< 0.753	4.00		ug/L	0.753	01/10/23 10:33		B3A0181	ZM1	1				
1,2-Dibromo-3-chloropropane	< 2.60	20.0		ug/L	2.60	01/10/23 10:33		B3A0181	ZM1	1				
1,2-Dibromoethane	< 0.420	2.00		ug/L	0.420	01/10/23 10:33		B3A0181	ZM1	1				
1,2-Dichloroethane	< 0.731	4.00		ug/L	0.731	01/10/23 10:33		B3A0181	ZM1	1				
1,2-Dichloropropane	< 0.557	4.00		ug/L	0.557	01/10/23 10:33		B3A0181	ZM1	1				
1,3,5-Trimethylbenzene	< 0.351	2.00		ug/L	0.351	01/10/23 10:33		B3A0181	ZM1	1				
1-Butanol	< 22.2	200		ug/L	22.2	01/11/23 15:31		B3A0242	ZM1	1				
2-Butanone	< 4.79	28.0	Q	ug/L	4.79	01/10/23 10:33		B3A0181	ZM1	1				
2-Hexanone	< 4.74	28.0		ug/L	4.74	01/10/23 10:33		B3A0181	ZM1	1				
4-Methyl-2-pentanone	< 4.40	28.0		ug/L	4.40	01/10/23 10:33		B3A0181	ZM1	1				
Acetone	< 9.21	70.0	Q	ug/L	9.21	01/10/23 10:33		B3A0181	ZM1	1				
Acrolein	< 1.67	10.0		ug/L	1.67	01/09/23 16:01		B3A0219	KS1	1				
Acrylonitrile	< 0.628	4.00		ug/L	0.628	01/10/23 10:33		B3A0181	ZM1	1				
Benzene	< 0.362	2.00		ug/L	0.362	01/10/23 10:33		B3A0181	ZM1	1				
Bromodichloromethane	< 0.458	2.00		ug/L	0.458	01/10/23 10:33		B3A0181	ZM1	1				
Bromoform	< 0.570	4.00		ug/L	0.570	01/10/23 10:33		B3A0181	ZM1	1				
Bromomethane	< 6.07	40.0		ug/L	6.07	01/10/23 10:33		B3A0181	ZM1	1				
Carbon disulfide	< 0.739	4.00		ug/L	0.739	01/10/23 10:33		B3A0181	ZM1	1				
Carbon tetrachloride	< 3.07	20.0		ug/L	3.07	01/10/23 10:33		B3A0181	ZM1	1				
Chlorobenzene	< 0.350	2.00		ug/L	0.350	01/10/23 10:33		B3A0181	ZM1	1				
Chloroethane	< 0.621	4.00		ug/L	0.621	01/10/23 10:33		B3A0181	ZM1	1				
Chloroform	< 0.450	4.00		ug/L	0.450	01/10/23 10:33		B3A0181	ZM1	1				
Chloromethane	< 1.30	8.00		ug/L	1.30	01/10/23 10:33		B3A0181	ZM1	1				
cis-1,2-Dichloroethene	< 0.652	4.00		ug/L	0.652	01/10/23 10:33		B3A0181	ZM1	1				
cis-1,3-Dichloropropene	< 0.408	4.00		ug/L	0.408	01/10/23 10:33		B3A0181	ZM1	1				
Dibromochloromethane	< 0.632	4.00		ug/L	0.632	01/10/23 10:33		B3A0181	ZM1	1				
Ethylbenzene	< 0.580	4.00		ug/L	0.580	01/10/23 10:33		B3A0181	ZM1	1				
m,p-Xylene	< 1.58	8.00		ug/L	1.58	01/10/23 10:33		B3A0181	ZM1	1				
Methyl tert-butyl ether	< 0.838	4.00		ug/L	0.838	01/10/23 10:33		B3A0181	ZM1	1				
Methylene chloride	< 4.50	20.0		ug/L	4.50	01/10/23 10:33		B3A0181	ZM1	1				
Naphthalene	< 4.82	20.0		ug/L	4.82	01/10/23 10:33		B3A0181	ZM1	1				
o-Xylene	< 0.660	4.00		ug/L	0.660	01/10/23 10:33		B3A0181	ZM1	1				
Styrene	< 1.17	8.00		ug/L	1.17	01/10/23 10:33		B3A0181	ZM1	1				
Tetrachloroethene	< 0.646	4.00		ug/L	0.646	01/10/23 10:33		B3A0181	ZM1	1				
Toluene	< 0.510	4.00		ug/L	0.510	01/10/23 10:33		B3A0181	ZM1	1				
trans-1,2-Dichloroethene	< 0.566	4.00		ug/L	0.566	01/10/23 10:33		B3A0181	ZM1	1				
trans-1,3-Dichloropropene	< 1.17	8.00		ug/L	1.17	01/10/23 10:33		B3A0181	ZM1	1				
Trichloroethene	< 0.939	4.00		ug/L	0.939	01/10/23 10:33		B3A0181	ZM1	1				
Vinyl acetate	< 0.948	4.00		ug/L	0.948	01/10/23 10:33		B3A0181	ZM1	1				
Vinyl chloride	< 0.582	4.00		ug/L	0.582	01/10/23 10:33		B3A0181	ZM1	1				


**Client Sample Results**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Client Sample ID:** Trip Blank  
**Report Date:** 01/13/2023  
**Collection Date:** 01/04/2023 00:00  
**Matrix:** Groundwater  
**Lab ID:** 23A0137-04 (Continued)

Analyses	EMT Reporting				MDL	Date/Time Analyzed				Batch	Analyst	DF				
	Result	Limit	Qual	Units												
<b>Volatile Organic Compounds by GC/MS (Continued)</b>																
Method: SW8260B/D / SW5030 (Continued)																
Xylenes, Total	< 1.62	12.0	ug/L		1.62	01/10/23 10:33	B3A0181	ZM1	1							
1,3-Dichloropropene, Total	< 1.48	8.00	ug/L		1.48	01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: Dibromofluoromethane			Recovery: 99%	Limits: 84-137		01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: 1,2-Dichloroethane-d4			Recovery: 99%	Limits: 74-140		01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: Fluorobenzene			Recovery: 97%	Limits: 90-105		01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: Toluene-d8			Recovery: 100%	Limits: 74-109		01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: 4-Bromofluorobenzene			Recovery: 102%	Limits: 86-128		01/10/23 10:33	B3A0181	ZM1	1							
Surrogate: 1,2-Dichlorobenzene-d4			Recovery: 103%	Limits: 90-128		01/10/23 10:33	B3A0181	ZM1	1							



### Dates Report

**Client:** United Engineering Consultants, Inc.

**Report Date:** 01/13/2023

**Project:** UEC Analysis  
19006

**Work Order:** 23A0137

Sample ID	Client Sample ID	Collection	Matrix	Test Name	Leached Prep Date	Prep Date	Analysis Date	Batch ID	Sequence
23A0137-01	MW-2	12/28/22	Groundwater	Volatile Organic Compounds by GC/MS	01/09/23 14:02	01/10/23 11:26	B3A0181	S3A0106	
				Volatile Organic Compounds by GC/MS	01/09/23 15:50	01/09/23 16:26	B3A0219	S3A0113	
				Volatile Organic Compounds by GC/MS	01/11/23 11:57	01/11/23 15:56	B3A0242	S3A0132	
23A0137-02	MW-4	12/28/22		Volatile Organic Compounds by GC/MS	01/09/23 14:02	01/10/23 11:52	B3A0181	S3A0106	
				Volatile Organic Compounds by GC/MS	01/09/23 15:50	01/09/23 16:51	B3A0219	S3A0113	
				Volatile Organic Compounds by GC/MS	01/11/23 11:57	01/11/23 16:21	B3A0242	S3A0132	
23A0137-03	MW-4R	12/28/22		Volatile Organic Compounds by GC/MS	01/09/23 14:02	01/10/23 12:19	B3A0181	S3A0106	
				Volatile Organic Compounds by GC/MS	01/09/23 15:50	01/09/23 17:16	B3A0219	S3A0113	
				Volatile Organic Compounds by GC/MS	01/11/23 11:57	01/11/23 16:46	B3A0242	S3A0132	
23A0137-04	Trip Blank	01/04/23		Volatile Organic Compounds by GC/MS	01/09/23 14:02	01/10/23 10:33	B3A0181	S3A0106	
				Volatile Organic Compounds by GC/MS	01/09/23 15:50	01/09/23 16:01	B3A0219	S3A0113	
				Volatile Organic Compounds by GC/MS	01/11/23 11:57	01/11/23 15:31	B3A0242	S3A0132	



509 N. 3<sup>rd</sup> Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 [www.emt.com](http://www.emt.com)

## Quality Control

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

### Volatile Organic Compounds by GC/MS

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030**

**Blank (B3A0181-BLK1)**

*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 10:07*

1,1,1-Trichloroethane	< 4.00	4.00	ug/L								1
1,1,2,2-Tetrachloroethane	< 4.00	4.00	ug/L								1
1,1,2-Trichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethene	< 8.00	8.00	ug/L								1
1,2,4-Trimethylbenzene	< 4.00	4.00	ug/L								1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L								1
1,2-Dibromoethane	< 2.00	2.00	ug/L								1
1,2-Dichloroethane	< 4.00	4.00	ug/L								1
1,2-Dichloropropane	< 4.00	4.00	ug/L								1
1,3,5-Trimethylbenzene	< 2.00	2.00	ug/L								1
1-Butanol	< 200	200	ug/L								1
2-Butanone	< 28.0	28.0	ug/L								1
2-Hexanone	< 28.0	28.0	ug/L								1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L								1
Acetone	< 70.0	70.0	ug/L								1
Acrolein	< 10.0	10.0	ug/L								1
Acrylonitrile	< 4.00	4.00	ug/L								1
Benzene	< 2.00	2.00	ug/L								1
Bromodichloromethane	< 2.00	2.00	ug/L								1
Bromoform	< 4.00	4.00	ug/L								1
Bromomethane	< 40.0	40.0	ug/L								1
Carbon disulfide	< 4.00	4.00	ug/L								1
Carbon tetrachloride	< 20.0	20.0	ug/L								1
Chlorobenzene	< 2.00	2.00	ug/L								1
Chloroethane	< 4.00	4.00	ug/L								1
Chloroform	< 4.00	4.00	ug/L								1
Chloromethane	< 8.00	8.00	ug/L								1
cis-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
cis-1,3-Dichloropropene	< 4.00	4.00	ug/L								1
Dibromochloromethane	< 4.00	4.00	ug/L								1
Ethylbenzene	< 4.00	4.00	ug/L								1
m,p-Xylene	< 8.00	8.00	ug/L								1
Methyl tert-butyl ether	< 4.00	4.00	ug/L								1
Methylene chloride	< 20.0	20.0	ug/L								1
Naphthalene	< 20.0	20.0	ug/L								1
o-Xylene	< 4.00	4.00	ug/L								1
Styrene	< 8.00	8.00	ug/L								1
Tetrachloroethene	< 4.00	4.00	ug/L								1
Toluene	< 4.00	4.00	ug/L								1
trans-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
trans-1,3-Dichloropropene	< 8.00	8.00	ug/L								1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**Blank (B3A0181-BLK1) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 10:07*

Trichloroethene	< 4.00	4.00	ug/L								1
Vinyl acetate	< 4.00	4.00	ug/L								1
Vinyl chloride	< 4.00	4.00	ug/L								1
Xylenes, Total	< 12.0	12.0	ug/L								1
1,3-Dichloropropene, Total	< 8.00	8.00	ug/L								1
<i>Surrogate: Dibromofluoromethane</i>	19.9		ug/L	20.00		100	84-137				1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	19.6		ug/L	20.00		98	74-140				1
<i>Surrogate: Fluorobenzene</i>	19.9		ug/L	20.00		99	90-105				1
<i>Surrogate: Toluene-d8</i>	20.1		ug/L	20.00		101	74-109				1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.3		ug/L	10.00		103	86-128				1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	19.9		ug/L	20.00		100	90-128				1

**LCS (B3A0181-BS1)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 11:00*

1,1,1-Trichloroethane	51.7	4.00	ug/L	50.00		103	74-131				1
1,1,2,2-Tetrachloroethane	49.4	4.00	ug/L	50.00		99	71-121				1
1,1,2-Trichloroethane	51.7	2.00	ug/L	50.00		103	83-139				1
1,1-Dichloroethane	51.9	2.00	ug/L	50.00		104	77-125				1
1,1-Dichloroethene	54.5	8.00	ug/L	50.00		109	71-131				1
1,2,4-Trimethylbenzene	55.5	4.00	ug/L	50.00		111	76-124				1
1,2-Dibromo-3-chloropropane	43.0	20.0	ug/L	50.00		86	72-124				1
1,2-Dibromoethane	49.6	2.00	ug/L	50.00		99	77-121				1
1,2-Dichloroethane	51.8	4.00	ug/L	50.00		104	73-128				1
1,2-Dichloropropane	50.3	4.00	ug/L	50.00		101	78-122				1
1,3,5-Trimethylbenzene	54.9	2.00	ug/L	50.00		110	75-124				1
1-Butanol	233	200	ug/L	500.0		47	70-130				1
2-Butanone	151	28.0	ug/L	175.0		86	70-137				1
2-Hexanone	165	28.0	ug/L	175.0		94	57-139				1
4-Methyl-2-pentanone	168	28.0	ug/L	175.0		96	67-130				1
Acetone	123	70.0	ug/L	175.0		70	39-160				1
Acrolein	64.9	10.0	ug/L	125.0		52	78-146				1
Acrylonitrile	42.5	4.00	ug/L	50.00		85	63-135				1
Benzene	51.0	2.00	ug/L	50.00		102	79-120				1
Bromodichloromethane	51.3	2.00	ug/L	50.00		103	84-139				1
Bromoform	48.7	4.00	ug/L	50.00		97	66-130				1
Bromomethane	48.8	40.0	ug/L	50.00		98	56-150				1
Carbon disulfide	47.9	4.00	ug/L	50.00		96	80-124				1
Carbon tetrachloride	50.9	20.0	ug/L	50.00		102	75-134				1
Chlorobenzene	52.9	2.00	ug/L	50.00		106	82-118				1
Chloroethane	52.0	4.00	ug/L	50.00		104	60-138				1
Chloroform	52.0	4.00	ug/L	50.00		104	79-124				1
Chloromethane	50.6	8.00	ug/L	50.00		101	50-139				1
cis-1,2-Dichloroethene	51.7	4.00	ug/L	50.00		103	78-123				1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**LCS (B3A0181-BS1) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 11:00*

cis-1,3-Dichloropropene	50.9	4.00	ug/L	50.00	102	75-124					1
Dibromochloromethane	52.6	4.00	ug/L	50.00	105	83-140					1
Ethylbenzene	53.3	4.00	ug/L	50.00	107	79-137					1
m,p-Xylene	109	8.00	ug/L	100.0	109	80-136					1
Methyl tert-butyl ether	49.4	4.00	ug/L	50.00	99	71-124					1
Methylene chloride	52.0	20.0	ug/L	50.00	104	74-124					1
Naphthalene	46.3	20.0	ug/L	50.00	93	82-128					1
o-Xylene	52.0	4.00	ug/L	50.00	104	78-122					1
Styrene	51.9	8.00	ug/L	50.00	104	78-123					1
Tetrachloroethene	53.7	4.00	ug/L	50.00	107	74-129					1
Toluene	52.6	4.00	ug/L	50.00	105	80-133					1
trans-1,2-Dichloroethene	51.6	4.00	ug/L	50.00	103	75-124					1
trans-1,3-Dichloropropene	48.9	8.00	ug/L	50.00	98	73-127					1
Trichloroethene	50.4	4.00	ug/L	50.00	101	84-129					1
Vinyl acetate	50.1	4.00	ug/L	50.00	100	76-133					1
Vinyl chloride	51.8	4.00	ug/L	50.00	104	58-137					1
Xylenes, Total	161	12.0	ug/L	150.0	108	80-132					1
1,3-Dichloropropene, Total	99.8	8.00	ug/L	100.0	100	77-123					1
<i>Surrogate: Dibromofluoromethane</i>	20.7		ug/L	20.00	103	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.5		ug/L	20.00	102	74-140					1
<i>Surrogate: Fluorobenzene</i>	20.1		ug/L	20.00	101	90-105					1
<i>Surrogate: Toluene-d8</i>	20.4		ug/L	20.00	102	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	9.98		ug/L	10.00	100	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.1		ug/L	20.00	101	90-128					1

**LCS Dup (B3A0181-BSD1)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 09:14*

1,1,1-Trichloroethane	51.1	4.00	ug/L	50.00	102	74-131	1	20			1
1,1,2,2-Tetrachloroethane	57.9	4.00	ug/L	50.00	116	71-121	16	20			1
1,1,2-Trichloroethane	51.5	2.00	ug/L	50.00	103	83-139	0.4	20			1
1,1-Dichloroethane	52.0	2.00	ug/L	50.00	104	77-125	0.02	20			1
1,1-Dichloroethene	53.2	8.00	ug/L	50.00	106	71-131	2	20			1
1,2,4-Trimethylbenzene	55.5	4.00	ug/L	50.00	111	76-124	0.06	20			1
1,2-Dibromo-3-chloropropane	51.6	20.0	ug/L	50.00	103	72-124	18	20			1
1,2-Dibromoethane	50.5	2.00	ug/L	50.00	101	77-121	2	20			1
1,2-Dichloroethane	52.4	4.00	ug/L	50.00	105	73-128	1	20			1
1,2-Dichloropropane	50.1	4.00	ug/L	50.00	100	78-122	0.3	20			1
1,3,5-Trimethylbenzene	55.3	2.00	ug/L	50.00	111	75-124	0.9	20			1
1-Butanol	494	200	ug/L	500.0	99	70-130	72	20	P		1
2-Butanone	189	28.0	ug/L	175.0	108	70-137	22	20	P		1
2-Hexanone	193	28.0	ug/L	175.0	110	57-139	16	20			1
4-Methyl-2-pentanone	197	28.0	ug/L	175.0	113	67-130	16	20			1
Acetone	167	70.0	ug/L	175.0	96	39-160	31	20	P		1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**LCS Dup (B3A0181-BSD1) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 09:14*

Acrolein	66.2	10.0	ug/L	125.0	53	78-146	2	20	1
Acrylonitrile	51.3	4.00	ug/L	50.00	103	63-135	19	20	1
Benzene	50.9	2.00	ug/L	50.00	102	79-120	0.2	20	1
Bromodichloromethane	49.4	2.00	ug/L	50.00	99	84-139	4	20	1
Bromoform	50.3	4.00	ug/L	50.00	101	66-130	3	20	1
Bromomethane	49.7	40.0	ug/L	50.00	99	56-150	2	20	1
Carbon disulfide	46.6	4.00	ug/L	50.00	93	80-124	3	20	1
Carbon tetrachloride	49.5	20.0	ug/L	50.00	99	75-134	3	20	1
Chlorobenzene	49.6	2.00	ug/L	50.00	99	82-118	6	20	1
Chloroethane	62.5	4.00	ug/L	50.00	125	60-138	18	20	1
Chloroform	52.0	4.00	ug/L	50.00	104	79-124	0.03	20	1
Chloromethane	48.6	8.00	ug/L	50.00	97	50-139	4	20	1
cis-1,2-Dichloroethene	51.5	4.00	ug/L	50.00	103	78-123	0.4	20	1
cis-1,3-Dichloropropene	45.4	4.00	ug/L	50.00	91	75-124	12	20	1
Dibromochloromethane	51.6	4.00	ug/L	50.00	103	83-140	2	20	1
Ethylbenzene	49.6	4.00	ug/L	50.00	99	79-137	7	20	1
m,p-Xylene	101	8.00	ug/L	100.0	101	80-136	8	20	1
Methyl tert-butyl ether	52.2	4.00	ug/L	50.00	104	71-124	6	20	1
Methylene chloride	52.2	20.0	ug/L	50.00	104	74-124	0.6	20	1
Naphthalene	51.8	20.0	ug/L	50.00	104	82-128	11	20	1
o-Xylene	54.3	4.00	ug/L	50.00	109	78-122	4	20	1
Styrene	49.0	8.00	ug/L	50.00	98	78-123	6	20	1
Tetrachloroethene	56.2	4.00	ug/L	50.00	112	74-129	5	20	1
Toluene	50.1	4.00	ug/L	50.00	100	80-133	5	20	1
trans-1,2-Dichloroethene	50.5	4.00	ug/L	50.00	101	75-124	2	20	1
trans-1,3-Dichloropropene	45.6	8.00	ug/L	50.00	91	73-127	7	20	1
Trichloroethene	49.1	4.00	ug/L	50.00	98	84-129	3	20	1
Vinyl acetate	51.6	4.00	ug/L	50.00	103	76-133	3	20	1
Vinyl chloride	53.8	4.00	ug/L	50.00	108	58-137	4	20	1
Xylenes, Total	155	12.0	ug/L	150.0	104	80-132	4	20	1
1,3-Dichloropropene, Total	91.0	8.00	ug/L	100.0	91	77-123	9	20	1
<i>Surrogate: Dibromofluoromethane</i>	19.7		ug/L	20.00	99	84-137			1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.4		ug/L	20.00	102	74-140			1
<i>Surrogate: Fluorobenzene</i>	19.5		ug/L	20.00	98	90-105			1
<i>Surrogate: Toluene-d8</i>	19.6		ug/L	20.00	98	74-109			1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.5		ug/L	10.00	105	86-128			1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.7		ug/L	20.00	104	90-128			1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL1)** Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 17:35

1,1,1-Trichloroethane	1.12	4.00	ug/L	1.000	112	0-200		J	1
1,1,2,2-Tetrachloroethane	0.839	4.00	ug/L	1.000	84	0-200		J	1
1,1,2-Trichloroethane	0.973	2.00	ug/L	1.000	97	0-200		J	1
1,1-Dichloroethane	1.15	2.00	ug/L	1.000	115	0-200		J	1
1,1-Dichloroethene	< 8.00	8.00	ug/L	1.000		0-200			1
1,2,4-Trimethylbenzene	1.17	4.00	ug/L	1.000	117	0-200		J	1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L	1.000		0-200			1
1,2-Dibromoethane	1.16	2.00	ug/L	1.000	116	0-200		J	1
1,2-Dichloroethane	1.13	4.00	ug/L	1.000	113	0-200		J	1
1,2-Dichloropropane	1.13	4.00	ug/L	1.000	113	0-200		J	1
1,3,5-Trimethylbenzene	1.03	2.00	ug/L	1.000	103	0-200		J	1
1-Butanol	< 200	200	ug/L	10.00		0-200			1
2-Butanone	5.81	28.0	ug/L	3.500	166	0-200		J	1
2-Hexanone	< 28.0	28.0	ug/L	3.500		0-200			1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L	3.500		0-200			1
Acetone	< 70.0	70.0	ug/L	3.500		0-200			1
Acrolein	2.64	10.0	ug/L	2.500	106	0-200		J	1
Acrylonitrile	1.54	4.00	ug/L	1.000	154	0-200		J	1
Benzene	0.988	2.00	ug/L	1.000	99	0-200		J	1
Bromodichloromethane	1.05	2.00	ug/L	1.000	105	0-200		J	1
Bromoform	1.14	4.00	ug/L	1.000	114	0-200		J	1
Bromomethane	< 40.0	40.0	ug/L	1.000		0-200			1
Carbon disulfide	1.39	4.00	ug/L	1.000	139	0-200		J	1
Carbon tetrachloride	< 20.0	20.0	ug/L	1.000		0-200			1
Chlorobenzene	1.28	2.00	ug/L	1.000	128	0-200		J	1
Chloroethane	0.876	4.00	ug/L	1.000	88	0-200		J	1
Chloroform	1.06	4.00	ug/L	1.000	106	0-200		J	1
Chloromethane	1.31	8.00	ug/L	1.000	131	0-200		J	1
cis-1,2-Dichloroethene	1.26	4.00	ug/L	1.000	126	0-200		J	1
cis-1,3-Dichloropropene	1.32	4.00	ug/L	1.000	132	0-200		J	1
Dibromochloromethane	1.07	4.00	ug/L	1.000	107	0-200		J	1
Ethylbenzene	1.11	4.00	ug/L	1.000	111	0-200		J	1
m,p-Xylene	2.36	8.00	ug/L	2.000	118	0-200		J	1
Methyl tert-butyl ether	1.06	4.00	ug/L	1.000	106	0-200		J	1
Methylene chloride	< 20.0	20.0	ug/L	1.000		0-200			1
Naphthalene	< 20.0	20.0	ug/L	1.000		0-200			1
o-Xylene	0.872	4.00	ug/L	1.000	87	0-200		J	1
Styrene	1.33	8.00	ug/L	1.000	133	0-200		J	1
Tetrachloroethene	1.60	4.00	ug/L	1.000	160	0-200		J	1
Toluene	1.12	4.00	ug/L	1.000	112	0-200		J	1
trans-1,2-Dichloroethene	1.32	4.00	ug/L	1.000	132	0-200		J	1
trans-1,3-Dichloropropene	1.18	8.00	ug/L	1.000	118	0-200		J	1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL1) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 17:35*

Trichloroethene	1.28	4.00	ug/L	1.000	128	0-200		J	1
Vinyl acetate	1.03	4.00	ug/L	1.000	103	0-200		J	1
Vinyl chloride	1.22	4.00	ug/L	1.000	122	0-200		J	1
Xylenes, Total	3.23	12.0	ug/L	3.000	108	0-200		J	1
1,3-Dichloropropene, Total	2.50	8.00	ug/L	2.000	125	0-200		J	1
<i>Surrogate: Dibromofluoromethane</i>	19.9		ug/L	20.00	99	84-137			1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	19.3		ug/L	20.00	97	74-140			1
<i>Surrogate: Fluorobenzene</i>	19.6		ug/L	20.00	98	90-105			1
<i>Surrogate: Toluene-d8</i>	20.5		ug/L	20.00	102	74-109			1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.1		ug/L	10.00	101	86-128			1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.1		ug/L	20.00	100	90-128			1

**MRL Check (B3A0181-MRL2)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 18:54*

1,1,1-Trichloroethane	7.73	4.00	ug/L	8.000	97	0-200			1
1,1,2,2-Tetrachloroethane	10.0	4.00	ug/L	8.000	126	0-200			1
1,1,2-Trichloroethane	7.58	2.00	ug/L	8.000	95	0-200			1
1,1-Dichloroethane	7.84	2.00	ug/L	8.000	98	0-200			1
1,1-Dichloroethene	7.98	8.00	ug/L	8.000	100	0-200		J	1
1,2,4-Trimethylbenzene	8.24	4.00	ug/L	8.000	103	0-200			1
1,2-Dibromo-3-chloropropane	8.18	20.0	ug/L	8.000	102	0-200		J	1
1,2-Dibromoethane	7.82	2.00	ug/L	8.000	98	0-200			1
1,2-Dichloroethane	7.98	4.00	ug/L	8.000	100	0-200			1
1,2-Dichloropropane	7.27	4.00	ug/L	8.000	91	0-200			1
1,3,5-Trimethylbenzene	8.57	2.00	ug/L	8.000	107	0-200			1
1-Butanol	78.5	200	ug/L	80.00	98	0-200		J	1
2-Butanone	39.3	28.0	ug/L	28.00	140	0-200			1
2-Hexanone	30.1	28.0	ug/L	28.00	107	0-200			1
4-Methyl-2-pentanone	31.4	28.0	ug/L	28.00	112	0-200			1
Acetone	38.3	70.0	ug/L	28.00	137	0-200		J	1
Acrolein	12.7	10.0	ug/L	20.00	64	0-200			1
Acrylonitrile	7.66	4.00	ug/L	8.000	96	0-200			1
Benzene	7.67	2.00	ug/L	8.000	96	0-200			1
Bromodichloromethane	7.98	2.00	ug/L	8.000	100	0-200			1
Bromoform	7.43	4.00	ug/L	8.000	93	0-200			1
Bromomethane	10.2	40.0	ug/L	8.000	127	0-200		J	1
Carbon disulfide	7.57	4.00	ug/L	8.000	95	0-200			1
Carbon tetrachloride	7.74	20.0	ug/L	8.000	97	0-200		J	1
Chlorobenzene	7.39	2.00	ug/L	8.000	92	0-200			1
Chloroethane	9.88	4.00	ug/L	8.000	124	0-200			1
Chloroform	8.12	4.00	ug/L	8.000	102	0-200			1
Chloromethane	7.45	8.00	ug/L	8.000	93	0-200		J	1
cis-1,2-Dichloroethene	8.07	4.00	ug/L	8.000	101	0-200			1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL2) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 18:54*

cis-1,3-Dichloropropene	7.36	4.00	ug/L	8.000	92	0-200					1
Dibromochloromethane	7.73	4.00	ug/L	8.000	97	0-200					1
Ethylbenzene	7.84	4.00	ug/L	8.000	98	0-200					1
m,p-Xylene	15.3	8.00	ug/L	16.00	96	0-200					1
Methyl tert-butyl ether	8.15	4.00	ug/L	8.000	102	0-200					1
Methylene chloride	8.18	20.0	ug/L	8.000	102	0-200		J			1
Naphthalene	8.07	20.0	ug/L	8.000	101	0-200		J			1
o-Xylene	8.30	4.00	ug/L	8.000	104	0-200					1
Styrene	7.28	8.00	ug/L	8.000	91	0-200		J			1
Tetrachloroethene	7.57	4.00	ug/L	8.000	95	0-200					1
Toluene	7.72	4.00	ug/L	8.000	96	0-200					1
trans-1,2-Dichloroethene	7.78	4.00	ug/L	8.000	97	0-200					1
trans-1,3-Dichloropropene	6.98	8.00	ug/L	8.000	87	0-200		J			1
Trichloroethene	7.28	4.00	ug/L	8.000	91	0-200					1
Vinyl acetate	8.15	4.00	ug/L	8.000	102	0-200					1
Vinyl chloride	8.46	4.00	ug/L	8.000	106	0-200					1
Xylenes, Total	23.6	12.0	ug/L	24.00	98	0-200					1
1,3-Dichloropropene, Total	14.3	8.00	ug/L	16.00	90	0-200					1
<i>Surrogate: Dibromofluoromethane</i>	20.3		ug/L	20.00	101	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.7		ug/L	20.00	103	74-140					1
<i>Surrogate: Fluorobenzene</i>	19.6		ug/L	20.00	98	90-105					1
<i>Surrogate: Toluene-d8</i>	20.0		ug/L	20.00	100	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.4		ug/L	10.00	104	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	21.0		ug/L	20.00	105	90-128					1

**MRL Check (B3A0181-MRL3)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 19:20*

1,1,1-Trichloroethane	10.3	4.00	ug/L	10.00	103	0-200					1
1,1,2,2-Tetrachloroethane	11.5	4.00	ug/L	10.00	115	0-200					1
1,1,2-Trichloroethane	10.1	2.00	ug/L	10.00	101	0-200					1
1,1-Dichloroethane	10.1	2.00	ug/L	10.00	101	0-200					1
1,1-Dichloroethene	10.2	8.00	ug/L	10.00	102	0-200					1
1,2,4-Trimethylbenzene	10.8	4.00	ug/L	10.00	108	0-200					1
1,2-Dibromo-3-chloropropane	11.2	20.0	ug/L	10.00	112	0-200		J			1
1,2-Dibromoethane	10.0	2.00	ug/L	10.00	100	0-200					1
1,2-Dichloroethane	10.1	4.00	ug/L	10.00	101	0-200					1
1,2-Dichloropropane	10.1	4.00	ug/L	10.00	101	0-200					1
1,3,5-Trimethylbenzene	11.0	2.00	ug/L	10.00	110	0-200					1
1-Butanol	88.5	200	ug/L	100.0	89	0-200		J			1
2-Butanone	36.2	28.0	ug/L	35.00	104	0-200					1
2-Hexanone	35.3	28.0	ug/L	35.00	101	0-200					1
4-Methyl-2-pentanone	36.9	28.0	ug/L	35.00	105	0-200					1
Acetone	32.3	70.0	ug/L	35.00	92	0-200		J			1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL3) (Continued)** Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 19:20

Acrolein	23.1	10.0	ug/L	25.00	93	0-200					1
Acrylonitrile	8.73	4.00	ug/L	10.00	87	0-200					1
Benzene	10.4	2.00	ug/L	10.00	104	0-200					1
Bromodichloromethane	10.1	2.00	ug/L	10.00	101	0-200					1
Bromoform	9.31	4.00	ug/L	10.00	93	0-200					1
Bromomethane	10.7	40.0	ug/L	10.00	107	0-200			J		1
Carbon disulfide	10.3	4.00	ug/L	10.00	103	0-200					1
Carbon tetrachloride	10.0	20.0	ug/L	10.00	100	0-200			J		1
Chlorobenzene	10.0	2.00	ug/L	10.00	100	0-200					1
Chloroethane	10.6	4.00	ug/L	10.00	106	0-200					1
Chloroform	10.5	4.00	ug/L	10.00	105	0-200					1
Chloromethane	9.65	8.00	ug/L	10.00	96	0-200					1
cis-1,2-Dichloroethene	9.98	4.00	ug/L	10.00	100	0-200					1
cis-1,3-Dichloropropene	9.52	4.00	ug/L	10.00	95	0-200					1
Dibromochloromethane	9.91	4.00	ug/L	10.00	99	0-200					1
Ethylbenzene	9.72	4.00	ug/L	10.00	97	0-200					1
m,p-Xylene	19.0	8.00	ug/L	20.00	95	0-200					1
Methyl tert-butyl ether	10.4	4.00	ug/L	10.00	104	0-200					1
Methylene chloride	10.2	20.0	ug/L	10.00	102	0-200			J		1
Naphthalene	9.55	20.0	ug/L	10.00	96	0-200			J		1
o-Xylene	11.1	4.00	ug/L	10.00	111	0-200					1
Styrene	9.23	8.00	ug/L	10.00	92	0-200					1
Tetrachloroethene	12.2	4.00	ug/L	10.00	122	0-200					1
Toluene	9.93	4.00	ug/L	10.00	99	0-200					1
trans-1,2-Dichloroethene	10.4	4.00	ug/L	10.00	104	0-200					1
trans-1,3-Dichloropropene	8.88	8.00	ug/L	10.00	89	0-200					1
Trichloroethene	9.94	4.00	ug/L	10.00	99	0-200					1
Vinyl acetate	9.24	4.00	ug/L	10.00	92	0-200					1
Vinyl chloride	9.91	4.00	ug/L	10.00	99	0-200					1
Xylenes, Total	30.1	12.0	ug/L	30.00	100	0-200					1
1,3-Dichloropropene, Total	18.4	8.00	ug/L	20.00	92	0-200					1
<i>Surrogate: Dibromofluoromethane</i>	20.2		ug/L	20.00	101	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.3		ug/L	20.00	102	74-140					1
<i>Surrogate: Fluorobenzene</i>	19.7		ug/L	20.00	99	90-105					1
<i>Surrogate: Toluene-d8</i>	19.4		ug/L	20.00	97	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.3		ug/L	10.00	103	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.7		ug/L	20.00	104	90-128					1



509 N. 3<sup>rd</sup> Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 [www.emt.com](http://www.emt.com)

## Quality Control

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

### Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**

**MRL Check (B3A0181-MRL4)**      Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 19:46

1,1,1-Trichloroethane	19.2	4.00	ug/L	20.00	96	0-200					1
1,1,2,2-Tetrachloroethane	23.2	4.00	ug/L	20.00	116	0-200					1
1,1,2-Trichloroethane	20.2	2.00	ug/L	20.00	101	0-200					1
1,1-Dichloroethane	19.2	2.00	ug/L	20.00	96	0-200					1
1,1-Dichloroethene	19.3	8.00	ug/L	20.00	97	0-200					1
1,2,4-Trimethylbenzene	19.7	4.00	ug/L	20.00	99	0-200					1
1,2-Dibromo-3-chloropropane	22.7	20.0	ug/L	20.00	114	0-200					1
1,2-Dibromoethane	19.5	2.00	ug/L	20.00	98	0-200					1
1,2-Dichloroethane	19.9	4.00	ug/L	20.00	99	0-200					1
1,2-Dichloropropane	19.1	4.00	ug/L	20.00	96	0-200					1
1,3,5-Trimethylbenzene	20.1	2.00	ug/L	20.00	100	0-200					1
1-Butanol	213	200	ug/L	200.0	107	0-200					1
2-Butanone	76.1	28.0	ug/L	70.00	109	0-200					1
2-Hexanone	79.7	28.0	ug/L	70.00	114	0-200					1
4-Methyl-2-pentanone	78.6	28.0	ug/L	70.00	112	0-200					1
Acetone	66.0	70.0	ug/L	70.00	94	0-200			J		1
Acrolein	50.1	10.0	ug/L	50.00	100	0-200					1
Acrylonitrile	22.4	4.00	ug/L	20.00	112	0-200					1
Benzene	19.8	2.00	ug/L	20.00	99	0-200					1
Bromodichloromethane	19.4	2.00	ug/L	20.00	97	0-200					1
Bromoform	18.9	4.00	ug/L	20.00	95	0-200					1
Bromomethane	17.6	40.0	ug/L	20.00	88	0-200			J		1
Carbon disulfide	19.0	4.00	ug/L	20.00	95	0-200					1
Carbon tetrachloride	18.5	20.0	ug/L	20.00	92	0-200			J		1
Chlorobenzene	19.5	2.00	ug/L	20.00	98	0-200					1
Chloroethane	22.5	4.00	ug/L	20.00	113	0-200					1
Chloroform	19.5	4.00	ug/L	20.00	97	0-200					1
Chloromethane	19.2	8.00	ug/L	20.00	96	0-200					1
cis-1,2-Dichloroethene	18.8	4.00	ug/L	20.00	94	0-200					1
cis-1,3-Dichloropropene	18.6	4.00	ug/L	20.00	93	0-200					1
Dibromochloromethane	19.8	4.00	ug/L	20.00	99	0-200					1
Ethylbenzene	19.3	4.00	ug/L	20.00	97	0-200					1
m,p-Xylene	38.4	8.00	ug/L	40.00	96	0-200					1
Methyl tert-butyl ether	20.0	4.00	ug/L	20.00	100	0-200					1
Methylene chloride	19.2	20.0	ug/L	20.00	96	0-200			J		1
Naphthalene	19.4	20.0	ug/L	20.00	97	0-200			J		1
o-Xylene	20.7	4.00	ug/L	20.00	104	0-200					1
Styrene	19.1	8.00	ug/L	20.00	96	0-200					1
Tetrachloroethene	20.7	4.00	ug/L	20.00	103	0-200					1
Toluene	19.2	4.00	ug/L	20.00	96	0-200					1
trans-1,2-Dichloroethene	19.2	4.00	ug/L	20.00	96	0-200					1
trans-1,3-Dichloropropene	18.1	8.00	ug/L	20.00	91	0-200					1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL4) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/09/2023 19:46*

Trichloroethene	19.6	4.00	ug/L	20.00	98	0-200					1
Vinyl acetate	19.1	4.00	ug/L	20.00	96	0-200					1
Vinyl chloride	20.0	4.00	ug/L	20.00	100	0-200					1
Xylenes, Total	59.1	12.0	ug/L	60.00	99	0-200					1
1,3-Dichloropropene, Total	36.7	8.00	ug/L	40.00	92	0-200					1
<i>Surrogate: Dibromofluoromethane</i>	20.5		ug/L	20.00	102	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.4		ug/L	20.00	102	74-140					1
<i>Surrogate: Fluorobenzene</i>	20.2		ug/L	20.00	101	90-105					1
<i>Surrogate: Toluene-d8</i>	19.8		ug/L	20.00	99	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	9.99		ug/L	10.00	100	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.7		ug/L	20.00	103	90-128					1

**MRL Check (B3A0181-MRL5)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 18:26*

1,1,1-Trichloroethane	< 4.00	4.00	ug/L		0-200						1
1,1,2,2-Tetrachloroethane	< 4.00	4.00	ug/L		0-200						1
1,1,2-Trichloroethane	< 2.00	2.00	ug/L		0-200						1
1,1-Dichloroethane	< 2.00	2.00	ug/L		0-200						1
1,1-Dichloroethene	< 8.00	8.00	ug/L		0-200						1
1,2,4-Trimethylbenzene	< 4.00	4.00	ug/L		0-200						1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L		0-200						1
1,2-Dibromoethane	< 2.00	2.00	ug/L		0-200						1
1,2-Dichloroethane	< 4.00	4.00	ug/L		0-200						1
1,2-Dichloropropane	< 4.00	4.00	ug/L		0-200						1
1,3,5-Trimethylbenzene	< 2.00	2.00	ug/L		0-200						1
1-Butanol	< 200	200	ug/L		0-200						1
2-Butanone	< 28.0	28.0	ug/L		0-200						1
2-Hexanone	< 28.0	28.0	ug/L		0-200						1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L		0-200						1
Acetone	< 70.0	70.0	ug/L		0-200						1
Acrolein	< 10.0	10.0	ug/L		0-200						1
Acrylonitrile	< 4.00	4.00	ug/L		0-200						1
Benzene	< 2.00	2.00	ug/L		0-200						1
Bromodichloromethane	< 2.00	2.00	ug/L		0-200						1
Bromoform	< 4.00	4.00	ug/L		0-200						1
Bromomethane	< 40.0	40.0	ug/L		0-200						1
Carbon disulfide	< 4.00	4.00	ug/L		0-200						1
Carbon tetrachloride	< 20.0	20.0	ug/L		0-200						1
Chlorobenzene	< 2.00	2.00	ug/L		0-200						1
Chloroethane	< 4.00	4.00	ug/L		0-200						1
Chloroform	< 4.00	4.00	ug/L		0-200						1
Chloromethane	< 8.00	8.00	ug/L		0-200						1
cis-1,2-Dichloroethene	< 4.00	4.00	ug/L		0-200						1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL5) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/10/2023 18:26*

cis-1,3-Dichloropropene	< 4.00	4.00	ug/L			0-200					1
Dibromochloromethane	< 4.00	4.00	ug/L			0-200					1
Ethylbenzene	< 4.00	4.00	ug/L			0-200					1
m,p-Xylene	< 8.00	8.00	ug/L			0-200					1
Methyl tert-butyl ether	< 4.00	4.00	ug/L			0-200					1
Methylene chloride	< 20.0	20.0	ug/L			0-200					1
Naphthalene	< 20.0	20.0	ug/L			0-200					1
o-Xylene	< 4.00	4.00	ug/L			0-200					1
Styrene	< 8.00	8.00	ug/L			0-200					1
Tetrachloroethene	< 4.00	4.00	ug/L			0-200					1
Toluene	< 4.00	4.00	ug/L			0-200					1
trans-1,2-Dichloroethene	< 4.00	4.00	ug/L			0-200					1
trans-1,3-Dichloropropene	< 8.00	8.00	ug/L			0-200					1
Trichloroethene	< 4.00	4.00	ug/L			0-200					1
Vinyl acetate	< 4.00	4.00	ug/L			0-200					1
Vinyl chloride	< 4.00	4.00	ug/L			0-200					1
Xylenes, Total	< 12.0	12.0	ug/L			0-200					1
1,3-Dichloropropene, Total	< 8.00	8.00	ug/L			0-200					1
<i>Surrogate: Dibromofluoromethane</i>	20.0		ug/L	20.00		100	84-137				1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.7		ug/L	20.00		103	74-140				1
<i>Surrogate: Fluorobenzene</i>	19.6		ug/L	20.00		98	90-105				1
<i>Surrogate: Toluene-d8</i>	19.8		ug/L	20.00		99	74-109				1
<i>Surrogate: 4-Bromofluorobenzene</i>	9.10		ug/L	10.00		91	86-128				1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	19.7		ug/L	20.00		99	90-128				1

**MRL Check (B3A0181-MRL6)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/11/2023 13:40*

1,1,1-Trichloroethane	< 4.00	4.00	ug/L			0-200					1
1,1,2,2-Tetrachloroethane	< 4.00	4.00	ug/L			0-200					1
1,1,2-Trichloroethane	< 2.00	2.00	ug/L			0-200					1
1,1-Dichloroethane	< 2.00	2.00	ug/L			0-200					1
1,1-Dichloroethene	< 8.00	8.00	ug/L			0-200					1
1,2,4-Trimethylbenzene	< 4.00	4.00	ug/L			0-200					1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L			0-200					1
1,2-Dibromoethane	< 2.00	2.00	ug/L			0-200					1
1,2-Dichloroethane	< 4.00	4.00	ug/L			0-200					1
1,2-Dichloropropane	< 4.00	4.00	ug/L			0-200					1
1,3,5-Trimethylbenzene	< 2.00	2.00	ug/L			0-200					1
1-Butanol	< 200	200	ug/L			0-200					1
2-Butanone	< 28.0	28.0	ug/L			0-200					1
2-Hexanone	< 28.0	28.0	ug/L			0-200					1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L			0-200					1
Acetone	< 70.0	70.0	ug/L			0-200					1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0181 - SW5030 (Continued)**
**MRL Check (B3A0181-MRL6) (Continued)**
*Prepared: 01/09/2023 14:02 Analyzed: 01/11/2023 13:40*

Acrolein	< 10.0	10.0	ug/L			0-200					1
Acrylonitrile	< 4.00	4.00	ug/L			0-200					1
Benzene	< 2.00	2.00	ug/L			0-200					1
Bromodichloromethane	< 2.00	2.00	ug/L			0-200					1
Bromoform	< 4.00	4.00	ug/L			0-200					1
Bromomethane	< 40.0	40.0	ug/L			0-200					1
Carbon disulfide	< 4.00	4.00	ug/L			0-200					1
Carbon tetrachloride	< 20.0	20.0	ug/L			0-200					1
Chlorobenzene	< 2.00	2.00	ug/L			0-200					1
Chloroethane	< 4.00	4.00	ug/L			0-200					1
Chloroform	< 4.00	4.00	ug/L			0-200					1
Chloromethane	< 8.00	8.00	ug/L			0-200					1
cis-1,2-Dichloroethene	< 4.00	4.00	ug/L			0-200					1
cis-1,3-Dichloropropene	< 4.00	4.00	ug/L			0-200					1
Dibromochloromethane	< 4.00	4.00	ug/L			0-200					1
Ethylbenzene	< 4.00	4.00	ug/L			0-200					1
m,p-Xylene	< 8.00	8.00	ug/L			0-200					1
Methyl tert-butyl ether	< 4.00	4.00	ug/L			0-200					1
Methylene chloride	< 20.0	20.0	ug/L			0-200					1
Naphthalene	< 20.0	20.0	ug/L			0-200					1
o-Xylene	< 4.00	4.00	ug/L			0-200					1
Styrene	< 8.00	8.00	ug/L			0-200					1
Tetrachloroethene	< 4.00	4.00	ug/L			0-200					1
Toluene	< 4.00	4.00	ug/L			0-200					1
trans-1,2-Dichloroethene	< 4.00	4.00	ug/L			0-200					1
trans-1,3-Dichloropropene	< 8.00	8.00	ug/L			0-200					1
Trichloroethene	< 4.00	4.00	ug/L			0-200					1
Vinyl acetate	< 4.00	4.00	ug/L			0-200					1
Vinyl chloride	< 4.00	4.00	ug/L			0-200					1
Xylenes, Total	< 12.0	12.0	ug/L			0-200					1
1,3-Dichloropropene, Total	< 8.00	8.00	ug/L			0-200					1
<i>Surrogate: Dibromofluoromethane</i>	20.2		ug/L	20.00		101	84-137				1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	20.0		ug/L	20.00		100	74-140				1
<i>Surrogate: Fluorobenzene</i>	20.0		ug/L	20.00		100	90-105				1
<i>Surrogate: Toluene-d8</i>	19.9		ug/L	20.00		99	74-109				1
<i>Surrogate: 4-Bromofluorobenzene</i>	9.57		ug/L	10.00		96	86-128				1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	19.4		ug/L	20.00		97	90-128				1

**Batch: B3A0219 - SW5030**
**Blank (B3A0219-BLK1)**
*Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 15:36*

1,1,1-Trichloroethane	< 4.00	4.00	ug/L								1
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**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0219 - SW5030 (Continued)**
**Blank (B3A0219-BLK1) (Continued)**
*Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 15:36*

1,1,2,2-Tetrachloroethane	< 4.00	4.00	ug/L								1
1,1,2-Trichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethene	< 8.00	8.00	ug/L								1
1,2,4-Trimethylbenzene	< 4.00	4.00	ug/L								1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L								1
1,2-Dibromoethane	< 2.00	2.00	ug/L								1
1,2-Dichloroethane	< 4.00	4.00	ug/L								1
1,2-Dichloropropane	< 4.00	4.00	ug/L								1
1,3,5-Trimethylbenzene	< 2.00	2.00	ug/L								1
1-Butanol	< 200	200	ug/L								1
2-Butanone	< 28.0	28.0	ug/L								1
2-Hexanone	< 28.0	28.0	ug/L								1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L								1
Acetone	< 70.0	70.0	ug/L								1
Acrolein	< 10.0	10.0	ug/L								1
Acrylonitrile	< 4.00	4.00	ug/L								1
Benzene	< 2.00	2.00	ug/L								1
Bromodichloromethane	< 2.00	2.00	ug/L								1
Bromoform	< 4.00	4.00	ug/L								1
Bromomethane	< 40.0	40.0	ug/L								1
Carbon disulfide	< 4.00	4.00	ug/L								1
Carbon tetrachloride	< 20.0	20.0	ug/L								1
Chlorobenzene	< 2.00	2.00	ug/L								1
Chloroethane	< 4.00	4.00	ug/L								1
Chloroform	< 4.00	4.00	ug/L								1
Chloromethane	< 8.00	8.00	ug/L								1
cis-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
cis-1,3-Dichloropropene	< 4.00	4.00	ug/L								1
Dibromochloromethane	< 4.00	4.00	ug/L								1
Ethylbenzene	< 4.00	4.00	ug/L								1
m,p-Xylene	< 8.00	8.00	ug/L								1
Methyl tert-butyl ether	< 4.00	4.00	ug/L								1
Methylene chloride	< 20.0	20.0	ug/L								1
Naphthalene	< 20.0	20.0	ug/L								1
o-Xylene	< 4.00	4.00	ug/L								1
Styrene	< 8.00	8.00	ug/L								1
Tetrachloroethene	< 4.00	4.00	ug/L								1
Toluene	< 4.00	4.00	ug/L								1
trans-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
trans-1,3-Dichloropropene	< 8.00	8.00	ug/L								1
Trichloroethene	< 4.00	4.00	ug/L								1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0219 - SW5030 (Continued)**
**Blank (B3A0219-BLK1) (Continued)** Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 15:36

Vinyl acetate	< 4.00	4.00	ug/L								1
Vinyl chloride	< 4.00	4.00	ug/L								1
Xylenes, Total	< 12.0	12.0	ug/L								1
1,3-Dichloropropene, Total	< 8.00	8.00	ug/L								1
Surrogate: Dibromofluoromethane	20.3		ug/L	20.00		101	84-137				1
Surrogate: 1,2-Dichloroethane-d4	18.7		ug/L	20.00		94	74-140				1
Surrogate: Fluorobenzene	19.8		ug/L	20.00		99	90-105				1
Surrogate: Toluene-d8	20.4		ug/L	20.00		102	74-109				1
Surrogate: 4-Bromofluorobenzene	10.0		ug/L	10.00		100	86-128				1
Surrogate: 1,2-Dichlorobenzene-d4	18.9		ug/L	20.00		94	90-128				1

**LCS (B3A0219-BS1)**

Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 14:22

1,1,1-Trichloroethane	36.7	4.00	ug/L	40.00		92	74-131				1
1,1,2,2-Tetrachloroethane	34.5	4.00	ug/L	40.00		86	71-121				1
1,1,2-Trichloroethane	37.1	2.00	ug/L	40.00		93	83-139				1
1,1-Dichloroethane	41.2	2.00	ug/L	40.00		103	77-125				1
1,1-Dichloroethene	54.0	8.00	ug/L	40.00		135	71-131				1
1,2,4-Trimethylbenzene	44.0	4.00	ug/L	40.00		110	76-124				1
1,2-Dibromo-3-chloropropane	30.6	20.0	ug/L	40.00		76	72-124				1
1,2-Dibromoethane	35.6	2.00	ug/L	40.00		89	77-121				1
1,2-Dichloroethane	37.7	4.00	ug/L	40.00		94	73-128				1
1,2-Dichloropropane	38.1	4.00	ug/L	40.00		95	78-122				1
1,3,5-Trimethylbenzene	42.9	2.00	ug/L	40.00		107	75-124				1
1-Butanol	231	200	ug/L	400.0		58	70-130				1
2-Butanone	58.1	28.0	ug/L	140.0		42	70-137				1
2-Hexanone	119	28.0	ug/L	140.0		85	57-139				1
4-Methyl-2-pentanone	106	28.0	ug/L	140.0		76	67-130				1
Acetone	169	70.0	ug/L	140.0		121	39-160				1
Acrolein	84.4	10.0	ug/L	100.0		84	78-146				1
Acrylonitrile	12.5	4.00	ug/L	40.00		31	63-135				1
Benzene	41.9	2.00	ug/L	40.00		105	79-120				1
Bromodichloromethane	35.8	2.00	ug/L	40.00		89	84-139				1
Bromoform	30.1	4.00	ug/L	40.00		75	66-130				1
Bromomethane	52.8	40.0	ug/L	40.00		132	56-150				1
Carbon disulfide	41.4	4.00	ug/L	40.00		104	80-124				1
Carbon tetrachloride	37.8	20.0	ug/L	40.00		95	75-134				1
Chlorobenzene	41.9	2.00	ug/L	40.00		105	82-118				1
Chloroethane	54.7	4.00	ug/L	40.00		137	60-138				1
Chloroform	39.1	4.00	ug/L	40.00		98	79-124				1
Chloromethane	42.7	8.00	ug/L	40.00		107	50-139				1
cis-1,2-Dichloroethene	43.9	4.00	ug/L	40.00		110	78-123				1
cis-1,3-Dichloropropene	33.7	4.00	ug/L	40.00		84	75-124				1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0219 - SW5030 (Continued)**
**LCS (B3A0219-BS1) (Continued)**
*Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 14:22*

Dibromochloromethane	35.7	4.00	ug/L	40.00	89	83-140					1
Ethylbenzene	42.5	4.00	ug/L	40.00	106	79-137					1
m,p-Xylene	90.1	8.00	ug/L	80.00	113	80-136					1
Methyl tert-butyl ether	30.8	4.00	ug/L	40.00	77	71-124					1
Methylene chloride	43.2	20.0	ug/L	40.00	108	74-124					1
Naphthalene	33.2	20.0	ug/L	40.00	83	82-128					1
o-Xylene	39.4	4.00	ug/L	40.00	98	78-122					1
Styrene	41.6	8.00	ug/L	40.00	104	78-123					1
Tetrachloroethene	39.6	4.00	ug/L	40.00	99	74-129					1
Toluene	42.6	4.00	ug/L	40.00	107	80-133					1
trans-1,2-Dichloroethene	46.3	4.00	ug/L	40.00	116	75-124					1
trans-1,3-Dichloropropene	29.0	8.00	ug/L	40.00	73	73-127					1
Trichloroethene	41.6	4.00	ug/L	40.00	104	84-129					1
Vinyl acetate	31.1	4.00	ug/L	40.00	78	76-133					1
Vinyl chloride	56.3	4.00	ug/L	40.00	141	58-137					1
Xylenes, Total	130	12.0	ug/L	120.0	108	80-132					1
1,3-Dichloropropene, Total	62.8	8.00	ug/L	80.00	78	77-123					1
<i>Surrogate: Dibromofluoromethane</i>	20.6		ug/L	20.00	103	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	19.5		ug/L	20.00	98	74-140					1
<i>Surrogate: Fluorobenzene</i>	20.2		ug/L	20.00	101	90-105					1
<i>Surrogate: Toluene-d8</i>	19.9		ug/L	20.00	100	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	9.06		ug/L	10.00	91	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	19.7		ug/L	20.00	98	90-128					1

**LCS Dup (B3A0219-BSD1)**
*Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 14:46*

1,1,1-Trichloroethane	36.4	4.00	ug/L	40.00	91	74-131	0.9	20			1
1,1,2,2-Tetrachloroethane	37.1	4.00	ug/L	40.00	93	71-121	7	20			1
1,1,2-Trichloroethane	40.4	2.00	ug/L	40.00	101	83-139	9	20			1
1,1-Dichloroethane	39.9	2.00	ug/L	40.00	100	77-125	3	20			1
1,1-Dichloroethene	48.4	8.00	ug/L	40.00	121	71-131	11	20			1
1,2,4-Trimethylbenzene	44.4	4.00	ug/L	40.00	111	76-124	0.8	20			1
1,2-Dibromo-3-chloropropane	31.1	20.0	ug/L	40.00	78	72-124	2	20			1
1,2-Dibromoethane	37.5	2.00	ug/L	40.00	94	77-121	5	20			1
1,2-Dichloroethane	37.2	4.00	ug/L	40.00	93	73-128	1	20			1
1,2-Dichloropropane	39.3	4.00	ug/L	40.00	98	78-122	3	20			1
1,3,5-Trimethylbenzene	43.1	2.00	ug/L	40.00	108	75-124	0.6	20			1
1-Butanol	249	200	ug/L	400.0	62	70-130	7	20			1
2-Butanone	152	28.0	ug/L	140.0	108	70-137	89	20			1
2-Hexanone	122	28.0	ug/L	140.0	87	57-139	3	20			1
4-Methyl-2-pentanone	113	28.0	ug/L	140.0	81	67-130	6	20			1
Acetone	152	70.0	ug/L	140.0	108	39-160	11	20			1
Acrolein	85.2	10.0	ug/L	100.0	85	78-146	0.9	20			1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0219 - SW5030 (Continued)**
**LCS Dup (B3A0219-BSD1) (Continued)**
*Prepared: 01/09/2023 13:55 Analyzed: 01/09/2023 14:46*

Acrylonitrile	37.0	4.00	ug/L	40.00	92	63-135	99	20	1
Benzene	42.2	2.00	ug/L	40.00	106	79-120	0.7	20	1
Bromodichloromethane	36.7	2.00	ug/L	40.00	92	84-139	3	20	1
Bromoform	32.9	4.00	ug/L	40.00	82	66-130	9	20	1
Bromomethane	53.7	40.0	ug/L	40.00	134	56-150	2	20	1
Carbon disulfide	39.5	4.00	ug/L	40.00	99	80-124	5	20	1
Carbon tetrachloride	36.6	20.0	ug/L	40.00	91	75-134	3	20	1
Chlorobenzene	42.5	2.00	ug/L	40.00	106	82-118	1	20	1
Chloroethane	56.9	4.00	ug/L	40.00	142	60-138	4	20	1
Chloroform	39.4	4.00	ug/L	40.00	98	79-124	0.8	20	1
Chloromethane	42.3	8.00	ug/L	40.00	106	50-139	0.9	20	1
cis-1,2-Dichloroethene	44.5	4.00	ug/L	40.00	111	78-123	1	20	1
cis-1,3-Dichloropropene	35.7	4.00	ug/L	40.00	89	75-124	6	20	1
Dibromochloromethane	37.5	4.00	ug/L	40.00	94	83-140	5	20	1
Ethylbenzene	43.6	4.00	ug/L	40.00	109	79-137	3	20	1
m,p-Xylene	91.1	8.00	ug/L	80.00	114	80-136	1	20	1
Methyl tert-butyl ether	31.5	4.00	ug/L	40.00	79	71-124	2	20	1
Methylene chloride	41.1	20.0	ug/L	40.00	103	74-124	5	20	1
Naphthalene	35.8	20.0	ug/L	40.00	89	82-128	7	20	1
o-Xylene	40.0	4.00	ug/L	40.00	100	78-122	2	20	1
Styrene	42.6	8.00	ug/L	40.00	107	78-123	2	20	1
Tetrachloroethene	35.6	4.00	ug/L	40.00	89	74-129	11	20	1
Toluene	42.9	4.00	ug/L	40.00	107	80-133	0.7	20	1
trans-1,2-Dichloroethene	45.2	4.00	ug/L	40.00	113	75-124	2	20	1
trans-1,3-Dichloropropene	30.4	8.00	ug/L	40.00	76	73-127	5	20	1
Trichloroethene	42.6	4.00	ug/L	40.00	107	84-129	2	20	1
Vinyl acetate	34.3	4.00	ug/L	40.00	86	76-133	10	20	1
Vinyl chloride	53.8	4.00	ug/L	40.00	135	58-137	4	20	1
Xylenes, Total	131	12.0	ug/L	120.0	109	80-132	1	20	1
1,3-Dichloropropene, Total	66.1	8.00	ug/L	80.00	83	77-123	5	20	1
Surrogate: Dibromofluoromethane	20.4		ug/L	20.00	102	84-137			1
Surrogate: 1,2-Dichloroethane-d4	18.7		ug/L	20.00	94	74-140			1
Surrogate: Fluorobenzene	20.8		ug/L	20.00	104	90-105			1
Surrogate: Toluene-d8	19.7		ug/L	20.00	98	74-109			1
Surrogate: 4-Bromofluorobenzene	9.19		ug/L	10.00	92	86-128			1
Surrogate: 1,2-Dichlorobenzene-d4	19.2		ug/L	20.00	96	90-128			1

**Batch: B3A0242 - SW5030**
**Blank (B3A0242-BLK1)**
*Prepared: 01/11/2023 11:57 Analyzed: 01/11/2023 12:37*

1,1,1-Trichloroethane	< 4.00	4.00	ug/L						1
1,1,2,2-Tetrachloroethane	< 4.00	4.00	ug/L						1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**
**Blank (B3A0242-BLK1) (Continued)**
*Prepared: 01/11/2023 11:57 Analyzed: 01/11/2023 12:37*

1,1,2-Trichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethane	< 2.00	2.00	ug/L								1
1,1-Dichloroethene	< 8.00	8.00	ug/L								1
1,2,4-Trimethylbenzene	< 4.00	4.00	ug/L								1
1,2-Dibromo-3-chloropropane	< 20.0	20.0	ug/L								1
1,2-Dibromoethane	< 2.00	2.00	ug/L								1
1,2-Dichloroethane	< 4.00	4.00	ug/L								1
1,2-Dichloropropane	< 4.00	4.00	ug/L								1
1,3,5-Trimethylbenzene	< 2.00	2.00	ug/L								1
1-Butanol	< 200	200	ug/L								1
2-Butanone	< 28.0	28.0	ug/L								1
2-Hexanone	< 28.0	28.0	ug/L								1
4-Methyl-2-pentanone	< 28.0	28.0	ug/L								1
Acetone	< 70.0	70.0	ug/L								1
Acrolein	< 10.0	10.0	ug/L								1
Acrylonitrile	< 4.00	4.00	ug/L								1
Benzene	< 2.00	2.00	ug/L								1
Bromodichloromethane	< 2.00	2.00	ug/L								1
Bromoform	< 4.00	4.00	ug/L								1
Bromomethane	< 40.0	40.0	ug/L								1
Carbon disulfide	< 4.00	4.00	ug/L								1
Carbon tetrachloride	< 20.0	20.0	ug/L								1
Chlorobenzene	< 2.00	2.00	ug/L								1
Chloroethane	< 4.00	4.00	ug/L								1
Chloroform	< 4.00	4.00	ug/L								1
Chloromethane	< 8.00	8.00	ug/L								1
cis-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
cis-1,3-Dichloropropene	< 4.00	4.00	ug/L								1
Dibromochloromethane	< 4.00	4.00	ug/L								1
Ethylbenzene	< 4.00	4.00	ug/L								1
m,p-Xylene	< 8.00	8.00	ug/L								1
Methyl tert-butyl ether	< 4.00	4.00	ug/L								1
Methylene chloride	< 20.0	20.0	ug/L								1
Naphthalene	< 20.0	20.0	ug/L								1
o-Xylene	< 4.00	4.00	ug/L								1
Styrene	< 8.00	8.00	ug/L								1
Tetrachloroethene	< 4.00	4.00	ug/L								1
Toluene	< 4.00	4.00	ug/L								1
trans-1,2-Dichloroethene	< 4.00	4.00	ug/L								1
trans-1,3-Dichloropropene	< 8.00	8.00	ug/L								1
Trichloroethene	< 4.00	4.00	ug/L								1
Vinyl acetate	< 4.00	4.00	ug/L								1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**
**Blank (B3A0242-BLK1) (Continued)**
*Prepared: 01/11/2023 11:57 Analyzed: 01/11/2023 12:37*

Vinyl chloride	< 4.00	4.00	ug/L								1
Xylenes, Total	< 12.0	12.0	ug/L								1
1,3-Dichloropropene, Total	< 8.00	8.00	ug/L								1
Surrogate: Dibromofluoromethane	19.8		ug/L	20.00		99	84-137				1
Surrogate: 1,2-Dichloroethane-d4	19.2		ug/L	20.00		96	74-140				1
Surrogate: Fluorobenzene	19.3		ug/L	20.00		97	90-105				1
Surrogate: Toluene-d8	20.1		ug/L	20.00		101	74-109				1
Surrogate: 4-Bromofluorobenzene	10.8		ug/L	10.00		108	86-128				1
Surrogate: 1,2-Dichlorobenzene-d4	20.2		ug/L	20.00		101	90-128				1

**LCS (B3A0242-BS1)**
*Prepared: 01/11/2023 10:30 Analyzed: 01/11/2023 10:57*

1,1,1-Trichloroethane	44.3	4.00	ug/L	40.00		111	74-131				1
1,1,2,2-Tetrachloroethane	39.1	4.00	ug/L	40.00		98	71-121				1
1,1,2-Trichloroethane	41.0	2.00	ug/L	40.00		102	83-139				1
1,1-Dichloroethane	41.3	2.00	ug/L	40.00		103	77-125				1
1,1-Dichloroethene	47.8	8.00	ug/L	40.00		119	71-131				1
1,2,4-Trimethylbenzene	45.5	4.00	ug/L	40.00		114	76-124				1
1,2-Dibromo-3-chloropropane	37.4	20.0	ug/L	40.00		93	72-124				1
1,2-Dibromoethane	40.4	2.00	ug/L	40.00		101	77-121				1
1,2-Dichloroethane	38.4	4.00	ug/L	40.00		96	73-128				1
1,2-Dichloropropane	43.3	4.00	ug/L	40.00		108	78-122				1
1,3,5-Trimethylbenzene	46.2	2.00	ug/L	40.00		115	75-124				1
1-Butanol	370	200	ug/L	400.0		93	70-130				1
2-Butanone	131	28.0	ug/L	140.0		94	70-137				1
2-Hexanone	147	28.0	ug/L	140.0		105	57-139				1
4-Methyl-2-pentanone	136	28.0	ug/L	140.0		97	67-130				1
Acetone	166	70.0	ug/L	140.0		119	39-160				1
Acrolein	55.0	10.0	ug/L	100.0		55	78-146				1
Acrylonitrile	33.0	4.00	ug/L	40.00		83	63-135				1
Benzene	45.2	2.00	ug/L	40.00		113	79-120				1
Bromodichloromethane	41.5	2.00	ug/L	40.00		104	84-139				1
Bromoform	38.6	4.00	ug/L	40.00		96	66-130				1
Bromomethane	37.6	40.0	ug/L	40.00		94	56-150	J			1
Carbon disulfide	45.6	4.00	ug/L	40.00		114	80-124				1
Carbon tetrachloride	49.0	20.0	ug/L	40.00		122	75-134				1
Chlorobenzene	42.7	2.00	ug/L	40.00		107	82-118				1
Chloroethane	37.1	4.00	ug/L	40.00		93	60-138				1
Chloroform	40.7	4.00	ug/L	40.00		102	79-124				1
Chloromethane	40.9	8.00	ug/L	40.00		102	50-139				1
cis-1,2-Dichloroethene	41.0	4.00	ug/L	40.00		102	78-123				1
cis-1,3-Dichloropropene	42.8	4.00	ug/L	40.00		107	75-124				1
Dibromochloromethane	41.8	4.00	ug/L	40.00		104	83-140				1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**
**LCS (B3A0242-BS1) (Continued)** Prepared: 01/11/2023 10:30 Analyzed: 01/11/2023 10:57

Ethylbenzene	44.4	4.00	ug/L	40.00	111	79-137					1
m,p-Xylene	89.9	8.00	ug/L	80.00	112	80-136					1
Methyl tert-butyl ether	36.8	4.00	ug/L	40.00	92	71-124					1
Methylene chloride	41.2	20.0	ug/L	40.00	103	74-124					1
Naphthalene	41.0	20.0	ug/L	40.00	102	82-128					1
o-Xylene	44.0	4.00	ug/L	40.00	110	78-122					1
Styrene	41.5	8.00	ug/L	40.00	104	78-123					1
Tetrachloroethene	44.7	4.00	ug/L	40.00	112	74-129					1
Toluene	44.6	4.00	ug/L	40.00	112	80-133					1
trans-1,2-Dichloroethene	43.7	4.00	ug/L	40.00	109	75-124					1
trans-1,3-Dichloropropene	41.2	8.00	ug/L	40.00	103	73-127					1
Trichloroethene	46.6	4.00	ug/L	40.00	117	84-129					1
Vinyl acetate	37.3	4.00	ug/L	40.00	93	76-133					1
Vinyl chloride	42.7	4.00	ug/L	40.00	107	58-137					1
Xylenes, Total	134	12.0	ug/L	120.0	112	80-132					1
1,3-Dichloropropene, Total	84.1	8.00	ug/L	80.00	105	77-123					1
<i>Surrogate: Dibromofluoromethane</i>	19.0		ug/L	20.00	95	84-137					1
<i>Surrogate: 1,2-Dichloroethane-d4</i>	18.9		ug/L	20.00	94	74-140					1
<i>Surrogate: Fluorobenzene</i>	20.4		ug/L	20.00	102	90-105					1
<i>Surrogate: Toluene-d8</i>	19.5		ug/L	20.00	98	74-109					1
<i>Surrogate: 4-Bromofluorobenzene</i>	10.1		ug/L	10.00	101	86-128					1
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	20.2		ug/L	20.00	101	90-128					1

**Matrix Spike (B3A0242-MS1)** Source: 23A0263-01 Prepared: 01/11/2023 11:57 Analyzed: 01/11/2023 18:01

1,1,1-Trichloroethane	1960	200	ug/L	2000	ND	98	70-130				1
1,1,2,2-Tetrachloroethane	2020	200	ug/L	2000	ND	101	70-130				1
1,1,2-Trichloroethane	1970	100	ug/L	2000	ND	98	70-130				1
1,1-Dichloroethane	1960	100	ug/L	2000	ND	98	70-130				1
1,1-Dichloroethene	2150	400	ug/L	2000	ND	108	70-130				1
1,2,4-Trimethylbenzene	2090	200	ug/L	2000	ND	105	70-130				1
1,2-Dibromo-3-chloropropane	1820	1000	ug/L	2000	ND	91	70-130				1
1,2-Dibromoethane	1950	100	ug/L	2000	ND	97	70-130				1
1,2-Dichloroethane	1900	200	ug/L	2000	ND	95	70-130				1
1,2-Dichloropropane	2050	200	ug/L	2000	ND	103	70-130				1
1,3,5-Trimethylbenzene	2080	100	ug/L	2000	ND	104	70-130				1
1-Butanol	17300	10000	ug/L	20000	ND	86	70-130				1
2-Butanone	5370	1400	ug/L	7000	ND	77	70-130				1
2-Hexanone	6360	1400	ug/L	7000	ND	91	70-130				1
4-Methyl-2-pentanone	6450	1400	ug/L	7000	ND	92	70-130				1
Acetone	4640	3500	ug/L	7000	ND	66	70-130				1
Acrolein	2750	500	ug/L	5000	ND	55	70-130				1
Acrylonitrile	1740	200	ug/L	2000	ND	87	70-130				1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**

Matrix Spike (B3A0242-MS1) (Continued)	Source: 23A0263-01	Prepared: 01/11/2023 11:57	Analyzed: 01/11/2023 18:01
Benzene	2020	100 ug/L	2000 ND 101 70-130
Bromodichloromethane	2000	100 ug/L	2000 ND 100 70-130
Bromoform	2020	200 ug/L	2000 ND 101 70-130
Bromomethane	1920	2000 ug/L	2000 ND 96 70-130
Carbon disulfide	2040	200 ug/L	2000 ND 102 70-130
Carbon tetrachloride	2030	1000 ug/L	2000 ND 102 70-130
Chlorobenzene	2040	100 ug/L	2000 ND 102 70-130
Chloroethane	2200	200 ug/L	2000 ND 110 70-130
Chloroform	1990	200 ug/L	2000 ND 99 70-130
Chloromethane	2050	400 ug/L	2000 ND 103 70-130
cis-1,2-Dichloroethene	1990	200 ug/L	2000 ND 99 70-130
cis-1,3-Dichloropropene	1920	200 ug/L	2000 ND 96 70-130
Dibromochloromethane	2060	200 ug/L	2000 ND 103 70-130
Ethylbenzene	2080	200 ug/L	2000 ND 104 70-130
m,p-Xylene	4280	400 ug/L	4000 ND 107 70-130
Methyl tert-butyl ether	1840	200 ug/L	2000 ND 92 70-130
Methylene chloride	2040	1000 ug/L	2000 ND 102 70-130
Naphthalene	1850	1000 ug/L	2000 ND 93 70-130
o-Xylene	2040	200 ug/L	2000 ND 102 70-130
Styrene	2000	400 ug/L	2000 ND 100 70-130
Tetrachloroethene	1980	200 ug/L	2000 ND 99 70-130
Toluene	2090	200 ug/L	2000 ND 105 70-130
trans-1,2-Dichloroethene	1960	200 ug/L	2000 ND 98 70-130
trans-1,3-Dichloropropene	1930	400 ug/L	2000 ND 97 70-130
Trichloroethene	2030	200 ug/L	2000 ND 102 70-130
Vinyl acetate	1930	200 ug/L	2000 ND 97 70-130
Vinyl chloride	2060	200 ug/L	2000 ND 103 70-130
Xylenes, Total	6330	600 ug/L	6000 ND 105 70-130
1,3-Dichloropropene, Total	3850	400 ug/L	4000 ND 96 70-130
Surrogate: Dibromofluoromethane	18.8	ug/L	20.00 94 84-137
Surrogate: 1,2-Dichloroethane-d4	19.4	ug/L	20.00 97 74-140
Surrogate: Fluorobenzene	19.6	ug/L	20.00 98 90-105
Surrogate: Toluene-d8	19.5	ug/L	20.00 98 74-109
Surrogate: 4-Bromofluorobenzene	9.60	ug/L	10.00 96 86-128
Surrogate: 1,2-Dichlorobenzene-d4	19.7	ug/L	20.00 99 90-128

Matrix Spike Dup (B3A0242-MSD1)	Source: 23A0263-01	Prepared: 01/11/2023 11:57	Analyzed: 01/11/2023 18:26
1,1,1-Trichloroethane	1950	200 ug/L	2000 ND 98 70-130 0.4 20 1
1,1,2,2-Tetrachloroethane	2000	200 ug/L	2000 ND 100 70-130 1 20 1
1,1,2-Trichloroethane	2020	100 ug/L	2000 ND 101 70-130 3 20 1
1,1-Dichloroethane	2020	100 ug/L	2000 ND 101 70-130 3 20 1
1,1-Dichloroethene	2270	400 ug/L	2000 ND 113 70-130 5 20 1


**Quality Control**

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
 19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

**Volatile Organic Compounds by GC/MS**

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**
**Matrix Spike Dup (B3A0242-MSD1) (Continued)**      **Source: 23A0263-01**      **Prepared: 01/11/2023 11:57**      **Analyzed: 01/11/2023 18:26**

1,2,4-Trimethylbenzene	2100	200	ug/L	2000	ND	105	70-130	0.4	20		1
1,2-Dibromo-3-chloropropane	2040	1000	ug/L	2000	ND	102	70-130	12	20		1
1,2-Dibromoethane	2070	100	ug/L	2000	ND	104	70-130	6	20		1
1,2-Dichloroethane	2030	200	ug/L	2000	ND	101	70-130	6	20		1
1,2-Dichloropropane	1950	200	ug/L	2000	ND	98	70-130	5	20		1
1,3,5-Trimethylbenzene	2070	100	ug/L	2000	ND	104	70-130	0.2	20		1
1-Butanol	18700	10000	ug/L	20000	ND	94	70-130	8	20		1
2-Butanone	6250	1400	ug/L	7000	ND	89	70-130	15	20		1
2-Hexanone	6770	1400	ug/L	7000	ND	97	70-130	6	20		1
4-Methyl-2-pentanone	6770	1400	ug/L	7000	ND	97	70-130	5	20		1
Acetone	4990	3500	ug/L	7000	ND	71	70-130	7	20		1
Acrolein	3240	500	ug/L	5000	ND	65	70-130	17	20		1
Acrylonitrile	2160	200	ug/L	2000	ND	108	70-130	21	20		1
Benzene	2020	100	ug/L	2000	ND	101	70-130	0.3	20		1
Bromodichloromethane	1950	100	ug/L	2000	ND	98	70-130	3	20		1
Bromoform	1980	200	ug/L	2000	ND	99	70-130	2	20		1
Bromomethane	1940	2000	ug/L	2000	ND	97	70-130	1	20	J	1
Carbon disulfide	2110	200	ug/L	2000	ND	106	70-130	3	20		1
Carbon tetrachloride	2010	1000	ug/L	2000	ND	100	70-130	1	20		1
Chlorobenzene	2030	100	ug/L	2000	ND	101	70-130	0.3	20		1
Chloroethane	2100	200	ug/L	2000	ND	105	70-130	5	20		1
Chloroform	2020	200	ug/L	2000	ND	101	70-130	1	20		1
Chloromethane	2150	400	ug/L	2000	ND	107	70-130	4	20		1
cis-1,2-Dichloroethene	2040	200	ug/L	2000	ND	102	70-130	3	20		1
cis-1,3-Dichloropropene	1910	200	ug/L	2000	ND	96	70-130	0.4	20		1
Dibromochloromethane	2090	200	ug/L	2000	ND	105	70-130	2	20		1
Ethylbenzene	2070	200	ug/L	2000	ND	103	70-130	0.7	20		1
m,p-Xylene	4180	400	ug/L	4000	ND	104	70-130	3	20		1
Methyl tert-butyl ether	1930	200	ug/L	2000	ND	96	70-130	5	20		1
Methylene chloride	2190	1000	ug/L	2000	ND	109	70-130	7	20		1
Naphthalene	2070	1000	ug/L	2000	ND	103	70-130	11	20		1
o-Xylene	2000	200	ug/L	2000	ND	100	70-130	2	20		1
Styrene	2020	400	ug/L	2000	ND	101	70-130	1	20		1
Tetrachloroethene	1890	200	ug/L	2000	ND	95	70-130	5	20		1
Toluene	2050	200	ug/L	2000	ND	102	70-130	2	20		1
trans-1,2-Dichloroethene	2050	200	ug/L	2000	ND	102	70-130	4	20		1
trans-1,3-Dichloropropene	1850	400	ug/L	2000	ND	93	70-130	4	20		1
Trichloroethene	1960	200	ug/L	2000	ND	98	70-130	4	20		1
Vinyl acetate	2070	200	ug/L	2000	ND	104	70-130	7	20		1
Vinyl chloride	2110	200	ug/L	2000	ND	106	70-130	2	20		1
Xylenes, Total	6180	600	ug/L	6000	ND	103	70-130	2	20		1
1,3-Dichloropropene, Total	3760	400	ug/L	4000	ND	94	70-130	2	20		1



### Quality Control

(Continued)

**Client:** United Engineering Consultants, Inc.  
**Project:** UEC Analysis  
   19006  
**Work Order:** 23A0137

**Report Date:** 01/13/2023  
**Matrix:** Water

### Volatile Organic Compounds by GC/MS

(Continued)

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual	DF
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**Batch: B3A0242 - SW5030 (Continued)**

**Matrix Spike Dup (B3A0242-MSD1) (Continued)**      **Source: 23A0263-01**      *Prepared: 01/11/2023 11:57 Analyzed: 01/11/2023 18:26*

Surrogate: Dibromofluoromethane	19.0	ug/L	20.00		95	84-137					1
Surrogate: 1,2-Dichloroethane-d4	20.2	ug/L	20.00		101	74-140					1
Surrogate: Fluorobenzene	19.2	ug/L	20.00		96	90-105					1
Surrogate: Toluene-d8	19.6	ug/L	20.00		98	74-109					1
Surrogate: 4-Bromofluorobenzene	9.90	ug/L	10.00		99	86-128					1
Surrogate: 1,2-Dichlorobenzene-d4	19.0	ug/L	20.00		95	90-128					1



509 N. 3<sup>rd</sup> Avenue Des Plaines, IL 60016-1162 P 847.967.6666 800.246.0663 F 847.967.6735 [www.emt.com](http://www.emt.com)

## Certified Analyses included in this Report

Analyte	CAS #	Certifications
<b>SW8260B/D in Water</b>		
1,1,1-Trichloroethane	71-55-6	AKDEC,WDNR,DoD,IIEPA
1,1,2,2-Tetrachloroethane	79-34-5	AKDEC,WDNR,DoD,IIEPA
1,1,2-Trichloroethane	79-00-5	AKDEC,WDNR,DoD,IIEPA
1,1-Dichloroethane	75-34-3	AKDEC,WDNR,DoD,IIEPA
1,1-Dichloroethene	75-35-4	AKDEC,WDNR,DoD,IIEPA
1,2,4-Trimethylbenzene	95-63-6	WDNR,DoD,IIEPA
1,2-Dibromo-3-chloropropane	96-12-8	AKDEC,WDNR,DoD,IIEPA
1,2-Dibromoethane	106-93-4	AKDEC,WDNR,DoD,IIEPA
1,2-Dichloroethane	107-06-2	AKDEC,WDNR,DoD,IIEPA
1,2-Dichloropropane	78-87-5	AKDEC,WDNR,DoD,IIEPA
1,3,5-Trimethylbenzene	108-67-8	WDNR,DoD,IIEPA
1-Butanol	71-36-3	WDNR,IIEPA
2-Butanone	78-93-3	WDNR,DoD,IIEPA
2-Hexanone	591-78-6	WDNR,DoD,IIEPA
4-Methyl-2-pentanone	108-10-1	WDNR,DoD,IIEPA
Acetone	67-64-1	WDNR,DoD,IIEPA
Acrolein	107-02-8	WDNR,DoD,IIEPA
Acrylonitrile	107-13-1	WDNR,DoD,IIEPA
Benzene	71-43-2	AKDEC,WDNR,DoD,IIEPA
Bromodichloromethane	75-27-4	AKDEC,WDNR,DoD,IIEPA
Bromoform	75-25-2	AKDEC,WDNR,DoD,IIEPA
Bromomethane	74-83-9	AKDEC,WDNR,DoD,IIEPA
Carbon disulfide	75-15-0	WDNR,DoD,IIEPA
Carbon tetrachloride	56-23-5	AKDEC,WDNR,DoD,IIEPA
Chlorobenzene	108-90-7	AKDEC,WDNR,DoD,IIEPA
Chloroethane	75-00-3	WDNR,DoD,IIEPA
Chloroform	67-66-3	AKDEC,WDNR,DoD,IIEPA
Chloromethane	74-87-3	AKDEC,WDNR,DoD,IIEPA
cis-1,2-Dichloroethene	156-59-2	WDNR,DoD,IIEPA
cis-1,3-Dichloropropene	10061-01-5	AKDEC,WDNR,DoD,IIEPA
Dibromochloromethane	124-48-1	AKDEC,WDNR,DoD,IIEPA
Ethylbenzene	100-41-4	AKDEC,WDNR,DoD,IIEPA
m,p-Xylene	179601-23-1	AKDEC,WDNR,DoD,IIEPA
Methyl tert-butyl ether	1634-04-4	WDNR,DoD,IIEPA
Methylene chloride	75-09-2	AKDEC,WDNR,DoD,IIEPA
Naphthalene	91-20-3	WDNR,DoD,IIEPA
o-Xylene	95-47-6	AKDEC,WDNR,DoD,IIEPA
Styrene	100-42-5	WDNR,DoD
Tetrachloroethene	127-18-4	AKDEC,WDNR,DoD,IIEPA
Toluene	108-88-3	AKDEC,WDNR,DoD,IIEPA
trans-1,2-Dichloroethene	156-60-5	AKDEC,WDNR,DoD,IIEPA



**Certified Analyses included in this Report (Continued)**

Analyte	CAS #	Certifications
<b>SW8260B/D in Water (Continued)</b>		
trans-1,3-Dichloropropene	10061-02-6	AKDEC,WDNR,DoD,IIEPA
Trichloroethene	79-01-6	AKDEC,WDNR,DoD,IIEPA
Vinyl acetate	108-05-4	WDNR,DoD,IIEPA
Vinyl chloride	75-01-4	AKDEC,WDNR,DoD,IIEPA
Xylenes, Total	1330-20-7	AKDEC,WDNR,DoD,IIEPA
1,3-Dichloropropene, Total	542-75-6	AKDEC,WDNR,DoD,IIEPA

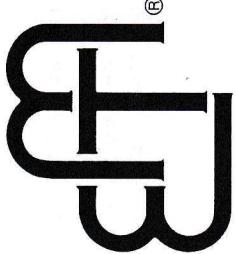
**List of Certifications**

Code	Description	Number	Expires
AKDEC	State of Alaska, Dept. Environmental Conservation	17-011	04/30/2024
CPSC	US Consumer Product Safety Commission, Accredited by PJLA Lab No. 1050	L18-184-R1	03/31/2024
DoD	Department of Defense, Accredited by PJLA	L20-164-R2	03/31/2024
IIEPA	State of Illinois, NELAP Accredited Lab No. 100256	1002562021-6	07/27/2023
ISO	ISO/IEC 17025:2017, Accredited by PJLA	L20-165	03/31/2024
NEFAP	TNI National Environmental Field Activities Program	L20-166	03/31/2024
NY	New York State Department of Health	65634	04/01/2023
WA	Washington State Department of Ecology	C1057	01/06/2023
WDNR	State of Wisconsin Dept of Natural Resources	999888890	08/31/2023



### Qualifiers and Definitions

Item	Description
J	The reported result is an estimated value.
P	The quality control sample %RPD is above the laboratory control limit.
Q	One or more quality control results were outside of the acceptance limits (e.g. LCS recovery, surrogate spike recovery, or CCV recovery).
%Rec	Percent Recovery
MDL	In the state of Wisconsin MDL is equivalent to LOD; in all other applications MDL is equivalent to MDL. In the state of Wisconsin the Reporting Limit is equivalent to LOQ.



**ENVIR  
MONITOR  
TECHNO**

810 North Austin A  
Morton Grove, Illinois

23A0137

PM: Tim Witczek

United Engineering Consultants, Inc.  
UERC Analytical

847-967-6666  
FAX: 847-967-6735  
www.emt.com

## Chain of Custody Record

TURNAROUND TIME:	
<input type="checkbox"/> RUSH	<input checked="" type="checkbox"/> ROUTINE
_____ day turnaround	

COC #: **223543**

Due Date: \_\_\_\_\_

### Analyses

Sample Type:  
1. Waste Water  
2. Drinking Water  
3. Soil

7. Groundwater (filtered)  
5. Oil  
6. Groundwater

8. Other

Container Type:  
P - Plastic  
G - Glass

V - VOC Vial

O - Other

B - Teflar Bag

Preservative:  
1. None  
2. H<sub>2</sub>SO<sub>4</sub>  
3. HNO<sub>3</sub>

4. NaOH

5. HCl

6. MeOH

Phone #: (708) 785-1447 Fax #: ( )  
P.O. #: \_\_\_\_\_  
Proj. #: \_\_\_\_\_  
Client Contact: T. ANDERSON  
Project ID / Location: 190010

Sampling      Container      Preservation

Sample I.D.	Sample Type	Size	Type	No.	By	Date	Time	pH	Temp.	Field	Lab	Preservation
MW-2	6	40 mL	G	3	JEG	12/24/22	11:10	-	-	X		
MW-4	6	40 mL	G	4	JEG	12/24/22	10:10	↓	↓	X		
MW-4R	6	40 mL	G	5	JEG	12/24/22	10:21	↓	↓	X		
TRIP BLANK	6	40 mL	G	1	-	-	-	-	-	5		

EMT USE ONLY

EMT WORKORDER

# **23A0137**

61A-C  
62A-C  
63A-C  
64A

SAMPLE RECEIVED  
ON ICE

TEMPERATURE

4.6°C

EMT USE ONLY  
Date: 1-4-23  
Time: 0945  
Received By: John J. Schmitz

Client Code: \_\_\_\_\_  
EMT Project I.D.: \_\_\_\_\_  
Date: - -  
Time: : :  
Date: 01-04-2023 Jar Lot No. \_\_\_\_\_  
Time: 13:00

EMT SAMPLE RETURN  
POLICY ON BACK

**SPECIAL INSTRUCTIONS:**

EMT SAMPLE RETURN  
POLICY ON BACK

Sample Receipt Checklist

Client:	United Engineering Consultants, Inc.	Date Due:	Friday, January 13, 2023
Project:	UEC Analysis	Printed: 1/4/2023 7:40:23PM	
Work Order: 23A0137			

Received By: Kaline Langley      Date Received: 01/04/23 13:00  
 Logged In By: Kaline Langley      Date Logged In: 01/04/23 13:02

How were samples received?

Cooler temperature at or below 6 degrees Celsius Yes

Chain of Custody present and properly completed Yes

Turn Around Time is indicated and specified Yes

Chain of Custody agrees with sample labels Yes

Samples received within hold time Yes

Proper sample containers received intact Yes

Containers properly preserved Yes

Sufficient Sample Volume Yes

Custody seals present No

Volatile water vials received Yes

Vials contain larger than pea sized air bubbles Yes

Samples going out of hold time within 24 hours:

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Sample Receipt Comments

Work Order: 23A0137

The samples were received on 01/04/23 13:00. The temperature of the cooler(s) at receipt was:

Cooler Default Cooler      Temp C° 4.6

Sample 04 (1 vial) contain larger than pea-sized (6 mm) air bubbles.

Reviewed By: PCL Date: 01/04/23