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ANALYTICAL REPORT

PREPARED FOR

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Generated 3/13/2024 8:25:15 AM

JOB DESCRIPTION

Ford LTP - On Site

JOB NUMBER

240-200286-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.

myEOL

Job Notes

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

Authorization

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Table of Contents

Definitions/Glossary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
240-200286-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 3/1/2024 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.7°C.

GC/MS VOA
Method 8260D: The matrix spike/matrix spike duplicate (MS/MSD) for samples TRIP BLANK_45 (240-200286-1) and MW-03_022824 (240-200286-2) was not reported, because the MS/MSD parent samples were not reported, due to being overly diluted.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Method Summary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CLE
8260D SIM	Volatile Organic Compounds (GC/MS)	SW846	EET CLE
5030C	Purge and Trap	SW846	EET CLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Sample Summary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-200286-1	TRIP BLANK_45	Water	02/28/24 00:00	03/01/24 08:00
240-200286-2	MW-03_022824	Water	02/28/24 10:45	03/01/24 08:00
240-200286-3	MW-04_022824	Water	02/28/24 11:55	03/01/24 08:00
240-200286-4	MW-197S_022824	Water	02/28/24 14:03	03/01/24 08:00
240-200286-5	DUP-01	Water	02/28/24 00:00	03/01/24 08:00

Detection Summary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: TRIP BLANK_45 — Lab Sample ID: 240-200286-1

No Detections.

Client Sample ID: MW-03_022824 — Lab Sample ID: 240-200286-2

No Detections.

Client Sample ID: MW-04_022824 — Lab Sample ID: 240-200286-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.2		2.0	0.86	ug/L	1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	5800		200	92	ug/L	200		8260D	Total/NA
trans-1,2-Dichloroethene	200		200	100	ug/L	200		8260D	Total/NA
Trichloroethene	370		200	88	ug/L	200		8260D	Total/NA
Vinyl chloride	2700		200	90	ug/L	200		8260D	Total/NA

Client Sample ID: MW-197S_022824 — Lab Sample ID: 240-200286-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.46	ug/L	1		8260D	Total/NA
trans-1,2-Dichloroethene	1.0		1.0	0.51	ug/L	1		8260D	Total/NA
Trichloroethene	61		4.0	1.8	ug/L	4		8260D	Total/NA
Vinyl chloride	2.2		1.0	0.45	ug/L	1		8260D	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 240-200286-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.1		2.0	0.86	ug/L	1		8260D SIM	Total/NA
cis-1,2-Dichloroethene	5800		200	92	ug/L	200		8260D	Total/NA
trans-1,2-Dichloroethene	180	J	200	100	ug/L	200		8260D	Total/NA
Trichloroethene	350		200	88	ug/L	200		8260D	Total/NA
Vinyl chloride	2300		200	90	ug/L	200		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: TRIP BLANK_45

Date Collected: 02/28/24 00:00
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/06/24 19:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/06/24 19:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/06/24 19:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/06/24 19:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/06/24 19:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/06/24 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*		*03/06/24 19:35*	*1*
4-Bromofluorobenzene (Surr)	*86*		*56 - 136*		*03/06/24 19:35*	*1*
Toluene-d8 (Surr)	*101*		*78 - 122*		*03/06/24 19:35*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*03/06/24 19:35*	*1*

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: MW-03_022824

Date Collected: 02/28/24 10:45
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/06/24 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 127*		*03/06/24 19:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/24 02:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/24 02:14	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 02:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/24 02:14	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 02:14	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/07/24 02:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*62 - 137*		*03/07/24 02:14*	*1*
4-Bromofluorobenzene (Surr)	*84*		*56 - 136*		*03/07/24 02:14*	*1*
Toluene-d8 (Surr)	*102*		*78 - 122*		*03/07/24 02:14*	*1*
Dibromofluoromethane (Surr)	*99*		*73 - 120*		*03/07/24 02:14*	*1*

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: MW-04_022824

Date Collected: 02/28/24 11:55
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**2.2**		2.0	0.86	ug/L			03/06/24 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 127*		*03/06/24 20:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	200	U	200	98	ug/L			03/05/24 13:00	200
cis-1,2-Dichloroethene	**5800**		200	92	ug/L			03/05/24 13:00	200
Tetrachloroethene	200	U	200	88	ug/L			03/05/24 13:00	200
trans-1,2-Dichloroethene	**200**		200	100	ug/L			03/05/24 13:00	200
Trichloroethene	**370**		200	88	ug/L			03/05/24 13:00	200
Vinyl chloride	**2700**		200	90	ug/L			03/05/24 13:00	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*62 - 137*		*03/05/24 13:00*	*200*
4-Bromofluorobenzene (Surr)	*86*		*56 - 136*		*03/05/24 13:00*	*200*
Toluene-d8 (Surr)	*87*		*78 - 122*		*03/05/24 13:00*	*200*
Dibromofluoromethane (Surr)	*102*		*73 - 120*		*03/05/24 13:00*	*200*

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: MW-197S_022824

Date Collected: 02/28/24 14:03
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/06/24 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 127*		*03/06/24 20:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/24 13:48	1
cis-1,2-Dichloroethene	**17**		1.0	0.46	ug/L			03/07/24 13:48	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 13:48	1
trans-1,2-Dichloroethene	**1.0**		1.0	0.51	ug/L			03/07/24 13:48	1
Trichloroethene	**61**		4.0	1.8	ug/L			03/11/24 15:36	4
Vinyl chloride	**2.2**		1.0	0.45	ug/L			03/07/24 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*62 - 137*		*03/07/24 13:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*108*		*62 - 137*		*03/11/24 15:36*	*4*
4-Bromofluorobenzene (Surr)	*91*		*56 - 136*		*03/07/24 13:48*	*1*
4-Bromofluorobenzene (Surr)	*86*		*56 - 136*		*03/11/24 15:36*	*4*
Toluene-d8 (Surr)	*92*		*78 - 122*		*03/07/24 13:48*	*1*
Toluene-d8 (Surr)	*95*		*78 - 122*		*03/11/24 15:36*	*4*
Dibromofluoromethane (Surr)	*106*		*73 - 120*		*03/07/24 13:48*	*1*
Dibromofluoromethane (Surr)	*98*		*73 - 120*		*03/11/24 15:36*	*4*

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: DUP-01

Date Collected: 02/28/24 00:00
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**2.1**		2.0	0.86	ug/L			03/06/24 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 127*		*03/06/24 21:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	200	U	200	98	ug/L			03/07/24 21:56	200
cis-1,2-Dichloroethene	**5800**		200	92	ug/L			03/07/24 21:56	200
Tetrachloroethene	200	U	200	88	ug/L			03/07/24 21:56	200
trans-1,2-Dichloroethene	**180**	**J**	200	100	ug/L			03/07/24 21:56	200
Trichloroethene	**350**		200	88	ug/L			03/07/24 21:56	200
Vinyl chloride	**2300**		200	90	ug/L			03/07/24 21:56	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*62 - 137*		*03/07/24 21:56*	*200*
4-Bromofluorobenzene (Surr)	*83*		*56 - 136*		*03/07/24 21:56*	*200*
Toluene-d8 (Surr)	*102*		*78 - 122*		*03/07/24 21:56*	*200*
Dibromofluoromethane (Surr)	*97*		*73 - 120*		*03/07/24 21:56*	*200*

Surrogate Summary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(62-137)	(56-136)	(78-122)	(73-120)
240-200153-G-2 MS	Matrix Spike	108	97	97	101
240-200153-G-2 MSD	Matrix Spike Duplicate	103	98	93	99
240-200286-1	TRIP BLANK_45	100	86	101	95
240-200286-2	MW-03_022824	106	84	102	99
240-200286-3	MW-04_022824	107	86	87	102
240-200286-4	MW-197S_022824	112	91	92	106
240-200286-4	MW-197S_022824	108	86	95	98
240-200286-5	DUP-01	102	83	102	97
240-200286-5 MS	DUP-01	98	105	105	97
240-200286-5 MSD	DUP-01	97	103	103	95
240-200320-B-3 MS	Matrix Spike	100	94	96	96
240-200320-B-3 MSD	Matrix Spike Duplicate	103	92	98	97
240-200334-C-12 MS	Matrix Spike	107	96	96	99
240-200334-C-12 MSD	Matrix Spike Duplicate	103	95	94	99
LCS 240-604963/4	Lab Control Sample	103	99	99	103
LCS 240-605219/4	Lab Control Sample	97	100	104	95
LCS 240-605258/4	Lab Control Sample	104	95	95	100
LCS 240-605359/4	Lab Control Sample	97	101	105	96
LCS 240-605581/4	Lab Control Sample	104	95	99	97
MB 240-604963/7	Method Blank	110	91	93	107
MB 240-605219/6	Method Blank	104	86	104	95
MB 240-605258/7	Method Blank	112	89	92	110
MB 240-605359/6	Method Blank	104	86	102	95
MB 240-605581/7	Method Blank	109	87	95	109

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		DCA
Lab Sample ID	Client Sample ID	(68-127)
240-200286-2	MW-03_022824	107
240-200286-3	MW-04_022824	106
240-200286-4	MW-197S_022824	106
240-200286-5	DUP-01	108
240-200289-C-4 MS	Matrix Spike	106
240-200289-C-4 MSD	Matrix Spike Duplicate	106
LCS 240-605225/4	Lab Control Sample	105
MB 240-605225/6	Method Blank	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

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

Lab Sample ID: MB 240-604963/7
Matrix: Water
Analysis Batch: 604963

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/05/24 10:57	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/05/24 10:57	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/05/24 10:57	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/05/24 10:57	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/05/24 10:57	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/05/24 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*62 - 137*		*03/05/24 10:57*	*1*
4-Bromofluorobenzene (Surr)	*91*		*56 - 136*		*03/05/24 10:57*	*1*
Toluene-d8 (Surr)	*93*		*78 - 122*		*03/05/24 10:57*	*1*
Dibromofluoromethane (Surr)	*107*		*73 - 120*		*03/05/24 10:57*	*1*

Lab Sample ID: LCS 240-604963/4
Matrix: Water
Analysis Batch: 604963

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	27.5		ug/L		110	63 - 134
cis-1,2-Dichloroethene	25.0	26.6		ug/L		106	77 - 123
Tetrachloroethene	25.0	27.1		ug/L		108	76 - 123
trans-1,2-Dichloroethene	25.0	28.4		ug/L		114	75 - 124
Trichloroethene	25.0	26.8		ug/L		107	70 - 122
Vinyl chloride	12.5	12.5		ug/L		100	60 - 144

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*62 - 137*
4-Bromofluorobenzene (Surr)	*99*		*56 - 136*
Toluene-d8 (Surr)	*99*		*78 - 122*
Dibromofluoromethane (Surr)	*103*		*73 - 120*

Lab Sample ID: 240-200153-G-2 MS
Matrix: Water
Analysis Batch: 604963

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	500	U	12500	11700		ug/L		93	56 - 135
cis-1,2-Dichloroethene	500	U	12500	12400		ug/L		99	66 - 128
Tetrachloroethene	500	U	12500	10600		ug/L		85	62 - 131
trans-1,2-Dichloroethene	500	U	12500	13100		ug/L		104	56 - 136
Trichloroethene	500	U	12500	11700		ug/L		93	61 - 124
Vinyl chloride	6100		6250	10600		ug/L		71	43 - 157

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*62 - 137*
4-Bromofluorobenzene (Surr)	*97*		*56 - 136*
Toluene-d8 (Surr)	*97*		*78 - 122*

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

Lab Sample ID: 240-200153-G-2 MS
Matrix: Water
Analysis Batch: 604963

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Surrogate	MS %Recovery	MS Qualifier	Limits
Dibromofluoromethane (Surr)	101		73 - 120

Lab Sample ID: 240-200153-G-2 MSD
Matrix: Water
Analysis Batch: 604963

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	500	U	12500	12400		ug/L		99	56 - 135	6	26
cis-1,2-Dichloroethene	500	U	12500	12600		ug/L		101	66 - 128	1	14
Tetrachloroethene	500	U	12500	10900		ug/L		87	62 - 131	3	20
trans-1,2-Dichloroethene	500	U	12500	12800		ug/L		102	56 - 136	2	15
Trichloroethene	500	U	12500	11900		ug/L		95	61 - 124	2	15
Vinyl chloride	6100		6250	11100		ug/L		79	43 - 157	5	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		62 - 137
4-Bromofluorobenzene (Surr)	98		56 - 136
Toluene-d8 (Surr)	93		78 - 122
Dibromofluoromethane (Surr)	99		73 - 120

Lab Sample ID: MB 240-605219/6
Matrix: Water
Analysis Batch: 605219

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/06/24 18:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/06/24 18:20	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/06/24 18:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/06/24 18:20	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/06/24 18:20	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/06/24 18:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		62 - 137		03/06/24 18:20	1
4-Bromofluorobenzene (Surr)	86		56 - 136		03/06/24 18:20	1
Toluene-d8 (Surr)	104		78 - 122		03/06/24 18:20	1
Dibromofluoromethane (Surr)	95		73 - 120		03/06/24 18:20	1

Lab Sample ID: LCS 240-605219/4
Matrix: Water
Analysis Batch: 605219

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	20.6		ug/L		82	63 - 134
cis-1,2-Dichloroethene	25.0	23.4		ug/L		94	77 - 123
Tetrachloroethene	25.0	23.0		ug/L		92	76 - 123
trans-1,2-Dichloroethene	25.0	23.2		ug/L		93	75 - 124
Trichloroethene	25.0	22.2		ug/L		89	70 - 122

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

Lab Sample ID: LCS 240-605219/4
Matrix: Water
Analysis Batch: 605219

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Vinyl chloride			12.5	9.83		ug/L		79	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*
4-Bromofluorobenzene (Surr)	*100*		*56 - 136*
Toluene-d8 (Surr)	*104*		*78 - 122*
Dibromofluoromethane (Surr)	*95*		*73 - 120*

Lab Sample ID: MB 240-605258/7
Matrix: Water
Analysis Batch: 605258

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/24 13:25	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/24 13:25	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 13:25	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/24 13:25	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 13:25	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/07/24 13:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*62 - 137*		*03/07/24 13:25*	*1*
4-Bromofluorobenzene (Surr)	*89*		*56 - 136*		*03/07/24 13:25*	*1*
Toluene-d8 (Surr)	*92*		*78 - 122*		*03/07/24 13:25*	*1*
Dibromofluoromethane (Surr)	*110*		*73 - 120*		*03/07/24 13:25*	*1*

Lab Sample ID: LCS 240-605258/4
Matrix: Water
Analysis Batch: 605258

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			25.0	26.4		ug/L		106	63 - 134		
cis-1,2-Dichloroethene			25.0	25.5		ug/L		102	77 - 123		
Tetrachloroethene			25.0	25.5		ug/L		102	76 - 123		
trans-1,2-Dichloroethene			25.0	26.7		ug/L		107	75 - 124		
Trichloroethene			25.0	26.7		ug/L		107	70 - 122		
Vinyl chloride			12.5	12.4		ug/L		99	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*62 - 137*
4-Bromofluorobenzene (Surr)	*95*		*56 - 136*
Toluene-d8 (Surr)	*95*		*78 - 122*
Dibromofluoromethane (Surr)	*100*		*73 - 120*

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

Lab Sample ID: 240-200334-C-12 MS
Matrix: Water
Analysis Batch: 605258

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
cis-1,2-Dichloroethene	46	J	1250	1280		ug/L		98	66 - 128
Tetrachloroethene	1400		1250	2190		ug/L		62	62 - 131
Trichloroethene	220		1250	1260		ug/L		84	61 - 124
Vinyl chloride	50	U	625	613		ug/L		98	43 - 157

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*62 - 137*
4-Bromofluorobenzene (Surr)	*96*		*56 - 136*
Toluene-d8 (Surr)	*96*		*78 - 122*
Dibromofluoromethane (Surr)	*99*		*73 - 120*

Lab Sample ID: 240-200334-C-12 MSD
Matrix: Water
Analysis Batch: 605258

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
cis-1,2-Dichloroethene	46	J	1250	1360		ug/L		105	66 - 128	6	14
Tetrachloroethene	1400		1250	2250		ug/L		67	62 - 131	3	20
Trichloroethene	220		1250	1390		ug/L		94	61 - 124	10	15
Vinyl chloride	50	U	625	661		ug/L		106	43 - 157	7	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*62 - 137*
4-Bromofluorobenzene (Surr)	*95*		*56 - 136*
Toluene-d8 (Surr)	*94*		*78 - 122*
Dibromofluoromethane (Surr)	*99*		*73 - 120*

Lab Sample ID: MB 240-605359/6
Matrix: Water
Analysis Batch: 605359

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/07/24 18:10	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/07/24 18:10	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 18:10	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/07/24 18:10	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/07/24 18:10	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/07/24 18:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*62 - 137*		*03/07/24 18:10*	*1*
4-Bromofluorobenzene (Surr)	*86*		*56 - 136*		*03/07/24 18:10*	*1*
Toluene-d8 (Surr)	*102*		*78 - 122*		*03/07/24 18:10*	*1*
Dibromofluoromethane (Surr)	*95*		*73 - 120*		*03/07/24 18:10*	*1*

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

Lab Sample ID: LCS 240-605359/4
Matrix: Water
Analysis Batch: 605359

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene			25.0	23.7		ug/L		95	63 - 134		
cis-1,2-Dichloroethene			25.0	25.6		ug/L		103	77 - 123		
Tetrachloroethene			25.0	24.3		ug/L		97	76 - 123		
trans-1,2-Dichloroethene			25.0	25.3		ug/L		101	75 - 124		
Trichloroethene			25.0	23.7		ug/L		95	70 - 122		
Vinyl chloride			12.5	9.51		ug/L		76	60 - 144		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*
4-Bromofluorobenzene (Surr)	*101*		*56 - 136*
Toluene-d8 (Surr)	*105*		*78 - 122*
Dibromofluoromethane (Surr)	*96*		*73 - 120*

Lab Sample ID: 240-200286-5 MS
Matrix: Water
Analysis Batch: 605359

Client Sample ID: DUP-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1-Dichloroethene	200	U	5000	5170		ug/L		103	56 - 135		
cis-1,2-Dichloroethene	5800		5000	10300		ug/L		90	66 - 128		
Tetrachloroethene	200	U	5000	4740		ug/L		95	62 - 131		
trans-1,2-Dichloroethene	180	J	5000	5140		ug/L		99	56 - 136		
Trichloroethene	350		5000	4950		ug/L		92	61 - 124		
Vinyl chloride	2300		2500	3470		ug/L		45	43 - 157		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*62 - 137*
4-Bromofluorobenzene (Surr)	*105*		*56 - 136*
Toluene-d8 (Surr)	*105*		*78 - 122*
Dibromofluoromethane (Surr)	*97*		*73 - 120*

Lab Sample ID: 240-200286-5 MSD
Matrix: Water
Analysis Batch: 605359

Client Sample ID: DUP-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	200	U	5000	4890		ug/L		98	56 - 135	6	26
cis-1,2-Dichloroethene	5800		5000	10600		ug/L		95	66 - 128	3	14
Tetrachloroethene	200	U	5000	4910		ug/L		98	62 - 131	3	20
trans-1,2-Dichloroethene	180	J	5000	5310		ug/L		102	56 - 136	3	15
Trichloroethene	350		5000	5080		ug/L		95	61 - 124	3	15
Vinyl chloride	2300		2500	4250		ug/L		76	43 - 157	20	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*62 - 137*
4-Bromofluorobenzene (Surr)	*103*		*56 - 136*
Toluene-d8 (Surr)	*103*		*78 - 122*

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

Lab Sample ID: 240-200286-5 MSD
Matrix: Water
Analysis Batch: 605359

Client Sample ID: DUP-01
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Dibromofluoromethane (Surr)	95		73 - 120

Lab Sample ID: MB 240-605581/7
Matrix: Water
Analysis Batch: 605581

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	1.0	U	1.0	0.49	ug/L			03/11/24 11:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/11/24 11:41	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/11/24 11:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/11/24 11:41	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/11/24 11:41	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/11/24 11:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		62 - 137		03/11/24 11:41	1
4-Bromofluorobenzene (Surr)	87		56 - 136		03/11/24 11:41	1
Toluene-d8 (Surr)	95		78 - 122		03/11/24 11:41	1
Dibromofluoromethane (Surr)	109		73 - 120		03/11/24 11:41	1

Lab Sample ID: LCS 240-605581/4
Matrix: Water
Analysis Batch: 605581

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	25.0	23.9		ug/L		96	63 - 134
cis-1,2-Dichloroethene	25.0	22.6		ug/L		90	77 - 123
Tetrachloroethene	25.0	26.9		ug/L		108	76 - 123
trans-1,2-Dichloroethene	25.0	25.8		ug/L		103	75 - 124
Trichloroethene	25.0	24.5		ug/L		98	70 - 122
Vinyl chloride	12.5	11.5		ug/L		92	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	104		62 - 137
4-Bromofluorobenzene (Surr)	95		56 - 136
Toluene-d8 (Surr)	99		78 - 122
Dibromofluoromethane (Surr)	97		73 - 120

Lab Sample ID: 240-200320-B-3 MS
Matrix: Water
Analysis Batch: 605581

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloroethene	10	U	250	217		ug/L		87	56 - 135
cis-1,2-Dichloroethene	390		250	643	E	ug/L		103	66 - 128
Tetrachloroethene	10	U	250	245		ug/L		98	62 - 131
trans-1,2-Dichloroethene	10	U	250	237		ug/L		95	56 - 136
Trichloroethene	10	U	250	229		ug/L		92	61 - 124

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

Lab Sample ID: 240-200320-B-3 MS
Matrix: Water
Analysis Batch: 605581

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Vinyl chloride	58		125	165		ug/L		85	43 - 157

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*62 - 137*
4-Bromofluorobenzene (Surr)	*94*		*56 - 136*
Toluene-d8 (Surr)	*96*		*78 - 122*
Dibromofluoromethane (Surr)	*96*		*73 - 120*

Lab Sample ID: 240-200320-B-3 MSD
Matrix: Water
Analysis Batch: 605581

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethene	10	U	250	230		ug/L		92	56 - 135	6	26
cis-1,2-Dichloroethene	390		250	665	E	ug/L		112	66 - 128	3	14
Tetrachloroethene	10	U	250	252		ug/L		101	62 - 131	3	20
trans-1,2-Dichloroethene	10	U	250	239		ug/L		95	56 - 136	0	15
Trichloroethene	10	U	250	233		ug/L		93	61 - 124	2	15
Vinyl chloride	58		125	175		ug/L		94	43 - 157	6	24

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*62 - 137*
4-Bromofluorobenzene (Surr)	*92*		*56 - 136*
Toluene-d8 (Surr)	*98*		*78 - 122*
Dibromofluoromethane (Surr)	*97*		*73 - 120*

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

Lab Sample ID: MB 240-605225/6
Matrix: Water
Analysis Batch: 605225

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/06/24 18:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 127*		*03/06/24 18:17*	*1*

Lab Sample ID: LCS 240-605225/4
Matrix: Water
Analysis Batch: 605225

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane			10.0	10.6		ug/L		106	75 - 121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 127*

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

Lab Sample ID: 240-200289-C-4 MS
Matrix: Water
Analysis Batch: 605225

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,4-Dioxane	2.0	U F1	10.0	11.1		ug/L		111	20 - 180		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 127*

Lab Sample ID: 240-200289-C-4 MSD
Matrix: Water
Analysis Batch: 605225

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.0	U F1	10.0	10.9		ug/L		109	20 - 180	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 127*

GC/MS VOA

Analysis Batch: 604963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-3	MW-04_022824	Total/NA	Water	8260D	
MB 240-604963/7	Method Blank	Total/NA	Water	8260D	
LCS 240-604963/4	Lab Control Sample	Total/NA	Water	8260D	
240-200153-G-2 MS	Matrix Spike	Total/NA	Water	8260D	
240-200153-G-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 605219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-1	TRIP BLANK_45	Total/NA	Water	8260D	
240-200286-2	MW-03_022824	Total/NA	Water	8260D	
MB 240-605219/6	Method Blank	Total/NA	Water	8260D	
LCS 240-605219/4	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 605225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-2	MW-03_022824	Total/NA	Water	8260D SIM	
240-200286-3	MW-04_022824	Total/NA	Water	8260D SIM	
240-200286-4	MW-197S_022824	Total/NA	Water	8260D SIM	
240-200286-5	DUP-01	Total/NA	Water	8260D SIM	
MB 240-605225/6	Method Blank	Total/NA	Water	8260D SIM	
LCS 240-605225/4	Lab Control Sample	Total/NA	Water	8260D SIM	
240-200289-C-4 MS	Matrix Spike	Total/NA	Water	8260D SIM	
240-200289-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D SIM	

Analysis Batch: 605258

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-4	MW-197S_022824	Total/NA	Water	8260D	
MB 240-605258/7	Method Blank	Total/NA	Water	8260D	
LCS 240-605258/4	Lab Control Sample	Total/NA	Water	8260D	
240-200334-C-12 MS	Matrix Spike	Total/NA	Water	8260D	
240-200334-C-12 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Analysis Batch: 605359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-5	DUP-01	Total/NA	Water	8260D	
MB 240-605359/6	Method Blank	Total/NA	Water	8260D	
LCS 240-605359/4	Lab Control Sample	Total/NA	Water	8260D	
240-200286-5 MS	DUP-01	Total/NA	Water	8260D	
240-200286-5 MSD	DUP-01	Total/NA	Water	8260D	

Analysis Batch: 605581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-200286-4	MW-197S_022824	Total/NA	Water	8260D	
MB 240-605581/7	Method Blank	Total/NA	Water	8260D	
LCS 240-605581/4	Lab Control Sample	Total/NA	Water	8260D	
240-200320-B-3 MS	Matrix Spike	Total/NA	Water	8260D	
240-200320-B-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260D	

Lab Chronicle

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Client Sample ID: TRIP BLANK_45
Date Collected: 02/28/24 00:00
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	605219	CDG	EET CLE	03/06/24 19:35

Client Sample ID: MW-03_022824
Date Collected: 02/28/24 10:45
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	605219	CDG	EET CLE	03/07/24 02:14
Total/NA	Analysis	8260D SIM		1	605225	MDH	EET CLE	03/06/24 19:53

Client Sample ID: MW-04_022824
Date Collected: 02/28/24 11:55
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		200	604963	LEE	EET CLE	03/05/24 13:00
Total/NA	Analysis	8260D SIM		1	605225	MDH	EET CLE	03/06/24 20:17

Client Sample ID: MW-197S_022824
Date Collected: 02/28/24 14:03
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	605258	LEE	EET CLE	03/07/24 13:48
Total/NA	Analysis	8260D		4	605581	LEE	EET CLE	03/11/24 15:36
Total/NA	Analysis	8260D SIM		1	605225	MDH	EET CLE	03/06/24 20:41

Client Sample ID: DUP-01
Date Collected: 02/28/24 00:00
Date Received: 03/01/24 08:00

Lab Sample ID: 240-200286-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		200	605359	CDG	EET CLE	03/07/24 21:56
Total/NA	Analysis	8260D SIM		1	605225	MDH	EET CLE	03/06/24 21:05

Laboratory References:
EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

Accreditation/Certification Summary

Client: Arcadis U.S., Inc.
Project/Site: Ford LTP - On Site

Job ID: 240-200286-1

Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-27-24 *
Illinois	NELAP	200004	07-31-24
Iowa	State	421	06-01-25
Kentucky (WW)	State	KY98016	12-30-24
Minnesota	NELAP	039-999-348	12-31-24
New Jersey	NELAP	OH001	06-30-24
New York	NELAP	10975	04-01-24
Oregon	NELAP	4062	02-27-25
Pennsylvania	NELAP	68-00340	08-31-24
Texas	NELAP	T104704517-22-19	08-31-24
USDA	US Federal Programs	P330-18-00281	01-05-27
Virginia	NELAP	460175	09-14-24
West Virginia DEP	State	210	12-31-24

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

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratory location: Brighton -- 10448 Citation Drive, Suite 200 / Brighton, MI 48116 / 810-229-2763

TestAmerica Laboratories, Inc.

Client Contact	Regulatory program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other		COC No:
Company Name: Arcadis	Client Project Manager: Kris Hinskey	Site Contact: Christina Weaver	Lab Contact: Mike DelMonico
Address: 28550 Cabot Drive, Suite 500	Telephone: 248-994-2240	Telephone: 248-994-2240	Telephone: 330-497-9396
City/State/Zip: Novi, MI, 48377	Email: kristoffer.hinskey@arcadis.com	Analysis Turnaround Time	1 of 1 COCs
Phone: 248-994-2240	Sampler Name: Nolan Scherzer	TAT if different from below: ☐ 3 weeks ☑ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day; 10 day	For lab use only
Project Name: Ford LTP On-Site	Method of Shipment/Carrier:		Walk-in client
Project Number: 30167538.401.03	Shipping/Tracking No:		Lab sampling
PO # 30167538.401.03			Job/SDG No:

Sample Identification	Sample Date	Sample Time	Matrix: Air	Aqueous	Sediment	Solid	Other:	Containers & Preservatives: H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Unpres	Other:	Filtered Sample (Y / N)	Composite=C / Grab=G	1,1-DCE 8260D	cis-1,2-DCE 8260D	Trans-1,2-DCE 8260D	PCE 8260D	TCE 8260D	Vinyl Chloride 8260D	1,4-Dioxane 8260D SIM	Sample Specific Notes / Special Instructions:
TRIP BLANK_ 45	----	----		X						1					N	G	X	X	X	X	X	X		1 Trip Blank
MW-03_022824	02/28/24	10:45		G						6					N	G	X	X	X	X	X	X	X	3 VOAs for 8260D 3 VOAs for 8260D SIM
MW-04_022824	02/28/24	11:55		G						6					N	G	X	X	X	X	X	X	X	
MW-197S_022824	02/28/24	14:03		4						4					N	G	X	X	X	X	X	X	X	
DUP-01	02/28/24	—		G						6					N	G	X	X	X	X	X	X	X	

240-200286 Chain of Custody

MICHIGAN
190

Possible Hazard Identification: ☑ Non-Hazard ☐ Flammable ☐ An Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return to Client ☑ Disposal By Lab ☐ Archive For ☐ Months

Special Instructions/QC Requirements & Comments:

Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203728
Level IV Reporting requested.

Relinquished by	Company	Date/Time	Received by	Company	Date/Time
	Arcadis	02/28/24 18:00	Novi cold storage	Arcadis	02/28/24 18:00
	Arcadis	2/29/24 1210		EETA	2/29/24 12pm
	EETA	2/29/24 12pm	J. MONSEW	EET NC	03/01/24 0850

3/13/2024

Eurofins – Cleveland Sample Receipt Form/Narrative Login # :_____
Barberton Facility

Client Mycadis Site Name_____ Cooler unpacked by: J. MOROSKO

Cooler Received on 03/01/24 Opened on 03/01/24

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other_____

Receipt After-hours: Drop-off Date/Time 6 Storage Location_____

Eurofins Cooler # EC Foam Box Client Cooler Box Other_____

Packing material used: Bubble Wrap Foam Plastic Bag None Other_____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 22 (CF -1.0 °C) Observed Cooler Temp. 2.7 °C Corrected Cooler Temp. 2.7 °C

2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No NA
-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3. Shippers' packing slip attached to the cooler(s)?	Yes	No
4. Did custody papers accompany the sample(s)?	Yes	No
5. Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6. Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7. Did all bottles arrive in good condition (Unbroken)?	Yes	No
8. Could all bottle labels (ID/Date/Time) be reconciled with the COC?	Yes	No
9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)?		
10. Were correct bottle(s) used for the test(s) indicated?	Yes	No
11. Sufficient quantity received to perform indicated analyses?	Yes	No
12. Are these work share samples and all listed on the COC?	Yes	No
If yes, Questions 13-17 have been checked at the originating laboratory.		
13. Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC316719
14. Were VOAs on the COC?	Yes	No
15. Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 0041301I	Yes	No
17. Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

JM 3.1

JM 3.1

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES ☐ additional next page

Samples processed by:

19. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

20. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s):_____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

DATA VERIFICATION REPORT

March 13, 2024

Kris Hinskey
Arcadis of Michigan
28550 Cabot Drive
Suite 500
Novi, MI US 48377

CADENA project ID: E203728
Project: Ford Livonia Transmission Plant - ON-SITE -Soil Gas, Ground water and Soil
Project number: 30167538.401.03
Event Specific Scope of Work References: Sample COC
Laboratory: Eurofins Environment Testing LLC - Cleveland
Laboratory submittal: 200286-1
Sample date: 2024-02-28
Report received by CADENA: 2024-03-13
Initial Data Verification completed by CADENA: 2024-03-13
Number of Samples:5
Sample Matrices:Water and trip blank
Test Categories:GCMS VOC
Please see attached criteria report or sample result/qualified analytical result summary for qualifier flags assigned to sample data.

There were no significant QC anomalies or exceptions to report.

Sample/MS/MSD Surrogate Recovery, Blank/LCS Surrogate Recovery, LCS/LCD Recovery, MS/MSD Recovery, MS/MSD RPD, Blank Contamination and Hold Time Exception were reviewed as part of our verification.

Data verification for the report specified above was completed using the Ford Motor Company Environmental Laboratory Technical Specification, the CADENA Standard Operating Procedure for the Verification of Environmental Analytical Data and the associated analytical methods as references for evaluating the batch QC, sample data and report content. The EPA National Functional Guidelines for validating organic and inorganic data were used as guidance when addressing out of control QC results and the associated data qualifiers.

Analytical results reported between RDL and MDL are flagged 'J' and considered estimated values.

The definitions of the qualifiers used for this data package are defined in the analytical report. CADENA valid qualifiers are defined in the table below. To view and download a PDF copy of the laboratory analytical report access the CADENA CLMS at http://clms.cadenaco.com/index.cfm.

Please contact me if you have any questions.

Sincerely,

Jim Tomalia

Project Scientist

CADENA Valid Qualifiers

Valid Qualifiers	Description
<	Less than the reported concentration.
>	Greater than the reported concentration.
B	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was greater than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the reported concentration. For Inorganic methods the sample concentration was greater than the RDL and less than 10x the blank concentration and is considered non-detect at the reported concentration.
E	The analyte / Compound reported exceeds the calibration range and is considered estimated.
EMPC	Estimated Minimum Potential Contamination - Dioxin/Furan analyses only.
J	Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of an analyte / compound but the result is less than the sample Quantitation limit, but greater than zero. The flag is also used in data validation to indicate a reported value should be considered estimated due to associated quality assurance deficiencies.
J-	The result is an estimated quantity, but the result may be biased low.
JB	NON-DETECT AT THE CONCENTRATION REPORTED AND ESTIMATED
JH	The sample result is considered estimated and is potentially biased high.
JL	The sample result is considered estimated and is potentially biased low.
JUB	NON-DETECT AT THE REPORTING LIMIT AND ESTIMATED
NJ	Tentatively identified compound with approximated concentration.
R	Indicates the value is considered to be unusable. (Note: The analyte / compound may or may not be present.)
TNTC	Too Numerous to Count - Asbestos and Microbiological Results.
U	Indicates that the analyte / compound was analyzed for, but not detected.
UB	The analyte / compound was detected in the associated blank. For Organic methods the sample concentration was less than the RDL and less than 5x (or 10x for common lab contaminates) the blank concentration and is considered non-detect at the RDL. For Inorganic methods the sample concentration was less than the RDL and less than 10x the blank concentration and is considered non-detect at the RDL.
UJ	The analyte / compound was not detected above the reported sample Quantitation limit. However, the Quantitation limit is considered to be approximate due to associated quality assurance results and may or may not represent the actual limit of Quantitation to accurately and precisely report the analyte in the sample.

Analytical Results Summary

CADENA Project ID: E203728
Laboratory: Eurofins Environment Testing LLC - Cleveland
Laboratory Submittal: 200286-1

		Sample Name:	TRIP BLANK_45				MW-03_022824				MW-04_022824				MW-197S_022824				DUP-01			
		Lab Sample ID:	2402002861				2402002862				2402002863				2402002864				2402002865			
		Sample Date:	2/28/2024				2/28/2024				2/28/2024				2/28/2024				2/28/2024			
Analyte	Cas No.		Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier	Result	Report Limit	Units	Valid Qualifier
GC/MS VOC																						
OSW-8260D																						
1,1-Dichloroethene	75-35-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	200	ug/l	---	ND	1.0	ug/l	---	ND	200	ug/l	---
cis-1,2-Dichloroethene	156-59-2		ND	1.0	ug/l	---	ND	1.0	ug/l	---	5800	200	ug/l	---	17	1.0	ug/l	---	5800	200	ug/l	---
Tetrachloroethene	127-18-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	ND	200	ug/l	---	ND	1.0	ug/l	---	ND	200	ug/l	---
trans-1,2-Dichloroethene	156-60-5		ND	1.0	ug/l	---	ND	1.0	ug/l	---	200	200	ug/l	---	1.0	1.0	ug/l	---	180	200	ug/l	J
Trichloroethene	79-01-6		ND	1.0	ug/l	---	ND	1.0	ug/l	---	370	200	ug/l	---	61	4.0	ug/l	---	350	200	ug/l	---
Vinyl chloride	75-01-4		ND	1.0	ug/l	---	ND	1.0	ug/l	---	2700	200	ug/l	---	2.2	1.0	ug/l	---	2300	200	ug/l	---
OSW-8260DSIM																						
1,4-Dioxane	123-91-1						ND	2.0	ug/l	---	2.2	2.0	ug/l	---	ND	2.0	ug/l	---	2.1	2.0	ug/l	---