

ANALYTICAL REPORT

Eurofins Canton
180 S. Van Buren Avenue
Barberton, OH 44203
Tel: (330)497-9396

Laboratory Job ID: 240-163172-1
Client Project/Site: Ford LTP - On-Site

For:
ARCADIS U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, Michigan 48377

Attn: Kristoffer Hinskey



Authorized for release by:
3/16/2022 3:01:05 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

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

Job ID: 240-163172-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
α	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

Case Narrative

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

Job ID: 240-163172-1

Job ID: 240-163172-1

Laboratory: Eurofins Canton

Narrative

**Job Narrative
240-163172-1**

Comments

No additional comments.

Receipt

The samples were received on 3/2/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 3.7° C.

GC/MS VOA

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

VOA Prep

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

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Method Summary

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

Job ID: 240-163172-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
8260B SIM	Volatile Organic Compounds (GC/MS)	SW846	TAL CAN
5030B	Purge and Trap	SW846	TAL CAN

Protocol References:

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

Laboratory References:

TAL CAN = Eurofins Canton, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

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Sample Summary

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

Job ID: 240-163172-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-163172-1	TRIP BLANK_26	Water	02/23/22 00:00	03/02/22 08:00
240-163172-2	MW-46_022322	Water	02/23/22 16:20	03/02/22 08:00
240-163172-3	MW-47_022322	Water	02/23/22 13:25	03/02/22 08:00
240-163172-4	MW-68_022322	Water	02/23/22 11:45	03/02/22 08:00
240-163172-5	MW-70_022422	Water	02/24/22 11:55	03/02/22 08:00
240-163172-6	MW-45_022422	Water	02/24/22 13:30	03/02/22 08:00
240-163172-7	DUP-03	Water	02/24/22 00:00	03/02/22 08:00
240-163172-8	MW-58_022422	Water	02/24/22 15:52	03/02/22 08:00
240-163172-9	MW-219S_022522	Water	02/25/22 11:55	03/02/22 08:00
240-163172-10	MW-25_022522	Water	02/25/22 15:06	03/02/22 08:00
240-163172-11	TRIP BLANK_125	Water	02/25/22 00:00	03/02/22 08:00

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Detection Summary

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

Job ID: 240-163172-1

Client Sample ID: TRIP BLANK_26

Lab Sample ID: 240-163172-1

No Detections.

Client Sample ID: MW-46_022322

Lab Sample ID: 240-163172-2

No Detections.

Client Sample ID: MW-47_022322

Lab Sample ID: 240-163172-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.69	J	1.0	0.46	ug/L	1		8260B	Total/NA
Vinyl chloride	0.76	J	1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-68_022322

Lab Sample ID: 240-163172-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	32		1.0	0.46	ug/L	1		8260B	Total/NA
trans-1,2-Dichloroethene	4.9		1.0	0.51	ug/L	1		8260B	Total/NA
Vinyl chloride	1.2		1.0	0.45	ug/L	1		8260B	Total/NA

Client Sample ID: MW-70_022422

Lab Sample ID: 240-163172-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.4	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	190		13	5.8	ug/L	12.5		8260B	Total/NA
Vinyl chloride	400		13	5.6	ug/L	12.5		8260B	Total/NA

Client Sample ID: MW-45_022422

Lab Sample ID: 240-163172-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	76		13	5.8	ug/L	12.5		8260B	Total/NA
Vinyl chloride	410		13	5.6	ug/L	12.5		8260B	Total/NA

Client Sample ID: DUP-03

Lab Sample ID: 240-163172-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	77		13	5.8	ug/L	12.5		8260B	Total/NA
Vinyl chloride	400		13	5.6	ug/L	12.5		8260B	Total/NA

Client Sample ID: MW-58_022422

Lab Sample ID: 240-163172-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	4.5		2.0	0.86	ug/L	1		8260B SIM	Total/NA

Client Sample ID: MW-219S_022522

Lab Sample ID: 240-163172-9

No Detections.

Client Sample ID: MW-25_022522

Lab Sample ID: 240-163172-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.4	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA

Client Sample ID: TRIP BLANK_125

Lab Sample ID: 240-163172-11

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: TRIP BLANK_26

Lab Sample ID: 240-163172-1

Date Collected: 02/23/22 00:00

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B - Volatile Organic Compounds (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			03/03/22 16:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 16:40	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 16:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 16:40	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 16:40	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 16:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		62 - 137		03/03/22 16:40	1
4-Bromofluorobenzene (Surr)	101		56 - 136		03/03/22 16:40	1
Toluene-d8 (Surr)	101		78 - 122		03/03/22 16:40	1
Dibromofluoromethane (Surr)	105		73 - 120		03/03/22 16:40	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-46_022322

Lab Sample ID: 240-163172-2

Date Collected: 02/23/22 16:20

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B 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			03/04/22 23:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		66 - 120		03/04/22 23:35	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 17:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 17:05	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 17:05	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:05	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 17:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		62 - 137		03/03/22 17:05	1
4-Bromofluorobenzene (Surr)	104		56 - 136		03/03/22 17:05	1
Toluene-d8 (Surr)	103		78 - 122		03/03/22 17:05	1
Dibromofluoromethane (Surr)	109		73 - 120		03/03/22 17:05	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-47_022322

Lab Sample ID: 240-163172-3

Date Collected: 02/23/22 13:25

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B 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			03/04/22 23:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 120		03/04/22 23:59	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 17:30	1
cis-1,2-Dichloroethene	0.69	J	1.0	0.46	ug/L			03/03/22 17:30	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 17:30	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:30	1
Vinyl chloride	0.76	J	1.0	0.45	ug/L			03/03/22 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		62 - 137		03/03/22 17:30	1
4-Bromofluorobenzene (Surr)	102		56 - 136		03/03/22 17:30	1
Toluene-d8 (Surr)	102		78 - 122		03/03/22 17:30	1
Dibromofluoromethane (Surr)	108		73 - 120		03/03/22 17:30	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-68_022322

Lab Sample ID: 240-163172-4

Date Collected: 02/23/22 11:45

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B 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			03/05/22 00:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	77		66 - 120					03/05/22 00:24	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 17:55	1
cis-1,2-Dichloroethene	32		1.0	0.46	ug/L			03/03/22 17:55	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:55	1
trans-1,2-Dichloroethene	4.9		1.0	0.51	ug/L			03/03/22 17:55	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 17:55	1
Vinyl chloride	1.2		1.0	0.45	ug/L			03/03/22 17:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		62 - 137					03/03/22 17:55	1
4-Bromofluorobenzene (Surr)	101		56 - 136					03/03/22 17:55	1
Toluene-d8 (Surr)	102		78 - 122					03/03/22 17:55	1
Dibromofluoromethane (Surr)	111		73 - 120					03/03/22 17:55	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-70_022422

Lab Sample ID: 240-163172-5

Date Collected: 02/24/22 11:55

Matrix: Water

Date Received: 03/02/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.4	J	2.0	0.86	ug/L			03/05/22 00:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	81		66 - 120					03/05/22 00:49	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	13	U	13	6.1	ug/L			03/03/22 18:20	12.5
cis-1,2-Dichloroethene	190		13	5.8	ug/L			03/03/22 18:20	12.5
Tetrachloroethene	13	U	13	5.5	ug/L			03/03/22 18:20	12.5
trans-1,2-Dichloroethene	13	U	13	6.4	ug/L			03/03/22 18:20	12.5
Trichloroethene	13	U	13	5.5	ug/L			03/03/22 18:20	12.5
Vinyl chloride	400		13	5.6	ug/L			03/03/22 18:20	12.5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		62 - 137					03/03/22 18:20	12.5
4-Bromofluorobenzene (Surr)	101		56 - 136					03/03/22 18:20	12.5
Toluene-d8 (Surr)	102		78 - 122					03/03/22 18:20	12.5
Dibromofluoromethane (Surr)	106		73 - 120					03/03/22 18:20	12.5

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-45_022422

Lab Sample ID: 240-163172-6

Date Collected: 02/24/22 13:30

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B 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			03/05/22 01:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120					03/05/22 01:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	13	U	13	6.1	ug/L			03/03/22 18:45	12.5
cis-1,2-Dichloroethene	76		13	5.8	ug/L			03/03/22 18:45	12.5
Tetrachloroethene	13	U	13	5.5	ug/L			03/03/22 18:45	12.5
trans-1,2-Dichloroethene	13	U	13	6.4	ug/L			03/03/22 18:45	12.5
Trichloroethene	13	U	13	5.5	ug/L			03/03/22 18:45	12.5
Vinyl chloride	410		13	5.6	ug/L			03/03/22 18:45	12.5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		62 - 137					03/03/22 18:45	12.5
4-Bromofluorobenzene (Surr)	100		56 - 136					03/03/22 18:45	12.5
Toluene-d8 (Surr)	102		78 - 122					03/03/22 18:45	12.5
Dibromofluoromethane (Surr)	106		73 - 120					03/03/22 18:45	12.5

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: DUP-03
Date Collected: 02/24/22 00:00
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-7
Matrix: Water

Method: 8260B 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			03/05/22 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 120					03/05/22 01:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	13	U	13	6.1	ug/L			03/03/22 19:10	12.5
cis-1,2-Dichloroethene	77		13	5.8	ug/L			03/03/22 19:10	12.5
Tetrachloroethene	13	U	13	5.5	ug/L			03/03/22 19:10	12.5
trans-1,2-Dichloroethene	13	U	13	6.4	ug/L			03/03/22 19:10	12.5
Trichloroethene	13	U	13	5.5	ug/L			03/03/22 19:10	12.5
Vinyl chloride	400		13	5.6	ug/L			03/03/22 19:10	12.5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		62 - 137					03/03/22 19:10	12.5
4-Bromofluorobenzene (Surr)	100		56 - 136					03/03/22 19:10	12.5
Toluene-d8 (Surr)	102		78 - 122					03/03/22 19:10	12.5
Dibromofluoromethane (Surr)	106		73 - 120					03/03/22 19:10	12.5

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-58_022422

Lab Sample ID: 240-163172-8

Date Collected: 02/24/22 15:52

Matrix: Water

Date Received: 03/02/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	4.5		2.0	0.86	ug/L			03/05/22 02:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	78		66 - 120		03/05/22 02:04	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 19:35	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 19:35	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 19:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 19:35	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 19:35	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		62 - 137		03/03/22 19:35	1
4-Bromofluorobenzene (Surr)	102		56 - 136		03/03/22 19:35	1
Toluene-d8 (Surr)	102		78 - 122		03/03/22 19:35	1
Dibromofluoromethane (Surr)	105		73 - 120		03/03/22 19:35	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-219S_022522

Lab Sample ID: 240-163172-9

Date Collected: 02/25/22 11:55

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B 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			03/04/22 21:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	79		66 - 120					03/04/22 21:30	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 20:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 20:00	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 20:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 20:00	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 20:00	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		62 - 137					03/03/22 20:00	1
4-Bromofluorobenzene (Surr)	102		56 - 136					03/03/22 20:00	1
Toluene-d8 (Surr)	102		78 - 122					03/03/22 20:00	1
Dibromofluoromethane (Surr)	104		73 - 120					03/03/22 20:00	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: MW-25_022522

Lab Sample ID: 240-163172-10

Date Collected: 02/25/22 15:06

Matrix: Water

Date Received: 03/02/22 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.4	J	2.0	0.86	ug/L			03/09/22 02:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	80		66 - 120		03/09/22 02:48	1

Method: 8260B - Volatile Organic Compounds (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			03/03/22 21:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 21:16	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 21:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 21:16	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 21:16	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		62 - 137		03/03/22 21:16	1
4-Bromofluorobenzene (Surr)	99		56 - 136		03/03/22 21:16	1
Toluene-d8 (Surr)	99		78 - 122		03/03/22 21:16	1
Dibromofluoromethane (Surr)	103		73 - 120		03/03/22 21:16	1

Client Sample Results

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

Job ID: 240-163172-1

Client Sample ID: TRIP BLANK_125

Lab Sample ID: 240-163172-11

Date Collected: 02/25/22 00:00

Matrix: Water

Date Received: 03/02/22 08:00

Method: 8260B - Volatile Organic Compounds (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			03/03/22 16:15	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 16:15	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 16:15	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 16:15	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 16:15	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 16:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		62 - 137		03/03/22 16:15	1
4-Bromofluorobenzene (Surr)	103		56 - 136		03/03/22 16:15	1
Toluene-d8 (Surr)	103		78 - 122		03/03/22 16:15	1
Dibromofluoromethane (Surr)	106		73 - 120		03/03/22 16:15	1

Surrogate Summary

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

Job ID: 240-163172-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (62-137)	BFB (56-136)	TOL (78-122)	DBFM (73-120)
240-163172-1	TRIP BLANK_26	91	101	101	105
240-163172-2	MW-46_022322	94	104	103	109
240-163172-3	MW-47_022322	91	102	102	108
240-163172-4	MW-68_022322	93	101	102	111
240-163172-5	MW-70_022422	92	101	102	106
240-163172-6	MW-45_022422	94	100	102	106
240-163172-7	DUP-03	94	100	102	106
240-163172-8	MW-58_022422	93	102	102	105
240-163172-9	MW-219S_022522	92	102	102	104
240-163172-9 MS	MW-219S-MS_022522	84	100	104	95
240-163172-9 MSD	MW-219S-MSD_022522	83	101	104	95
240-163172-10	MW-25_022522	91	99	99	103
240-163172-11	TRIP BLANK_125	92	103	103	106
LCS 240-519064/6	Lab Control Sample	85	99	102	98
LCS 240-519064/9	Lab Control Sample Dup	86	104	105	98
MB 240-519064/10	Method Blank	95	103	103	110

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		DCA (66-120)
240-163172-2	MW-46_022322	83
240-163172-3	MW-47_022322	79
240-163172-4	MW-68_022322	77
240-163172-5	MW-70_022422	81
240-163172-6	MW-45_022422	80
240-163172-7	DUP-03	79
240-163172-8	MW-58_022422	78
240-163172-9	MW-219S_022522	79
240-163172-9 MS	MW-219S-MS_022522	80
240-163172-9 MSD	MW-219S-MSD_022522	79
240-163172-10	MW-25_022522	80
240-163307-G-3 MS	Matrix Spike	82
240-163307-M-3 MSD	Matrix Spike Duplicate	82
LCS 240-519224/5	Lab Control Sample	79
LCS 240-519472/4	Lab Control Sample	80
MB 240-519224/6	Method Blank	79
MB 240-519472/5	Method Blank	80

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-163172-1

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

Lab Sample ID: MB 240-519064/10
Matrix: Water
Analysis Batch: 519064

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			03/03/22 12:55	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.46	ug/L			03/03/22 12:55	1
Tetrachloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 12:55	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.51	ug/L			03/03/22 12:55	1
Trichloroethene	1.0	U	1.0	0.44	ug/L			03/03/22 12:55	1
Vinyl chloride	1.0	U	1.0	0.45	ug/L			03/03/22 12:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		62 - 137		03/03/22 12:55	1
4-Bromofluorobenzene (Surr)	103		56 - 136		03/03/22 12:55	1
Toluene-d8 (Surr)	103		78 - 122		03/03/22 12:55	1
Dibromofluoromethane (Surr)	110		73 - 120		03/03/22 12:55	1

Lab Sample ID: LCS 240-519064/6
Matrix: Water
Analysis Batch: 519064

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	20.0	25.3		ug/L		126	63 - 134
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	77 - 123
Tetrachloroethene	20.0	19.9		ug/L		99	76 - 123
trans-1,2-Dichloroethene	20.0	23.1		ug/L		116	75 - 124
Trichloroethene	20.0	20.9		ug/L		105	70 - 122
Vinyl chloride	20.0	22.1		ug/L		110	60 - 144

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	85		62 - 137
4-Bromofluorobenzene (Surr)	99		56 - 136
Toluene-d8 (Surr)	102		78 - 122
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: LCSD 240-519064/9
Matrix: Water
Analysis Batch: 519064

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	20.0	23.5		ug/L		117	63 - 134	7	35
cis-1,2-Dichloroethene	20.0	19.9		ug/L		99	77 - 123	9	35
Tetrachloroethene	20.0	17.6		ug/L		88	76 - 123	12	35
trans-1,2-Dichloroethene	20.0	20.7		ug/L		104	75 - 124	11	35
Trichloroethene	20.0	18.9		ug/L		95	70 - 122	10	35
Vinyl chloride	20.0	20.8		ug/L		104	60 - 144	6	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	86		62 - 137
4-Bromofluorobenzene (Surr)	104		56 - 136
Toluene-d8 (Surr)	105		78 - 122

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QC Sample Results

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

Job ID: 240-163172-1

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

Lab Sample ID: LCSD 240-519064/9
Matrix: Water
Analysis Batch: 519064

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

	LCS D	LCS D	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	98		73 - 120

Lab Sample ID: 240-163172-9 MS
Matrix: Water
Analysis Batch: 519064

Client Sample ID: MW-219S-MS_022522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	1.0	U	20.0	20.4		ug/L		102	56 - 135
cis-1,2-Dichloroethene	1.0	U	20.0	17.4		ug/L		87	66 - 128
Tetrachloroethene	1.0	U	20.0	16.2		ug/L		81	62 - 131
trans-1,2-Dichloroethene	1.0	U	20.0	18.0		ug/L		90	56 - 136
Trichloroethene	1.0	U	20.0	16.7		ug/L		84	61 - 124
Vinyl chloride	1.0	U	20.0	15.4		ug/L		77	43 - 157

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	84		62 - 137
4-Bromofluorobenzene (Surr)	100		56 - 136
Toluene-d8 (Surr)	104		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

Lab Sample ID: 240-163172-9 MSD
Matrix: Water
Analysis Batch: 519064

Client Sample ID: MW-219S-MSD_022522
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	1.0	U	20.0	21.4		ug/L		107	56 - 135	5	26
cis-1,2-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	66 - 128	8	14
Tetrachloroethene	1.0	U	20.0	17.6		ug/L		88	62 - 131	9	20
trans-1,2-Dichloroethene	1.0	U	20.0	19.4		ug/L		97	56 - 136	7	15
Trichloroethene	1.0	U	20.0	18.1		ug/L		90	61 - 124	8	15
Vinyl chloride	1.0	U	20.0	16.0		ug/L		80	43 - 157	4	24

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	83		62 - 137
4-Bromofluorobenzene (Surr)	101		56 - 136
Toluene-d8 (Surr)	104		78 - 122
Dibromofluoromethane (Surr)	95		73 - 120

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

Lab Sample ID: MB 240-519224/6
Matrix: Water
Analysis Batch: 519224

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			03/04/22 16:28	1

QC Sample Results

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

Job ID: 240-163172-1

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

Lab Sample ID: MB 240-519224/6
Matrix: Water
Analysis Batch: 519224

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

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	79		66 - 120		03/04/22 16:28	1

Lab Sample ID: LCS 240-519224/5
Matrix: Water
Analysis Batch: 519224

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,4-Dioxane	10.0	9.43		ug/L		94	80 - 122
Surrogate	LCS LCS		Limits				
%Recovery	Qualifier						
1,2-Dichloroethane-d4 (Surr)	79		66 - 120				

Lab Sample ID: 240-163172-9 MS
Matrix: Water
Analysis Batch: 519224

Client Sample ID: MW-219S-MS_022522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
1,4-Dioxane	2.0	U	10.0	10.5		ug/L		105	51 - 153
Surrogate	MS MS		Limits						
%Recovery	Qualifier								
1,2-Dichloroethane-d4 (Surr)	80		66 - 120						

Lab Sample ID: 240-163172-9 MSD
Matrix: Water
Analysis Batch: 519224

Client Sample ID: MW-219S-MSD_022522
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec. Limits	RPD	Limit
				Result	Qualifier						
1,4-Dioxane	2.0	U	10.0	10.6		ug/L		106	51 - 153	1	16
Surrogate	MSD MSD		Limits								
%Recovery	Qualifier										
1,2-Dichloroethane-d4 (Surr)	79		66 - 120								

Lab Sample ID: MB 240-519472/5
Matrix: Water
Analysis Batch: 519472

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,4-Dioxane	2.0	U	2.0	0.86	ug/L			03/08/22 22:14	1
Surrogate	MB MB		Limits						
%Recovery	Qualifier								
1,2-Dichloroethane-d4 (Surr)	80		66 - 120						

QC Sample Results

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

Job ID: 240-163172-1

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

Lab Sample ID: LCS 240-519472/4
Matrix: Water
Analysis Batch: 519472

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	9.05		ug/L		90	80 - 122
Surrogate							
	%Recovery	LCS Qualifier	LCS Limits				
1,2-Dichloroethane-d4 (Surr)	80		66 - 120				

Lab Sample ID: 240-163307-G-3 MS
Matrix: Water
Analysis Batch: 519472

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	10.0	10.1		ug/L		101	51 - 153
Surrogate									
	%Recovery	MS Qualifier	MS Limits						
1,2-Dichloroethane-d4 (Surr)	82		66 - 120						

Lab Sample ID: 240-163307-M-3 MSD
Matrix: Water
Analysis Batch: 519472

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	10.0	10.5		ug/L		105	51 - 153	4	16
Surrogate											
	%Recovery	MSD Qualifier	MSD Limits								
1,2-Dichloroethane-d4 (Surr)	82		66 - 120								

QC Association Summary

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

Job ID: 240-163172-1

GC/MS VOA

Analysis Batch: 519064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163172-1	TRIP BLANK_26	Total/NA	Water	8260B	
240-163172-2	MW-46_022322	Total/NA	Water	8260B	
240-163172-3	MW-47_022322	Total/NA	Water	8260B	
240-163172-4	MW-68_022322	Total/NA	Water	8260B	
240-163172-5	MW-70_022422	Total/NA	Water	8260B	
240-163172-6	MW-45_022422	Total/NA	Water	8260B	
240-163172-7	DUP-03	Total/NA	Water	8260B	
240-163172-8	MW-58_022422	Total/NA	Water	8260B	
240-163172-9	MW-219S_022522	Total/NA	Water	8260B	
240-163172-10	MW-25_022522	Total/NA	Water	8260B	
240-163172-11	TRIP BLANK_125	Total/NA	Water	8260B	
MB 240-519064/10	Method Blank	Total/NA	Water	8260B	
LCS 240-519064/6	Lab Control Sample	Total/NA	Water	8260B	
LCS 240-519064/9	Lab Control Sample Dup	Total/NA	Water	8260B	
240-163172-9 MS	MW-219S-MS_022522	Total/NA	Water	8260B	
240-163172-9 MSD	MW-219S-MSD_022522	Total/NA	Water	8260B	

Analysis Batch: 519224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163172-2	MW-46_022322	Total/NA	Water	8260B SIM	
240-163172-3	MW-47_022322	Total/NA	Water	8260B SIM	
240-163172-4	MW-68_022322	Total/NA	Water	8260B SIM	
240-163172-5	MW-70_022422	Total/NA	Water	8260B SIM	
240-163172-6	MW-45_022422	Total/NA	Water	8260B SIM	
240-163172-7	DUP-03	Total/NA	Water	8260B SIM	
240-163172-8	MW-58_022422	Total/NA	Water	8260B SIM	
240-163172-9	MW-219S_022522	Total/NA	Water	8260B SIM	
MB 240-519224/6	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-519224/5	Lab Control Sample	Total/NA	Water	8260B SIM	
240-163172-9 MS	MW-219S-MS_022522	Total/NA	Water	8260B SIM	
240-163172-9 MSD	MW-219S-MSD_022522	Total/NA	Water	8260B SIM	

Analysis Batch: 519472

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-163172-10	MW-25_022522	Total/NA	Water	8260B SIM	
MB 240-519472/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-519472/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-163307-G-3 MS	Matrix Spike	Total/NA	Water	8260B SIM	
240-163307-M-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B SIM	

Lab Chronicle

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

Job ID: 240-163172-1

Client Sample ID: TRIP BLANK_26
Date Collected: 02/23/22 00:00
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 16:40	HMB	TAL CAN

Client Sample ID: MW-46_022322
Date Collected: 02/23/22 16:20
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 17:05	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/04/22 23:35	CS	TAL CAN

Client Sample ID: MW-47_022322
Date Collected: 02/23/22 13:25
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 17:30	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/04/22 23:59	CS	TAL CAN

Client Sample ID: MW-68_022322
Date Collected: 02/23/22 11:45
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 17:55	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/05/22 00:24	CS	TAL CAN

Client Sample ID: MW-70_022422
Date Collected: 02/24/22 11:55
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		12.5	519064	03/03/22 18:20	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/05/22 00:49	CS	TAL CAN

Client Sample ID: MW-45_022422
Date Collected: 02/24/22 13:30
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		12.5	519064	03/03/22 18:45	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/05/22 01:14	CS	TAL CAN

Lab Chronicle

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

Job ID: 240-163172-1

Client Sample ID: DUP-03
Date Collected: 02/24/22 00:00
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		12.5	519064	03/03/22 19:10	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/05/22 01:39	CS	TAL CAN

Client Sample ID: MW-58_022422
Date Collected: 02/24/22 15:52
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 19:35	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/05/22 02:04	CS	TAL CAN

Client Sample ID: MW-219S_022522
Date Collected: 02/25/22 11:55
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 20:00	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519224	03/04/22 21:30	CS	TAL CAN

Client Sample ID: MW-25_022522
Date Collected: 02/25/22 15:06
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 21:16	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	519472	03/09/22 02:48	CS	TAL CAN

Client Sample ID: TRIP BLANK_125
Date Collected: 02/25/22 00:00
Date Received: 03/02/22 08:00

Lab Sample ID: 240-163172-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	519064	03/03/22 16:15	HMB	TAL CAN

Laboratory References:

TAL CAN = Eurofins Canton, 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: 240-163172-1

Laboratory: Eurofins Canton

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	02-23-22 *
Connecticut	State	PH-0590	12-31-21 *
Florida	NELAP	E87225	06-30-22
Georgia	State	4062	02-23-22 *
Illinois	NELAP	200004	07-31-22
Iowa	State	421	06-01-23
Kansas	NELAP	E-10336	04-30-22
Kentucky (UST)	State	112225	02-23-22 *
Kentucky (WW)	State	KY98016	12-31-22
Minnesota	NELAP	039-999-348	12-31-22
Minnesota (Petrofund)	State	3506	08-01-23
New Jersey	NELAP	OH001	11-06-22
New York	NELAP	10975	03-31-22
Ohio	State	8303	02-23-23
Ohio VAP	State	CL0024	02-27-23
Oregon	NELAP	4062	02-27-23
Pennsylvania	NELAP	68-00340	08-31-22
Texas	NELAP	T104704517-21-14	08-31-22
Virginia	NELAP	11570	09-14-22
Washington	State	C971	01-12-23
West Virginia DEP	State	210	12-31-22

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

Eurofins Canton

Chain of Custody Record

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

Client Contact Company Name: Arcadis Address: 2850 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377 Phone: 248-994-2240 Project Name: Ford I,TP On-Site Project Number: 30080642.401.03 PO # 30080642.401.03		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other		Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: krisoffer.hinskey@arcadis.com		Lab Contact: Mike DelMonico Telephone: 330-497-9396		TestAmerica Laboratories, Inc. COC No: _____ of _____ COCs For lab use only					
Sampler Name: Samantha Kinde		Analysis Turnaround Time TAT if different from below: 10 day <input checked="" type="checkbox"/> 3 weeks 1 week <input type="checkbox"/> 2 weeks 2 days <input type="checkbox"/> 1 day		Containers & Preservatives HCl <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> Other: _____ NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> NaOH <input type="checkbox"/> Other: _____ Laps <input type="checkbox"/> Other: _____		Matrix Air <input type="checkbox"/> Sediment <input type="checkbox"/> Solid <input type="checkbox"/> Other: _____ Aqueous <input type="checkbox"/>		Filtered Sample (Y/N) Composite=C / Grab=G		Analyses 1,1-DCE 8260B <input type="checkbox"/> Trans-1,2-DCE 8260B <input type="checkbox"/> PCE 8260B <input type="checkbox"/> TCE 8260B <input type="checkbox"/> Vinyl Chloride 8260B <input type="checkbox"/> 1,4-Dioxane 8260B SIM <input type="checkbox"/>		Walk-in client <input type="checkbox"/> Lab sampling <input type="checkbox"/> Job/SDG No: _____	
Sample Date Sample Time		Sample Identification		Sample Specific Notes / Special Instructions:		1 Trip Blank 3 VOAs for 8260B 3 VOAs for 8260B SIM		1 Trip Blank 3 VOAs for 8260B 3 VOAs for 8260B SIM					
---	---	---	---	---	---	---	---	---	---				
2/23/22	16:20	MW-46-022322		X	X	X	X	X	X	X	X	X	X
2/23/22	13:25	MW-47-022322		X	X	X	X	X	X	X	X	X	X
2/23/22	11:45	MW-68-022322		X	X	X	X	X	X	X	X	X	X
2/24/22	11:55	MW-70-022422		X	X	X	X	X	X	X	X	X	X
2/24/22	19:30	MW-45-022422		X	X	X	X	X	X	X	X	X	X
2/24/22	---	DUP-03- 022422 AH 3/1/22		X	X	X	X	X	X	X	X	X	X
2/24/22	15:52	MW-58-022422		X	X	X	X	X	X	X	X	X	X
2/25/22	11:55	MW-219S-022522		X	X	X	X	X	X	X	X	X	X
2/25/22	11:56	MW-219S-HS-022522		X	X	X	X	X	X	X	X	X	X
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritant <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Received by: <i>NONI COID STRAINE</i> Date/Time: 2/25/22 16:20 Company: AREAPIS		Received by: <i>Judy R</i> Date/Time: 3/1/22 15:40 Company: EETA		Received in Laboratory by: <i>Judy R</i> Date/Time: 3/1/22 Company: EETA					



240-163172 Chain of Custody

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Chain of Custody Record

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

Client Contact Company Name: Arcadis Address: 28550 Cabot Drive, Suite 500 City/State/Zip: Novi, MI, 48377 Phone: 248-994-2240 Project Name: Ford LTP On-Site Project Number: 30080642.401.03 PO # 30080642.401.03		Regulatory program: <input type="checkbox"/> DW <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> Other	
Client Project Manager: Kris Hinskey Telephone: 248-994-2240 Email: kristoffer.hinskey@arcadis.com		Lab Contact: Mike DeMontico Telephone: 330-497-9396	
Sampler Name: Samantha Hinkle Method of Shipment/Carrier: Shipping/Tracking No.:		Analyses Turnaround Time TAT if different from below: <input type="checkbox"/> 3 weeks <input checked="" type="checkbox"/> 2 weeks <input type="checkbox"/> 1 week <input type="checkbox"/> 2 days <input type="checkbox"/> 1 day 10 day	
Sample Identification Sample Date Sample Time TRIP BLANK_125 MW-219S-MSD-022522 2/25/22 11:59 MW-25-022522 2/25/22 15:06		Filtered Sample (Y/N) Composite=C / Grab=G 1,1-DCE 8260B X Cis-1,2-DCE 8260B X Trans-1,2-DCE 8260B X PCE 8260B X TCE 8260B X Vinyl Chloride 8260B X 1,4-Dioxane 8260B SIM X	
Matrix Air X Aqueous X Sediment X Solid X Other:		Containers & Preservatives H2SO4 1 HNO3 6 HCl 6 NaOH 6 ZnAc 6 NaOH 6 Other:	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> 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: Samantha Hinkle Relinquished by: A. Hinkle Relinquished by: A. Hinkle		Received by: NDVI COP STORAGE Received by: A. Hinkle Received in Laboratory by: A. Hinkle	
Company: Arcadis Date/Time: 2/25/22 16:20 Company: ATCO-d15 Date/Time: 3/11/22 1540 Company: EENA Date/Time: 3/1/22		Company: Arcadis Date/Time: 2/25/22 16:20 Company: EENA Date/Time: 3/1/22 Company: EETNC Date/Time: 3-2-22 800	

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative Login # : _____
Canton Facility

Client Arcadis Site Name _____ Cooler unpacked by: Vanny Ryege
Cooler Received on 3-2-22 Opened on 3-2-22
FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____


Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 7A 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# IR-14 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. X °C 3/17/22
IR GUN #IR-15 (CF -0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °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
-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# HC157842
14. Were VOAs on the COC? Yes No
15. Were air bubbles >6 mm in any VOA vials? Yes  ← Larger than this. Yes No NA
16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # 60358 Yes No
17. Was a LL Hg or Me Hg trip blank present? Yes No

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

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

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: _____

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Login #: 163172

Eurofins TestAmerica Canton Sample Receipt Multiple Cooler Form

Cooler Description (Circle)				IR Gun # (Circle)		Observed Temp °C	Corrected Temp °C	Coolant (Circle)		
TA	Client	Box	Other	IR-14	IR-15	3.9	3.7	Wet Ice	Blue Ice	Dry Ice
TA	Client	Box	Other	IR-14	IR-15	3.4	3.2	Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
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TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
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TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
TA	Client	Box	Other	IR-14	IR-15			Water	None	
<input type="checkbox"/> See Temperature Excursion Form										

W1-NC-099 Cooler Receipt Form Page 2 - Multiple Coolers