

ANALYTICAL REPORT

Eurofins TestAmerica, Canton
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Tel: (330)497-9396

Laboratory Job ID: 240-139757-1
Client Project/Site: Ford LTP - On Site

For:
ARCADIS U.S., Inc.
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Attn: Kristoffer Hinskey



Authorized for release by:
11/23/2020 10:40:35 AM

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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: 240-139757-1

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: 240-139757-1

Job ID: 240-139757-1

Laboratory: Eurofins TestAmerica, Canton

Narrative

CASE NARRATIVE

Client: ARCADIS U.S., Inc.

Project: Ford LTP - On Site

Report Number: 240-139757-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Eurofins TestAmerica, Canton attests to the validity of the laboratory data generated by Eurofins TestAmerica facilities reported herein. All analyses performed by Eurofins TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

RECEIPT

The samples were received on 11/7/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples TRIP BLANK (240-139757-1), LMW-20-26_110520 (240-139757-2), LMW-20-27_110520 (240-139757-3), MW-51_110520 (240-139757-4), TW-16-04_110520 (240-139757-5), PW-16-02_110520 (240-139757-6) and TW-16-02_110520 (240-139757-7) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 11/17/2020 and 11/18/2020.

Samples LMW-20-26_110520 (240-139757-2)[2.5X], LMW-20-27_110520 (240-139757-3)[5X], PW-16-02_110520 (240-139757-6)[2.5X] and TW-16-02_110520 (240-139757-7)[250X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

VOLATILE ORGANIC COMPOUNDS (GCMS SIM)

Samples LMW-20-26_110520 (240-139757-2), LMW-20-27_110520 (240-139757-3), MW-51_110520 (240-139757-4), TW-16-04_110520 (240-139757-5), PW-16-02_110520 (240-139757-6) and TW-16-02_110520 (240-139757-7) were analyzed for volatile organic compounds (GCMS SIM) in accordance with EPA SW-846 Method 8260B SIM. The samples were analyzed on 11/12/2020 and 11/13/2020.

Case Narrative

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

Job ID: 240-139757-1

Job ID: 240-139757-1 (Continued)

Laboratory: Eurofins TestAmerica, Canton (Continued)

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

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Method Summary

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

Job ID: 240-139757-1

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 TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Sample Summary

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

Job ID: 240-139757-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
240-139757-1	TRIP BLANK	Water	11/05/20 00:00	11/07/20 08:00	
240-139757-2	LMW-20-26_110520	Water	11/05/20 09:25	11/07/20 08:00	
240-139757-3	LMW-20-27_110520	Water	11/05/20 10:25	11/07/20 08:00	
240-139757-4	MW-51_110520	Water	11/05/20 11:32	11/07/20 08:00	
240-139757-5	TW-16-04_110520	Water	11/05/20 12:38	11/07/20 08:00	
240-139757-6	PW-16-02_110520	Water	11/05/20 14:48	11/07/20 08:00	
240-139757-7	TW-16-02_110520	Water	11/05/20 15:55	11/07/20 08:00	

Detection Summary

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

Job ID: 240-139757-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-139757-1

No Detections.

Client Sample ID: LMW-20-26_110520

Lab Sample ID: 240-139757-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	0.88	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	120		2.5	0.40	ug/L	2.5		8260B	Total/NA
trans-1,2-Dichloroethene	0.72	J	2.5	0.48	ug/L	2.5		8260B	Total/NA
Trichloroethene	0.42	J	2.5	0.25	ug/L	2.5		8260B	Total/NA
Vinyl chloride	130		2.5	0.50	ug/L	2.5		8260B	Total/NA

Client Sample ID: LMW-20-27_110520

Lab Sample ID: 240-139757-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	3.1		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	120		5.0	0.80	ug/L	5		8260B	Total/NA
trans-1,2-Dichloroethene	1.2	J	5.0	0.95	ug/L	5		8260B	Total/NA
Trichloroethene	47		5.0	0.50	ug/L	5		8260B	Total/NA
Vinyl chloride	16		5.0	1.0	ug/L	5		8260B	Total/NA

Client Sample ID: MW-51_110520

Lab Sample ID: 240-139757-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	2.6		2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	0.23	J	1.0	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	0.38	J	1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: TW-16-04_110520

Lab Sample ID: 240-139757-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	14		1.0	0.16	ug/L	1		8260B	Total/NA
Vinyl chloride	30		1.0	0.20	ug/L	1		8260B	Total/NA

Client Sample ID: PW-16-02_110520

Lab Sample ID: 240-139757-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.1	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	75		2.5	0.40	ug/L	2.5		8260B	Total/NA
trans-1,2-Dichloroethene	0.51	J	2.5	0.48	ug/L	2.5		8260B	Total/NA
Vinyl chloride	120		2.5	0.50	ug/L	2.5		8260B	Total/NA

Client Sample ID: TW-16-02_110520

Lab Sample ID: 240-139757-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.0	J	2.0	0.86	ug/L	1		8260B SIM	Total/NA
cis-1,2-Dichloroethene	980		250	40	ug/L	250		8260B	Total/NA
Vinyl chloride	5100		250	50	ug/L	250		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Canton

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-139757-1

Date Collected: 11/05/20 00:00

Matrix: Water

Date Received: 11/07/20 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	0.19	ug/L			11/17/20 19:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/17/20 19:59	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/17/20 19:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/17/20 19:59	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/17/20 19:59	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/17/20 19:59	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			11/17/20 19:59	1
Naphthalene	1.0	U	1.0	0.32	ug/L			11/17/20 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		75 - 130					11/17/20 19:59	1
4-Bromofluorobenzene (Surr)	100		47 - 134					11/17/20 19:59	1
Toluene-d8 (Surr)	100		69 - 122					11/17/20 19:59	1
Dibromofluoromethane (Surr)	93		78 - 129					11/17/20 19:59	1

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: LMW-20-26_110520

Lab Sample ID: 240-139757-2

Date Collected: 11/05/20 09:25

Matrix: Water

Date Received: 11/07/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	0.88	J	2.0	0.86	ug/L			11/12/20 22:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 133					11/12/20 22:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2.5	U	2.5	0.48	ug/L			11/18/20 11:59	2.5
cis-1,2-Dichloroethene	120		2.5	0.40	ug/L			11/18/20 11:59	2.5
Tetrachloroethene	2.5	U	2.5	0.38	ug/L			11/18/20 11:59	2.5
trans-1,2-Dichloroethene	0.72	J	2.5	0.48	ug/L			11/18/20 11:59	2.5
Trichloroethene	0.42	J	2.5	0.25	ug/L			11/18/20 11:59	2.5
Vinyl chloride	130		2.5	0.50	ug/L			11/18/20 11:59	2.5
2-Methylnaphthalene	13	U	13	6.0	ug/L			11/18/20 11:59	2.5
Naphthalene	2.5	U	2.5	0.80	ug/L			11/18/20 11:59	2.5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 130					11/18/20 11:59	2.5
4-Bromofluorobenzene (Surr)	101		47 - 134					11/18/20 11:59	2.5
Toluene-d8 (Surr)	98		69 - 122					11/18/20 11:59	2.5
Dibromofluoromethane (Surr)	91		78 - 129					11/18/20 11:59	2.5

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: LMW-20-27_110520

Lab Sample ID: 240-139757-3

Date Collected: 11/05/20 10:25

Matrix: Water

Date Received: 11/07/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	3.1		2.0	0.86	ug/L			11/12/20 22:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 133		11/12/20 22:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.0	U	5.0	0.95	ug/L			11/18/20 12:24	5
cis-1,2-Dichloroethene	120		5.0	0.80	ug/L			11/18/20 12:24	5
Tetrachloroethene	5.0	U	5.0	0.75	ug/L			11/18/20 12:24	5
trans-1,2-Dichloroethene	1.2	J	5.0	0.95	ug/L			11/18/20 12:24	5
Trichloroethene	47		5.0	0.50	ug/L			11/18/20 12:24	5
Vinyl chloride	16		5.0	1.0	ug/L			11/18/20 12:24	5
2-Methylnaphthalene	25	U	25	12	ug/L			11/18/20 12:24	5
Naphthalene	5.0	U	5.0	1.6	ug/L			11/18/20 12:24	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		11/18/20 12:24	5
4-Bromofluorobenzene (Surr)	101		47 - 134		11/18/20 12:24	5
Toluene-d8 (Surr)	100		69 - 122		11/18/20 12:24	5
Dibromofluoromethane (Surr)	89		78 - 129		11/18/20 12:24	5

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: MW-51_110520

Lab Sample ID: 240-139757-4

Date Collected: 11/05/20 11:32

Matrix: Water

Date Received: 11/07/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	2.6		2.0	0.86	ug/L			11/13/20 00:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 133					11/13/20 00:09	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	0.19	ug/L			11/18/20 12:48	1
cis-1,2-Dichloroethene	0.23	J	1.0	0.16	ug/L			11/18/20 12:48	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/20 12:48	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/20 12:48	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/20 12:48	1
Vinyl chloride	0.38	J	1.0	0.20	ug/L			11/18/20 12:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 130					11/18/20 12:48	1
4-Bromofluorobenzene (Surr)	100		47 - 134					11/18/20 12:48	1
Toluene-d8 (Surr)	98		69 - 122					11/18/20 12:48	1
Dibromofluoromethane (Surr)	92		78 - 129					11/18/20 12:48	1

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: TW-16-04_110520

Lab Sample ID: 240-139757-5

Date Collected: 11/05/20 12:38

Matrix: Water

Date Received: 11/07/20 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			11/13/20 00:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 133					11/13/20 00:34	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	0.19	ug/L			11/18/20 13:13	1
cis-1,2-Dichloroethene	14		1.0	0.16	ug/L			11/18/20 13:13	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/20 13:13	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/20 13:13	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/20 13:13	1
Vinyl chloride	30		1.0	0.20	ug/L			11/18/20 13:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 130					11/18/20 13:13	1
4-Bromofluorobenzene (Surr)	102		47 - 134					11/18/20 13:13	1
Toluene-d8 (Surr)	101		69 - 122					11/18/20 13:13	1
Dibromofluoromethane (Surr)	92		78 - 129					11/18/20 13:13	1

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: PW-16-02_110520

Lab Sample ID: 240-139757-6

Date Collected: 11/05/20 14:48

Matrix: Water

Date Received: 11/07/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.1	J	2.0	0.86	ug/L			11/13/20 00:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		70 - 133					11/13/20 00:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	2.5	U	2.5	0.48	ug/L			11/18/20 13:38	2.5
cis-1,2-Dichloroethene	75		2.5	0.40	ug/L			11/18/20 13:38	2.5
Tetrachloroethene	2.5	U	2.5	0.38	ug/L			11/18/20 13:38	2.5
trans-1,2-Dichloroethene	0.51	J	2.5	0.48	ug/L			11/18/20 13:38	2.5
Trichloroethene	2.5	U	2.5	0.25	ug/L			11/18/20 13:38	2.5
Vinyl chloride	120		2.5	0.50	ug/L			11/18/20 13:38	2.5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		75 - 130					11/18/20 13:38	2.5
4-Bromofluorobenzene (Surr)	100		47 - 134					11/18/20 13:38	2.5
Toluene-d8 (Surr)	100		69 - 122					11/18/20 13:38	2.5
Dibromofluoromethane (Surr)	93		78 - 129					11/18/20 13:38	2.5

Client Sample Results

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

Job ID: 240-139757-1

Client Sample ID: TW-16-02_110520

Lab Sample ID: 240-139757-7

Date Collected: 11/05/20 15:55

Matrix: Water

Date Received: 11/07/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	1.0	J	2.0	0.86	ug/L			11/13/20 01:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		70 - 133		11/13/20 01:23	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	250	U	250	48	ug/L			11/18/20 14:02	250
cis-1,2-Dichloroethene	980		250	40	ug/L			11/18/20 14:02	250
Tetrachloroethene	250	U	250	38	ug/L			11/18/20 14:02	250
trans-1,2-Dichloroethene	250	U	250	48	ug/L			11/18/20 14:02	250
Trichloroethene	250	U	250	25	ug/L			11/18/20 14:02	250
Vinyl chloride	5100		250	50	ug/L			11/18/20 14:02	250

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		75 - 130		11/18/20 14:02	250
4-Bromofluorobenzene (Surr)	102		47 - 134		11/18/20 14:02	250
Toluene-d8 (Surr)	99		69 - 122		11/18/20 14:02	250
Dibromofluoromethane (Surr)	91		78 - 129		11/18/20 14:02	250

Surrogate Summary

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

Job ID: 240-139757-1

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 (75-130)	BFB (47-134)	TOL (69-122)	DBFM (78-129)
240-139757-1	TRIP BLANK	112	100	100	93
240-139757-2	LMW-20-26_110520	109	101	98	91
240-139757-3	LMW-20-27_110520	110	101	100	89
240-139757-4	MW-51_110520	109	100	98	92
240-139757-5	TW-16-04_110520	111	102	101	92
240-139757-6	PW-16-02_110520	110	100	100	93
240-139757-7	TW-16-02_110520	111	102	99	91
240-139757-7 MS	TW-16-02_110520	100	107	105	83
240-139757-7 MSD	TW-16-02_110520	100	108	103	83
240-139797-E-2 MS	Matrix Spike	99	107	104	83
240-139797-F-2 MSD	Matrix Spike Duplicate	98	105	101	84
LCS 240-461325/5	Lab Control Sample	100	106	102	83
LCS 240-461561/5	Lab Control Sample	98	108	103	82
MB 240-461325/8	Method Blank	110	102	98	93
MB 240-461561/8	Method Blank	110	100	97	93

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 (70-133)
240-139757-2	LMW-20-26_110520	108
240-139757-3	LMW-20-27_110520	110
240-139757-3 MS	LMW-20-27_110520	113
240-139757-3 MSD	LMW-20-27_110520	114
240-139757-4	MW-51_110520	110
240-139757-5	TW-16-04_110520	109
240-139757-6	PW-16-02_110520	112
240-139757-7	TW-16-02_110520	114
LCS 240-460682/4	Lab Control Sample	105
MB 240-460682/5	Method Blank	105

Surrogate Legend

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

QC Sample Results

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

Job ID: 240-139757-1

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

Lab Sample ID: MB 240-461325/8
Matrix: Water
Analysis Batch: 461325

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/17/20 11:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/17/20 11:36	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/17/20 11:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/17/20 11:36	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/17/20 11:36	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/17/20 11:36	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			11/17/20 11:36	1
Naphthalene	1.0	U	1.0	0.32	ug/L			11/17/20 11:36	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		11/17/20 11:36	1
4-Bromofluorobenzene (Surr)	102		47 - 134		11/17/20 11:36	1
Toluene-d8 (Surr)	98		69 - 122		11/17/20 11:36	1
Dibromofluoromethane (Surr)	93		78 - 129		11/17/20 11:36	1

Lab Sample ID: LCS 240-461325/5
Matrix: Water
Analysis Batch: 461325

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

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1-Dichloroethene	20.0	20.2		ug/L		101	73 - 129
cis-1,2-Dichloroethene	20.0	20.3		ug/L		102	75 - 124
Tetrachloroethene	20.0	19.3		ug/L		96	70 - 125
trans-1,2-Dichloroethene	20.0	20.0		ug/L		100	74 - 130
Trichloroethene	20.0	17.7		ug/L		88	71 - 121
Vinyl chloride	20.0	23.5		ug/L		118	61 - 134
Naphthalene	20.0	20.6		ug/L		103	28 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	100		75 - 130
4-Bromofluorobenzene (Surr)	106		47 - 134
Toluene-d8 (Surr)	102		69 - 122
Dibromofluoromethane (Surr)	83		78 - 129

Lab Sample ID: 240-139797-E-2 MS
Matrix: Water
Analysis Batch: 461325

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
1,1-Dichloroethene	1.0	U	20.0	19.1		ug/L		95	64 - 132
cis-1,2-Dichloroethene	1.0	U	20.0	19.2		ug/L		96	68 - 121
Tetrachloroethene	1.0	U	20.0	17.6		ug/L		88	52 - 129
trans-1,2-Dichloroethene	1.0	U	20.0	18.8		ug/L		94	69 - 126
Trichloroethene	1.0	U	20.0	15.8		ug/L		79	56 - 124
Vinyl chloride	1.0	U	20.0	22.8		ug/L		114	49 - 136

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QC Sample Results

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

Job ID: 240-139757-1

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

Lab Sample ID: 240-139797-E-2 MS
Matrix: Water
Analysis Batch: 461325

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

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	99		75 - 130
4-Bromofluorobenzene (Surr)	107		47 - 134
Toluene-d8 (Surr)	104		69 - 122
Dibromofluoromethane (Surr)	83		78 - 129

Lab Sample ID: 240-139797-F-2 MSD
Matrix: Water
Analysis Batch: 461325

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

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec. Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
1,1-Dichloroethene	1.0	U	20.0	20.6		ug/L		103	64 - 132	8	35
cis-1,2-Dichloroethene	1.0	U	20.0	20.0		ug/L		100	68 - 121	4	35
Tetrachloroethene	1.0	U	20.0	17.8		ug/L		89	52 - 129	1	35
trans-1,2-Dichloroethene	1.0	U	20.0	19.9		ug/L		100	69 - 126	6	35
Trichloroethene	1.0	U	20.0	16.8		ug/L		84	56 - 124	6	35
Vinyl chloride	1.0	U	20.0	22.0		ug/L		110	49 - 136	4	35

<i>Surrogate</i>	<i>%Recovery</i>	<i>MSD MSD Qualifier</i>	<i>Limits</i>
1,2-Dichloroethane-d4 (Surr)	98		75 - 130
4-Bromofluorobenzene (Surr)	105		47 - 134
Toluene-d8 (Surr)	101		69 - 122
Dibromofluoromethane (Surr)	84		78 - 129

Lab Sample ID: MB 240-461561/8
Matrix: Water
Analysis Batch: 461561

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

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,1-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/20 11:34	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.16	ug/L			11/18/20 11:34	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			11/18/20 11:34	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.19	ug/L			11/18/20 11:34	1
Trichloroethene	1.0	U	1.0	0.10	ug/L			11/18/20 11:34	1
Vinyl chloride	1.0	U	1.0	0.20	ug/L			11/18/20 11:34	1
2-Methylnaphthalene	5.0	U	5.0	2.4	ug/L			11/18/20 11:34	1
Naphthalene	1.0	U	1.0	0.32	ug/L			11/18/20 11:34	1

<i>Surrogate</i>	<i>%Recovery</i>	<i>MB MB Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
1,2-Dichloroethane-d4 (Surr)	110		75 - 130		11/18/20 11:34	1
4-Bromofluorobenzene (Surr)	100		47 - 134		11/18/20 11:34	1
Toluene-d8 (Surr)	97		69 - 122		11/18/20 11:34	1
Dibromofluoromethane (Surr)	93		78 - 129		11/18/20 11:34	1

QC Sample Results

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

Job ID: 240-139757-1

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

Lab Sample ID: LCS 240-461561/5
Matrix: Water
Analysis Batch: 461561

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	19.6		ug/L		98	73 - 129
cis-1,2-Dichloroethene	20.0	19.7		ug/L		98	75 - 124
Tetrachloroethene	20.0	19.5		ug/L		97	70 - 125
trans-1,2-Dichloroethene	20.0	19.5		ug/L		98	74 - 130
Trichloroethene	20.0	17.2		ug/L		86	71 - 121
Vinyl chloride	20.0	22.1		ug/L		110	61 - 134
Naphthalene	20.0	20.6		ug/L		103	28 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		75 - 130
4-Bromofluorobenzene (Surr)	108		47 - 134
Toluene-d8 (Surr)	103		69 - 122
Dibromofluoromethane (Surr)	82		78 - 129

Lab Sample ID: 240-139757-7 MS
Matrix: Water
Analysis Batch: 461561

Client Sample ID: TW-16-02_110520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethene	250	U	5000	4770		ug/L		95	64 - 132
cis-1,2-Dichloroethene	980		5000	5970		ug/L		100	68 - 121
Tetrachloroethene	250	U	5000	4350		ug/L		87	52 - 129
trans-1,2-Dichloroethene	250	U	5000	4810		ug/L		96	69 - 126
Trichloroethene	250	U	5000	4080		ug/L		82	56 - 124
Vinyl chloride	5100		5000	9080		ug/L		80	49 - 136
Naphthalene	250	U	5000	4100		ug/L		82	30 - 125

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 130
4-Bromofluorobenzene (Surr)	107		47 - 134
Toluene-d8 (Surr)	105		69 - 122
Dibromofluoromethane (Surr)	83		78 - 129

Lab Sample ID: 240-139757-7 MSD
Matrix: Water
Analysis Batch: 461561

Client Sample ID: TW-16-02_110520
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	250	U	5000	4740		ug/L		95	64 - 132	1	35
cis-1,2-Dichloroethene	980		5000	5830		ug/L		97	68 - 121	2	35
Tetrachloroethene	250	U	5000	4160		ug/L		83	52 - 129	4	35
trans-1,2-Dichloroethene	250	U	5000	4780		ug/L		96	69 - 126	1	35
Trichloroethene	250	U	5000	3900		ug/L		78	56 - 124	5	35
Vinyl chloride	5100		5000	9380		ug/L		86	49 - 136	3	35
Naphthalene	250	U	5000	4320		ug/L		86	30 - 125	5	24

Eurofins TestAmerica, Canton

QC Sample Results

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

Job ID: 240-139757-1

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

Lab Sample ID: 240-139757-7 MSD
Matrix: Water
Analysis Batch: 461561

Client Sample ID: TW-16-02_110520
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	100		75 - 130
4-Bromofluorobenzene (Surr)	108		47 - 134
Toluene-d8 (Surr)	103		69 - 122
Dibromofluoromethane (Surr)	83		78 - 129

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

Lab Sample ID: MB 240-460682/5
Matrix: Water
Analysis Batch: 460682

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			11/12/20 15:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 133		11/12/20 15:42	1

Lab Sample ID: LCS 240-460682/4
Matrix: Water
Analysis Batch: 460682

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	11.5		ug/L		115	80 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 133

Lab Sample ID: 240-139757-3 MS
Matrix: Water
Analysis Batch: 460682

Client Sample ID: LMW-20-27_110520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dioxane	3.1		10.0	14.0		ug/L		109	46 - 170

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	113		70 - 133

Lab Sample ID: 240-139757-3 MSD
Matrix: Water
Analysis Batch: 460682

Client Sample ID: LMW-20-27_110520
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	3.1		10.0	14.2		ug/L		111	46 - 170	2	26

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	114		70 - 133

QC Association Summary

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

Job ID: 240-139757-1

GC/MS VOA

Analysis Batch: 460682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-139757-2	LMW-20-26_110520	Total/NA	Water	8260B SIM	
240-139757-3	LMW-20-27_110520	Total/NA	Water	8260B SIM	
240-139757-4	MW-51_110520	Total/NA	Water	8260B SIM	
240-139757-5	TW-16-04_110520	Total/NA	Water	8260B SIM	
240-139757-6	PW-16-02_110520	Total/NA	Water	8260B SIM	
240-139757-7	TW-16-02_110520	Total/NA	Water	8260B SIM	
MB 240-460682/5	Method Blank	Total/NA	Water	8260B SIM	
LCS 240-460682/4	Lab Control Sample	Total/NA	Water	8260B SIM	
240-139757-3 MS	LMW-20-27_110520	Total/NA	Water	8260B SIM	
240-139757-3 MSD	LMW-20-27_110520	Total/NA	Water	8260B SIM	

Analysis Batch: 461325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-139757-1	TRIP BLANK	Total/NA	Water	8260B	
MB 240-461325/8	Method Blank	Total/NA	Water	8260B	
LCS 240-461325/5	Lab Control Sample	Total/NA	Water	8260B	
240-139797-E-2 MS	Matrix Spike	Total/NA	Water	8260B	
240-139797-F-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	

Analysis Batch: 461561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-139757-2	LMW-20-26_110520	Total/NA	Water	8260B	
240-139757-3	LMW-20-27_110520	Total/NA	Water	8260B	
240-139757-4	MW-51_110520	Total/NA	Water	8260B	
240-139757-5	TW-16-04_110520	Total/NA	Water	8260B	
240-139757-6	PW-16-02_110520	Total/NA	Water	8260B	
240-139757-7	TW-16-02_110520	Total/NA	Water	8260B	
MB 240-461561/8	Method Blank	Total/NA	Water	8260B	
LCS 240-461561/5	Lab Control Sample	Total/NA	Water	8260B	
240-139757-7 MS	TW-16-02_110520	Total/NA	Water	8260B	
240-139757-7 MSD	TW-16-02_110520	Total/NA	Water	8260B	

Lab Chronicle

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

Job ID: 240-139757-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 240-139757-1

Date Collected: 11/05/20 00:00

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	461325	11/17/20 19:59	HMB	TAL CAN

Client Sample ID: LMW-20-26_110520

Lab Sample ID: 240-139757-2

Date Collected: 11/05/20 09:25

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	461561	11/18/20 11:59	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/12/20 22:30	SAM	TAL CAN

Client Sample ID: LMW-20-27_110520

Lab Sample ID: 240-139757-3

Date Collected: 11/05/20 10:25

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	461561	11/18/20 12:24	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/12/20 22:55	SAM	TAL CAN

Client Sample ID: MW-51_110520

Lab Sample ID: 240-139757-4

Date Collected: 11/05/20 11:32

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	461561	11/18/20 12:48	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/13/20 00:09	SAM	TAL CAN

Client Sample ID: TW-16-04_110520

Lab Sample ID: 240-139757-5

Date Collected: 11/05/20 12:38

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	461561	11/18/20 13:13	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/13/20 00:34	SAM	TAL CAN

Client Sample ID: PW-16-02_110520

Lab Sample ID: 240-139757-6

Date Collected: 11/05/20 14:48

Matrix: Water

Date Received: 11/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	461561	11/18/20 13:38	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/13/20 00:58	SAM	TAL CAN

Lab Chronicle

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

Job ID: 240-139757-1

Client Sample ID: TW-16-02_110520

Lab Sample ID: 240-139757-7

Date Collected: 11/05/20 15:55

Matrix: Water

Date Received: 11/07/20 08:00

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Analysis	8260B		250	461561	11/18/20 14:02	HMB	TAL CAN
Total/NA	Analysis	8260B SIM		1	460682	11/13/20 01:23	SAM	TAL CAN

Laboratory References:

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

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Accreditation/Certification Summary

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

Job ID: 240-139757-1

Laboratory: Eurofins TestAmerica, 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	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-21
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-21
Texas	NELAP	T104704517-18-10	08-31-21
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-21
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

1/4/23

Chain of Custody Record

TestAmerica Laboratory location: Brighton --- 10448 Cilation 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: 30050315.401.03 PO # 30050315.401.03		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		Site Contact: Julia McClafferty Telephone: 330-497-9396	
Sampler Name: CHRISTINA WEAVER Method of Shipment/Carrier: Shipping/Tracking No:		Lab Contact: Mike DelMontico Telephone: 330-497-9396	
Sample Identification		Analyses	
Sample Date	Sample Time	Filtered Sample (Y/N)	Composite=C/Grab=C
11/5/20	---	NG	NG
11/5/20	0925	NG	NG
11/5/20	1025	NG	NG
11/5/20	1132	NG	NG
11/5/20	1238	NG	NG
11/5/20	1448	NG	NG
11/5/20	1555	NG	NG
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		Analyses 1,1-DCE 8260B <input type="checkbox"/> X cis-1,2-DCE 8260B <input type="checkbox"/> X Trans-1,2-DCE 8260B <input type="checkbox"/> X PCE 8260B <input type="checkbox"/> X TCE 8260B <input type="checkbox"/> X Vinyl Chloride 8260B <input type="checkbox"/> X 1,4-Dioxane 8260B SIM <input type="checkbox"/> X NAPHTHALENE <input type="checkbox"/> X 2-METHYLNAPHTHALENE <input type="checkbox"/> X	
Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Irritant <input type="checkbox"/> Harmable <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown		Sample Specific Notes / Special Instructions: TRIP BLANK 3 VOIRS FOR B260 B 3 VOIRS FOR B260 B SIM " " " " " " " " " "	
Special Instructions/QC Requirements & Comments: Submit all results through Cadena at jtomalia@cadenaco.com. Cadena #E203728 Level IV Reporting requested.		Relinquished by: <i>Christina Weaver</i> Relinquished by: <i>Christina Weaver</i> Relinquished by: <i>ME Wiley</i>	
Company: ARCADIS Date/Time: 11/5/2020/1745		Company: ARCADIS Date/Time: 11/5/2020/0915	
Company: ARCADIS Date/Time: 11-6-20 0925		Company: ETA Date/Time: 11-6-20 0915	
Company: ARCADIS Date/Time: 11-6-20 0925		Company: ETA Date/Time: 11-6-20 0915	



240-139757 Chain of Custody

MICHIGAN 190

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Eurofins TestAmerica Canton Sample Receipt Form/Narrative

Login # : 139757

Canton Facility

Client Arcadis Site Name

Cooler unpacked by:

Cooler Received on 11-7-20 Opened on 11-7-20

Matthew Mon

FedEx: 1st Grd Exp UPS FAS (Shipper) Client Drop Off TestAmerica Courier Other

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

TestAmerica Cooler # 5A 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
IR GUN# IR-11 (CF +0.9°C) Observed Cooler Temp. 1.4°C Corrected Cooler Temp. 2.3°C
IR GUN #IR-12 (CF +0.5°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 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# HC907861

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 # 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

Contacted PM Date by via Verbal Voice Mail Other

Concerning

18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES additional next page

Samples processed by:

2 FB received

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: